

Catalog No. 163

21470

# MOTOROLA

# BUYER'S GUIDE



# DEPEND ON MOTOROLA FOR THE FINEST QUALITY AND SERVICE

Motorola parts, accessories and test equipment sales are an integral function of the company that has been by far the leading supplier of radio communications equipment for the past three decades. Motorola Parts Activity is dedicated to the same care, the same high quality standards, the same emphasis on personalized service that makes Motorola original equipment by far the choice of discriminating radio buyers everywhere.

## ALL THESE BENEFITS . . . AND MORE . . . ARE YOURS WHEN YOU ORDER FROM YOUR MOTOROLA DEPOT

**FASTEST DELIVERY**—Specially trained personnel and ultra modern electronic data processing gets your routine order on its way to you in hours.

**SPECIAL EMERGENCY SERVICE**—Our Special Order Service desk gives you help when you need it most—often gets your order out in mere minutes.

**TECHNICAL ASSISTANCE** — Our Depots are staffed with trained technicians who know your equipment, understand your needs, who can give you the answers.

**QUALITY ASSURANCE**—Motorola replacement parts are the same as those used in the original equipment—the right part for the right job.

**CUSTOM DESIGN**—Motorola accessories and test instruments are designed to your needs to improve your system—to maximize service efficiency.

**OBSOLESCENCE PROTECTION**—Continuous review of products means constant improvements that keep your system and servicing modern and efficient.



**MOTOROLA COMMUNICATIONS AND ELECTRONICS, INC.**

A SUBSIDIARY OF MOTOROLA INC.

NATIONAL PARTS DEPOT: 4910 W. FLOURNOY ST., CHICAGO 44, ILL., ESTEBROOK 9-5200  
EXECUTIVE OFFICES: 4501 W. AUGUSTA BLVD., CHICAGO 51, ILL., SPAULDING 2-6500

840 822 340

899 4/7



## GENERAL INFORMATION

For information about items not listed in this catalog, please contact your local Motorola Service Station or your nearest Motorola Parts Depot for information. This catalog is divided into ten main sections:

- 1 Test Equipment—Pages 4-22
- 2 Parts—Pages 23-81
- 3 Tools—Pages 64-75
- 4 Conversion Kits—Pages 82-91
- 5 Accessories—Pages 92-119
- 6 Antennas—Pages 120-135
- 7 Parts Diagrams: Antennas, Housings, Speakers, etc.—Pages 136-145
- 8 Transmitters and Receivers—Pages 146-156
- 9 Parts Price List (in numerical order, disregarding letter prefix)—colored Pages
- 10 Chassis and Kits Price List (in numerical order, and by letter prefix)—colored Pages. Order blanks.

Prices shown are before state and local taxes. Net prices include applicable federal taxes. Orders specifying items for consumption by tax exempt users must include duly executed "tax exemption certificates" to become exempt from payment of the "Federal Manufacturer's Excise Tax."

"Quik-Call" equipment prices do not include "Vibrasender" or "Vibrasponder" units. These units should be ordered as additional items.

Please send orders for crystals, "Vibrasender" and "Vibrasponder" devices to: Motorola Communications & Electronics, Inc., Crystal Service Department; 916 North Kilbourn; Chicago 51, Illinois. Special order forms for these units are available on request.

In no instance do prices include installation of a chassis or kit in a model.

Motorola Radio Communications Buyer's Guide Issue 163 November 1, 1962.

Prices given are those in effect at the time the catalog was printed and are subject to change without notice. Orders will be filled at prices in effect at time of shipment. In the event of a price change, you will be charged the new prices whether lower or higher. You will always receive the benefit of lower prices. All prices F.O.B. shipping point.



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# test equipment

## OSCILLOSCOPES

A Motorola "Scope" makes tough service problems easy . . . helps you locate trouble spots faster and enables you to virtually *see the nature of the problem* on the easy-to-read, calibrated oscilloscope screen.

Ideally suited for portable or shop use, a Motorola "Scope" is an invaluable tool for performing a wide variety of 2-way radio measurements, checks and trouble shooting. Here are just a few of the many jobs you can do better and faster with a precision Motorola "Scope".

- Use with a frequency monitor for measuring peak deviation . . . A must for accurately measuring "Private-Line" tones.
- Check transmitter I. D. C. circuits for proper clip action.
- Observe wave form action in trouble shooting audio circuitry and transistorized power supplies.
- Do television trouble shooting — sync circuits, aligning video IF amplifiers.
- Watch display of tones in selective signaling systems.
- Use in servicing Motorola 2-way radio with "Extender" operation.

### Accessory Probe

A high impedance probe is available for the T-1014B Precision Scope. It is most useful where the scope input capacity of 30mmf plus that of the test cable (about 60mmf) upsets the operation of the circuit under test. With the probe, this capacity is reduced to about 12mmf shunted by 10 megohms. It has a frequency compensation trimmer which is adjustable thru an access hole in the probe body.

### T-1014B PRECISION WIDE BAND SCOPE SPECIFICATIONS

- DC Coupled Amplifiers
  - Automatic Sync
  - Built-in TV Sync Separators
  - Short Rise Time
  - Voltage and Time Calibrated
  - Built-in Voltage Calibrator 1 Volt P. P. Squarewave
- SENSITIVITY** — 100 Millivolts Per Centimeter (Calibrated).  
**FREQUENCY RESPONSE** — DC to 10 Megacycles (-3 db).  
**SWEEP** — 18 Preset Calibrated Sweep Speeds from 1 Micro-second/cm down to .5 seconds/cm.  
**SYNC PROVISION** — Internal or External.  
**ATTENUATOR** — 9, Frequency Compensation Positions.  
**"Y" GAIN SWITCH** — 2 Pos.  $\times 1$ ,  $\times 10$ .  
**OVERSHOOT** — Less than 2%.  
**GAIN CONTROL** — Continuously Variable in  $\times 1$  Position.  
**VOLTAGE CALIBRATOR** — A Stabilized 1 Volt P. P. Square Wave, Built-in.  
**TRIGGERED SWEEP** — Level Control Selects Any Point On Input Signal Slope For Repetitive, Random or Single-Shot Triggering.  
**INPUT IMPEDANCE** — 1 megohm shunted by 30 mmf.  
**"X" EXPANSION** — Continuously Variable up to X10.  
**SIZE** — 6½" x 8½" x 13½". Screen size, 3". Weight, 16 lbs.  
**NET WEIGHT** — 16 lbs.  
**PRIMARY VOLTAGE** — 110 Vac/220 Vac.  
**T-1014B** Precision Wide Band Scope. . . . . Net Price \$375.00  
 Manufactured in England.  
**TEKA-22** High Impedance Probe. . . . . Net Price \$ 15.00



T-1014B



TEKA-22



T-1015A

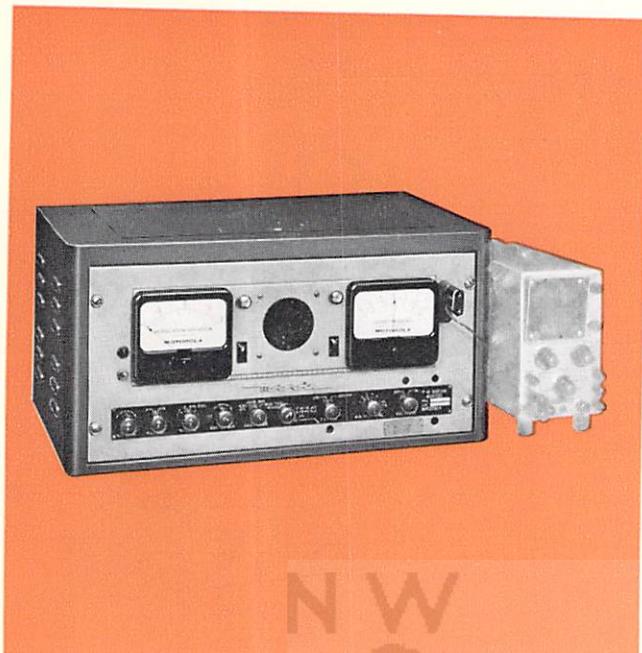
### T-1015A GENERAL PURPOSE SCOPE SPECIFICATIONS

- DC Coupled Amplifiers.
  - Transformer Type Supply and Voltage Regulated B+
  - Excellent Sensitivity.
  - Screen Calibrated in KC for Frequency Monitor Use.
  - Built-in Folding Easel.
  - Small in Size.
- SENSITIVITY** — 100 MV Peak to Peak Per .25 inches (Uncalibrated Deflection.)  
**FREQUENCY RESPONSE** — DC to 200 kc. (2 db. Point).  
**SWEEP** — Adjustable, 5 cps to 50 kc. in 4 steps.  
**SYNC PROVISION** — Internal or External, Switch Selected.  
**ATTENUATOR** — 3 Position, Compensated.  
**PHASE SHIFT** — 5° or Less.  
**GAIN CONTROL** — Continuously Variable.  
**AMPLIFIER COUPLING** — AC or DC, Switch Selected.  
**SCREEN CALIBRATION** — Conveniently marked in kc Deviation for 5 kc or 15 kc Deviation Systems.  
**INPUT IMPEDANCE** — 3.6 Megohms shunted by 35 mmf.  
**SIZE** — 8½" x 4½" x 12¾". Screen size, 3". Weight, 12½ lbs.  
**NET WEIGHT** — 12½ lbs.  
**PRIMARY VOLTAGE** — 110-120 Vac.  
**T-1015A** General Purpose Scope w/Test Leads. . . Net Price \$149.50

### Special Easel Stand Included With T-1015A Oscilloscope

Built-in, easel-type retractable stand elevates "Scope" to 15 degree slope. Improves viewing angle to screen when scope is used on bench surface or other areas below eye level.





## MOTOROLA FM STATION MONITOR

*two models:*

**30-50 mc; 150-174 mc**

A precision instrument for setting transmitters on frequency and adjusting modulation deviation. Uses National Bureau of Standards transmitter WWV as the basic frequency and modulation standards.

**"ZERO-BEAT" DESIGN PRINCIPLE** — WWV receiver picks up standard transmission for use as the basic reference frequency (5, 10 or 15 mc). Calibrating oscillator is "zero-beat" against WWV to set control receiver precisely on frequency.

**CHECKS FIVE CHANNELS** — Multi-position switch provides choice of five channel crystals for checking different transmitter frequencies. Incoming RF carrier beats against crystal oscillator, sending difference frequency into control receiver.

**CALIBRATED DISCRIMINATOR** — Control receiver has constant-slope, calibrated discriminator; responds linearly to incoming RF carriers above and below assigned center frequency.

**DUAL SCALE FREQUENCY METER** — Discriminator output is applied to zero-center meter scale, which reads directly in kc above or below center frequency as the discriminator output is positive or negative. Meter has two frequency scales; 15-0-15 kc scale is used for "coarse" adjustment of transmitter frequency, 3-0-3 kc scale readings used for RF monitoring and making "fine" adjustments of transmitter frequency.

**HIGHEST DEGREE OF ACCURACY** — Patented "improvement factor" method multiplies accuracy of measurement. When calibrated using WWV as the frequency standard, the accuracy of frequency measurement is within  $\pm 0.001\%$  in the 30-50 mc band and within  $\pm 0.0002\%$  in the 150-174 mc band.

### 450-470 MC Measurement

The frequency and deviation of 450-470 mc equipment can be measured with 150-174 mc model Motorola Station Monitor. One-third of the transmitter output frequency — the tripler driver frequency — is used for this purpose.

**LARGE, EASY-TO-READ DEVIATION METER** — Deviation meter rectifies discriminator audio output, shows deviation directly in kc. Two deviation scales for accurate readings; 0-20 kc for wide channel operation; 0-10 kc for split-channel operation. Meter calibrated for "peak" readings with sinusoidal input below clipping level of transmitter IDC circuit. This permits precise calibration of oscilloscope for absolute readings on voice or other complex waveforms at any input level or degree of clipping. The T1015A "Scope" is ideal for this purpose as it has a screen graduated in kc deviation for frequency monitor use. "Scope" connections conveniently located on front panel.

**ADDITIONAL FEATURES** — Speaker for aural monitoring, switches and indicators for clear-cut operating procedure, versatile housing for desk-top or relay rack mounting. One channel crystal supplied; additional crystals can be installed at any time without tuning, matching or adjustment.

MODEL	DESCRIPTION	NET PRICE
T1100A	30-50MC for use west of Mississippi River.	\$580.00
T1101A	30-50MC for use east of Mississippi River.	580.00
T1130A	150-174MC for use west of Mississippi River.	580.00
T1131A	150-174MC for use east of Mississippi River.	580.00
SFMT-2	Xtal for additional Freq. Mon. freqs. (Specify Receiver control freq. when ordering.)	12.00
TEN-6005A	Conversion Kit, permits wide-band or split channel measurements with F4M-24B(A) 1C, F4M-24B(B) 1C, F4MU-24B(A) 1C, and F4MU-24B(B) 1C Monitors.	25.00

*NOTE: Monitors are available on special order for frequencies below 30 mc and 150 mc. Write factory for prices and delivery stating your specific requirements.*



## test equipment

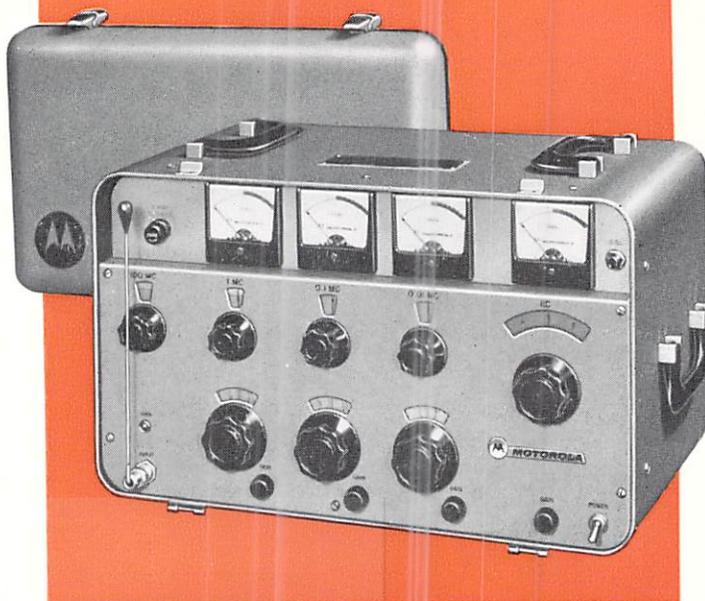
### T-1021A FREQUENCY METER

The Motorola T-1021A Frequency Meter provides a dynamic, time-saving method of precision frequency measurement. Easy to use, the instrument supplies *direct frequency readouts* in the 25-50, 150-175 and 450-475 mc bands. No need for special interpolation tables, multiplying factors or correction charts. Other frequencies can be measured through the use of multiplier stages in the transmitter.

The T-1021A Frequency Meter costs you less to own because you use it in conjunction with your own signal generating equipment—no need to pay for duplicate functions. In addition, there is no need for zero beating of signals, so no headphones are required. Far exceeding FCC accuracy requirements, the unit can be read to  $\pm 100$  cycles on all bands.

To add even greater frequency measurement accuracy, the T-1021A has a built-in "calibrate" switch with associated circuitry to provide precision checking of the final readout accuracy of the instrument.

Engineered specifically for the exacting demands of the radio communications service technician, this unit is ideally suited for shop or field use. The T-1021A Frequency Meter combines precision accuracy, excellent stability and maximum versatility—all at a most attractive price.



**RANGE**—Direct dial readout in 25-50, 150-175 and 450-475 mc bands; other frequencies measured through use of multiplier stages in transmitter.

**ACCURACY**— $\pm 100$  cycles in all bands.

**STABILITY**—Oven type temperature controlled crystal adjustable to WWV; stability .0002%.

**SENSITIVITY**—Less than 50 kuv, 25-50 mc—100 kuv, 150-175 mc—150 kuv, 450-475 mc.

**POWER REQUIREMENTS**—115 volts, 50-60 cycles, 150 watts.

**SIZE**—10½ in. high, 17 in. wide, 10½ in. deep.

**WEIGHT**—Approximately 37 lbs.

T-1021A Frequency Meter ..... Net Price **\$983.00**

### MOTOROLA T-1020A PORTABLE FREQUENCY AND DEVIATION METER

Despite its light weight and relatively small size, the Motorola T-1020A frequency and deviation meter covers the entire range of 20-1000 mc . . . even making it possible to service 960 mc microwave equipment. Precision built, it meets all requirements for split-channel measurements and has a guaranteed direct reading accuracy of 0.0002% when used to measure or generate any frequency within its range. In addition to measuring and generating frequencies up to and even beyond 1000 mc by means of a harmonic device with a fundamental range of 20-40 mc, it can also be used to measure frequencies below 20 mc by using a harmonic of the unknown frequency.

This portable, versatile unit is available with or without a deviation meter. For complete details and specifications, write for bulletin TIC 1315.

T-1020A Portable Frequency and Deviation Meter.

Net Price **\$1975.00**



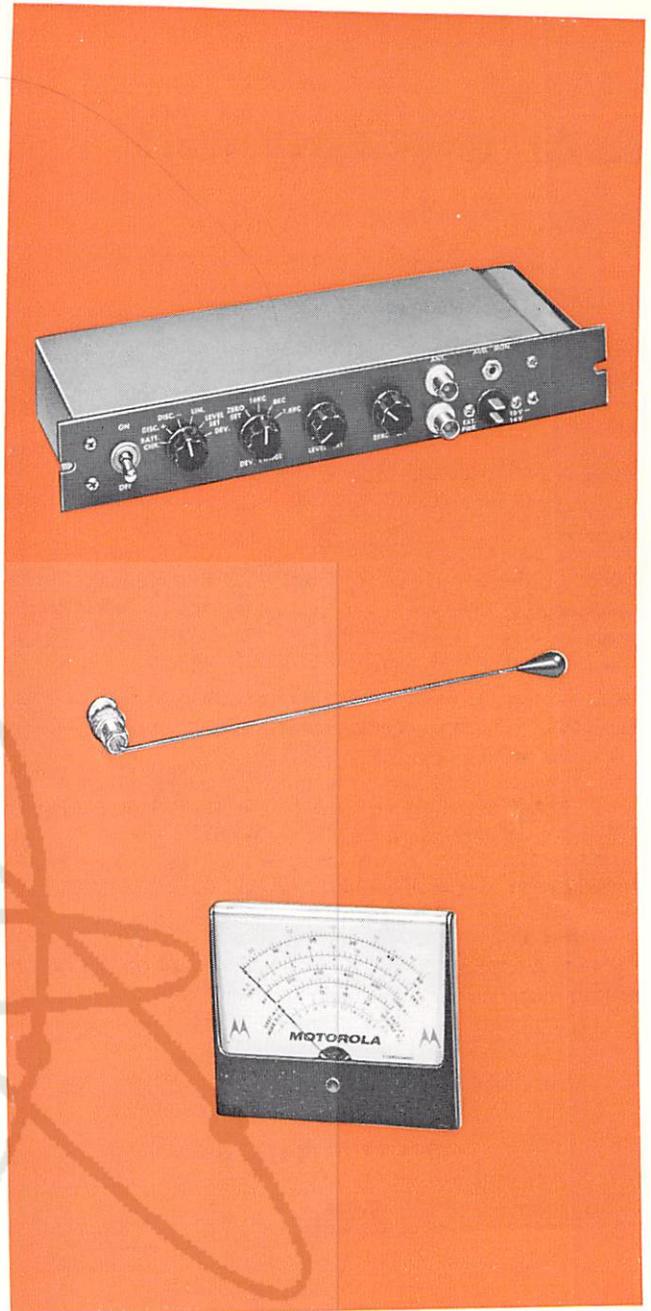
# THE MOTOROLA S-1062A DEVIATION METER AND PANEL METER CONVERSION KIT

The Motorola S-1062A Deviation Meter and Panel Meter Conversion Kit utilizes a 455 kc IF strip with a special discriminator and a peak-to-peak reading voltmeter. It features an excellent accuracy factor of  $\pm 5\%$  and covers all 2-way radio frequencies. Small in size, this compact instrument fits directly into the TU-546 Test Set and is used in conjunction with a signal generator or peaking generator as the local oscillator source.

The unit provides 3 deviation ranges down to zero to 1.6 kc making it ideal for "Private-Line" or other tone systems where low deviation values must be measured. Its excellent sensitivity enables the instrument to be highly functional even down to 1 millivolt. For example: if the external mixing signal level is 100 kuv, a sensitivity of 1 mv can be obtained. Completely transistorized, the meter is ready to use the instant it's turned on. Versatile and compact, the Motorola S-1062A Deviation Meter and panel meter kit is the most advanced instrument of its type and offers these many outstanding features at the most moderate price.

The unit is sold complete with its Deviation instrument calibrated to the companion Panel Meter which replaces the present panel meter in your Motorola TU-546 or TU-546P Test Set.

S-1062A Conversion Kit ..... Net Price \$269.40



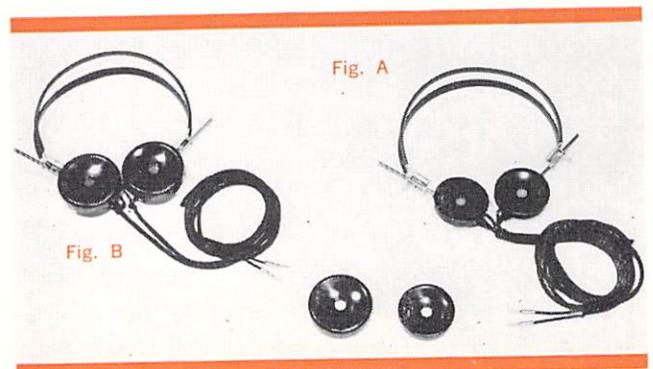
## HEADSETS

Featuring lightweight and excellent fidelity, these quality headsets are ideal for aural monitoring and numerous other testing and aligning operations. Earphone housings are constructed of sturdy bakelite that resists scratching or cracking during normal use. Two models are available. The Featherweight, Fig. A and the Dependable Economy Model, Fig. B. Headsets are supplied with metal pin-tip connectors. See page 48 for phone plug adapter.

TEKA-33 4K Ohm DC Headset (Featherweight) ..... Net Price \$6.47  
TEKA-32 4K Ohm DC Headset (Dependable) ..... Net Price \$3.53

### Headset Replacement Caps

TEKA-35 For featherweight model ..... Net Price .41  
TEKA-34 For dependable model ..... Net Price .35





# test equipment

## MOTOROLA S-1056A PORTABLE TEST SET

Complete, compact portable test set that operates on flash-light cells—exceptionally easy to use, just connect the cable to the unit under test. To greatly enhance its versatility, the unit is available with Peaking Generator and Deviation Meter as factory or field installed options.

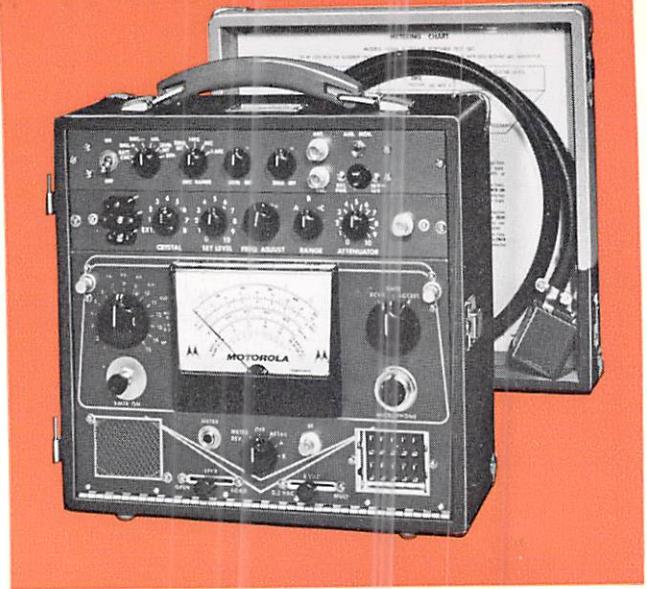
**UNIVERSAL APPLICATION**—For testing and aligning base station and mobile transmitters and receivers, regardless of operating voltage. Large, Multi-scale Meter—large, clear meter scales; 0-50 microamperes for readings in test positions; -25 - 0 + 25 (zero center) for discriminator alignment; 0-1000 volts DC for B+; 0-15 volts DC for A+; 0-30 volts DC for microphone DC. Uses precision 2% resistors and 4-inch, 2% microammeter.

**TRANSISTORIZED IF OSCILLATOR** — Provides signal for IF alignment, 350 kc to 13 mc. Switch selects one of three crystals -455 kc crystal supplied, sockets in chassis for plugging in 5.5 mc and 12 mc crystals (or others, as required). Test set with RF peaking generator (optional) provides total of 12 crystal-controlled alignment frequencies.

**TRANSISTORIZED AUDIO VOLTMETER** — Accurately measures receiver audio output for 20 db quieting sensitivity test: 0-0.2 volts and 0-2 volts AC scales selected by switch on control panel. Also checks transmitter audio input directly through metering cable; can be used in setting base station line input controls, audio line levels and remote control console outputs.

**BUILT-IN METERING CHART** — Large, easy-to-read metering chart in cover — shows how to set selector switch for transmitter and receiver metering positions.

**COMPLETE FACILITIES** — Pushbutton for transmitter turn-on; microphone socket for modulating transmitter; cables included. Sturdy, leatherette bound carrying case. Measures 12½" x 12" x 6½". Weight, 11 lbs.



S-1056A Test Set .....	\$165.00
S-1057A Test Set With Peaking Generator .....	\$199.00
S-1058A Test Set With Deviation Meter .....	\$415.00
S-1059A Test Set as shown above With Peaking Generator & Deviation Meter .....	\$449.00

### OPTIONAL ACCESSORIES

**SLN6057A RF PEAKING GENERATOR**—Provides crystal controlled output from 2 mc through 980 mc. RF output control calibrated to facilitate quieting measurements. Front panel selection of any one of 8 internal crystals (crystals available as optional accessories). Multiple crystal socket accepts all types of crystals used in Motorola units. Fully transistorized for low drain—obtains power from portable test set batteries.

SLN6057A RF Peaking Generator (fig. A) .....	Net Price \$45.00
P7208 60-watt Dummy Load. For measuring transmitter output .....	Net Price \$17.20
P7208-A 2-watt Dummy Load .....	Net Price \$17.20
AUL-1 Peaking Generator Crystals .....	Net Price \$11.00
AQL Test Set Crystal .....	Net Price \$16.25
TKN6025A Test Set Adapter for "Motrac" Radio Servicing .....	Net Price \$ 8.00

**S-1062A DEVIATION INSTRUMENT AND PANEL METER KIT** — Utilizes a 455 kc IF strip with a special discriminator and a peak-to-peak reading voltmeter. Fits directly into recent Motorola Test Sets and is used in conjunction with a signal generator or peaking generator as the local oscillator source.

S-1062A Deviation Instrument with panel meter (fig. B) .....	\$269.40
AULX Crystals .....	\$ 11.00

The unit is sold complete with its Deviation instrument calibrated to the companion Panel Meter which replaces the present panel meter in your Motorola TU-546 or TU-546P Test Set. See page 7 for specifications.

**IMPORTANT NOTE:** Type AUL crystals normally used with the standard Motorola Peaking Generator cannot be used when the instrument is operated in conjunction with the S-1062A Deviation Meter. The crystals required are type AULX. When ordering be sure to specify crystal type AULX and Transmitter Carrier Frequencies required.

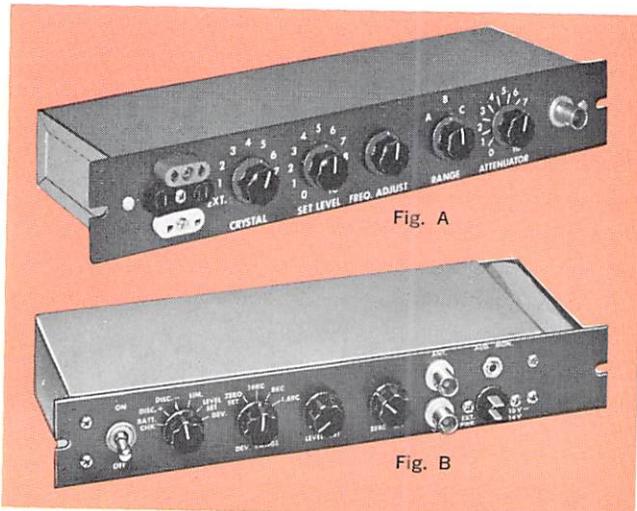


Fig. A

Fig. B

## MOTOROLA T-1034B FM SIGNAL GENERATOR

25-32 MC	132-175 MC	Plus 4
32-41 MC	400-470 MC	IF Freq.
41-54 MC	890-960 MC	Bands

Many features in this high-quality FM signal Generator make it ideal for use in servicing FM mobile, portable, fixed and aircraft two-way radio; for manufacturing operations; and for research on FM, multiplexing and telemetering equipment.

**MODULATOR:** A variable capacitance diode serves as a frequency modulator. A modulating signal producing 0 to 15 kc deviation is produced by an internal 1,000-cycle Wien bridge RC oscillator. If desired, frequency modulation at other frequencies can be introduced externally and can be read on the meter.

**ACCURACY:** Each range individually calibrated to an accuracy of  $\pm 0.5\%$ .

**TUNING:** Vernier tuning with dial having 100 divisions.

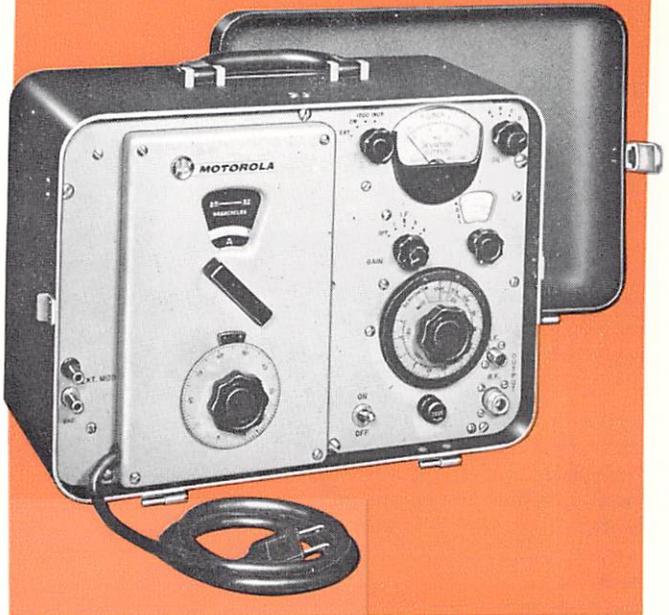
**RF FREQUENCIES:** The Motorola FM signal generator covers RF frequencies in six bands: 25-32, 32-41, 41-54, 132-175, 400-470 and 890-960 mc. To prevent errors in setting frequencies, frequency ranges not in use are concealed by a switch plate. Each range is individually calibrated to an accuracy of  $\pm 0.5\%$ . By means of a vernier dial having 100 divisions, frequency can be tuned with a very high degree of precision.

**RF OUTPUT:** Output voltage is continuously variable from 100,000 microvolts to 0.1 microvolts, and is also calibrated from -8 to -128 dbm. Output of the 890-960 mc band is approximately 2,000 microvolts (indicated on a chart). Units are shipped with a pad and cable.

**SHIELDING:** Oscillator is double shielded to reduce stray radiation to a minimum. In addition, multi-section individually-shielded RF filters are used on all circuits to the oscillator. Carrier leakage is negligible.

**INCREMENTAL:** For discriminator alignment, means are provided to make incremental changes in carrier frequency. This frequency shift, in kilocycles, is indicated directly by the panel meter for the four lower bands. Deviation correction curves are supplied for use in setting the desired deviation for the two higher bands.

**DEVIATION:** Deviation for bands A, B, C, D, is indicated directly on the panel meter and is accurate to  $\pm 10\%$ .



For bands E and F, Deviation Correction Curves are used. Means are provided for making incremental changes in carrier frequency to facilitate discriminator alignment. Frequency shift in kc, is indicated by the panel meter.

**IF RANGE:** Four IF oscillator frequency bands, each individually calibrated to an accuracy of  $\pm 0.5\%$ , are provided. These, and harmonics, can be used to cover most IF frequencies in use today. These four bands are: 2.9-4.2, 4.1-6.0, 6.8-9.4 and 69.0-76.0 mc. Maximum available output voltage is better than 0.5 volts into a 50-ohm resistive load. Front panel control can be used to provide attenuation of at least 50 to 1.

The frequency generated, plus harmonics cover most IF frequencies in use today.

**POWER SUPPLY VOLTAGE**—117v, 50-60 cycles;

**POWER CONSUMPTION**—70 watts;

**DIMENSIONS**—11½" high x 15⅞" wide x 10¾" deep;

**WEIGHT**—30 lbs.

**T-1034B FM Signal Generator complete**  
w/pad and Cable ..... Net Price **\$728.00**

**PKD 17-4 R.F. Pad Resistor Repair Kit** consists of 2 each  
17 ohm and 1 each 68 ohm, ½ watt metal film  
resistors. .... Net Price **\$2.00**



### TEST EQUIPMENT PROTECTIVE COVERS

High quality #10 cotton duck protective covers are now available for the T-1020A, T-1034A, T-1034B, TU-576 and portable test sets. These covers are lock-stitch sewn for extra long service life and padded with ¼" wool padding in the top and sides. Covers are ideal for protecting test equipment that is in transit, in the field or in the shop when not in use.

**TEKA-15 Hood type cover for T-1020A**  
Frequency Meter ..... Net Price **\$18.50**

**TEKA-16 Hood type cover for TU-576, T-1034A**  
and T-1034B Signal Generator ..... Net Price **\$16.75**

**TEKA-17 Cover for S-1056-A and TU-546** (Not  
shown. Cover is padded only at bottom) ... Net Price **\$11.50**



## test equipment

### MOTOROLA S-1052B TRANSISTORIZED ELECTRONIC DC MULTIMETER

Here is a lightweight, portable electronic DC multimeter with laboratory precision—a highly versatile instrument ideally suited for communications equipment servicing, both in the shop and in the field.

**ADVANCED DESIGN**—The Motorola DC Electronic Multimeter features an all silicon transistor circuit. Meter movement is driven by a three-stage, six-transistor, high current gain ( $10^{11}$  times) differential amplifier for optimum sensitivity. Meter housing is heavy-duty aluminum with a die-cast front panel, forming an extremely rugged and sturdy instrument.

**LOW-COST OPERATION**—Battery life is over 600 hours, providing a simplified operating cost of about one-half cent an hour. Battery operation means there is no 60 cps hum problem, no common ground problem. Full-face meter scales are easily read, even at a distance. Front panel controls provide quick and convenient selection of any desired function. Control facilities include: function selector, range switch, polarity reversal switch, zero set and ohms-infinity adjustment.

**VERSATILITY**—Excellent sensitivity, high input resistance and 3% voltage accuracy are but a few of the many features designed to meet a wide variety of applications . . . both in conventional tube circuitry and transistor and printed circuit equipment. Many measurements previously impossible with typical vacuum tube instruments may now be easily and accurately obtained, such as:

- Voltage drop across emitter-base junction
- Voltage across emitter resistors (checking bias)
- Collector-base reverse current ( $I_{CBO}$ )
- Limiter and discriminator bias
- Oscillator grid bias
- Resistance of temperature-sensitive devices (thermistors etc.)



**TAUT-BAND METER**—A new taut-band meter movement provides the ultimate in ruggedness combined with greater linearity and thus improved accuracy.

**R. F. PROBE**—An accessory R. F. probe plugs into the front of the unit. The screw-on tip is removable for use with 50 ohm termination.

**COMPLETE, READY-TO-USE**—Instrument is supplied ready-to-use, complete with batteries, protective front cover and set of three test leads.

#### Nominal Specifications

**DC VOLTMETER RANGES (full scale):** millivolts—100 and 300 volts  
—1, 3, 10, 30, 100, 300 and 1000.

**ACCURACY:**  $\pm 3\%$  of full scale.

**INPUT RESISTANCE:** 11 megohms.

**ZERO DRIFT:** less than  $1\%/^{\circ}\text{C}$ . (10 megohms on 100 mv range.)

**DC MILLIAMMETER RANGES (full scale):** microamperes—1, 3, 10, 30, 100 and 300. Milliampers—1, 3, 10, 30, 100 and 300.

**ACCURACY:**  $\pm 5\%$  of full scale.

**OHMMETER RANGES (center scale):** ohms—10, 100, 1000, 10,000, 100,000 and 1,000,000.

**ACCURACY:**  $\pm 5\%$  at center scale. Measurement range: 0.2 ohms to 50 megohms. All accuracies at nominal operating temperature.

**GENERAL:** All silicon transistor circuit.

**BATTERIES:** 1 Burgess type 4156 (22½v) 1 Burgess Type 130 (1½v).

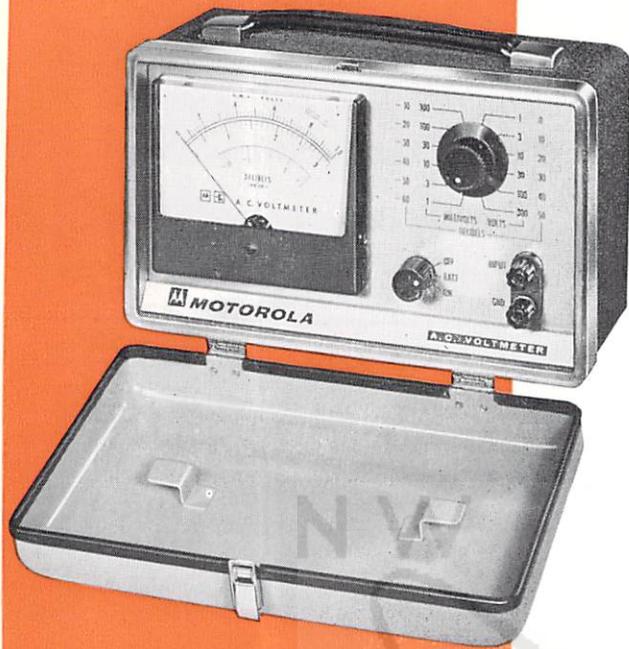
**SIZE:** 10¼" x 6½" x 5¾".

**WEIGHT:** 8 lbs. (approx.).

S1052B Battery Operated Portable DC Multimeter. Net Price \$250.00

S1063A Portable DC Multimeter, Battery/117 VAC  $\pm 10\%$   
or 230 VAC  $\pm 10\%$ , 50-3000 cps. Net Price \$285.00

SLN6055A Plug-in R.F. Probe. Net Price \$ 25.00



## MOTOROLA S-1051B TRANSISTORIZED AC VOLTMETER

This unit answers the need for a compact, lightweight AC voltmeter having high input impedance, broad frequency response and built-in power source and is ideal for use on the service bench, in field maintenance, on the production line or in the laboratory.

**FULLY TRANSISTORIZED**—Ready for instant operation—no waiting for tubes to warm-up, no need to keep it on all the time to be sure of stability when immediate use is required. Even in the laboratory, its battery operation offers many advantages. The Motorola AC voltmeter can be used without a transformer when making measurements on ungrounded or symmetrical circuits. And there is no problem of hum or noise interference pick-up from AC power lines.

Seven transistors assure minimum maintenance, long battery life. With no tubes to change or premature component aging caused by heat from tube filaments, frequent recalibration is unnecessary.

**VARIED APPLICATIONS**—The Motorola transistorized AC voltmeter is ideal for measuring audio, supersonic and low RF voltages found in all types of electrical, electronic and electro-mechanical equipment. Specific types of measurements include ripple voltages, hum, vibration, noise, IF gain and null detection in AC bridge measurements (with no transformer needed). Applications include the design, production and maintenance of:

- Mobile, portable, aircraft, and marine radio
- Aircraft, geophysical and telemetering equipment
- Telephone and carrier systems (transmission losses in circuits, filters, etc.)
- Acoustic devices (loudspeakers, PA systems, receivers)
- Tone Signalling devices
- Industrial Control Equipment

For field use, the Motorola A.C. Voltmeter is also available with a protective front cover. Clips inside cover permit convenient storage of cable kit.

### SPECIFICATIONS

**ACCURACY**—With  $\pm 3\%$  of full scale between 20 cycles and 1 mc;  $\pm 1$  db of full scale between 5 cycles and 2.5 mc.

**VOLTAGE RANGE**—1 mv to 300 volts RMS in 12 ranges (1,

3,10,30,100,300 millivolts and 1,3,10,30,100 and 300 volts full scale) plus db scale range of  $-72$  db to  $+52$  db, referred to 1 milliwatt in 600 ohms.

**INPUT IMPEDANCE**—10 megohms shunted by 15 mmf on the 1 to 300 volt ranges; 1 megohm shunted by 30 mmf on the 1 to 300 millivolt ranges.

**OVERLOAD PROTECTION**—Protected up to 550 volts peak in "volt" ranges: up to 110 volts (A.C.) in "Millivolt" ranges.

**OPERATING TEMPERATURE RANGE**— $-20^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ . At  $+10^{\circ}\text{C}$  and  $+40^{\circ}\text{C}$  accuracy changes less than 2% within frequency range of 20 cycles to 1 mc.

**CIRCUIT**—Fully transistorized with 7 transistors.

**BATTERIES**—One 6.5V mercury battery.

**NORMAL BATTERY LIFE**—Over 400 hours.

**SIZE**— $5\frac{3}{4}'' \times 6\frac{1}{2}'' \times 10\frac{1}{4}''$ . **WEIGHT**—6 lbs. **FINISH**—Dark gray metallic wrinkle finish with brushed aluminum front panel.

**S-1051B AC Voltmeter**—Battery powered . . . Net Price **\$210.00**  
**SKN6001A Test Lead Cable Kit** with dual banana plug and alligator clips . . . Net Price **\$ 3.00**

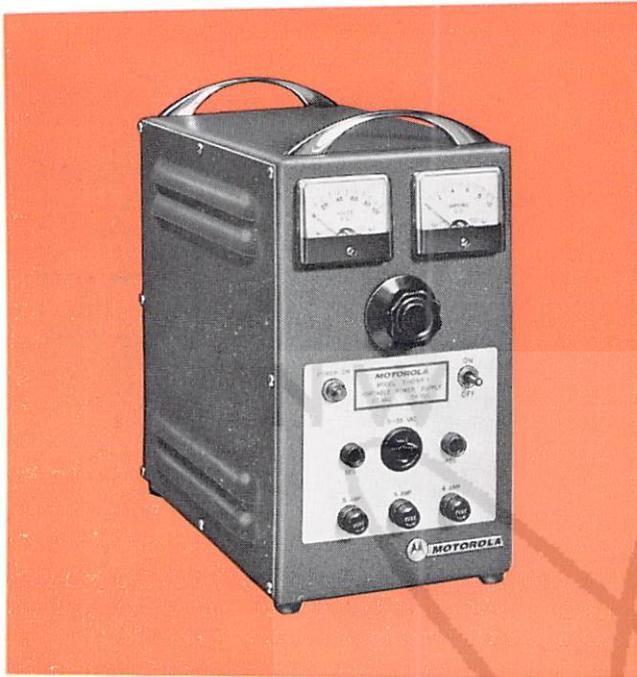
### S-1053A Transistorized AC Voltmeter with Battery and 117 AC Power Supply

Further versatility in the AC Voltmeter unit is offered by Motorola's S1053A model which can be operated from both battery power and any convenient 117 VAC source. This flexibility means that the unit operates from a 117 VAC source while in the service shop, laboratory or on the production line. Since the batteries are not in use during such applications, battery life is greatly extended. Batteries last longer, retain reserve power for portable applications and where freedom from power line interference is desirable.

**S-1053A AC Voltmeter with Battery/117 VAC** . . . Net Price **\$245.00**



## test equipment



These Motorola filtered DC power supplies combine compactness and versatility with the accuracy demanded in servicing of critical electronic equipment . . . high current rating and low ripple voltage eliminate need for batteries in normal usage.

T-1012A is designed for general 2-way servicing of 6-12-24 VDC equipment.

T-1064A is designed for aircraft, industrial and railroad applications.

T1012A Power Supply . . . . . Net Price **\$250.00**  
 T1064A Power Supply . . . . . Net Price **\$250.00**

## TEK-15 RIPPLE FILTER

Designed for the low to moderate current range, the TEK-15 Ripple Filter operates with any battery eliminator or other DC source up to 100 volts, reducing hum and ripple content to very low levels when servicing transistorized equipment. Because of the high voltage rating of the filter, the unit can be used when testing 64-volt railroad equipment, as well as vehicular-mobile aircraft and industrial radio equipment operating on lower voltage ranges.

A heavy duty switch permits bypassing the filter choke when the unit is used in high current applications or when regulation is more important than low ripple content, eliminating the voltage drop across the choke and improving regulation of the DC source. Even though the filter choke is bypassed, ripple content of the DC source is reduced by the large capacity connected across the filter terminals.

TEK-15 RIPPLE FILTER . . . . . Net Price **\$31.50**

## FILTERED DC POWER SUPPLIES

### Specifications

	T1012A	T1064A
DC Output	0-15 and 0-35 VDC	0-85 VDC
AC Output	0-135 VAC	0-135 VAC
Metering Accuracy	± 2% Full Scale	± 2% Full Scale
Current Capacity	6-12 VDC Operation Continuous—30 amps Intermittent—40 amps	DC Operation Continuous—5 amps Intermittent—7 amps
	24-35 VDC Operation Continuous—20 amps Intermittent—30 amps	AC Operation—6 amps
Ripple Content	100 Millivolts Maximum —at 5 amps	Less than 1%—5 amps
Input Voltage	110-120 volts 50-60 cycle AC	110-120 volts 50-60 cycle AC
Power Consumption	Variable with load approximately 700 watts with 30 amp 12 VDC load	Variable with load approximately 525 watts with 5 amp 64 VDC load
Regulation	Maximum 3-volt drop (receiver stand-by to full load 12 VDC operation)	Maximum 10-volt drop (receiver stand-by to full load 64 VDC operation)
Overall Dimensions	13½" high x 8" wide x 13" deep	13½" high x 8" wide x 13" deep
Weight	Approximately 56 lbs.	Approximately 50 lbs.



## T-1016A

### DC TO AC CONVERTER

- Fully Transistorized for Maximum Efficiency
- Rated 275 Watts at 115 Volts AC 60 Cycles (300 Watts Intermittent)
- Frequency Controlled to Within  $\pm 1$  Cycle Regardless of Load
- Built-in Cooling Fan
- Remote Control Head for Voltage Adjustment

Here's a high quality frequency controlled transistorized Converter that is ideal for the service vehicle when a convenient source of 115V AC is not available. It can be used to operate test equipment, extension lights, power tools, soldering irons and other electrical equipment.

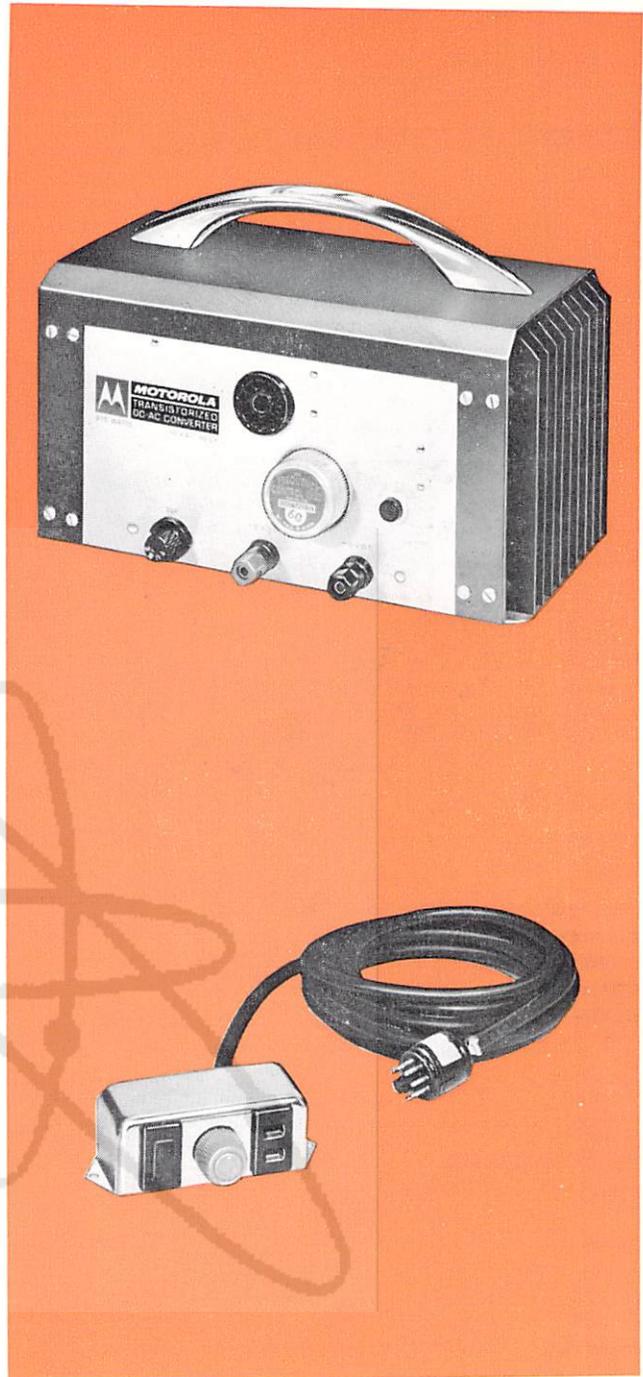
The unit is supplied with a portable remote control head which is cable connected to the Converter. The control head consists of a rotary switch, voltage indicator light and AC outlet receptacle. It can be mounted under a shelf or bench top, while the converter unit can be placed out of the way under the bench or on the vehicle floor.

The T-1016A Converter is not limited to service applications only, it may be used to operate tape recorders, television receivers, marine equipment or public address amplifiers.

The Converter is designed to provide protection against accidental reverse polarity connection. To illustrate the capabilities of the Converter, the table below shows some common test equipment and power tools that may be operated from the unit. For example, a T-1034B Signal Generator and a T-1020A Frequency Meter total approximately 150 watts. They may be operated from the Converter and the unit will still have adequate reserve for a fluorescent bench lamp and a low wattage soldering iron.

Since adequate warm-up time of test equipment is most important, the T-1016A is ideal for keeping units at operating temperature while a vehicle is en route between service calls. No time is lost waiting for equipment to "warm up" and stabilize.

T-1016A DC to AC Converter. . . . . \$119.00

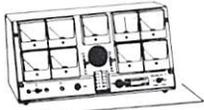


Examples of Power Requirements of Typical Test Equipment and Power Tools

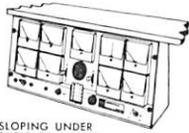
MODEL	DESCRIPTION	WATTS
TU-576	Signal Generator	35
T-1034 Series	Signal Generator	70
80 Series	Signal Generator	70
F4MU24B Series	Station Monitor	65
T-1100A Series	Frequency Meter	75
T-1020A	Frequency Meter	150
T-1021A	Solder Gun	250
	Sabre Saw	200
	3/8" Drill	230



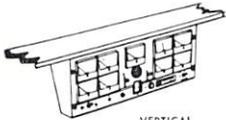
# test equipment



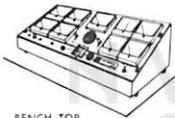
BENCH TOP VERTICAL



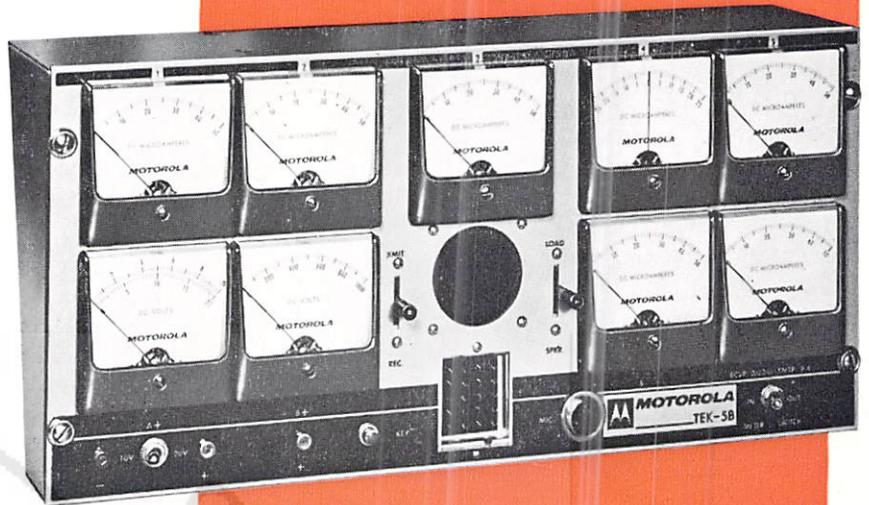
SLOPING UNDER SHELF OR MOUNTING ON WALL



VERTICAL UNDER SHELF



BENCH TOP HORIZONTAL



## TEK-5B METER PANEL

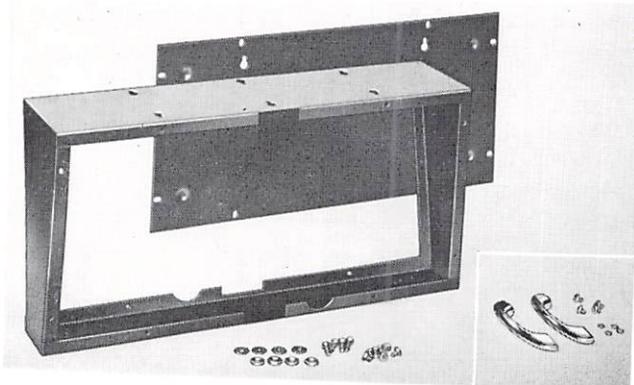
This modern, greatly improved version of the popular Motorola TEK-5 Meter Panel offers these outstanding benefits for the serviceman.

- NEW PANEL STYLING — improved legibility saves time, simplifies operation.
- NEW "WIDE-VUE" Meters — enhanced readability means greater accuracy — less chance for error.
- EXPANDED ZERO-CENTER METER (25—0—25 ua) — greater accuracy in discriminator settings.
- DIRECT-READING — A+ and B+ Meters — A+, 0-10 and 0-20 VDC; B+, 0-1000 VDC.
- NEW HOUSING — versatile design permits undershelf, upright or console mounting.

The TEK-5B Meter Panel assures greater efficiency and saves time for the serviceman by providing simultaneous metering of positions one through six on transmitter or receiver — plus power amplifier plate current readings of the transmitter or audio output of the receiver.

The TEK-5B is particularly useful in fast detection of malfunctioning or intermittent sections of receivers or transmitters. The meter panel includes a built-in speaker that can be switched "in" or "out". In the "out" position, a load resistor is placed in the circuit. Position "4" is monitored by a 25-0-25 ua zero-center meter that provides a more precise reading during receiver alignment. On "Transmit", a shunt resistor is automatically switched in, changing meter sensitivity to 0-50 ua. Keying the transmitter can be carried out through use of a test microphone or a push switch located on the meter panel.

TEK-5B Meter Panel Complete with Housing . . . Net Price \$197.00



## TEKA-13 METER PANEL HOUSING

This meter panel housing is available to those who may already own the TEK-5 or TEK-5A meter panel. Both panels will easily fit into this housing and thus provide you with the full mounting versatility offered by the TEK-5B.

TEKA-13 Housing Only with Panel Hardware . . . . . Net Price \$10.50  
TEKA-14 Handle Kit . . . . . Net Price \$ .55

## TEK-1A TRANSISTORIZED TONE OSCILLATOR

Improved Styling — Higher Output  
Two Frequencies (400 and 1000 cps)  
Factory-Built and Tested (not a kit)

The popular Motorola TEK-1A Tone Oscillator is designed for use with the test set when adjusting deviation on the transmitter, setting tone levels on remote control units, adjusting transmitter IDC circuits, testing audio amplifiers . . . use it anywhere a variable source of 400 or 1000 cps is required.

The TEK-1A is equipped with a three-foot cord and Microphone Plug for attaching to the test set. When used with recent Motorola test sets, the voltage can be read directly on the AC portion of the test set meter. 48 inch test set leads are available (see below).

TEK-1A Tone Oscillator	Net Price	<b>\$23.50</b>
TEKA-18 Test Leads with Clips	Net Price	<b>\$ 1.50</b>
TEKA-19 Test Leads with 1 Clip and 1 Prod	Net Price	<b>\$ 1.75</b>



## TEK-21 PULSE GENERATOR

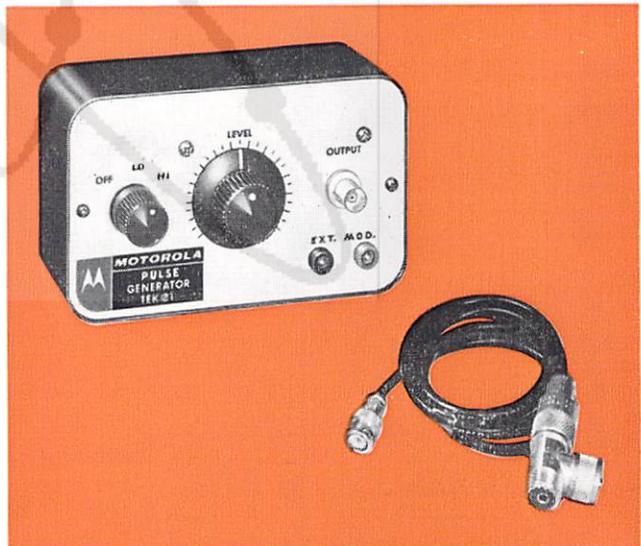
Developed specifically for servicing Motorola 2-way radios equipped with "Extender" operation that drastically reduces ignition noise, the TEK-21 combines versatility with outstanding accuracy and economy.

While this test instrument was designed primarily for bench testing, it can also be conveniently used in field servicing. In operation, the unit simulates actual ignition noise interference that is encountered in 2-way radio vehicular operation.

And, since the Motorola Extender feature is designed to reduce ignition noise from both the vehicle in which it is installed and other vehicles in the vicinity, the TEK-21 Noise Pulse Generator has been designed to simulate ignition noise interference of many vehicles — thus providing the extreme in testing and proper noise balancing of the radio set.

The two testing frequencies of low and high simulate conditions of repetition noises encountered in 2-way radio operation. In checking out efficiency of Extender operation, the TEK-21 has output levels permitting receiver degradation of up to 50 db, much higher than normally would be encountered in a malfunctioning unit.

Operational economy in the TEK-21 is achieved through full transistorization which enables the unit to operate for 50 hours continuous duty on two 7-volt mercury batteries. Battery life is considerably extended during normal maintenance procedures where continuous operation is unnecessary. Transistorization also adds greater reliability, longer



service life and contributes towards compact and miniaturized design.

When used in conjunction with the TEK-1A Transistorized Tone Oscillator, the TEK-21 permits complete noise balancing on the service bench rather than confining this type of maintenance to the radio-equipped vehicle.

TEK-21 Pulse Generator	Net Price	<b>\$58.50</b>
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# test equipment

## TEK-20 "PRIVATE-LINE" TONE GENERATOR

This fully transistorized unit adds reliability, speed and simplicity to servicing of "Private-Line" receivers—quickly pays for itself through operational savings and greater efficiency.

Designed for use in conjunction with a standard "Private-Line" "Vibrasender" reed, the TEK-20 delivers sufficient output to modulate the Motorola T-1034A & B FM Signal Generator approximately 3-4 kc. This is more than adequate for any tests required in the receiver. The unit can also be used for direct feeding of the output into the tone circuits of the receiver and thus assure quick isolation of any malfunctioning.

Lightweight and compact, the TEK-20 is adapted equally to shop or field use. Two internal, long-life mercury batteries give the unit approximately 50 hours of continuous battery duty—longer service during intermittent use such as encountered during routine servicing.

Adding further to its versatility—the TEK-20 makes it possible to operate on frequency ranges from 84 to 200 cps through the use of the proper "Vibrasender" reed which merely plugs quickly into the tester. The reed can be removed from the base station or mobile being serviced, thus eliminating the need for spare units. Variable attenuator control in the TEK-20 provides precise settings for any tone level desired. Since the unit generates the identical tone frequency of the "Vibrasender" unit, other radios in the system can continue to operate without need for "keying" the base station transmitter and thus tying up the remainder of the network.

A test cable for connection to the signal generator is provided with each unit.

TEK-20 "Private-Line" Tone Generator . . . . . Net Price \$44.75

## TEST LEADS

Here are four sets of handy test leads to boost servicing efficiency in the shop and field. Test leads "A" and "B" are general purpose leads which can be used with the TEK-1A, 5B, 20 or 21. Leads "C" and "D" are all-purpose jumper leads.

TEKA-18 Test leads with right angle pin tips and minigator clips . . . . . Fig. B Net Price \$1.50

TEKA-19 Test leads with right angle pin tips, 1 minigator clip and 1 prod . . . . . Fig. A Net Price \$1.75

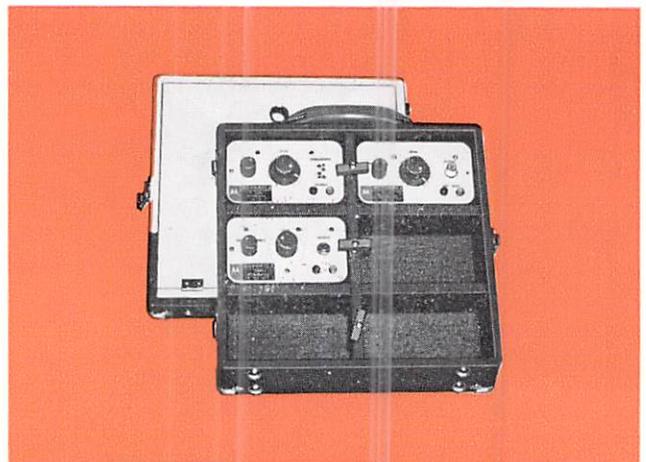
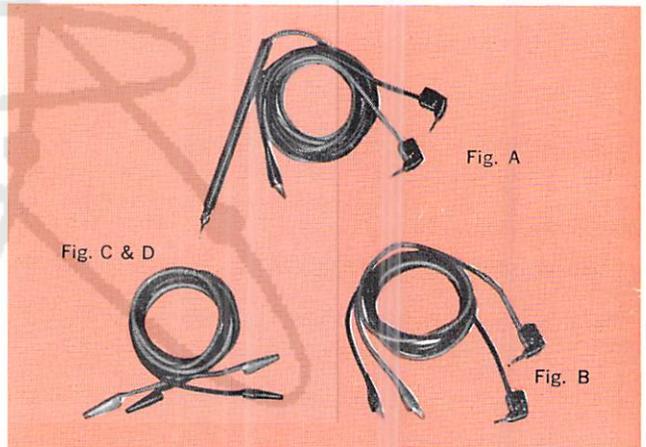
TEKA-20 Test leads with alligator clips . . . . . Fig. C & D Net Price \$1.00

TEKA-21 Test leads with minigator clips . . . . . Fig. C & D Net Price \$ .75

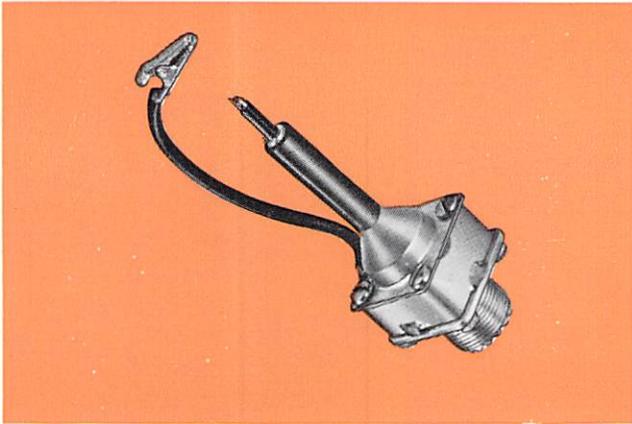
## TEKA-25 CARRYING CASE

Here's a handsomely styled, sturdy case for toting your TEK kits such as the TEK-1A, TEK-20 and TEK-21. Case accommodates up to 6 kits. Has compartment with snap-on hinged cover for storing test leads and accessories.

TEKA-25 Carrying Case . . . . . Net Price \$16.75



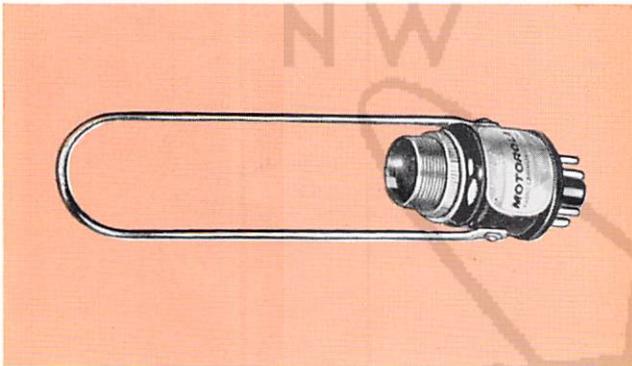
## TWO-WAY RADIO SERVICING AIDS



### MODEL TEK-10 RF CABLE ADAPTER

Properly couples the output of the signal generator directly to the RF stages in "Motrac" radio receiver for making stage gain measurements. The adapter terminates the generator in 50 ohms and matches the generator output to the receiver stages. The signal generator connects to the standard UHF female receptacle and the probe & ground clip connect to the receiver circuitry under test.

Model TEK-10 RF Cable Adapter . . . . . Net Price \$2.75

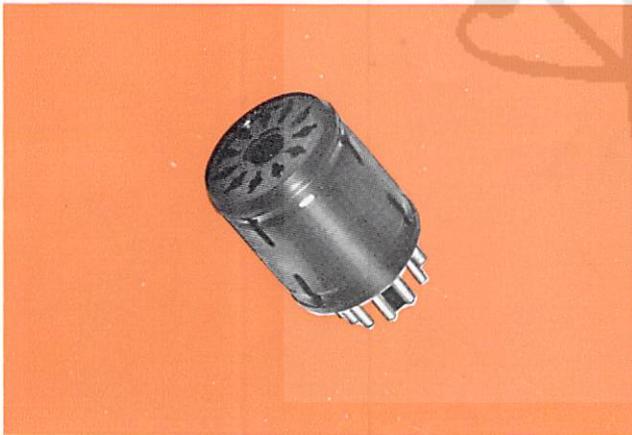


### TEK-18 METERING SOCKET TRANSMIT ADAPTER

Here is a low cost servicing aid that can save you many minutes each day as it improves efficiency.

The TEK-18 Adapter enables the technician to operate the transmitter directly from the metering sockets of the transmitter. It eliminates the inconveniences of switching the test set from transmitter to receiver when making receiver adjustments.

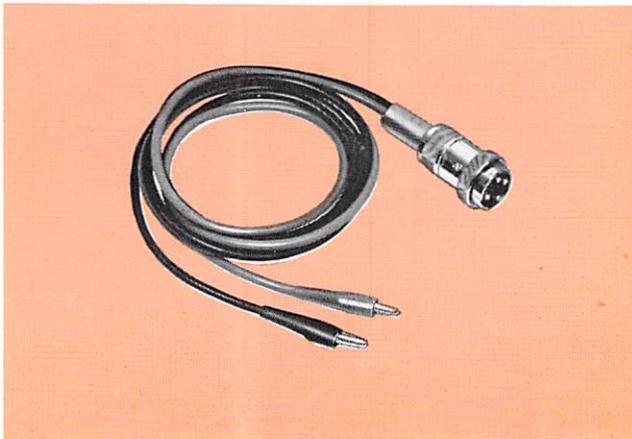
TEK-18 ADAPTER . . . . . Net Price \$2.50



### MODEL TEK-11 AUDIO ADAPTER

Adapts the TKN 6025A "Motrac" radio metering adapter plug to the Motorola Test Set to make power output checks and audio stage gain measurements on "Motrac" radio receivers. The Audio Adapter presents the proper impedance to the audio output stage and contains a voltage divider to bring the audio voltmeter reading for 5 watts output down to an on scale reading. This is a short adapter with an 11-pin socket for the test set lead on one end. On the other end, an 11-pin plug connects to the TKN 6025A "Motrac" radio metering adapter.

Model TEK-11 Audio Adapter . . . . . Net Price \$2.95



### MODEL TEK-12 AUDIO VOLTMETER ADAPTER

The Audio Voltmeter Adapter permits separate use of the audio voltmeter portion of recent Motorola test sets. Test leads with miniature alligator clips are provided. The TEK-12 is used for audio stage gain measurements on the "Motrac" radio receiver and is also useful in making other audio voltage measurements within the range of the test set meter. Can be used in conjunction with the TEK-19 microphone tester when checking spade lug type microphones directly in the control head.

Model TEK-12 Audio Voltmeter Adapter . . . . . Net Price \$1.50

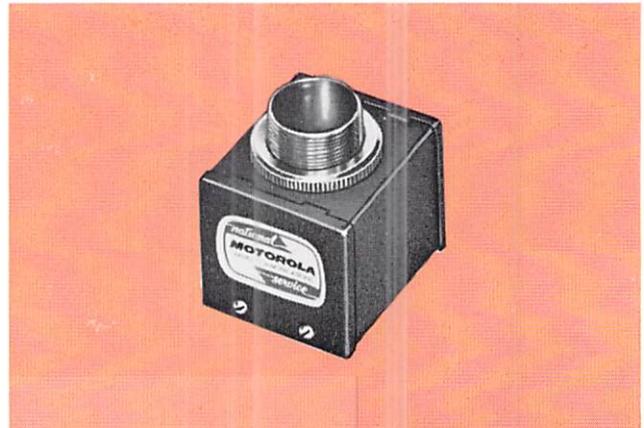


## portable & mobile servicing aids

### TEK-19 MICROPHONE TESTER

The TEK-19 is used in conjunction with the recent Motorola test sets to show relative output of plug-in type carbon or transistorized microphones and handsets. It draws its operating voltage directly from the test set and utilizes the AC portion of the test set as the output indicator. Microphones with spade lugs can be tested with this unit by using it in combination with the TEK-12 adapter. The TEK-12 consists of a microphone plug with 2 clip leads which can be connected directly to the control head terminal board.

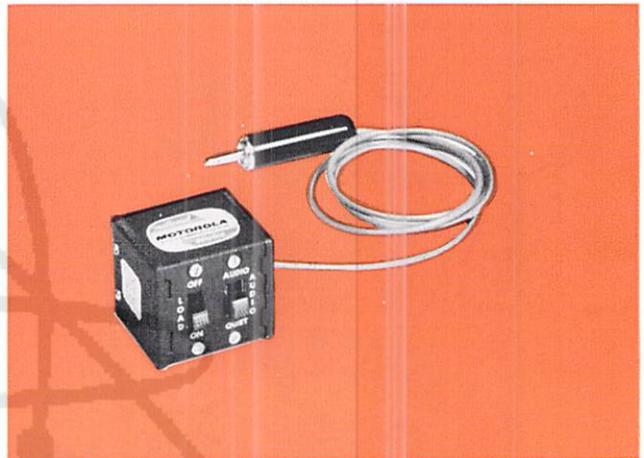
TEK-19 Microphone Tester ..... Net Price \$5.85  
TEK-12 Adapter ..... Net Price \$1.50



### AUDIO METERING ADAPTERS

These Adapters permit reading the Audio output of the "Handie-Talkie" Pocket Receiver on the Test Set Meter. Useful when making the 20 db Quieting Sensitivity check. Supplied with Miniature 2-Pin Plug (TEK-8 series) or miniature Phone Plug (TEK-17B).

TEK-8 for Pocket Receivers w/100 MW audio u/w recent Motorola Test Sets ..... Net Price \$4.50  
TEK-8A for Pocket Receivers w/100 MW audio u/w P8501 A/B Test Set ..... Net Price \$3.95  
TEK-17B for Pocket Receivers w/500 MW audio u/w recent Motorola Test Sets ..... Net Price \$7.85



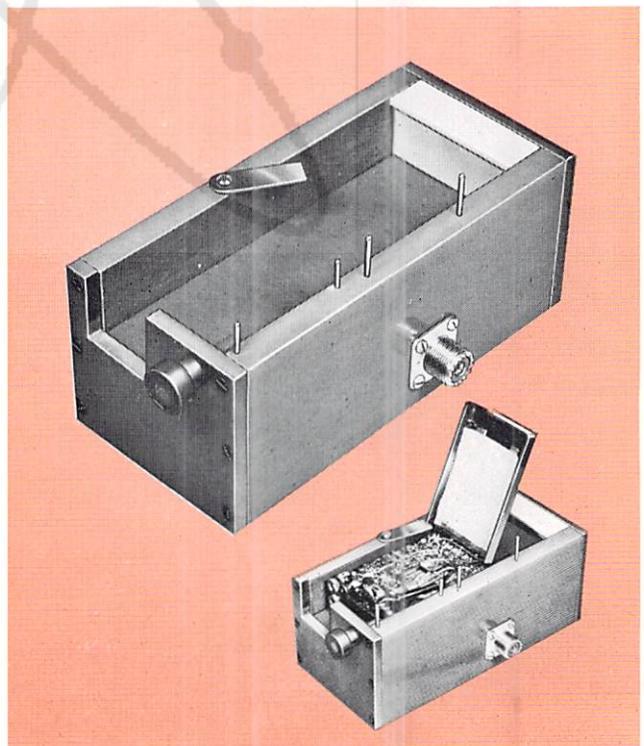
### TEK-9B POCKET RECEIVER TEST & ALIGNMENT JIG

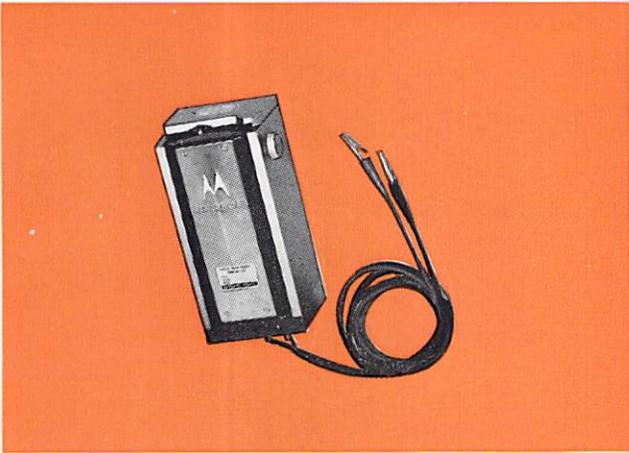
The TEK-9B Test & Alignment Jig is used in the alignment and checking of all Motorola VHF "Handie-Talkie" Pocket Receivers and the Motorola "Handie-Talkie" VHF Radio Pager. This jig is a direct replacement for the TEK-9 and TEK-9A Models. The test jig is used to couple an RF signal to the receiver internal antenna. It simulates the body capacity of the operator which is present when the receiver or pager is carried in a pocket or on a belt. Use of the test jig allows the receiver or pager input circuit to be tuned for maximum signal pickup from the internal antenna simulating actual operating conditions.

The test jig is made of phenolic material and contains a screw type knob which is used to hold the unit under test in a secure position or to depress the push-to-listen button when testing pagers. Posts are provided to hold the squelch-audio module for servicing when removed from the receiver housing. For the pagers, additional posts are provided to hold the "Vibrasponder" resonant reeds while checking or testing.

A plastic arm is provided to hold the cover in the open position. A UHF receptacle is used to connect a test signal to the built-in antenna which is composed of two copper plates terminated in approximately 50 ohms.

TEK-9B Pocket Receiver Test & Alignment Jig. . . Net Price \$19.50

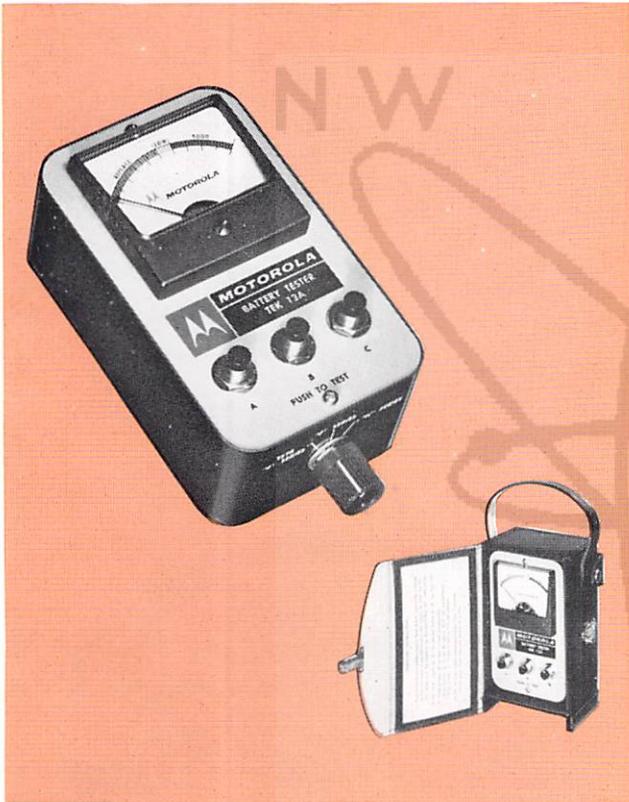




### NEN-6022A POCKET TRANSMITTER TEST JIG

Tests pocket transmitter series H11NBC and H13NBC Jig has screw-in type knob on side of case which is used to depress the transmit button thus freeing both hands for servicing. Leads are supplied for connection to DC power source.

NEN6022A Pocket Transmitter Test Jig . . . . . Net Price \$19.50



### MOTOROLA TEK-13A BATTERY TESTER

Featuring outstanding new improvements, the TEK-13A Battery Tester has been specially redesigned to allow easy testing of battery complements in both *transistorized* and tube-type "H" and "P" series "Handie-Talkie" portable radios. Unit accurately tests under actual load conditions—without the necessity of removing the batteries.

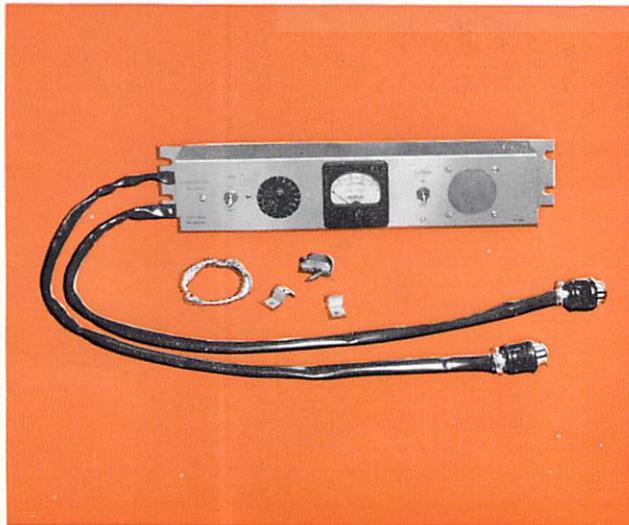
Once the tester is mounted, simply depress the "A", "B", or "C" buttons (one at a time) to check condition of the batteries. For example, push the "A" button to test the 1.5-volt A battery or battery complement, and the other buttons for testing the battery complements which correspond to the "B" or "C" designations.

The tester is particularly useful in forestalling outages that could occur in portable equipment as a result of worn-out or "low" batteries. This is particularly important in such applications as police or fire work, forestry, railroad communications—any 2-way radio system that relies heavily on portable, radio equipment.

TEK-13A Battery Tester . . . . . Net Price \$35.00

**Carrying Case.** Available as optional equipment, this case not only protects the tester during transport or when it is not in use, but also permits the tester to be used without the necessity of removing it from the case. The case is constructed of durable leather.

TEKA-23 Carrying Case . . . . . Net Price \$4.95



### TU-139A UNIVERSAL METERING CHASSIS KIT

For any Motorola Base Station without built-in metering facilities. A universal metering unit used with Motorola outdoor weatherproof and "Compa-Station" base stations to provide built-in test and alignment facilities. Designed for easy mounting on 19" racks in 25-54, 152-174 and 450-470 mc base stations. Can be used with both single and two-receiver models. Also adaptable to fixed installations on the maintenance shop test bench with all Motorola transmitters and receivers having 11 pin metering sockets.

Provides all necessary circuit metering facilities. Use it to measure grid voltage, plate voltage and plate current. Has a transmitter "on-off" switch for local test purposes and built-in 2½" permanent magnet speaker for receiver monitoring.

Sensitive dual scale microammeter measures transmitter and receiver stages on 0-50 microampere scale. A 16-position rotary selector switch is used to select transmitter or receiver metering points.

Unit measures 19 x 3½ x 3½".

Model TU-139A Universal Metering Chassis Kit . . Net Price \$61.00



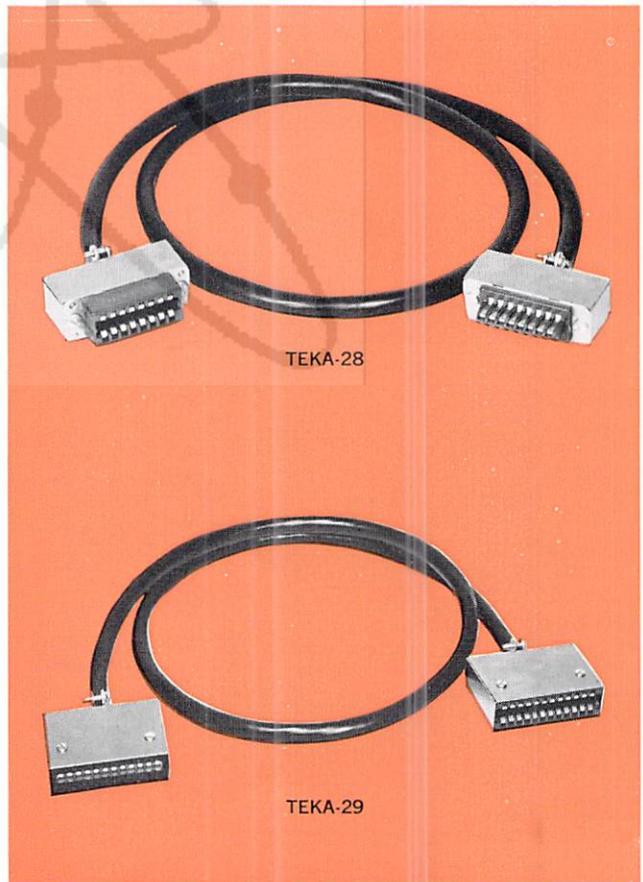
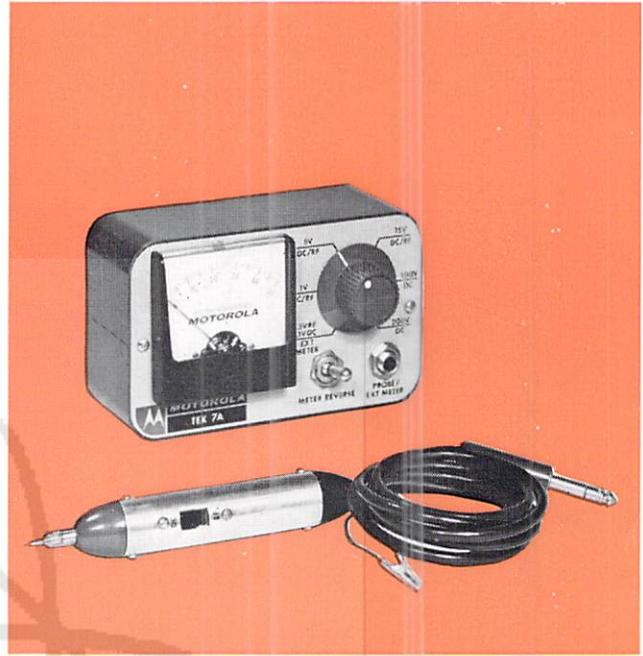
# portable and mobile servicing aids

## TEK-7A DC/RF ALIGNMENT METER

- Make Routine DC and RF Voltage Tests
- Use as a 50 ua Tuning Meter
- Use as a Field Intensity Indicator for Peaking Portable Transmitters

A precision instrument for aligning and testing "Handie-Talkie" pocket receivers and transmitters. The unit covers RF ranges of .5, 1, 5, and 15V and DC ranges of .1, 1, 5, 15, 100 and 200V. Kit includes a self-contained 0-50 UA alignment meter, voltage range switch, polarity reversing switch and panel mounted phone jack. In addition, a removable DC/RF probe with a built-in selector switch is provided. The probe enables you to meter points within the receiver and transmitter thus eliminating the need for a separate RF/DC vacuum tube voltmeter. The unit is ideal for servicing other equipment where such RF and DC voltages would be encountered, such as the "Handie-Talkie" portable radiophone. The unit can also be used as a separate tuning meter for earlier Motorola equipment by utilizing an accessory cable—part No. 1V855413. . . .

TEK-7A . . . . . Net Price \$35.00



### "HANDIE-TALKIE"

### AND INDUSTRIAL

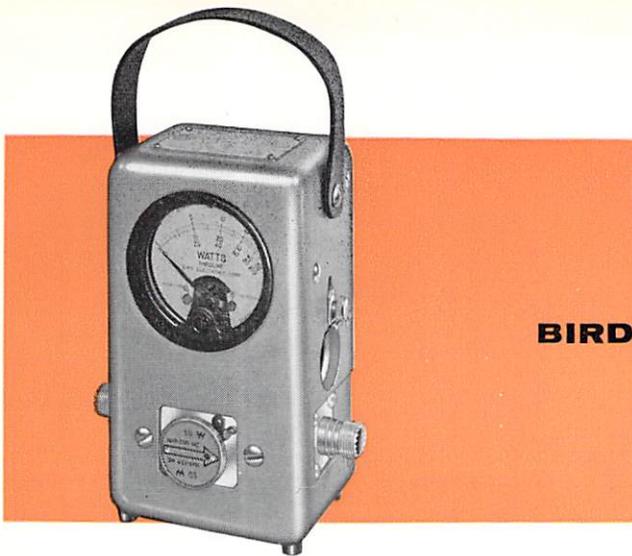
### "DISPATCHER" RADIOPHONE

### EXTENSION CABLES

These cables simplify bench servicing of Packset, "Handie-Talkie," Motorcycle and Industrial "Dispatcher" Radiophones. Just disconnect the power supply from the radio and re-connect the two units with the extension cable. Cables are 3 ft. long to allow you plenty of elbow room to service the transmitter and receiver.

TEKA-28 Extension Cable for H-21, 23 and P-31, 33 "Handie-Talkie" radios. . . . . Net Price \$12.00

TEKA-29 Extension Cable for all Motorcycle and Industrial "Dispatcher" Radiophones. . . . . Net Price \$14.50



## BIRD THRULINE WATTMETER

The Thruline wattmeter accurately measures RF power flow under any load condition, matched or not. Being sensitive to power flow in one direction only, it can be used to measure forward or reflected waves as you desire; merely rotate the plug-in element to change the direction in which power flow is being measured.

Uses for this versatile wattmeter include:

- direct measurement of power into the antenna.
- direct measurement of reflected power, for antenna matching.
- testing 50 ohm RF transmission lines, connectors and filters.
- mobile equipment servicing.

The Thruline wattmeter, because of its high directivity and small frequency error, has an accuracy of  $\pm 5\%$  of full scale. It is direct reading — requires no calibration charts or full scale meter adjustments. It is convenient to use, for no auxiliary power is required, and you do not reverse RF connections to change sensitive direction of the instrument. Has negligible power loss and insertion VSWR.

Utilizes plug-in elements, each calibrated for direct reading of RF power over a frequency range of 2 to 1000 mc. Rugged cast aluminum housing has sockets for extra elements. Includes carrying strap.

When ordering elements, specify frequency range and power, as listed below. Unit is supplied with UHF connectors.

- Model 43 Bird Thruline Wattmeter (less elements) . . . . . \$95.00
- Elements (specify frequency range and power) . . . . . 30.00
- Type "N" Female Quick-Change Connector . . . . . 4.50
- Type U. H. F. Female Quick-Change Connector . . . . . 4.50
- Model 8000 Meter replacement kit for 43 Wattmeter . . . . . 39.50

### Frequency Range, MC, of Elements

2-30 MC	25-60 MC	50-125 MC	100-250 MC	200-500 MC	400-1000 MC
100 Watt	10 Watt	10 Watt	10 Watt	10 Watt	10 Watt
250 Watt	25 Watt	25 Watt	25 Watt	25 Watt	25 Watt
500 Watt	50 Watt	100 Watt	50 Watt	50 Watt	50 Watt
1000 Watt	100 Watt	500 Watt	100 Watt	100 Watt	100 Watt
	500 Watt		500 Watt	250 Watt	

## T-1013A RF LOAD RESISTOR

This unit provides the answer to the 2-way radio serviceman's need for a lightweight RF dummy load with an extensive range. Sturdy and compact, it is equally suited for shop and field use. The T1013A will handle 300 watts of RF at 15-minute intervals or 150 watts continuous power. The continuous power rating can be extended to 225 watts, if sufficient air is kept moving past the cooling fins. Other features include:

**IMPEDANCE** — 50.0 ohms

**STANDING WAVE RATIO** — 1.2 or less

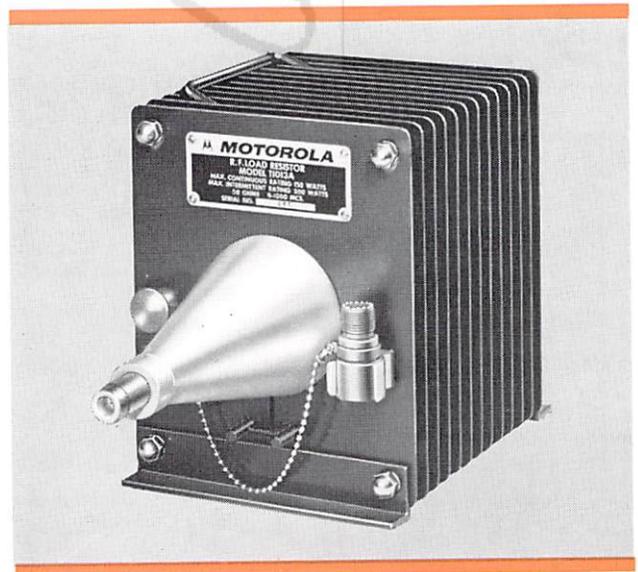
**FREQUENCY RANGE** — 0-1000 mc (usable to 3000 mc)

**CONNECTORS** — "N" type. "UHF" type adapter provided.

**SIZE** — 6 x 7 $\frac{1}{8}$  x 12 $\frac{5}{8}$  inches

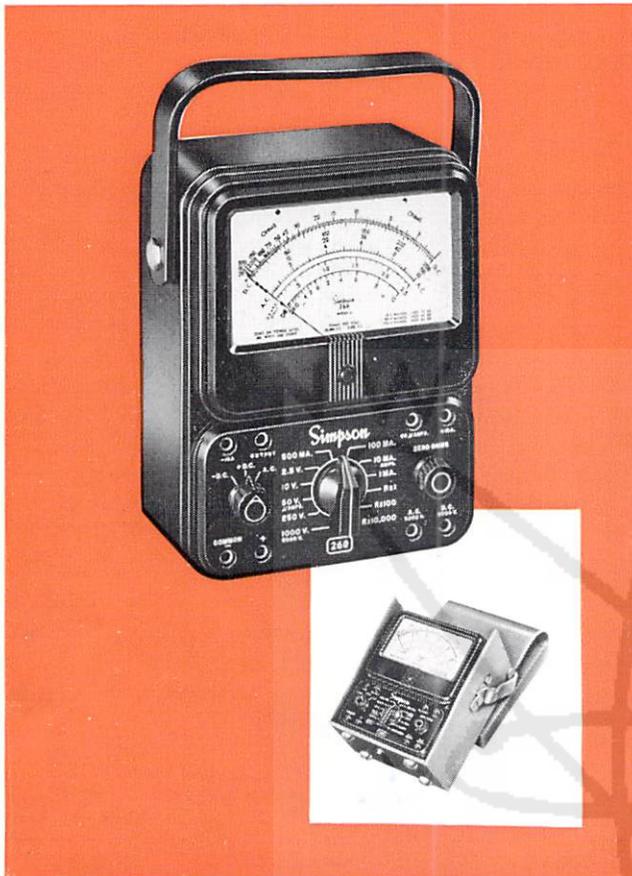
**WEIGHT** — 8 lbs.

T-1013A RF Load Resistor . . . . . Net Price \$74.50





## test equipment



### SIMPSON 260 AC-DC VOLT-OHM-MILLIAMMETER

This dependable unit is popular with electronic technicians because of its accuracy and versatility. Highly sensitive, the Simpson 260 features rugged printed circuitry, is easy to operate, readily portable, sturdily built, operates from standard flashlight batteries. Adjustable handle holds unit at the desired viewing angle. Carrying case available as optional equipment.

#### Specifications

**POLARITY REVERSING SWITCH** — Makes DC measurements easier and faster . . . no lead reversal.

**50 MICROAMPERE-250 MILLIVOLT RANGE** — Gives more sensitive measurements . . . provides complete current coverage in six easy steps.

**POPULAR DBM RANGES** — -20 dbm to +50 dbm, one milliwatt in 600 ohms.

**IMPROVED FREQUENCY RESPONSE IN AC MEASUREMENTS** . . . 5 to 500,000 cycles per second.

**FULL-WAVE BRIDGE RECTIFIER SYSTEM** — Provides more accurate AC voltage measurements.

**FREQUENCY RESPONSE** — Essentially flat through 50,000 cps. Size: 5¼" x 7" x 3½" . . . Net Wt.: 3½ lbs.

Complete with test leads and operator's manual.

Simpson 260 AC-DC VOM . . . . . Net Price **\$48.95**  
Carry Case #4236 . . . . . Net Price **\$ 9.55**

### HICKOK CHARGICATORS

Many mobile radio maintenance problems are caused by improper operation of the vehicle's electrical system, battery and charging circuit. With the Model 48P Charger, you can quickly and easily check the voltage regulator, storage battery condition, cables and connections.

Specifically, this instrument enables you to:

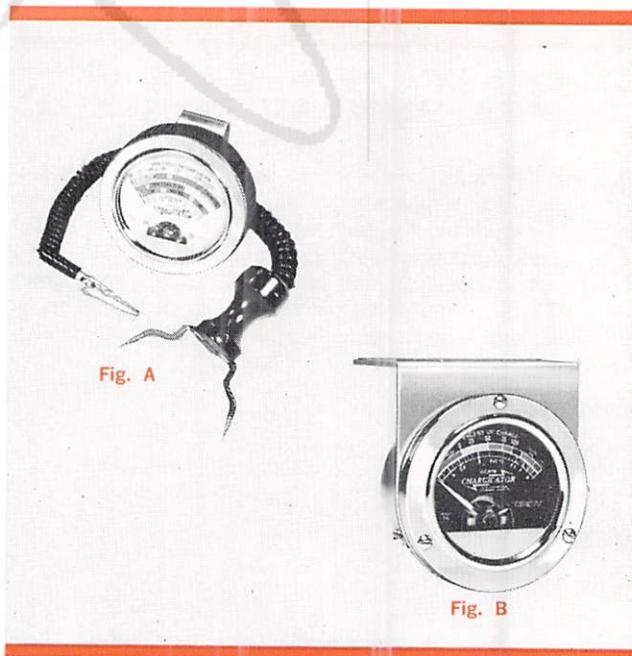
- measure the state of charge of the storage battery
- check individual cells
- check battery under load
- check voltage regulator by determining rate of charge
- make high resistance tests on cables and connections
- test for short circuits in the car's electrical system

Model 48P can be used to test either 6 or 12 volt systems and batteries. Complete directions are given for its use

Fig. A Net Price **\$24.10**

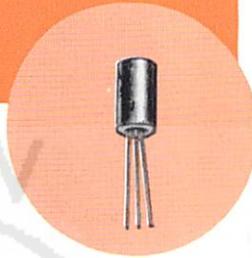
Model P-56 mounts directly under the dash of a vehicle and constantly indicates the vehicle's battery load when the engine is running. When ordering the P-56, specify 6 or 12 volts.

Fig. B Net Price **\$14.95**





# transistors



Motorola manufactures a wide variety of transistors—all of which are stringently quality-controlled to insure optimum performance and reliability. Motorola's background in transistor research, development, manufacture and application is your guarantee that the product is fully matured . . . test-proved for use in the most strenuous and exacting service. These units are carefully selected for use in specific applications, permitting the buyer to order the unit that best suits his usage. Added tests, to Motorola's rigid specifications, are required for these transistors to meet high Motorola standards.

In certain applications transistors are graded for special circuit characteristics. These types are so indicated by a color dot on top of the transistor. Therefore, when ordering replacements, use the Motorola part number for the correct color dot transistor.

JEDEC and/or TYPE numbers are provided for convenience of identification only. For maximum performance and reliability, always replace with Motorola circuit selected transistors.

TYPE NO.	PART NO.	REPLACEMENT PART NO.	TYPE NO.	NET PRICE	TYPE NO.	PART NO.	REPLACEMENT PART NO.	TYPE NO.	NET PRICE
2NJ1C	48K124213	48K124299	R52	\$ 1.68	R177	48K124338	—	—	\$ 5.25
2NJ2 Green	48K124215	48K125285	2N217 White	1.55	2N109M2	48K125276	—	—	2.00
XN12A	48A125207	48K125267	MN23	3.75	2N111	48K124236	48A124388	2N410	.86
XN12B	48A125208	48K125267	MN23	3.75	2N111M1	48K124277	48K124255	2N140	1.53
XN12C	48A125212	48K125267	MN23	3.75	2N111M2	48K124278	48K124255	2N140	1.53
XN12E	48K125218	48K125267	MN23	3.75	2N112	48C124234	48A124388	2N410	.86
XN12F	48A125219	48A125267	MN23	3.75	2N112M1	48K124279	48K124255	2N140	1.53
MN13B	48B125282	48A124313	2N651	1.95	2N131	48K124238	48K125276	2N109M2	1.24
MN13C	48K125263	—	—	3.45	2N132	48C124233	48A124326	2N654	1.80
XN13D	48C125225	48A125271	2N270	1.32	2N138	48K124239	48A125285	2N217 White	1.55
MN21	48A125289	48A125288	2N375	4.10	2N140	48K124255	—	—	1.53
MN22	48A125266	—	—	3.80	2N140M1	48K125278	48C124255	2N140	1.53
MN23	48A125267	—	—	3.75	2N140M2	48K125280	48C124255	2N140	1.53
SA29	48A134505	—	—	3.71	2N172	48C124216	—	—	3.00
R35	48C124217	—	—	2.89	2N176	48C124246	48K125267	MN23	3.75
MN46	48B125298	48R134608	M4608	1.63	2N176 Green	48K125204	48K125267	MN23	3.75
MN52	48A124339	48A124313	2N651	1.95	2N176 White/Brown	48R134582	48K134583	2N176 White/Red	1.85
R52	48K124299	—	—	1.68	2N176 White/Green	48A134584	—	—	1.85
MN53	48A124318	—	—	.84	2N176 White/Red	48K134583	—	—	1.85
MN60	48A124317	—	—	.41	2N178	48C124247	48A125267	MN23	3.75
SM60	48K134531	48A134593	SM61 White	27.14	2N185 Blue	48K124379	—	—	.75
MN61	48K134438	—	—	3.45	MN194	48R134572	48A124331	MN62	2.92
SM61 White	48A134593	—	—	27.14	2N207	48R124322	—	—	1.95
SM61 Red	48A134532	—	—	27.14	2N214	48A124362	48A134513	2N1302	.90
MN62	48A124331	—	—	2.92	2N217	48B125270	48A124326	2N654	1.80
SM62B	48K134533	—	—	23.76	2N217 Red	48K125284	48A124326	2N654	1.80
SM63 Yellow	48R134534	—	—	16.40	2N217 Yellow	48K124375	48K125285	2N217 White	1.55
MN63	48A124356	48A134523	MN64	9.75	2N217 White	48K125285	—	—	1.55
MN64	48A134523	—	—	9.75	2N218	48C125222	48A124388	2N410	.86
R79	48A125202	—	—	5.25	2N231	48A124320	—	—	1.13
R80	48C124210	48A124338	R177	5.25	2N231 Yellow	48K124381	—	—	1.13
M84	48A124340	—	—	1.45	2N231 Yellow/Red	48K124382	—	—	1.13
M84A	48A134455	—	—	1.76	2N231 Blue	48R134617	—	—	1.13
*MN94	48A124368	48A134548	M4548	1.83	2N238	48A124355	—	—	.86
R98	48C124297	48K125254	R98-2	2.85	2N238 Orange	48K124380	—	—	.72
R98-1	48K125253	—	—	2.85	2N247	48A128219	48A134524	2N1638	1.11
R98-2	48K125254	—	—	2.85	2N247 Red	48A124399	48A134524	2N1638	1.11
R98-3	48K125255	—	—	2.85	2N247 White	48K134409	48K134547	M4545	1.60
R98-4	48K125256	—	—	2.85					
R98-5	48K125257	—	—	2.85					
R98-6	48K125258	—	—	2.85					
R98-7	48K125259	—	—	2.85					



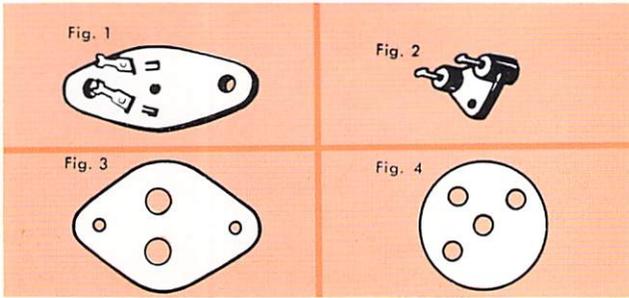
# transistors

TYPE NO.	PART NO.	REPLACEMENT PART NO.	TYPE NO.	NET PRICE
2N270	48A125271	—	—	\$ 1.32
2N274 Blue	48A134515	—	—	1.65
2N274 White	48A134516	48A134547	M4545 White	1.60
2N274	48A124321	48A134524	2N1638	1.11
2N277	48A125252	—	—	5.85
2N291	48B125294	—	—	1.62
2N364	48A124298	48A134513	2N1302	.90
2N366	48A124341	48A134513	2N1302	.90
2N373	48A124376	—	—	6.74
2N375	48A125288	—	—	4.10
2N376A	48R134571	—	—	2.10
2N384	48A124363	—	—	2.48
2N384 Blue	48K124371	48A124363	2N384	2.48
2N384 Green	48K134504	—	—	2.48
2N384 Orange	48K124372	48K124363	2N384	2.48
2N384 White	48K134410	—	—	2.48
2N404	48A134525	—	—	.80
2N406	48A124387	—	—	.61
2N408	48A128094	48A134632	M4632	.83
2N410	48A124388	—	—	.68
2N410 Green	48K869001	—	—	.76
2N441	48A124329	48K134430	2N441 Blue	6.00
2N441B	48K134430	—	—	6.00
S458A	48R134585	—	—	5.03
2N499	48A124324	—	—	3.98
2N500	48A124369	48A124324	2N499	3.98
2N502	48A124374	48A134548	M4548	1.83
2N502 Brown	48K134435	48A134548	M4548	1.83
2N502 Green	48K134437	48A134548	M4548	1.83
2N553	48A134487	—	—	8.00
2N554	48A124330	—	—	1.34
R563	48A134411	—	—	20.00
R564	48A134412	—	—	14.50
R565	48A134413	—	—	14.50
2N585	48K124342	—	—	1.66
2N618	48A124325	—	—	4.50
2N627	48A134451	—	—	3.45
2N628	48R134574	—	—	4.35
2N629	48A134452	—	—	6.90
2N641	48A134434	48A134524	2N1638	1.11
2N650	48A134511	—	—	1.85
2N651	48A124313	—	—	1.95
2N652	48A124319	48A134573	M4573	1.49
2N653	48A134400	—	—	1.65
2N654	48A124326	—	—	1.80
2N655	48A124327	—	—	1.95
2N655 Green	48A134483	—	—	2.00
2N655 Red	48K134482	—	—	2.00
2N741	48A134579	—	—	2.15
2N1023	48A134506	—	—	3.88
2N1038	48A134431	48R134585	S458A	5.03
2N1107	48A124346	—	—	2.44
2N1111	48A124351	—	—	2.60
2N1167	48A134453	—	—	18.90
2N1191	48A134491	—	—	1.20
2N1192	48A134529	—	—	1.20
2N1193	48A134500	—	—	1.50
2N1225	48A134508	—	—	5.28
2N1302	48A134513	—	—	.90
2N1526	48R134561	—	—	.71
2N1537	48R869019	—	—	5.30

TYPE NO.	PART NO.	REPLACEMENT PART NO.	TYPE NO.	NET PRICE
2N1540	48R134606	—	—	\$ 2.38
2N1593	48A134442	—	—	9.96
2N1638	48A134524	—	—	1.11
T1654	48A124383	48A134548	M4548	1.83
T1654 Blue	48K124386	48A134549	M4548 Blue	1.83
T1832	48A134521	—	—	2.93
3551	48A124395	48A134524	2N1638	1.11
3551A	48A134439	48A134547	M4545 White	1.60
3551A Blue	48K134502	48A134515	2N274 Blue	1.65
3551A Green	48K134503	48K134504	2N384 Green	2.48
3552	48A124396	48A124363	2N384	2.48
3553	48A124397	48A134506	2N1023	3.88
M4313	48A124313	—	—	1.95
M4363	48A124363	—	—	2.48
4450	48A134450	—	—	.86
M4521	48A134521	—	—	2.93
M4521 Blue	48R134614	—	—	3.22
M4525	48A134525	—	—	.80
M4545	48R134545	—	—	1.60
M4545 Blue	48A134546	—	—	1.60
M4545 White	48A134547	—	—	1.60
M4548	48A134548	—	—	1.83
M4548 Blue	48A134549	—	—	1.83
M4573	48A134573	—	—	1.49
M4576	48A134576	—	—	2.56
M4577	48R134577	—	—	2.56
M4578	48R134578	—	—	2.56
M4586	48A134586	—	—	1.82
M4589	48R134589	48R134605	M4605	1.07
M4590	48A134590	—	—	1.07
M4594	48A134594	—	—	3.22
M4595	48R134595	—	—	.80
M4596	48A134596	—	—	.91
M4597	48R134597	—	—	.99
M4597 Red	48R134598	—	—	.99
M4597 Green	48R134599	—	—	.99
M4605	48A134605	—	—	1.07
M4605 Blue	48K869018	—	—	1.12
M4605 Red	48R134618	—	—	1.07
M4606	48R134606	—	—	2.38
M4608	48R134608	—	—	1.63
M4621	48R134621	48R134632	M4632	.83
M4630	48R134630	—	—	4.00
M4632	48R134632	—	—	.83
M9015	48R869015	—	—	.76
M9022	48R869022	—	—	1.58
M9023	48R869023	—	—	.90
M9024	48R869024	—	—	2.70
M9025	48R869025	—	—	1.04
M9026	48R869026	—	—	1.04
M9027	48R869027	—	—	1.90
M9028	48R869028	—	—	1.90
M9029	48R869029	—	—	3.30
M9030	48R869030	—	—	3.30
M9031	48R869031	—	—	1.04
M9032	48R869032	—	—	3.30
M9033	48R869033	—	—	1.22
T50818	48R134550	—	—	2.06
125286	48A125286	—	—	7.10
125299	48A125299	—	—	12.75

\*Contact factory for 960MC Sub.

## TRANSISTOR SOCKETS AND INSULATORS



PART NO.	DESCRIPTION	NET PRICE
9C850066	2 contact, laminated phenolic base 1" mounting centers—Fig. 1.	.06
9B851303	2 pin, miniature socket, molded phenolic—Fig. 2.	.06
14A865875	Insulator, Mica 1 3/4" mtg. centers .005 thick—Fig. 3.	.12
14K857437	Insulator, Mica 1 3/4" mtg. centers .002 thick—Fig. 3.	.48/10
14A851751	Insulator, Mica 1" dia. .002 thick —Fig. 4.	.54/10
14K865820	Insulator, Mica 1 1/4" dia. .002 thick —Fig. 4.	.54/10



### Silicone Compound

Used when replacing or installing power transistors.

11T834678 Silicone Compound . . . . . Net Price \$ .44

### Transistor Socket Kits

**MK-10 TRANSISTOR MTG. KIT**—Includes power transistor socket, teflon insulating washer and 2 #6 sheet metal screws. . . . . Net Price \$ .23

**MK-15 TRANSISTOR MTG. KIT**—Same as MK-10 except mica insulating washer . . . . . Net Price \$ .23

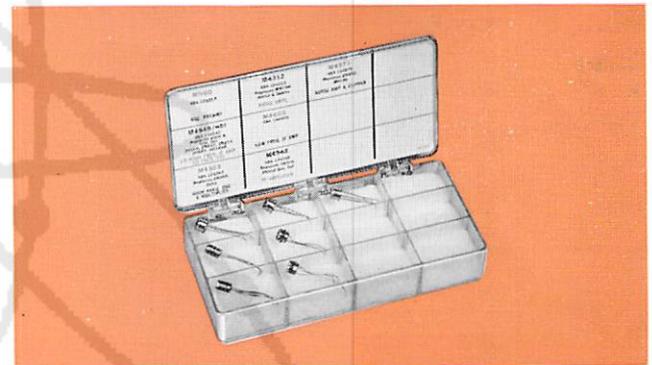
**MK-20 TRANSISTOR MTG. KIT**—Same as MK-10 except anodized aluminum insulating washer . . . . . Net Price \$ .35

## TRANSISTOR KITS

Here are two convenient kits containing the most commonly used power and signal transistors used in Motorola 2-way radio equipment. While kits are specifically designed for transistor servicing in "Motrac" radio, you will find many of the included transistors applicable for servicing other Motorola transistorized equipment. Just a few examples are:

- "Handie-Talkie" Radiophones
- Business "Dispatcher" Radio
- Remote Control Consoles
- Base Station Microphones
- VHF Pocket Receivers
- Industrial "Dispatcher" Radio
- Mobile Microphones
- "Quick-Call" Decoders
- "T-Power" Radio

Packed in a sturdy, compartmented plastic box, the kits are easily carried in a tube or tool caddy. Each package features a "kit contents identification card" affixed to the inside of the plastic box cover. The card identifies and locates each transistor supplied with the kit, describes the transistor's function and provides its appropriate part number as well as the numbers of the transistors which it can replace. Ideally suited for shop and field applications, these kits simplify transistor storage and stock control and assure you of having the right transistor readily available when you need it. Order several today for your service truck and shop.



**PK-48-1 SIGNAL TRANSISTOR KIT**—Contains 7 popular signal transistors for Audio, Low Frequency Oscillator IF Amplifier and High Frequency Oscillator RF Amplifier servicing. Extra compartments are provided for the addition of other transistors. . . . . Net Price \$11.00



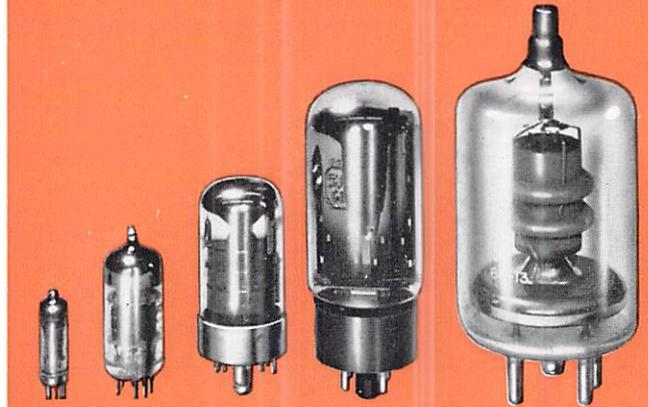
**PK-48-2 POWER TRANSISTOR KIT**—Includes 3 power transistors with an ample supply of 4 types of mica insulators, spacers, shoulder washers, 2 types of transistor sockets, complete power transistor mounting kit and tube of silicon compound. . . . . Net Price \$10.25



# tubes

## MOTOROLA "COMMUNICATIONS QUALITY" TUBES

Exact factory standards and controls are your assurance that Motorola tubes will give you the optimum performance that was designed into your radio set. Motorola tubes cost no more than "run-of-the-mill" tubes. For longer life and better performance, to get all the benefits from two-way radio, specify Motorola "Communications Quality" Tubes.



### RECEIVING TUBES

TUBE NO.	NET PRICE	TUBE NO.	NET PRICE	TUBE NO.	NET PRICE	TUBE NO.	NET PRICE	TUBE NO.	NET PRICE	TUBE NO.	NET PRICE
1A4H	\$1.50	5V4GA	\$1.72	6BL8	\$1.94	6EA7	\$1.70	6X4	\$.81	12BR7	\$1.57
1A5	1.57	5X8	1.60	6BN4	1.23	6EA8	1.32	6X5GT	1.01	12BY7A	1.57
1B3GT	1.42	5Y3GT	.86	6BN6	1.50	6EB8	1.96	6X8	1.55	12C5/12CU5	1.16
1G3GT/D	1.42	5Z3	1.62	6BN8	1.50	6EH8	1.55	6Y6GA	2.11	12CA5	1.40
1J3	1.42	6A8	3.36	6BQ5	1.16	6EM5	1.67	7A6	3.63	12D4	1.35
1K3	1.42	6AB4	1.06	6BQ6GTB/ 6CU6	2.14	6ER5	1.72	7A8	4.05	12DB5	1.35
1R5	1.32	6AC7	2.50	6BQ7A	1.94	6ES8	2.82	7AG7	4.10	12DQ6A	2.06
1T4	1.23	6AF3A	1.42	6BR8A	1.79	6EU8	1.62	7AU7	1.27	12DQ6B	2.06
1U4	1.23	6AF4A	1.96	6BS8	1.84	6EV5	1.47	7B7	3.97	12DS7	1.67
1U5	1.08	6AG5	1.27	6BU8	1.37	6EW6	1.13	7B8	2.92	12DZ6	1.25
1V2	1.03	6AG7	2.89	6BW4	1.42	6EZ5	1.67	7C5	1.72	12EK6	1.25
1X2B	1.57	6AH4GT	1.70	6BX7GT	1.96	6EZ8	1.86	7C6	3.80	12F8	1.35
2AF4B	1.99	6AH6	2.30	6BY5GA	2.50	6F5	2.25	7C7	1.76	12FM6	1.01
2BN4A	1.25	6AK5	2.06	6BY6	1.23	6F6	2.87	7EY6	1.55	12L6GT	1.23
2CY5	1.37	6AK6	1.42	6BY8	1.11	6FH5	1.23	7F7	3.90	12SA7GT	2.11
3A2	1.81	6AL3	1.35	6BZ6	1.11	6FQ5	1.99	7F8	4.29	12SN7GT	1.32
3A3	1.67	6AL5	.91	6BZ7	1.96	6FV6	1.74	7H7	3.14	12SK7GT	1.94
3AL5	.91	6AM4	2.89	6BZ8	2.19	6FY5	1.37	7N7	3.70	12SQ7GT	1.84
3AU6	1.06	6AM8	1.70	6C4	.91	6GH8	1.55	7V7	2.40	12V6GT	1.18
3BC5	1.16	6AN4	2.84	6C5	2.09	6GK5	1.99	8AW8A	1.79	12W6GT	1.47
3BN6	1.50	6AN8	1.81	6C8G	2.50	6GK6	1.35	8BQ5	1.18	12X4	.93
3BU8	1.40	6AQ5A	1.05	6CB5A	4.05	6H6	1.96	8CG7	1.23	13DE7	1.45
3BZ6	1.16	6AQ6	1.27	6CB6	1.11	6J5	1.79	8EB8	1.84	17AX4GT	1.32
3BZ6A	1.32	6AQ7GT	1.96	6CD6GA	2.84	6J5GT	1.79	8EM5	1.70	17D4	1.35
3CB6	1.11	6AR5	1.30	6CE5/6BC5	1.16	6J6	1.37	8GN8	1.86	17DQ6A	2.06
3CS6	1.18	6AS5	1.25	6CF6	1.25	6J7	2.43	10DE7	2.14	18FW6A	.98
3CY5	1.37	6AS8	1.86	6CG7	1.21	6K6GT	1.23	12AB5	1.21	18FX6A	1.06
3DK6	1.18	6AT6	.93	6CG8A	1.62	6K7	2.43	12AD6	1.18	18FY6A	.81
3DT6	1.08	6AT8A	1.86	6CL6	1.84	6K8	3.68	12AE6A	1.01	19AU4GTA	1.70
3S4	1.30	6AU4GTA	1.74	6CL8A	1.55	6L6	4.21	12AF3	1.42	19T8	1.65
3V4	1.23	6AU5GT	2.11	6CM6	1.62	6L6GB	2.06	12AF6	1.16	25BQ6GTB/ 25CU6	2.28
4BC8	1.99	6AU6	1.03	6CM7	1.57	6L7	3.61	12AL5	.93	25CD6GB	2.87
4BQ7A	1.96	6AU8A	1.72	6CN7	1.35	6Q7	2.60	12AQ5	1.27	25DN6	3.33
4BZ6	1.11	6AV5GA	1.96	6CQ8	1.62	6S4A	.98	12AT6	.91	25EH5	1.13
4BZ7	1.99	6AV6	.81	6CS6	1.16	6SA7GT	2.11	12AT7 8M	1.50	25L6GT	1.16
4ES8	2.28	6AW8A	1.81	6CS7	1.45	6SC7	2.06	12AU6	1.06	25W4GT	1.32
5AM8	1.74	6AX4GT	1.30	6CU5	1.16	6SD7GT	1.99	12AU7A	1.21	32ET5A	1.08
5AN8	1.96	6AX5GT	1.45	6CU6	2.14	6SF5	1.81	12AV5GA	1.89	35C5	1.06
5AQ5	1.08	6BA6	.98	6CU8	2.04	6SG7	2.25	12AV6	.81	35L6GT	1.18
5AS4A	1.27	6BA7	2.92	6CX8	1.79	6SH7	2.19	12AV7	1.74	35W4	.52
5AT8	1.81	6BA8A	1.81	6CY5	1.35	6SJ7	2.04	12AX4GTA	1.32	35Y4	2.35
5B8	2.60	6BC4	2.40	6CY7	1.57	6SK7	1.94	12AX7	1.25	35Z5GT	.91
5BK7A	1.67	6BC5/6CE5	1.16	6CZ5	2.01	6SK7GT	1.94	12AY7	2.45	36AM3	.74
5BQ7A	1.96	6BC8	1.96	6DA4	1.32	6SL7GT	1.72	12AZ7A	1.35	50A5	3.07
5BR8	1.79	6BE6	1.08	6DE4	1.37	6SN7GTB	1.27	12B4A	1.40	50B5	1.30
5CG8	1.57	6BF5	1.74	6DE6	1.21	6SQ7	1.84	12BA6	.81	50C5	1.06
5CL8A	1.55	6BG6GA	3.19	6DE7	1.45	6T8	1.65	12BE6	.86	50EH5	1.13
5EA8	1.55	6BH6	1.32	6DG6GT	1.23	6TF4	1.76	12BF6	1.08	50L6GT	1.25
5EU8	1.57	6BH8	1.72	6DK6	1.16	6U8	1.62	12BH7A	1.50	80	1.42
5T4	4.26	6BJ6	1.27	6DN7	1.72	6V3A	2.23	12BL6	1.13	83	1.85
5T8	1.67	6BJ8	1.72	6DR7	1.45	6V6	3.31	12BN6	1.94	7025	1.42
5U4GB	1.03	6BK5	1.81	6DQ6B	2.04	6V6GT	1.06	12BQ6GTB/ 12CU6	2.19	117Z6GT	3.48
5U8	1.63	6BK7A	1.65	6DT6	1.06	6W4GT	1.18				
5V3	1.89	6BL7GTA	2.04			6W6GT	1.40				

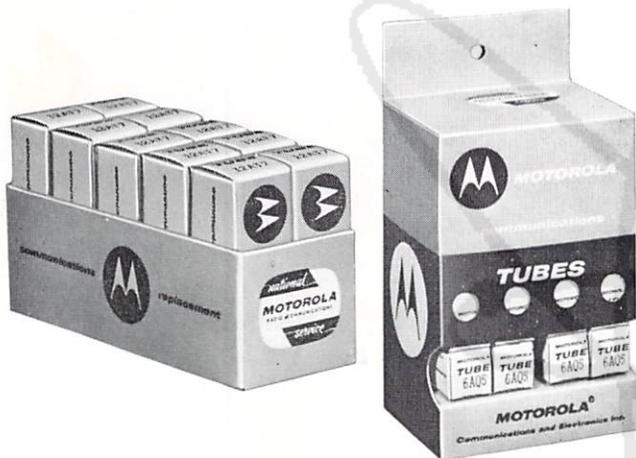
## SPECIAL PURPOSE TUBES

TUBE NO.	NET PRICE	TUBE NO.	NET PRICE	TUBE NO.	NET PRICE	TUBE NO.	NET PRICE	TUBE NO.	NET PRICE
0A2	\$1.38	3A4	\$1.04	807	\$3.00	5692	\$7.12	6201	\$ 2.54
0A3	1.33	3B4	2.75	816	2.64	5725	3.80	6336A	20.20
0B2	1.24	3B28	6.00	829B	16.60	5726	1.33	6360	5.15
0C2	1.28	*4CX250B	39.95	832A	13.90	5763	2.19	6397	8.30
0C3	1.30	4D21/4-125A		866A	2.57	5814A	2.85	6476	14.95
0D3	1.24	use 6155		955	7.05	5829	4.20	6520	9.00
0Z4A	1.04	4X250B use		CK1024	4.00	5894	25.00	6627	4.20
1AD4	2.80	4CX250B		1635	3.32	5963	1.29	6661/6BH6	1.34
1AG4	3.05	4-1000A	132.00	2050	2.04	5965	1.69	6883 use 8032	
1AG5	2.05	5R4GY	1.76	5651	1.78	CK5971	5.85	6907	24.75
1P39	1.99	6AN5	3.75	5654	2.62	5998	12.95	6922	4.75
ML2C39WA use		6AS6	3.43	5670	3.00	6021	4.80	6939	12.00
197T119A01		6AS7G	4.27	CK5672	2.27	CK6029	5.00	7054 use 8077	
2C43	26.95	6BF7	4.20	5676	3.05	6080	5.35	7056	1.20
2D21	1.12	6BG7 use 6BF7		CK5678	2.27	6087	5.75	7058	1.30
2E24	5.25	6J4	3.61	5686	3.40	6136	2.39	7059	1.75
2E26	3.85	100th	23.60	5687	4.05	6146	4.35	7060	1.95
2E36	5.81	254	25.00	5691	7.55	6155	36.00	7119	2.95

### PICTURE TUBES

7167	\$1.89
7258	1.55
7551	3.50
7735A (Vidicon)	
	205.00
8032	5.00
8077	1.55
9003	4.65
197T119A01	32.15

\*Motorola Recommended Replacement for 4X250B.



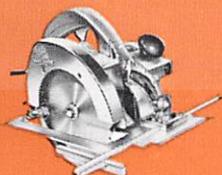
### GET VALUABLE PREMIUMS FROM YOUR MOTOROLA TUBE AND VIBRATOR PURCHASES

Here are just a few of the outstanding premium selections available to you. Motorola has expanded its premium line to include many new excellent items for both shop and home use. For a full listing of premiums, write for "Motorola Premium Catalog."

Remember, you get one Premium Coupon for every Ten-Pak of Motorola Tubes or Five-Pak of Motorola Vibrators you purchase . . . 2 Premium Coupons for Every 20-Pak Dispenser.

Note: The Expiration Date for Premium Coupons has been extended to November 1, 1963.

475  
Heavy duty  
7 1/4" Thor "Speedsaw"



\$74.95 value    413 coupons

ST-135  
Tube Caddy



\$21.95 value    115 coupons

ST-150  
VACO  
Self-Standing  
Nut Driver Set



\$9.00 value    43 coupons

### valuable premiums for the home

T10  
Sunbeam automatic  
toaster



\$21.00 value    153 coupons

HMD  
Sunbeam portable  
"Mixmaster"



\$22.50 value    164 coupons

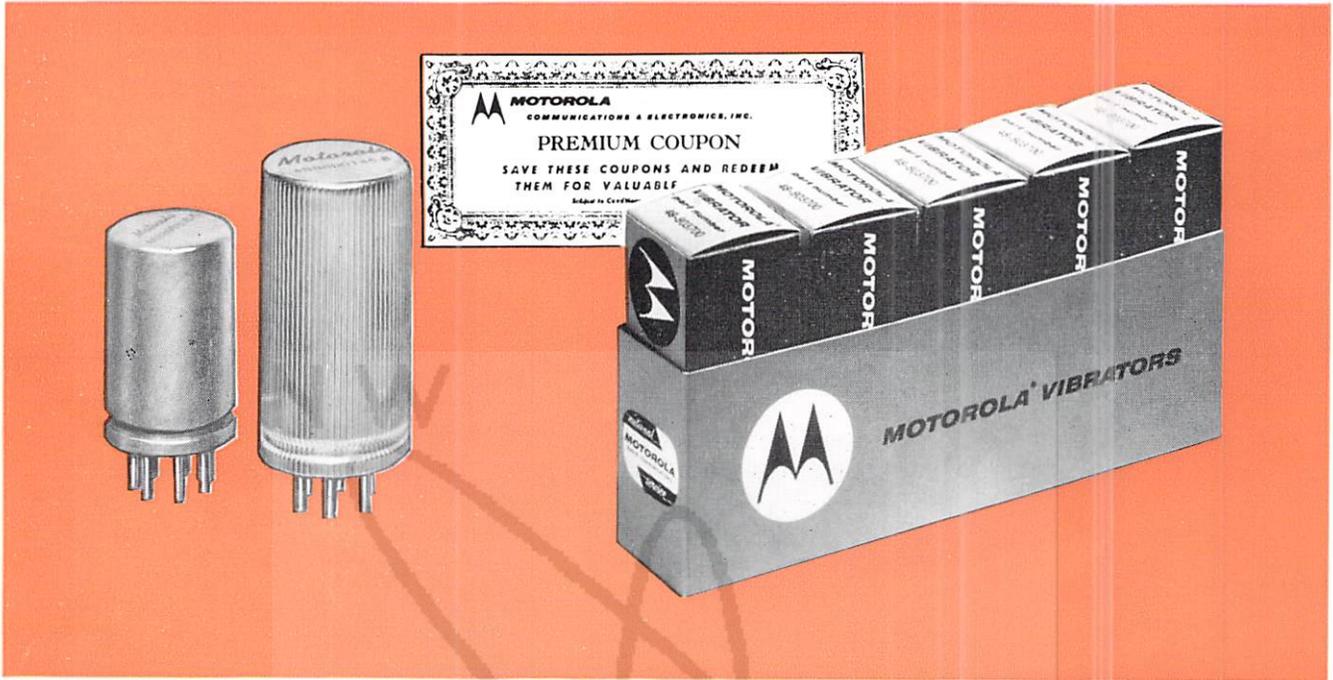
127  
Bell & Howell "Infallible"  
Electric eye still camera kit



\$9.00 value    43 coupons



# vibrators



## MOTOROLA "COMMUNICATIONS QUALITY" VIBRATORS

Motorola replacement vibrators are designed and carefully inspected to meet the stringent requirements of users such as police and fire departments, taxis and truckers, and utilities. They meet the exacting mechanical and electrical specifications established by the engineers who design Motorola two-way radio. They are subjected to thorough quality control inspection by Motorola's Quality Control Department. These extra steps are the reasons you can depend upon Motorola vibrators to provide you with long uninterrupted service even when they are subjected to severe shock and vibration . . . even when they are operated under extreme temperature conditions. To keep maintenance costs to a minimum, specify and use Motorola vibrators.

### Extra Value at No Extra Cost

Valuable Coupon Enclosed with Motorola Vibrators in Five-Pak Carton.

Order Motorola Vibrators by the Five-Pak carton (5 vibrators—not assorted) to receive the same valuable coupons which are also enclosed with Ten-Pak tube cartons. These coupons are good toward any of the valuable premiums shown on page 27. For a complete list of premiums available, send for the Motorola Premium Catalog.

*NOTE: The expiration date for premium coupons has been extended to Nov. 1, 1963.*

PART NO.	VOLTS	CYCLES	TYPE	PIN BASE	SIZE IN INCHES	NET PRICE
48A 27393	6	115	INT	4	1½ x 3¼	2.88
48A 81687	6	95	INT	4	1½ x 2⅞	4.83
48B 800145	6	95	INT	6	1½ x 2⅞	5.75
48B 803053	6	115	INT	4	1½ x 2⅞	6.50
48B 803700	6	115	SYN	7	1½ x 2⅞	4.53
48C 847730	6/12	95	INT	7	1½ x 2⅞	5.60
48B 880261	6	115	INT	4	1½ x 2⅞	3.70
48B 893518	2	115	SYN	7	1¾ x 2¼	5.76

48C 834317 VIBRATOR FOR TA 142 CONVERTER Net Price \$11.26

### Vibrator Puller

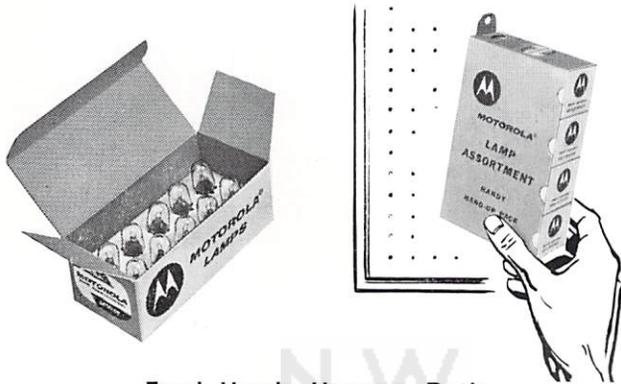


For easy removal of vibrators

Part No. 66T838914 Net Price \$1.75

# MOTOROLA REPLACEMENT LAMPS

Precision made to give long service, uniform light and trouble-free operation. Replacement lamp selected should have the same type number as original.



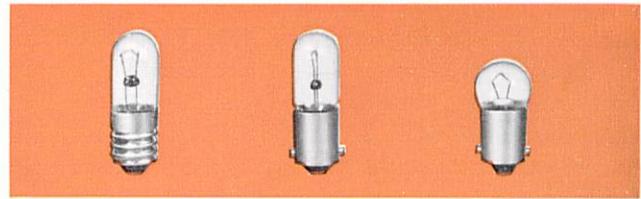
### Free! Handy Hang-up Pack

As a bonus, with each order of 6 small Lamp-Paks\* or 4 large Lamp-Paks\*, you receive free a handy hang-up pack. Save valuable storage space by utilizing unused wall space in this way.

\*AC-DC pilot bulbs and Type 63K miniature lamps are in large cartons. All other lamps are in small cartons except 65K 817617 which is individually packaged.

Neon Glow Lamps					
PART NO.	TYPE	VOLTS	WATTS	BASE	NET PRICE FOR 10**
65K 898920	NE51	65	.04	S C BAY	1.90
65K 817617	NE2	65	1/25	Unbased Wire Term.	.80

\*\* Price includes F.E.T.



### Miniature Lamps

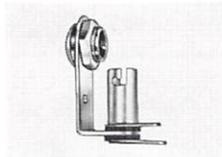
PART NO.	TYPE	VOLTS	AMPS.	BULB AND BASE	BEAD	NET PRICE FOR 10**
65X 35438	48	2.0	.06	TUB SCR	PINK	.92
65K 810328	43	2.5	.5	TUB BAY	WHITE	.92
65K 834423	1490	3.2	.16	TUB BAY	WHITE	1.04
65K 831645	45	3.2	.35	TUB BAY	GREEN	.92
65X 14549	40	6-8	.15	TUB SCR	BROWN	.92
65X 11854	47	6-8	.15	TUB BAY	BROWN	.92
65X 4151	51	6-8	.20	RND BAY	WHITE	.92
65X 10867	44	6-8	.25	TUB BAY	BLUE	.92
65X 12855	55	6-8	.40	RND BAY	WHITE	.92
65X 891831	63K	6-8	.73	CAND SCR	WHITE	2.44
65K 857026	53	12-16	.10	RND BAY	WHITE	.92
65R 535060	57X	12-16	.23	RND BAY	WHITE	1.22
65C 82010C02	1445	18	.15	RND BAY	BROWN	1.22
65A 810161	1829	28	.07	TUB BAY	GREEN	2.14

AC-DC Pilot Lamps					
PART NO.	TYPE	VOLTS	WATTS	BULB	NET PRICE FOR 10**
65A 808464	S6 CAND	115	3.0	CLEAR	3.50
65X 80138	S6 CAND	115	6.0	CLEAR	2.00
65A 852594	C7 CAND	115	10	CLEAR	2.30

\*\* Price includes F.E.T.

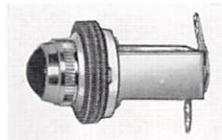
## PILOT LIGHT ASSEMBLIES

Vertical type half-inch open type pilot light for miniature bayonet base lamps. Mounts in 7/16" hole.



PART NO.	JEWEL COLOR	JEWEL FINISH	NET PRICE
60A 848400	RED	FROSTED	.27
60K 848401	GREEN	FROSTED	.27

Horizontal type half-inch for miniature bayonet base lamps. Mounts in 11/16" hole. Depth back of panel is 1 1/8".



PART NO.	JEWEL COLOR	JEWEL FINISH	NET PRICE
60B 17134	RED	CLEAR GLASS	.75
60K 81193	GREEN	CLEAR GLASS	.75
60K 84438	WHITE	CLEAR GLASS	.75
60K 834434	AMBER	CLEAR GLASS	.75
60K 834437	BLUE	CLEAR GLASS	.75



One-inch type. Takes miniature screw base lamp, replaceable from front of panel. Mounts in 1" hole. Depth back of panel is 1 1/4". Does not include lamp socket.

PART NO.	JEWEL COLOR	JEWEL FINISH	NET PRICE
60B 80139	RED	FROSTED	.70
60K 80140	GREEN	FROSTED	.70
60A 82164	SOCKET	FOR ABOVE	.24



### Jewels and Sockets

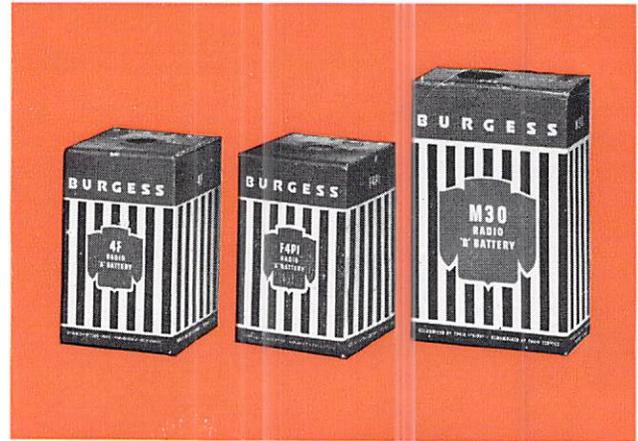
Used on latest TCN6000 series control heads and "Motrac" radio control heads.

PART NO.	DESCRIPTION	NET PRICE
61B 859620	JEWEL, RED (SNAP-IN TYPE)	.36
61K 859621	JEWEL, GREEN (SNAP-IN TYPE)	.36
9B 859619	SOCKET FOR ABOVE	.09
61A 865158	JEWEL, RED (SCREW-IN TYPE)	.63
61A 865159	JEWEL, GREEN (SCREW-IN TYPE)	.63
	BOTH USED ON "MOTRAC" RADIO	
9B 863168	SOCKET FOR ABOVE	.10



# batteries

Motorola batteries are specially selected for high quality characteristics necessary in critical electronic and communications equipment applications. Close attention to rapid stock turnover and ideal storage conditions assure the user of freshness at all times. An extensive line of battery types for most communications needs gives the widest possible choice and assures immediate availability and prompt delivery.



## Portable "A" Batteries

PART NO.	OTHER NUMBERS		VOLTS	SIZE IN INCHES	TERMINAL	NET PRICE
	BURGESS	EVEREADY				
60B82458B01	130	—	1½	1.005 diam. x 1.950	Flashlight "C"	.16
60B864085	210	1050	1½	1.343 diam. x 2.406	Industrial "D"	.16
60A852116	2	950	1½	1¼ diam. x 2½	Flashlight "D"	.13
60B855262	NE	W468	1½	.439 diam. x 1.180	Flashlight	.08
48B800319	4F	742	1½	2⅝ x 2⅝ x 4⅛	2 Hole Socket	1.15
60A824624	—	1016	1½	1⅝ x 1½ x 2¼	2 Brass Caps 2 Zinc Caps	.32
60B82104C01	4D	—	1½	2.65 x 2.65 x 2.8	2 Hole Socket	1.35
60A480415	2F	W353	1½	2⅝ x 1⅜ x 4¼	2 Hole Socket	.77
60T847888	F4P1	744	6	2⅝ x 2⅝ x 4⅛	2 Hole Socket	1.16
60B848432	A4	—	6	1½ x 1½ x 2½	Flat Contact	.69
60T847629	C5	717	7½	2⅝ x 1⅝ x 3½	3 Hole Socket	1.15
60B82282C01	2U6	216	9	1.9 x 1.03 x .68	Snap type	.48

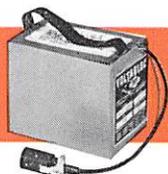
## Portable "B" Batteries

60B82457B01	4156	—	22½	3.5 x 2.87 x 2.06	Screw Terminals	1.61
60A824625	U20	413	30	1½ x 5⅝ x 2⅝	Flat Contact	1.23
60B82145C01	Z30	738	45	3 x 2.3 x 4.06	6 Hole Socket	2.76
48A800451	M30	482	45	3⅝ x 1¾ x 5½	6 Hole Socket	2.70
60B852117	XX45, V45	467	67½	2¾ x 1⅝ x 3½	Snap Type	2.45
60T847252	K45	457	67½	2⅝ x 1⅝ x 2¼	Snap Type	2.42

## Mercury Batteries



PART NO.	VOLTS	CAPACITY MAH	HEIGHT INCHES	DIA.	TERMINAL	OTHER NUMBERS	NO. OF CELLS IN SERIES	NET PRICE
60K868968	2.5	1000	1.305	.655	Flat Contact	E132 TR132R	2	.84
60K868967	4.0	1000	1.960	.655	Flat Contact	E133 TR133R	3	1.00
60B863919	6.5	1000	3.250	.655	Flat Contact	TR135R	5	1.85



### Nickel Cadmium Battery

6 volt, rechargeable Ni-Cad Battery, designed for use with "H" and "P" series radiophones. Hermetically sealed and does not require the addition of electrolyte during its service life.

NLN6134A (was NK127) Ni-Cad Battery . . . . . Net Price \$53.00

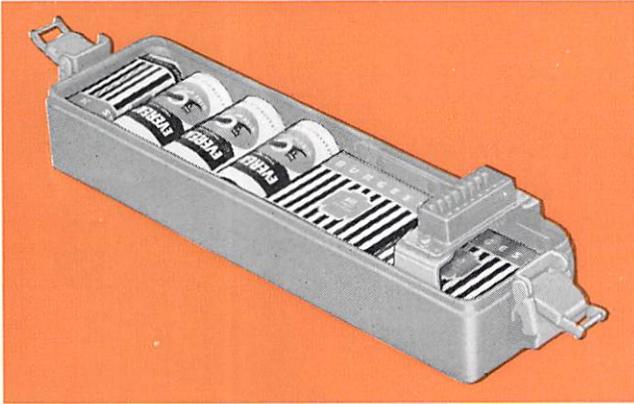


### Storage Battery

Miniature lead storage battery for "Handie-Talkie" portable radiophones using the P9015 power supply.

48C893511 Storage Battery (Available wet or dry. Specify which, when ordering) . . . . . Net Price \$7.35

## BATTERY KITS



Complete battery kits are available for all Motorola Portable equipment. Ordering by kits simplifies your purchasing and stock control and assures you of having a full battery complement available when change-outs are required.

### For Completely Transistorized Receiver Models (Handie-Talkie and Pack Set)

- NLN6142A Kit for NPN6021A (standard duty power supply).  
Net Price **\$6.48**
- NLN6143A Kit for NPN6022A (extra duty power supply).  
Net Price **\$7.41**
- NLN6144A Kit for NPN6023A (pack set power supply).  
Net Price **\$13.95**

### For Partially Transistorized Receiver Models (Handie-Talkie and Pack Set)

- NLN6006A Kit for NU125/NPN6000A (standard duty power supply).  
Net Price **\$5.92**
- NLN6007A Kit for NU126/NPN6001A (extra duty power supply).  
Net Price **\$7.10**
- NLN6008A Kit for NU144/NPN6002A (pack set power supply).  
Net Price **\$13.11**



### Pocket Receiver (All Models)

- NLN6010A—Consists of two (2) 4 volt 60K868967 batteries and one (1) 2.5 volt 60K868968 battery . . . . . Net Price **\$2.84**
- NK149—Consists of ten (10) 4 volt 60K868967 batteries.  
Net Price **\$10.00**
- NLN6018A—Consists of ten (10) 2.5 volt 60K868968 batteries.  
Net Price **\$8.40**

### Fully Transistorized "Handie-Talkie" 2-Way Radiophone (H21DCN, H23DCN or R23DCN)

- \*NLN 6238A—Rechargeable Nickel-Cadmium pack, 14.4 volts . . . . . Net Price **\$58.00**
- NLN 6239A—Mercury Battery Pack, 16.8 volts . . . . . Net Price **\$8.00**
- \*Cells made in West Germany.



### Pocket Transmitter (H11, H13 NBC)

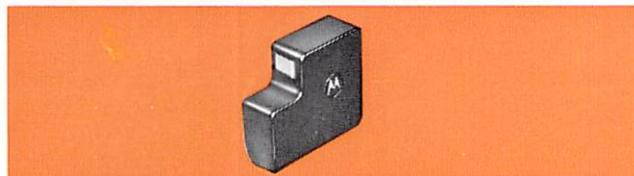
- NLN6116A—Consists of four (4) 4 volt mercury batteries.  
Net Price **\$4.00**



### Pocket Transmitter (H21, H23 NAC)

- NLN6020A—Consists of five (5) 30 volt and one (1) 1½ volt batteries . . . . . Net Price **\$6.31**

## RECHARGEABLE NICKEL CADMIUM BATTERIES



### Pocket Receiver

NLN6012A RECHARGEABLE  
NICKEL-CADMIUM BATTERY

MODEL NO.	DESCRIPTION	NET PRICE
NLN6012A	Rechargeable Nickel-Cadmium Battery (10.5 volt)	19.50



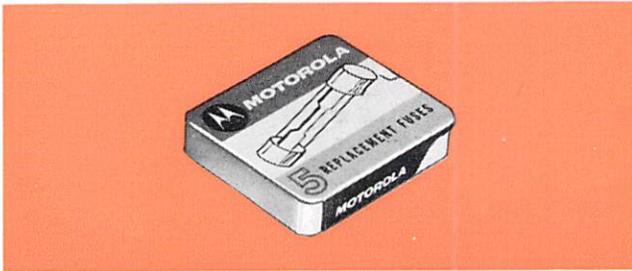
### Pocket Transmitter

NLN6117A RECHARGEABLE  
NICKEL-CADMIUM BATTERY

MODEL NO.	DESCRIPTION	NET PRICE
NLN6117A	Rechargeable Nickel-Cadmium Battery Kit. Consists of 2 Ea. 60C82693B01 Batteries	49.50



# fuses



**3AG (MDL) Type Slo-Blo Fuses**

PART NO.	AMPS	VOLTS	NET PRICE PER BOX OF 5
65K 817952	.15	125	.84
65K 892098	3/16	125	.84
65K 802992‡	1/4	125	.84
65K 817954	3/10	125	.84
65K 834465‡	4/10	125	.84
65K 475395*‡	1/2	125	.84
65K 817953	6/10	125	.84
65A 892099*‡	3/4	125	.84
65K 804910*‡	1	125	.84
65K 834466‡	1 1/4	125	.78
65K 804909	1.6	125	.78
65K 804908*‡	2	125	.78
65K 817955*	3	125	.63
65K 834464	4	125	.63
65K 817956*‡	5	125	.63
65B 475247*‡	6 1/4	32	.63
65K 475248	8	32	.63
65X 834619*‡	10	32	.63
65K 804906‡	15	32	.63
65K 850521‡	20	32	.63

**3AG (AGC) Type Quick To Medium Acting Fuses**

PART NO.	AMPS	VOLTS	NET PRICE PER BOX OF 5
65A 61668	1/16	250	.63
65K 474899	1/8	250	.63
65K 20987‡	1/4	250	.42
65X 21975‡	1/2	250	.42
65K 898635	3/4	250	.42
65K 52281‡	1	250	.25
65X 890033‡	1 1/2	250	.25
65K 42092*‡	2	250	.25
65K 20404‡	3	250	.22
65A 51029*‡	5	32	.16
65K 15270‡	6	250	.32
65K 86099‡	7 1/2	32	.16
65A 10266*‡	10	32	.16
65X 4165*‡	15	32	.16
65K 4637*‡	20	32	.15
65K 61682*‡	25	32	.19
65K 20986*‡	30	32	.19

**4AG (AGS) Type Quick to Medium Acting Fuses**

PART NO.	AMPS	VOLTS	NET PRICE PER BOX OF 5
65K 81441‡	5	32	.36
65X 84433‡	15	32	.36
65K 109030	20	32	.36
65A 41492‡	30	32	.36

**8AG (AGX) Type Fast Acting Instrument Fuses**

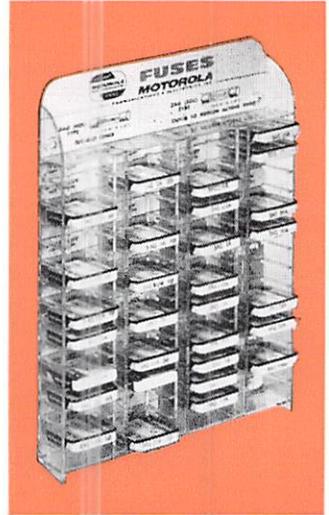
PART NO.	AMPS	VOLTS	NET PRICE PER BOX OF 5
65A 42869‡	1/200	250	1.75
65K 34860	1/4	250	.39
65K 40217	1/2	250	.43

**4AG (MDM) Type Slo-Blo Fuses**

PART NO.	AMPS	VOLTS	NET PRICE PER BOX OF 5
65K 880865	1	250	1.11
65K 880866	2	250	1.11
65K 800751	3.2	32	.84
65K 800752	4	32	.84
65K 801233	6 1/4	32	.84
65K 800754	8	32	.84

## WALL-MOUNT FUSE ASSORTMENT

A \$16.25 Value for \$14.00



Motorola-recommended assortment contains 30 boxes of the fuses most commonly used in Motorola 2-way radio equipment. Sturdy plastic holder is designed for wall-mounting. Card at rear of transparent holder is imprinted with identification of fuse by amperage, voltage and Motorola part number. Holder actually has provisions for holding 60 boxes of fuses, giving the user the opportunity to supplement the Motorola-recommended assortment with other fuses indicated on the identification card.

‡Indicates fuses included in assortment.

PDK-65-2 MOTOROLA-RECOMMENDED ASSORTMENT WITH FUSE RACK . . . . . Net Price \$14.00  
 ST 134 PLASTIC FUSE RACK ONLY . . . . . Net Price \$ 1.20



## HANDIE-PAC FUSE ASSORTMENT

Ideal for use away from the shop . . . fits in the tool box or stores readily in the service vehicle. Fuses are easily identified through transparent plastic top. Standard assortment consists of 15 assorted boxes of the fuses commonly used in 2-way radio servicing. Assortment includes fuses set off by asterisks (\*) in listing above. You may also make up your own assortment. In this case, the holder is free, but the price of the assortment will vary according to your selection.

PDK-65-1 STANDARD FUSE ASSORTMENT . . . . . Net Price \$7.05 (indicated by asterisks)

## Paper Tubular Fuses

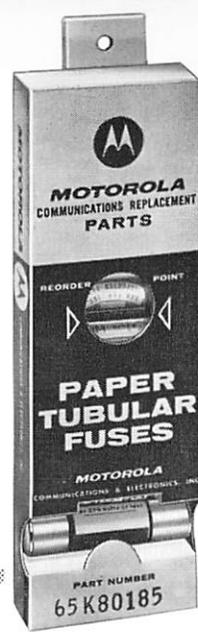
PART NO.	AMPS	NET PRICE
65K 810140	6	1.04/10
65K 80185	10	1.04/10
65A 50226	15	1.04/10
65K 52482	20	1.04/10
65K 834356	25	1.04/10
65K 50671	30	1.04/10
65X 84434	35	2.10/10
65K 830314	40	2.10/10
65A 83860	50	2.10/10
65A 891578*	60	.58 ea.

\*Not included in dispenser assortment.

Special Dual Element.

2" x 1/4" up to 30 amps.

3" x 3/4" over 30 amps.



## Handy Fuse Dispenser Included At No Extra Cost

The dispenser contains 10 fuses of the same type with the appropriate part number prominently stamped on the box. The suggested "reorder point" on the box will help you maintain sufficient inventory. When no fuse is visible in the cut out circle, it means that five or less fuses remain in the carton and that another handy fuse dispenser should be ordered.

The dispenser is designed for hanging on any unused wall space. It also protects the fuses and keeps them at your fingertips in your tool box when you are engaged in field operations.



Fig. A



Fig. B



Fig. C

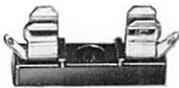


Fig. E

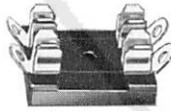


Fig. F

## Fuse Mountings—Extractor Posts

PART NO.	DESCRIPTION	FOR FUSES	FIG.	NET PRICE
9C 82083C02	Miniature fuse Extractor post	3AG	A	.39
9A 890375	Panel mount, Thumb knob	3AG—3AB	B	.63
65A 81202	Panel mount, Thumb knob	4AG	B	.84
1A 82779C01	Fuse holder w/clips & spring less leads	3AG	C	.16
31A 824974	Single fuse mtg.	3AG-3AB	E	.11
31K 836731	Double fuse mtg.	2—3AG	F	.35



## Knife Type Fuse and Links

PART NO.	DESCRIPTION	NET PRICE
65B 892552	Knife type fuse w/100 Amp. Element	2.84
65K 892553	100 Amp. Link only	.14
65K 855995	50 Amp. Link only	.15

## Fuse Clip Clamps



Clamps onto fuse ferrule and can be tightened with knob to provide a positive connection.

PART NO.	DESCRIPTION	NET PRICE
42K 838709	For 1-30 Amp	.98
42K 838552	For 30-60 Amp	1.54
42K 838711	For knife type	1.51

## Fuse Block & "A" Relay Assemblies



Assembly contains relay and fuse block supplied with the "A" cable attached.

PART NO.	DESCRIPTION	NET PRICE
1V 859440	6 or 12V, large fuse clips, horn relay.	10.68
1V 859448	6 volt, large fuse clips, solenoid relay.	8.86
1V 859445	12 volt, small fuse clips, horn relay.	9.91



## Porcelain Fuse Blocks

PART NO.	POLE	CAPACITY AMPERE	NET PRICE
67B 892616	Single	1-30	.48
67B 80179	Double	1-30	.67
67B 834386	Triple	1-30	1.02
67B 83859	Single	31-60	1.05
67B 892551	Single	61-100	2.24

## Collar Fuse Adaptor

Adapts 1-30 amp fuses to 30-60 amp fuse holder. Useful in 12 volt conversions.

PART NO.	NET PRICE
43A 831204	.64/Pr.

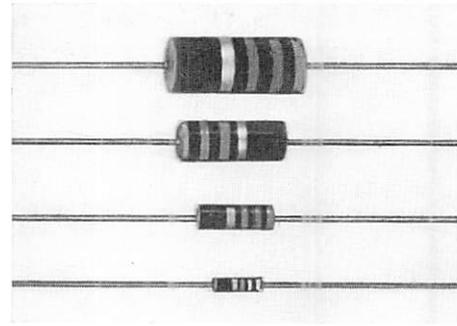




# resistors

## CARBON

### RESISTORS



Molded, insulated composition resistors designed to give high quality performance at low cost. Leads are permanently anchored to insure noise-free operation. K=1,000. MEG.=1,000,000. Available in resistor file cards only (10 resistors to a card).

#### 2 New Resistor Assortments . . .

**\$4.35 Value Resistor Card Cabinet Included Free**

**PDK-6-1 RESISTOR ASSORTMENT** — Contains 62 cards of the most commonly used values of ½-watt, 1-watt and 2-watt resistors for general replacement. Types included in assortment are indicated by asterisks.\*

**PDK-6-1 RESISTOR ASSORTMENT** . . . . . Net Price **\$64.00**

**PDK-6-2 RESISTOR ASSORTMENT** — Contains 63 cards of the most commonly used values of ¼-watt and ½-watt resistors. This assortment was specifically designed for resistor replacement in the Motrac Radio, "Handie-Talkie," pocket transmitter and other miniaturized-type radio equipment. Types included in this assortment are indicated by ‡ sign.

**PDK-6-2 RESISTOR ASSORTMENT** . . . . . Net Price **\$64.00**

With either assortment, you receive free a \$4.35 Resistor Card Cabinet. Or, if you desire, you may make up your own assortment of 60 Resistor File Cards from the selection shown. Each such order will entitle you to receive free the \$4.35 Resistor Card Cabinet. Price will depend upon your selection.

**ST-105 Resistor card cabinet only** . . . . . Net Price **\$4.35**



¼ Watt—10%

Net Price Per Resistor Card (10)—\$1.10

OHMS	PART NO.	OHMS	PART NO.	OHMS	PART NO.	OHMS	PART NO.
10	6K 129755	330	6K 129775	8200‡	6K 128686	220K‡	6K 129147
15	6K 131377	390	6K 129863	10K‡	6K 129225	270K‡	6K 129227
18	6K 131650	470‡	6K 127801	12K‡	6K 129230	330K‡	6K 129228
22	6K 131641	560	6K 129620	15K‡	6K 127805	390K	6K 128632
27	6K 131594	680‡	6K 128599	18K	6K 128904	470K‡	6K 129148
33	6K 129754	820‡	6K 129432	22K‡	6K 128685	560K	6K 129247
39	6K 131652	1000‡	6K 127802	27K‡	6K 127806	680K	6K 129010
47‡	6K 129233	1200‡	6K 129235	33K‡	6K 127807	820K	6K 129012
56	6K 129860	1500‡	6K 127803	39K‡	6K 128903	1.0 MEG. ‡	6K 129013
68	6K 129861	1800‡	6K 129269	47K	6K 128902	1.2 MEG.	6K 129864
82‡	6K 129224	2200‡	6K 128689	56K‡	6K 129242	1.5 MEG.	6K 129014
100‡	6K 129753	2700‡	6K 128688	68K	6K 129144	1.8 MEG.	6K 129865
120	6K 129617	3300‡	6K 129231	82K‡	6K 129145	2.2 MEG.	6K 129009
150‡	6K 129862	3900‡	6K 129232	100K‡	6K 129226	2.7 MEG.	6K 129239
180‡	6K 129662	4700‡	6K 127804	120K‡	6K 128987	3.3 MEG.	6K 129011
220‡	6K 127800	5600‡	6K 129433	150K‡	6K 129146	3.9 MEG.	6K 129866
270‡	6K 129752	6800‡	6K 128687	180K	6K 129229	4.7 MEG.	6K 129015
						5.6 MEG.	6K 129234

½ Watt—10% Net Price Per Resistor Card (10)—\$.90

OHMS	PART NO.	OHMS	PART NO.	OHMS	PART NO.	OHMS	PART NO.
10*	6R 5621	390*	6R 5554	15K*‡	6R 6477	560K‡	6R 5697
12	6R 2030	470*‡	6R 6090	18K	6R 5591	680K*‡	6R 6475
15	6R 2034	560	6R 6291	22K*‡	6R 6397	820K	6R 6429
18	6R 2031	680*	6R 6040	27K*	6R 6434	1.0 MEG.*‡	6R 6046
22	6R 6406	820	6R 6269	33K*‡	6R 6410	1.2 MEG.	6R 5653
27	6R 5683	1000*‡	6R 6229	39K*	6R 6487	1.5 MEG.*	6R 6460
33	6R 2036	1200	6R 6393	47K*‡	6R 6048	1.8 MEG.	6R 488215
39	6R 2085	1500*	6R 6038	56K*	6R 6378	2.2 MEG.*‡	6R 6433
47	6R 5550	1800	6R 2089	68K*‡	6R 6074	2.7 MEG.	6R 488136
56	6R 5614	2200*‡	6R 6069	82K	6R 5644	3.3 MEG.	6R 6497
68	6R 2039	2700*	6R 5577	100K*‡	6R 6031	3.9 MEG.	6R 490110
82	6R 2035	3300*‡	6R 5581	120K*‡	6R 5631	4.7 MEG.*	6R 6446
100	6R 6326	3900*	6R 5659	150K*‡	6R 6398	6.8 MEG.	6R 2097
120	6R 5551	4700*‡	6R 6080	180K*‡	6R 6444	8.2 MEG.	6R 5585
150*	6R 6373	5600*	6R 6117	220K*‡	6R 6407	10 MEG.	6R 5622
180*	6R 5660	6800*	6R 6428	270K*‡	6R 6414	12 MEG.	6R 400334
220*	6R 6270	8200	6R 2004	330K*‡	6R 2096	15 MEG.	6R 476065
270*	6R 6432	10K*‡	6R 6320	390K*‡	6R 5646	22 MEG.	6R 488158
330*	6R 6022	12K	6R 6394	470K*‡	6R 6377		

1 Watt—10% Net Price Per Resistor Card (10)—\$1.10

OHMS	PART NO.	OHMS	PART NO.	OHMS	PART NO.	OHMS	PART NO.
10*	6R 488022	270*	6R 6336	3900	6R 5618	56K	6R 6402
15	6R 118227	330	6R 6254	4700*	6R 5576	68K*	6R 6236
22*	6R 488026	390	6R 5598	5600	6R 5654	82K	6R 5575
27	6R 5676	470	6R 5593	6800	6R 5691	100K*	6R 6328
33	6R 476075	560	6R 5584	8200	6R 5610	120K	6R 5698
39	6R 3961	680	6S 5594	10K*	6R 6430	150K	6R 5721
47	6R 5583	820	6R 5701	12K	6R 5656	180K	6R 488029
56	6R 2037	1000*	6R 6327	15K*	6R 6431	220K*	6R 5574
68	6R 2032	1200	6R 5770	18K	6R 5734	270K	6R 6491
82	6R 488113	1500	6R 5700	22K*	6R 6341	330K	6R 5717
100*	6R 6415	1800	6R 5620	27K	6R 6427	390K	6R 6723
120	6R 488021	2200	6R 6409	33K*	6R 6400	470K	6R 6459
150	6R 6330	2700	6R 5686	39K	6R 5588	1.0 MEG.	6R 5767
180*	6R 6390	3300*	6R 5718	47K*	6R 6462	1.5 MEG.	6R 488031
220	6R 6389					2.7 MEG.	6R 488057

2 Watt—10% Net Price Per Resistor Card (10)—\$1.90

OHMS	PART NO.	OHMS	PART NO.	OHMS	PART NO.	OHMS	PART NO.
10	6R 488033	390	6R 3995	5600	6R 5765	68K*	6R 2079
15	6R 476059	470	6R 2010	6800	6K 5690	82K	6R 5762
22	6R 2009	560	6R 488036	8200	6R 5725	100K	6R 2099
27	6R 3994	680	6R 490015	10K	6R 6299	120K	6R 5781
33	6R 488016	820	6R 2046	12K	6R 5766	180K	6R 2012
39	6R 488043	1000	6R 3922	15K	6R 5732	330K	6R 490002
47	6R 488035	1500	6R 2005	18K	6R 476014	470K	6R 2080
56	6R 488090	1800	6R 3964	22K	6R 2098	680K	6R 2081
100*	6R 3963	2200	6R 5687	27K	6R 2013	1.0 MEG.	6R 121909
180*	6R 3968	2700	6R 5764	33K	6R 5768	5.6 MEG.	6R 118200
220	6R 488053	3300	6R 2029	39K	6R 5731	10 MEG.	6R 121536
270*	6R 476116	3900*	6R 476012	47K	6R 5736	15 MEG.	6R 118154
330	6R 488037	4700	6R 5671	56K	6R 5592		

**LOW VALUE RESISTORS**



For voltage dropping, bias units, bleeders and similar applications. Fully insulated for maximum protection in limited spaces. Long axial leads.

OHMS	% TOL.	WATTS	PART NO.	NET PRICE	OHMS	% TOL.	WATTS	PART NO.	NET PRICE
.33	10	½	17K 890467	.24	1.8	10	1	17K 890469	.30
.47	10	½	17K 850984	.24	2.2	10	½	17K 848656	.24
.5	5	½	17K 475658	.48	2.7	5	½	17K 892226	.48
.56	10	½	17K 849004	.24	2.7	10	1	17A 890468	.30
.75	5	½	17A 893513	.48	3.3	10	2	17A 893371	.40
.91	5	½	17K 893514	.48	3.9	10	2	17K 813534	.40
1.0	5	½	17K 475649	.48	4.7	10	½	17K 820499	.24
1.5	10	½	17A 890466	.24	6.8	10	½	17K 850985	.24
1.8	5	½	17K 881142	.48	8.2	5	½	17K 892227	.48

**RESISTORS**



Kit includes screws, washers, nuts, eyelets and fibre washers for mounting resistors in upright position; enough material for mounting 5 resistors

MODEL NO.	DESCRIPTION	NET PRICE
*PDK17-1	5 & 10 watt size	1.00
PDK17-2	20 watt size	.35
PDK17-3	35 watt size	1.55

\*Mtg. 5 ea. of 5 & 10 Watt Size

**FIXED WIRE WOUND RESISTORS**

**power resistors — 3 watts to 50 watts**

Built to withstand overloads and current surges, these units will give dependable heavy duty service. Extra sturdy, all ceramic, vitreous enameled. Protected against shock, vibration, heat and humidity. Large cores provide plenty of oven for heat dissipation. All are 10% tolerance, except those indicated by \*2% \*\*5%.



Sizes:  
 20 watts—2x1/16"  
 25 watts—2x9/16"  
 35 watts—3x7/8"  
 50 watts—4x9/16"  
 3 watts—3/4x3/8"  
 5 watts—1x5/16"  
 10 watts—1 3/4x3/8"

OHMS	WATTS	PART NO.	NET PRICE
50	5	17K 861735	.51
50	5	17K 823579	.44
50	5	17K 822499*	.51
50	10	17K 805209	.56
50	5	17A 868916	.51
3	5	17A 82839	.51
3	5	17K 850718**	.56
3	25	17A 808311	.80
4	3	17B 821901*	.78
4	25	17K 893619	.71
5	10	17K 852448**	.56
5	10	17K 85491**	.56
6	10	17K 86037**	.56
7	10	17K 482472	.51
9	5	17K 85492**	.66
10	3	17K 892516	.36
10	5	17K 892297**	.44
15	5	17A 84494*	.51
15	5	17K 893054**	.51
15	5	17K 83918	1.11
30	5	17A 84493*	.51
30	5	17K 85494**	.51
40	5	17A 474955**	.51
42	5	17C 101038	.51
50	5	17K 812897	.51
50	10	17X 81760	.56

**ADJUSTABLE WIRE WOUND RESISTORS**



Used for voltage dividing networks in power supplies, adjustable dropping resistors and other similar applications. Wire wound on ceramic cores with heavy enameled coat. With slider and mounting brackets.

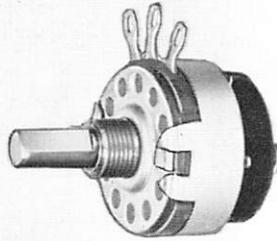
OHMS	WATTS	SIZE IN INCHES	PART NO.	NET PRICE
50	50	4 x 9/16"	17X 51759	1.68
500	50	4 x 9/16"	17X 51776	1.68
5000	25	2 x 5/8"	17K 811055	1.32
7000	10	1 3/4 x 1/16"	17A 823616	1.07
15000	50	4 1/2 x 3/4"	17B 82745	2.06
15000	50	4 x 3/4"	17X 51774	1.92
25000	25	2 x 5/8"	17B 811054	1.61
25000	100	6 1/2 x 3/4"	17A 84637	2.70

OHMS	WATTS	PART NO.	NET PRICE
50	50	17X 51775	1.37
75	10	17K 801780	.56
75	20	17K 475245	.67
100	5	17K 831332	.44
100	5	17K 833838	.51
500	5	17K 824779	.44
500	10	17K 82232	.57
750	10	17K 80178	.56
1000	10	17K 50661	.56
1500	25	17K 86390	.74
1800	35	17B 892965	.92
2000	5	17K 823110	.40
2000	25	17K 890906	.74
2000	35	17K 892966	1.10
2500	5	17K 811414**	.50
3000	10	17K 800588**	.60
3000	10	17K 52308	.60
3000	25	17A 83436	.74
4000	10	17K 800589**	.60
5000	10	17K 855341	.60
5000	25	17K 86389	.74
7000	10	17K 475623**	.69
7500	25	17K 890905	.84
8000	10	17K 480401**	.69
10000	5	17K 82747	.57
10000	19	17K 80162	.69
15000	10	17K 80151	.77
20000	10	17K 83437	.79
20000	20	17K 474674	.83
25000	10	17A 48767**	.81



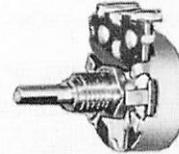
# potentiometers

## STANDARD CARBON



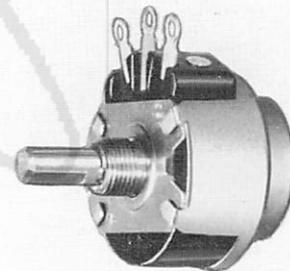
PART NO.	OHMS	APPLICATION	NET PRICE
18C 801878	500	P7751 Microwave	1.00
18C 82810C02*	500K	Volume Business Dispatcher	1.00
18K 851553	2K	Squelch—NU175 Motorcycle Control Unit	1.00
18D 82515B03	10K	Squelch-Die Cast Control Heads	1.00
18K 800630	2K	P9001 Line Amplifier	.93
18K 858468	2.5K	TK589 Peaking Generator	1.00
18K 851933	5K	NU185 Megaphone	1.43
18C 857697*	25K	Volume—"Motrac" Radio Control Heads	1.00
18C 857698	25K	Volume—"Motrac" Radio Control Heads	1.00
18K 857840	25K	Squelch—"Motrac" Radio Control Heads	1.00
18B 483634	50K	Level P8336 "Quik-Call" Unit	1.00
18K 858469	50K	TK589 Peaking Generator	.49
18C 840726	100K	Volume—"G" Line Receivers	1.00
18K 845110	200K	Vol. "G" Type Receiver	.53
18K 812998	300K	IDC "G" Line Transmitters	1.00
18K 892291	300K	IDC "A" Line Transmitters	1.00
18K 86865	500K	Volume—"5V" "Dispatcher" Receivers	1.00
18D 82515B04	2K	Squelch Business Dispatcher	.93
18K 851552	500K	Volume—NU175 Motorcycle Control Unit	1.00
18A 822301*	500K	Volume—TU124 Series Control Head	2.56
18A 822378	500K	Volume—450-470 mc Base Receivers	1.91
18K 483727	1 Meg.	Level P8337 "Quik-Call"	1.00
18K 800631	1 Meg.	P9001 Line Amplifier	.65
18K 891109	1 Meg.	Volume "A" Line Receivers	1.00

## MINIATURE CARBON

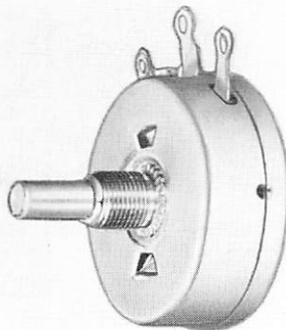


PART NO.	OHMS	APPLICATION	NET PRICE
18K 847061	2K	Squelch, "Handie-Talkie" Model H21, H23	.93
18K 848202	25K	Tone Level, "Quik-Call" Model TA203 & T1251A	.93
18K 855906	100K	Level, P9301A single tone.	.96
18K 858871	300K	"IDC", unified 450mc equip.	.93
18C 847060	500K	Volume, "Handie-Talkie" Model H21, H23	.93
18K 847062	1 Meg.	IDC—"Handie-Talkie" Model H21, H23	.93

## WIRE WOUND



## "L" PADS



PART NO.	OHMS	APPLICATION	NET PRICE
18A 82067	250	P 8066 A, K-Remote Chassis	5.06
18A 811698	3K	P 8066 N, P, Remote Chassis	2.73

PART NO.	OHMS	APPLICATION	NET PRICE
18C 838283*	20	Volume-TU376 Control Head	1.71
18K 803868*	20	Volume-P9022 Control Head	1.47
18K 855108	20	Volume-Die Cast Control Heads	.93
18K 103042	100	General Use	2.19
18K 823245	2500	P8201D Amplifier	.93
18K 823246	5000	P8201D Amplifier	2.00
18K 890193	10K	Squelch-P 9022, TU124, TU375	.93

\* Includes Switch

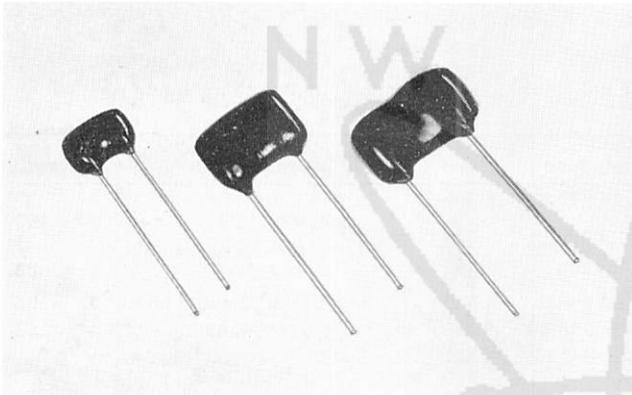


# capacitors

## DUR-MICA CAPACITOR

The new Dur-Mica capacitor replaces the molded mica and standard silver mica units formerly used in Motorola equipment. Special plastic coating on this capacitor provides added durability and improved moisture resistance, particularly in the higher temperature range. Dur-Mica capacitors operate efficiently from  $-40^{\circ}$  to  $+100^{\circ}\text{C}$  with temperature coefficients in the NPO range.

The Dur-Mica capacitor is the smallest mica capacitor available. These units meet or exceed all applicable MIL and EIA standards.



## PDK21-1 MOTOROLA DUR-MICA CAPACITOR ASSORTMENT

With Free Metal Rack

This assortment puts the capacitor you want at your fingertips. Sturdy, clear plastic tubes protect the capacitors during shop storage or field use. Each tube is readily identified by an appropriate label. Use the convenient metal rack on the bench or hang it on the wall. The rack is included with orders for 24 tubes, either the Motorola-recommended assortment or your own selection.\* The Motorola-recommended units are set off by asterisks.

\* Price of Special Assortment will vary with selection.

PDK21-1 Dur-Mica Capacitor Assortment Net Price \$25.00

MMFD	TOL. %	DCWV	SIZE	PART NO.	NET PRICE TUBE**
5	10	500	DM-15	21K 871966	.75
10	.5MMFD	300	DM-15	21K 847088	.85
10*	5	500	DM-15	21K 859934	.85
11	.5MMFD	300	DM-15	21K 847089	.85
12*	5	500	DM-15	21K 859935	.85
13	5	300	DM-15	21K 847090	.85
15*	5	500	DM-15	21K 859936	.85
17	.5MMFD	300	DM-15	21K 847086	.85
19	.5MMFD	300	DM-15	21K 847083	.85
20*	5	500	DM-15	21K 859940	.85
21	.5MMFD	300	DM-15	21K 847084	.85
24*	5	500	DM-15	21K 859937	.85
27	2	300	DM-15	21K 847771	1.00
30*	.5MMFD	500	DM-15	21K 848156	.85
34	2	300	DM-15	21K 847772	1.00
36	2	300	DM-15	21K 847773	1.00
36*	5	500	DM-15	21K 840712	.85
51*	5	500	DM-15	21K 840711	.85
51	10	500	DM-15	21K 840044	.75
62	5	500	DM-15	21K 852322	.85
62	10	500	DM-15	21K 840045	.75
68	2	500	DM-15	21K 873266	1.00
75	10	300	DM-15	21K 848157	.75
75*	5	500	DM-15	21K 859938	.85
80	2	300	DM-15	21K 847091	1.00
100*	5	500	DM-15	21K 850118	.85
100	10	500	DM-15	21K 840046	.75
110*	5	500	DM-15	21K 859939	.90
120*	.5MMFD	500	DM-15	21K 840713	1.00
130*	5	500	DM-15	21K 859941	1.00
150*	5	500	DM-15	21K 840047	1.00
190	3	500	DM-15	21K 848978	1.40
200*	5	500	DM-15	21K 840812	1.15

DM-19— $\frac{1}{4}$  x  $\frac{1}{2}$   
 DM-15— $\frac{3}{8}$  x  $\frac{3}{8}$   
 DM-20— $\frac{1}{2}$  x  $\frac{1}{2}$

MMFD	TOL. %	DCWV	SIZE	PART NO.	NET PRICE TUBE**
220*	5	500	DM-15	21K 859942	1.30
220	10	300	DM-15	21K 847087	1.20
240*	5	500	DM-15	21K 840048	1.30
250*	5	500	DM-15	21K 859943	1.30
270	5	300	DM-15	21K 859178	1.50
270	10	300	DM-15	21K 847085	1.35
300*	5	500	DM-15	21K 859944	1.50
330	2	500	DM-15	21K 873267	1.17
330	10	300	DM-15	21K 874351	.90
345	5	500	DM-15	21K 840813	.99
370	3	500	DM-15	21K 858832	1.08
390	2	500	DM-15	21K 873268	1.29
390	3	500	DM-15	21K 848977	1.23
390	10	300	DM-15	21K 848158	.99
390*	5	500	DM-15	21K 859945	1.11
470	10	300	DM-15	21K 850510	1.08
500*	5	500	DM-19	21K 859946	.99
510	5	300	DM-15	21K 845214	1.20
510*	5	500	DM-19	21K 859947	.99
650	5	300	DM-15	21K 848236	1.38
750	10	300	DM-15	21K 848159	1.44
800	5	300	DM-15	21K 840049	1.68
820	2	300	DM-15	21K 873269	2.01
1000*	5	500	DM-19	21K 847601	1.38
1200	5	300	DM-19	21K 874352	1.50
2000*	5	500	DM-19	21K 859948	2.19
2200	5	300	DM-19	21K 874353	2.37
2500	5	500	DM-19	21K 859773	2.67
3000	5	500	DM-20	21K 850994	2.58
3600	2	300	DM-19	21K 875832	3.24
5000	5	100	DM-19	21K 857481	3.48
5100	5	300	DM-20	21K 874354	3.57

\* Included in Motorola Recommended Assortment PDK21-1  
 \*\* Capacitors 300 MMFD or less are packed 5 to a tube; larger values are packed 3 to a tube.



## PDK21-2 CERAMIC DISC CAPACITOR ASSORTMENT

With Free Metal Rack

This convenient assortment of NPO capacitors includes the most commonly used values required for general day-to-day servicing. Capacitors are packaged in clear plastic tubes with easy-to-read labels for fast identification and selection. The metal storage rack ST-174 is included FREE with this assortment. Capacitors included in assortment are indicated by asterisks on chart below.

PDK-21-2 Ceramic Disc Capacitor Assortment . . . Net Price \$18.00

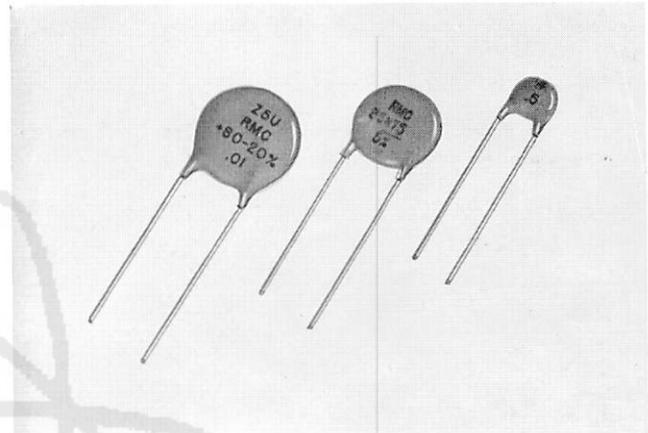
## CERAMIC DISC CAPACITORS

Low inductance dipped ceramics for bypass, coupling and general applications in high-frequency circuits. Disc Ceramics (Sizes range from 7/32" to 5/8" dia.).

TYPE NPO capacitors show a change in capacity of no more than  $\pm 30$  parts per million per degree centigrade change in temperature.

TYPE N capacitors decrease in capacity with an increase in temperature. Type N470, for example, will show a decrease in capacity of 470 parts per million per degree centigrade increase in temperature.

All ceramic capacitors are packaged 5 to a tube. Net Pr. \$.75 per tube.



MMF	% TOL.	TEMP. COEFF.	PART NO.	MMF	% TOL.	TEMP. COEFF.	PART NO.
2	.25	NPO	21K 857336*	20	5	N150	21K 849334
3	.5	NPO	21K 852259*	24	5	NPO	21K 840365*
3.3	.5	NPO	21K 840067	24	5	N150	21K 840716
3.9	.25	NPO	21K 838284	24	5	N220	21K 840845
4	5	N330	21K 849320	27	5	N75	21K 849336
4	5	NPO	21K 840850*	30	5	NPO	21D 82355B11*
5	5	NPO	21K 840847*	30	5	N150	21K 849335
6	5	NPO	21K 840848*	36	5	NPO	21K 852185*
6	5	N150	21K 864746	36	5	N75	21K 838114
6	5	N330	21K 849333	39	5	N75	21R 121962
6	.25	NPO	21K 838113	51	5	NPO	21D 82355B10*
8	.5	NPO	21K 847743*	68	5	NPO	21K 865480*
8	.5	N150	21K 838912	100	5	NPO	21K 865391*
8	5	N330	21K 849319	100	5	N750	21D 82355D21
10	5	NPO	21K 868206*	800	5	NPO	21B 893233
10	5	N150	21K 838686	800	10	NPO	21K 847070*
10	5	N470	21K 840811	820	10	NPO	21B 837745
10	5	N220	21K 859215	1000	10	NPO	21K 865923*
10	5	N330	21R 124710	1500	-0+100	—	21B 800801*
12	5	NPO	21K 847874*	2000	10	—	21K 837746*
12	5	N330	21R 121958	3900	10	—	21K 837996
15	5	NPO	21K 840846*	4700	10	—	21K 837747
15	5	N150	21R 114535	5000	20	NPO	21C 82447C01*
18	5	NPO	21R 122235*	.01	20	—	21B 801139*
20	5	NPO	21K 840849*	.02	-20+80	—	21K 401029*



# capacitors

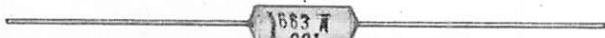
## MOLDED PHENOLIC CAPACITORS

For high freq. coupling & by-pass use. Rated 500 volts.

MMF	% TOL.	PART NO.	NET PRICE
.1	10	21K 838048	.20
.2	5	21K 830200	.20
.3	5	21K 830201	.20
.47	20	21K 83994	.08
.68	5	21K 838911	.22

MMF	% TOL.	PART NO.	NET PRICE
.82	10	21K 475679	.09
1.5	20	21K 77267	.08
2.2	10	21K 84247	.09
3.3	20	21K 38417	.22
4.7	10	21K 84013	.08

## MYLAR CAPACITORS



Mylar\* dielectric round tubular capacitors provide excellent stability over temperature range of  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ .

\* Dupont Trade Mark

### 100 Volts

CAPACITY MFD	% TOL.	SIZE	PART NUMBER	NET PRICE
.0033	10	.5 x .156	8K 861939	.21
.0047	10	.5 x .156	8K 857303	.21
.0068	20	9/16 x 1/4	8K 867165	.21
.01	10	9/16 x 1/4	8K 867617	.21
.015	10	5/8 x .218	8K 859668	.21
.02	10	9/16 x 7/32	8K 863628	.24
.022	10	5/8 x 7/32	8K 852472	.24
.033	10	11/16 x 1/4	8K 865640	.24
.047	10	13/16 x 1/4	8K 852471	.26
.1	10	31/32 x .359	8K 864428	.35
1.0	20	1.25 x .70	8K 859592	.85

### 200 Volts

CAPACITY MFD	% TOL.	SIZE	PART NUMBER	NET PRICE
.001	10	1/2 x .156	8K 857474	.21
.0022	10	1/2 x .156	8K 857475	.21
.01	10	1/2 x .171	8K 857473	.21
.015	10	5/8 x 7/32	8K 854329	.21
.022	10	3/4 x .312	8K 863508	.24
.033	10	7/8 x .250	8K 863006	.24
.047	10	3/4 x .296	8K 857472	.26
.068	10	13/16 x .312	8K 861094	.26
.1	10	.875 x .375	8K 863509	.29
.15	10	1 x 1/2	8K 867213	.35
.47	10	1-3/8 x 1/2	8K 863028	.50

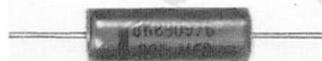
### 400 Volts

CAPACITY MFD	% TOL.	SIZE	PART NUMBER	NET PRICE
.0047	20	11/16 x 1/4	8K 847106	.24
.01	20	11/16 x 9/32	8K 847105	.26
.015	10	5/8 x 3/8	8K 861259	.26
.022	10	.812 x .312	8K 863322	.26
.033	20	15/16 x 7/16	8C 845109	.26
.047	10	15/16 x 13/32	8K 868503	.29
.1	10	1 x .421	8K 858371	.32
.15	10	1-1/4 x .468	8K 877098	.35
.47	20	1.5 x .9	8K 859179	.76
1.0	10	2 x .812	8K 858370	1.18

## OIL FILLED CAPACITORS

### Metal Tubular

Hermetically sealed capacitors are unaffected by humidity or ambient temperature changes. Temperature range from  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ .

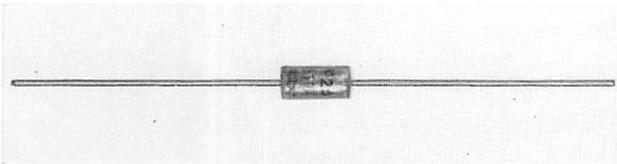


### Types Available:

- (1) Case and both leads insulated.
- (2) Case insulated, one lead grounded.
- (3) Case not insulated, both leads insulated.
- (4) Case not insulated, one lead grounded.

MFD	VOLTS	SIZE	TYPE	PART NO.	NET PRICE
.002	400	5/8 x 19/64	4	8K 85982	1.12
.002	400	5/8 x 1/4	1	8K 800073	.65
.0025	100	13/16 x 5/16	2	8K 836753	.59
.003	100	1-1/2 x 1/2	3	8K 823109	.75
.004	1600	13/16 x 5/16	2	8K 81922	.86
.005	100	13/16 x 5/16	2	8K 474403	.72
.005	200	3/4 x 1/4	4	8K 800373	.83
.005	400	7/8 x 21/64	1	8K 890976	.77
.006	100	9/16 x 19/64	4	8A 891314	.76
.006	400	15/16 x 13/32	1	8K 890496	.77
.006	1600	1-1/4 x 5/8	1	8K 891969	.93
.008	600	1-3/16 x 7/16	2	8K 802709	.92
.01	100	5/8 x 11/32	1	8A 881237	.57
.01	400	1 x 1/2	1	8A 83894	.85
.01	400	15/16 x 11/32	1	8K 890974	.75
.015	600	1-1/16 x 9/16	2	8A 483686	.90
.015	1600	1-3/8 x 5/8	3	8K 831336	.86
.02	400	1-1/2 x 19/64	4	8K 836754	.81
.02	400	1-1/2 x 19/64	4	8A 85984	.53
.02	400	1-1/4 x 9/16	1	8A 483027	1.06

MFD	VOLTS	SIZE	TYPE	PART NO.	NET PRICE
.02	600	1-3/4 x 1/2	1	8K 890973	.63
.02	1600	1-9/16 x 5/8	3	8K 801798	.78
.03	1600	1-5/8 x 11/16	3	8K 811831	.78
.04	1000	1-11/16 x 5/8	3	8K 831589	.89
.05	200	1-7/16 x 5/8	1	8K 801641	.94
.05	400	1-1/2 x 5/8	1	8K 480594	1.18
.05	600	1-1/2 x 1/2	4	8A 81123	1.82
.06	1600	2-3/16 x 3/4	3	8B 800146	1.09
.1	200	1-1/2 x 11/16	1	8A 483026	.82
.1	600	1-1/2 x 1/2	1	8A 83850	1.18
.1	1000	2 x 3/4	3	8K 831678	.90
.15	200	1-7/8 x 5/8	1	8K 890978	.99
.25	200	1-7/8 x 25/32	1	8C 890682	1.16
.25	100	1-7/16 x 7/16	3	8A 83925	.65
.25	400	1-1/2 x 3/4	1	8C 801643	1.43
.25	1000	3-1/2 x 7/8	3	8B 891877	2.08
.5	150	1-7/8 x 5/8	2	8A 821889	.66
.5	200	1-3/4 x 5/8	4	8A 80076	.97
.50	400	2-1/8 x 5/8	1	8K 801644	1.78
1.0	200	1-9/32 x 5/8	4	8A 483272	1.82



### MINIATURE TANTALUM CAPACITORS

Hermetically sealed, solid dielectric tantalum capacitors. Small in size for transistor circuits. For use over the temp. range -30°C to +85°C. Tolerance ±20%.

MFD	W.V.D.C.	SIZE	PART NO.	NET PRICE
4.7	25	.185 x .357	23K 865136	2.84
15	25	.185 x .470	23K 865137	2.77
47	6	.185 x .470	23K 868446	2.76
68	6	.185 x .470	23K 865795	2.50
100	10	.323 x .470	23K 864366	4.66



### MINIATURE ELECTROLYTICS

MFD	W.V.D.C.	SIZE	PART NO.	NET PRICE
1	15	1/4 x 21/64	23K 858676	.82
1	200	1/4 x 25/64	23K 855768	1.20
5	25	5/16 x 11/16	23K 867670	.82
5	50	5/16 x 11/16	23K 867671	.85
10	25	5/16 x 11/16	23K 868502	.85
15	10	1/4 x 21/64	23K 858677	.81
20	25	7/16 x 3/4	23C 82601A03	.90
50	20	33/64 x 1-1/4	23K 858868	.66
100	10	25/64 x 1	23K 858319	.78
100	35	1/2 x 1-3/8	23K 858988	1.20

### STANDARD TUBULAR ELECTROLYTICS

MFD	DC WKG. VOLTS	SIZE	PART NO.	NET PRICE
5	150	1/2 x 1-1/16	23C 82077C02	.32
5	150	9/16 x 1-1/4	23K 844461	.65
5	250	11/16 x 1-1/4	23K 824135	.63
5	350	11/16 x 1-3/4	23K 837929	.63
10	400	13/16 x 1-3/4	23K 838466	.96
10	450	13/16 x 1-3/4	23K 837903	.78
10	600	1-1/16 x 15/16	23B 830267	1.77
20	350	15/16 x 1-3/4	23K 483459	.87
25	50	9/16 x 1-1/4	23K 850516	.59
25	50	11/16 x 1-3/4	23K 834588	.63

MFD	DC WKG. VOLTS	SIZE	PART NO.	NET PRICE
25	25	9/16 x 1-1/4	23K 483807	.60
30	350	15/16 x 2-9/32	23K 837743	1.15
50	32	13/16 x 1-1/2	23K 831647	.72
75	12	13/16 x 1-1/2	23K 832421	.79
75	18	11/16 x 1-1/2	23K 840891	.79
100	25	13/16 x 1-3/4	23B 892549	.81
125	18	13/16 x 1-1/4	23K 840707	1.01

All less mounting strap except 23B 892549.

### TWIST PRONG ELECTROLYTICS



single section

MFD	DC WKG. VOLTS	SIZE	PART NO.	NET PRICE
125	350	1 3/8 x 3	23K 824097	2.32
300	150	1 3/8 x 3	23K 833408	1.68
500	50	1 3/8 x 2	23K 807862	1.59
1100	25	1 3/8 x 3	23K 851736	2.13
2000	10	1 1/8 x 3	23A 81416	2.03

dual section

MFD	DC WKG. VOLTS	SIZE	PART NO.	NET PRICE
25-15	450-400	1 x 3	23A 474081	1.42
30-20	450-25	1 x 3	23A 483635	1.44
15-10	400-400	1 x 3 1/2	23A 17190	1.31
40-10	400-350	1 x 3	23C 800111	1.33
40-100	400-25	1 x 3	23A 474082	1.43
15-50	350-300	1 x 3	23K 890493	1.27
40-20	150-150	1 x 2	23K 832217	1.08
40-20	25-25	1 x 2	23A 81114	1.17
750-750	25	1 x 2 1/2	23D 82125B07	2.62
250-500	15	1 x 2	23D 82393A02	1.77
1000-1000	15-15	1 3/8 x 4	23A 834325	2.64
2750-2500	4-3	1 3/8 x 2 1/2	23K 802998	4.16

triple section

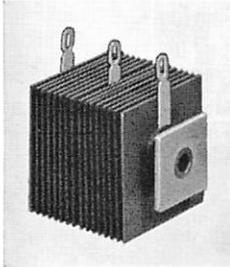
MFD	DC WKG. VOLTS	SIZE	PART NO.	NET PRICE
15-15-10	450	1 x 3	23A 890002	1.77
40-40-10	450	1 3/8 x 3	23K 822729	2.49
40-40-40	450	1 3/8 x 4	23K 821734	2.94
10-10-20	450-450-25	1 x 2	23A 892117	1.44
50-50-30	450-300-300	1 3/8 x 3	23K 825606	2.36
30-15-20	450-300-25	1 x 3	23K 824640	1.94
15-15-10	400	1 x 3	23K 838468	1.77
15-10-20	400-350-150	1 x 3	23K 803333	1.50
20-20-20	400-400-25	1 x 3	23A 75429	1.71
50-50-30	400-300-300	1 3/8 x 3	23K 838467	2.11
30-30-20	350-300-25	1 x 3	23K 803335	1.89
15-15-20	250-250-25	1 x 2	23A 81256	1.25
15-15-500	250-250-2	1 x 2	23K 859125	1.29
15-20-15	250-150-150	1 x 3	23K 803334	1.50
20-20-20	150	1 x 2	23K 892116	1.38
40-20	150	1 x 2	23K 893522	2.53
50-500-1500	25	1.56 x 1 1/2	23K 868706	3.13

quadruple section

MFD	DC WKG. VOLTS	SIZE	PART NO.	NET PRICE
50-10-50-25	450-450-300-300	1 3/8 x 3	23K 851506	2.43
10-25-25-25	450-50-50-50	1 1/2 x 2	23C 800110	2.06
50-40-30-10	350-350-350-350	1 1/2 x 3	23K 821665	2.19



# rectifiers and diodes



Selenium Rectifiers

Top-quality selenium rectifiers designed for high efficiency and cool operation. Ideal for replacement use and for original equipment. Supply plate, filament and bias voltages directly from power line or transformer. Stud mounting.

MAX. DC MA	MAX. RMS VOLTS	SIZE	PART NO.	NET PRICE
50	160	1 x 1 x 1-1/32	48K 825383	1.76
50	160	1 x 1 x 21/32	48B 802669	1.28
75	130	1 x 1 x 13/16	48K 842141	.80
100	20	1 x 1 x 7/16	48A 800116	.38
100	40	1 x 1 x 1/2	48B 830268	.83
100	130	1 1/4 x 1 1/4 x 3/4	48D 842140	.92
100	160	1 1/4 x 1 1/4 x 1 3/4	48K 800715	2.70
150	130	1 1/4 x 1 1/4 x 1 1/4	48B 840815	1.15
250	160	1 5/8 x 1 5/8 x 1 3/8	48B 893492	1.47
300	18	1 1/2 x 1 1/2 x 3/8	48B 890348	1.25

## Silicon Power Diode

Single junction type. Temperature range -40°C to +100°C. "Clip-in" mounting.

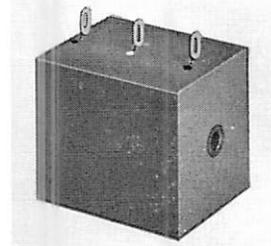
TYPE	CURR. MA.	PEAK INV. VOLTS	PART NO.	NET PRICE
IN 1081	500	100	48C 851644	1.18
IN 1084	500	400	48K 851645	1.47

## Germanium Power Diode

Diffused junction type. Maximum temperature 65° C.

TYPE	CURR. MA.	PEAK INV. VOLTS	PART NO.	NET PRICE
IN 91	150	100	48C 848523	.85
IN 92	100	200	48C 848555	1.95

## Encapsulated Selenium Rectifiers for Special Applications



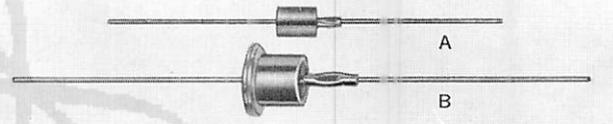
Motorola's encapsulated rectifiers are especially recommended for use by petroleum, pipeline and natural gas companies, where as little as one part of mercury vapor in 4 million parts of air may cause mercury contamination of conventional selenium rectifiers.

48K859959 rectifier is a direct replacement for 48A800116.

48K852733 rectifier is a direct replacement for 48C800715 & 48C858204.

48K859959—Encapsulated Selenium Rectifier ..... \$ .95  
48K852733—Encapsulated Selenium Rectifier ..... \$5.68

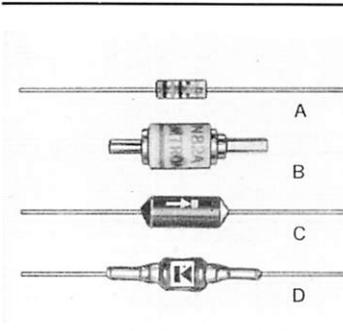
## Single Junction Silicon Rectifier



These rectifiers can be used as General Replacements in 2-way radio and television.

PEAK INV. VOLTS	CURR. MA.	FIG.	MANUFACTURERS NUMBER	PART NUMBER	NET PRICE
50	500	B	IN 1217-320A	48D 82383B08	.68
50	500	A	SR-330	48D 82723C08	.54
100	500	B	IN 1218-320B	48D 82383B07	.77
100	500	A	SR-331	48D 82723C01	.62
150	500	B	IN 1219-320C	48D 82383B05	.89
150	500	A	SR-332	48D 82723C09	.71
300	350	B	IN 1221-320F	48D 82383B04	1.29
300	350	A	SR-333	48D 82723C03	1.09
400	350	B	IN 1222-320H	48D 82383B03	1.50
400	350	A	SR-334	48D 82723C04	1.40
500	350	B	IN 1223-320K	48D 82383B01	1.95
500	350	A	SR-335	48D 82723C05	1.78
600	350	B	IN 1224-320M	48D 82383B06	2.55
600	350	A	SR-336	48D 82723C06	1.66
700	280	B	IN 1225-320P	48D 82383B02	3.35
700	280	A	SR-337	48D 82723C07	2.05

## Diodes



TYPE NO.	FIG.	APPLICATION	PART NO.	NET PRICE
TIG	A	Metering circuit, "Motrac" Radio	48C 82178A01	.35
IN 34	B	General Purpose (Solder-in Type)	48K 822526	.47
IN 82A	B	Mixer circuit, 450-470 MC Receivers (Plug in Type)	48C 82583B02	1.42
IN 119	D	I.D.C. kit for deluxe line FMT 30D, FMTU 30D	48C 864448	1.07
IN 120	D	I.D.C. kit for "Dispatcher" line FMTRU5V	48C 864449	.65
IN 147A	C	Mixer circuit, H 21-H 23 series (sub for IN 72)	48C 859464	.96
IN 295	A	General Purpose	48C 82178A02	.42
DR 435	A	Multiplier, Pocket Receiver	48C 864459	1.14
S491G	A	Discriminator, FHTR series, "Handie-Talkie" units	48B 811119	.52
HD 2149	A	Discriminator and Squelch circuits, H 21, H 23	48C 847274	.60
HD 2155	A	Discriminator, "Motrac" Radio	48C 855216	.59
HD 2236	A	Crystal multiplier in H 21-H 23 series (sub for IN 56A)	48C 852462	1.25



# transformers

## AUDIO AND LINE TRANSFORMERS

PART NO.	DESCRIPTION AND APPLICATION	SIZE	NET PRICE
25B 80690	Audio output and line matching. Matches a 7C5 or similar tubes to a 500 ohm line and/or a 3 ohm speaker. Used on the PA 8270 series remote using the P 8201 amplifier.	3 1/8 x 3 x 2 1/2	13.41
25B 811697	Line matching to a 500 ohm line. Has secondary windings of 3 ohms and 600 ohms (tapped at 50 ohms). Used on the P 8066 series line chassis used in most base stations.	3-1/16 x 2 1/2 x 3	4.77
25B 811461	Line matching to a 500 ohm line. Has secondary windings of 3 ohms and 50 ohms. Used on the P 9065 line matching chassis used with station receivers.	2-3/16 x 2-7/16 x 1 7/8	5.38

## AUDIO OUTPUT TRANSFORMERS

PART NO.	DESCRIPTION AND APPLICATION	SIZE	NET PRICE
25B 824754	Will match one 6AQ5 to a 3.2 ohm voice coil. Used on the L01 and L03 series monitor receiver. Rated one watt maximum.	1-3/16 x 1 1/2 x 1 1/4	1.50
25B 880553	Will match one 6AK6, etc. to a 3.2 ohm voice coil. Used on the Uni-Channel series receiver. A heavy duty replacement part rated at 2 watts maximum.	1 5/8 x 1-11/16 x 1 7/8	3.92
25C 847478	Will match one 6AQ5, etc. to a 3.2 ohm voice coil. Used on late Uni-Channel, "G", "A" line receivers. A heavy duty replacement part rated at 2 watts maximum.	1 5/8 x 1-11/16 x 1 7/8	3.69

## POWER AND FILAMENT TRANSFORMERS

PART NO.	WINDING 1 VOLTS CURR.	WINDING 2 VOLTS CURR.	SIZE	DESCRIPTION AND APPLICATION	NET PRICE
25C 861389	200 90MA	— —	2-11/16 x 2 1/4 x 2 7/8	"Receiver Only" Power Supply— P 8531 series.	3.28
25C 801781	170 70MA	6.3 4.0A	2 3/4 x 2 1/2 x 3 1/8	"Receiver Only" Power Supply— P 9127 series.	6.73
*25C 839897	255 100MA	6.3 2.7A	4-1/16 x 3 3/4 x 3 1/4	PA 8270 Remote Console. Using P 8201 amplifier.	12.08
*25C 800623	285 120MA	6.3 2.7A	3-15/16 x 3 1/2 x 3 1/4	FSC1 Remote Console using P 9001 amplifier.	12.08
25C 821424	520C.T.290MA	6.3 1.0A	5-1/32 x 4 3/8 x 5 1/4	30 & 250 watt base stations using P8434, TU 382 Power Supplies.	21.16
25C 891906	720C.T.370MA	6.3 1.0MA	5-7/32 x 4-5/16 x 5-13/16	60 watt base stations using P8464, TU 388 series Power Supplies.	22.34

\*Has a third winding 5 volts @ 2 amps for a rectifier tube.

## FILTER CHOKES

PART NO.	HEN.	MA	RES.	SIZE	APPLICATION	NET PRICE
25B 800139	4	50	150	2 x 1 5/8 x 1-9/16	P 9027 Power Supply	4.70
25B 837416	2.1	100	128	2 3/8 x 1 3/8 x 1 1/2	TU 117 Power Supply	1.05
25B 811738	.05	200	21	2 x 1 5/8 x 1-11/16	P 9231 Power Supply	1.60
25B 825358	2.3	100	112	2 x 1-11/16 x 1-9/16	P 9351 Power Supply	1.25

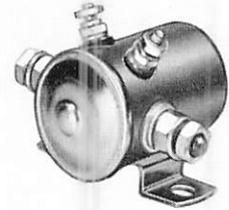


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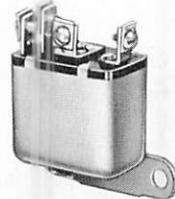
## "A" POWER RELAYS

PART NO.	FIG.	COIL RATING		CONT AMP	TYPICAL APPLICATION	NET PRICE
		VOLTS	OHMS			
*59C 483057	A	6	4.5	80	Dynamotor relay, also used as under hood "A" power relay.	3.45
*59K 851519-A	A	12	22	80	Slightly longer than above, used as under hood "A" power relay.	6.03
59K 825038	A	12	18	100	Dynamotor relay.	2.32
59K 880283	B	6	22	30	Universal under hood "A" power relay for most mobile installations.	3.66
59K 813674		12	85	30		3.65
59D 84712	C	6	22	30	Similar to "B" except for vertical chassis mtg.	5.36
59K 858479	D	6	19.8	30	Similar to "B" except has brkt. for mounting in bakelite fuse-relay assemblies shipped with TKN 6000 series cable kits on late type units.	4.67
59K 858480		12	76.5	30		3.89

\* Low Temp. Continuous Duty Coil.



A



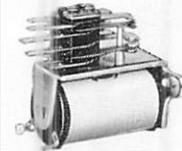
B

C

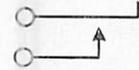
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## CHANGEOVER RELAYS

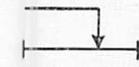
PART NO.	COIL RATING		CONTACTS	TYPICAL APPLICATION	NET PRICE
	VOLT	OHMS			
59B 800128	6	15	3 form "A" 1 form "C"	P 9027, P. 9031 series power supplies used in "41V" unichannel line of equipment.	7.52
80K 831612	6	19	4 form "A" 1 form "C"	TU 117, TU 189 series power supplies used in T41, T43G, GGV lines of equipment.	6.71
80K 834844	6	19	1 form "A" 2 form "C"	TU 180, TU 181 series power supplies used in 6 volt T41, T43 dynamotor models.	7.27
80K 834845	12	100	1 form "A" 2 form "C"	TU 180 12V, TU 181 12V power supplies used in 12 volt T41, T43 dynamotor models.	8.37
59B 891430	6	19	1 form "A" 3 form "C"	P 8431, P 8661 series power supplies used in 6 volt "80D and 140D" models.	10.10
59B 812757	12	80	1 form "A" 3 form "C"	P 8431A, P 8661A series power supplies used in 12 volt "80D and 140D" models.	10.92
80K 854422	12	100	4 form "A" 2 form "C"	Power supplies for U41, U43 "T" power carrier squelch models.	9.13
80K 851647	6	50	4 form "A" 2 form "C"	Power supplies for new Motorcycle and industrial units D31, D33, T31, T33 6-12-24-42 VDC and 117VAC.	9.89
59B 890907	6	14	4 form "C"	Power supplies for 30, 60, 100, 250 watt base stations.	8.28



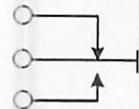
COMMON "FORMS"



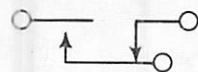
"A"



"B"



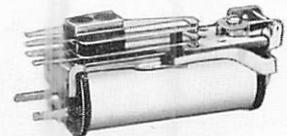
"C"



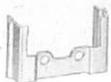
"D"

## STANDARD TELEPHONE RELAYS

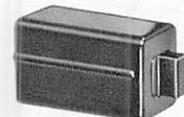
PART NO.	COIL RATING			CONTACTS	APPLICATION	NET PRICE
	OPERATE	RELEASE	OHMS			
80D 831474	8.5MA	4	6500	2 form "A" 1 form "C"	TU 356 Remote Chassis	7.87
59K 801503	4.0MA	2	6000	2 form "C"	P 8066M	9.03
59K 82985	10.0MA	5	1400	2 form "A" 2 form "C"	P 8066 Series	10.46
59K 82744	12.0MA	5	6500	1 form "D" 7 form "C"	PA 8270, TA 270, T1200 Remote	16.05



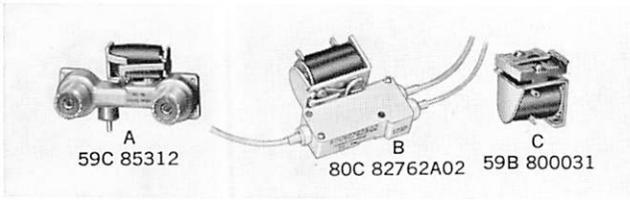
## Mounting Bracket — Dust Cover



PART NO.	DESCRIPTION	NET PRICE
15B 80676	Dust Cover for Telephone Relays (P-8066 Series).	1.14
7K 483186	Mounting Bracket for above cover (1 Req.)	.31

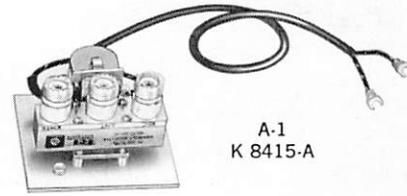


## ANTENNA RELAYS



PART NO.	FIG.	COIL RATING		APPLICATION	NET PRICE
		NOM. VOLTS	OHMS		
59C 85312	A	6	15	5V "Dispatcher" line, FMTU 30D series. Rated 100W RF.	8.53
59C 483605	A	6	15	All "Sensicon" & "A" type transmitter strips. Rated 100W RF.	7.74
80C 82762A02	B	12	75	U44 series 10" housing 450-470MC. Rated 150W RF.	8.72
80A 82762A01	B	12	75	"Motrac" radio; Rated 150W RF; Neg. Gnd. Only.	8.72
80C 82762A03	B	12	75	"Motrac" radio; Rated 150W RF; Neg./Pos. Gnd.	8.72
59B 800031	C	6	30	"Unichannel" transmitter. Rated 30W RF.	3.38
59K 842298	C	6	30	6/12V "G" transmitter. Rated 60W RF.	3.34
59K 854405	C	12	120	12V "G" Type transmitter. Rated 60W RF.	3.47

## 250 WATT BASE STATION RELAY KITS



KIT NO.	VOLT	FIG.	USAGE	NET PRICE
K 8232B	117VAC		25 to 54MC complete w/metal housing, leads.	24.00
K 8415A	117VAC	A-1	144 to 174MC complete w/mounting plate, leads.	45.35
TK 479	117VAC		450-470MC complete w/mounting plate, leads.	45.35

### Replacement Relay Contacts

PART NO.	USAGE	NET PRICE
39K 863660	Contact kit for 59C 847700 plate contactor relay (AH&H Relay only)	6.00
39K 837336	Contact kit for 59B 891442 & 59B 804637 plate contactor relays	12.47

High quality panel meters engineered to maintain very high accuracy through continued usage. Easy-to-read black on white scales. Jeweled bearings and polished pivots. DC types have D'Arsonval movements; AC types have iron vane movements. Recessed zero adjustments.



## panel meters

### ac voltmeters

PART NO.	RANGE	FIG.	NET PRICE
52B 891586	0-150	A	12.75

### dc voltmeters

PART NO.	RANGE	FIG.	NET PRICE
*72C 82995B01	0-10-20	C	15.60
72C 82993B02	0-1000	C	19.60
52B 891585	0-1000	A	16.65
52B 51429	0-3000	A	14.81

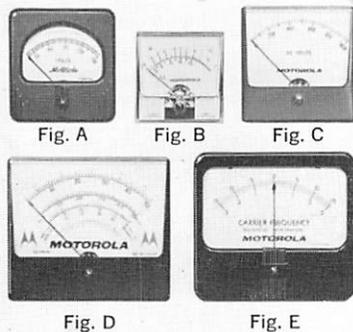
\* Has internal multiplier resistors.

### multi-scale meters

PART NO.	RANGE	FIG.	NET PRICE
*72D 82534D01	0-50 ua 0-1000 V 0-15 V 0-30 V	D	18.00
‡72D 82572C01	0-1 V 0-3 V -10 to +2db	E	18.00

\* Used on model TU 546 Test Set.

‡ Used on model S 1050A AC VTVM.



### frequency and deviation meters

PART NO.	RANGE	FIG.	NET PRICE
52K 863460	15-0-15kc 3-0-3kc	E	17.79
72C 863752	0-10kc 0-20kc -10 +6db	E	20.55

Both meters are dual scale for "Split Channel" or "Broad Band" meter readings.

### db and vu meters

PART NO.	RANGE	FIG.	NET PRICE
52A 80028	-10 to +6 db	A	17.25
72C 850956	-20 to +3 vu 0 to 100 vu	B	23.75

### dc milliammeters

PART NO.	RANGE	FIG.	NET PRICE
52B 80181	0-100	A	12.45
52B 50691	0-500	A	12.45

### dc microammeters

PART NO.	RANGE	FIG.	NET PRICE
72C 82993B01	0-50	C	17.95
52B 51427	0-50	A	16.32
*52B 880281	0-50	E	17.64
72C 82994B01	25-0-25	C	18.15
52A 86702	50-0-50	A	15.05

\* Used on Model P-8501B Test Set.



# hook-up wire

## HOOK-UP WIRE ASSORTMENT NOW AVAILABLE IN NEW, FREE METAL RACK

Here's a big saving on an assortment of 40 spools of the most commonly used hook-up wires found in Motorola's original equipment. You save \$2.70 on the cost of 40 individual spools and the \$3.50 value FREE metal rack makes this the best hook-up wire bargain available!

Wire has multiple insulation consisting of a wall of extruded plastic, and a single, tight cotton braid. Wire is color coded and thoroughly impregnated with a flame resistant lacquer. This insulation is superior to any wax impregnated equivalent in fire and abrasion resistance, voltage breakdown, color readability and line stripping.

Wire may also be ordered by individual spools.

PDK10-1 Wire Spool Assortment . . . . . Net Price \$20.50



### COMPLETE ASSORTMENT WITH FREE METAL RACK

assortment consists of

#### No. 24 STRANDED—25 FT. SPOOLS, PRICE \$.45 ea.

TYPE AND COLOR	TYPE AND COLOR	TYPE AND COLOR
10M74 Brn/Grn	10M80 Red/Wht	10M62 Wht/Red
10M72 Brn/Red	10M81 Red/Blk	10M66 Wht/Blue
10M114332 Brn/Blue	10M84 Grn/Yel	10M60 Wht/Blk
10M75 Brn/Wht	10M86 Grn/Wht	10M71 Blk/Wht
10M88 Red/Org	10M85 Grn/Red	10M63 Wht/Org
10M77 Red/Yel	10M65 Wht/Grn	10M64 Wht/Yel
10M79 Red/Blue	10M61 Wht/Brn	

#### CLEAR TUBING—25-FT. SPOOLS

11M410141 #16 . . . . .	\$ .60
11M400414 #22 . . . . .	\$ .55

#### No. 20 SOLID—50-FT. SPOOLS, PRICE \$.80 ea.

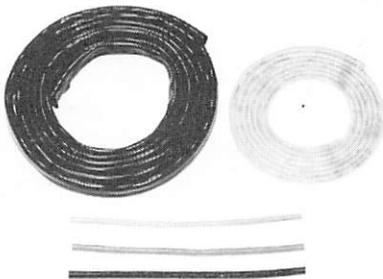
TYPE AND COLOR	TYPE AND COLOR	TYPE AND COLOR
10M391 Brn	10M394 Yel	10M398 Gray
10M392 Red	10M395 Grn	10M399 Wht
10M393 Org	10M396 Blue	10M390 Blk

#### No. 24 SOLID—50-FT. SPOOLS, PRICE \$.65 ea.

TYPE AND COLOR	TYPE AND COLOR	TYPE AND COLOR
10M11 Brn	10M14 Yel	10M18 Gray
10M12 Red	10M15 Grn	10M19 Wht
10M13 Org	10M16 Blue	10M10 Blk

PDK10-1 Wire Spool Assortment with Free Metal Rack . . . . .	\$20.50
ST-185 Metal Rack . . . . .	\$ 3.50

### SLEEVING

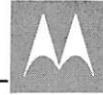


**PDK11-1 Yellow Varnished Sleeving Kit**  
Kit consists of 120 ft. of sleeving—9' of #7, 30' of #10, 30' of #18 & 51' of #20 . . . . . Net Price \$5.00

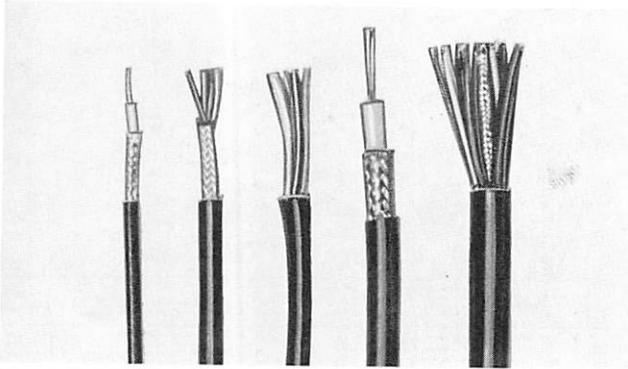
**PDK11-2 Black Vinyl Sleeving Kit**  
Kit consists of 141 ft. of sleeving—30' of #3, 51' of #8, 30' of 3/8" I.D., & 30' of 1/4" I.D. . . . . Net Price \$4.50

**PDK11-3 Black Vinyl Sleeving Kit**  
Kit consists of 75' of sleeving—25' of 1/2" I.D., 25' of 5/8" I.D. & 25' of 3/4" I.D. . . . . Net Price \$5.50

**PDK11-4 Clear Vinyl Sleeving Kit**  
Kit consists of 75 ft. of sleeving—25' of #3, 25' of #8 & 25' of 3/8" I.D. . . . . Net Price \$1.75



# cable & line cord



## Shielded Audio Cable

#24 stranded inner conductor, vinyl outer jacket. Used in audio circuits of mobile and base station transmitters.

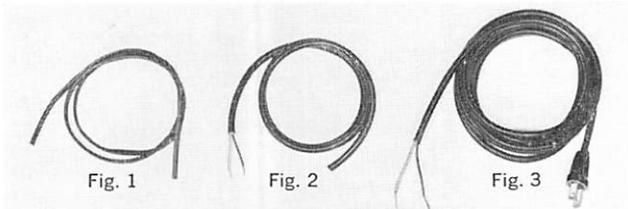
PART NO.	JACKET COVER	NET PRICE
30B 824273	Blue	3.42/C Ft.
30K 824274	Green	3.42/C Ft.
30K 824275	Black	3.42/C Ft.
30K 824277	Red	3.42/C Ft.
30K 824278	Orange	3.42/C Ft.
30K 824279	Yellow	3.42/C Ft.
30K 824280	White	3.42/C Ft.

## Battery Cable

High quality power cable for placement of damaged battery-to-fuse block jumpers or relay-to-mobile power cables.

PART NO.	COND. SIZE	O.D.	COLOR	NET PRICE
30K 830315	2	.458	Red	.26/Ft.
30B 81067	4	.355	Red	.17/Ft.
30K 81068*	4	.355	Brown	.17/Ft.
30K 812504	6	.332	Red	.11/Ft.
30K 825602	6	.332	Black	.10/Ft.
30K 812505	8	.251	Red	.07/Ft.
30K 813233	10	.206	Red	.07/Ft.
30K 831572	10	.206	Black	.07/Ft.
30B 858552	12	.142	Black	2.47/C Ft.
30K 858553	12	.142	Red	2.47/C Ft.

\* Has black and red tracers.



## Speaker Wire, Line Cord

PART NO.	FIG.	DESCRIPTION	NET PRICE
30B 865857	1	Standard Line Cord, 2 cond. 18 ga.	2.66/C Ft.
30B 825430	1	Same as above except has heavier rubber insulation.	3.99/C Ft.
30B 892533	2	Round type A.C. Line Cord, 2 cond. 18 ga.	.05 Ft.
30B 892534	3	Round type A.C. Line Cord w/plug 10 ft.	.66 Ea.
30B 824772	1	Standard cord w/plug 9 ft.	.40 Ea.

## Coaxial Cable

Meets rigid specifications. Low loss polyethylene or teflon dielectric. Copper shielded and vinyl or teflon outer jacket.

PART NO.	RG NO.	IMP	O.D.	NET PRICE
30B 82345	8/U	52	.405	.13/Ft.
30K 50741	11/U	75	.405	.13/Ft.
30B 475378	58A/U	50	.195	5.30/C Ft.
30B 471240	59/U	73	.242	5.60/C Ft.
30B 840807*	174/U	50	.100	5.20/C Ft.
30B 859004	188/U	50	.110	.33/Ft.

\* Teflon jacket.

## Multi-Conductor Cable

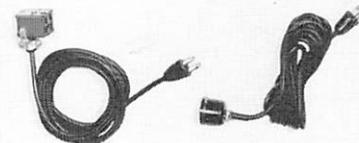
**STANDARD CABLE**—available from 2 to 8 conductors. Can be used for intercoms, remote desk set hook-ups, etc.

**SPECIAL CABLE**—12 to 17 conductor for mobile control cable use.

PART NO.	NO. CONDUCT. AND GAUGE	O.D.	NET PRICE
*30B 892533	2-18 GA.	.245	.06/Ft.
*30A 83743	4-18 GA.	.265	.10/Ft.
30A 800972	4-20 GA.	.295	.13/Ft.
*30A 80202	5-18 GA.	.230	.16/Ft.
30B 80203	6-20 GA.	.280	.23/Ft.
*30B 852364	6 { 4-22 GA. 2-18 GA.	.250	.07/Ft.
30B 892218	7-20 GA.	.380	.24/Ft.
30B 483718	8-20 GA.	.523	.44/Ft.
‡*30B 474498	12-22 GA.	.500	.65/Ft.
30C 830032	12 { 10-24 GA. 2-18 GA.	.475	.22/Ft.
30C 858513	13 { 9-20 GA. 4-18 GA.	.4375	.30/Ft.
30C 864650	17 { 13-20 GA. 4-18 GA.	.4375	.37/Ft.

‡ Extra flexible cable for test sets.

\* Non-shielded cable.



## Complete Line Cord Assemblies

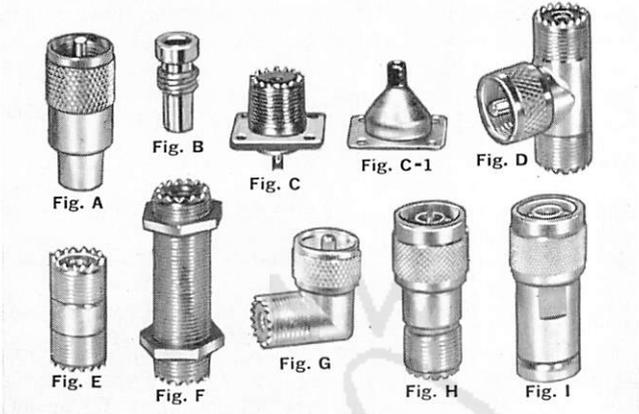
PART NO.	FIG.	DESCRIPTION	NET PRICE
TK 155	1	10 ft. A.C. cord and plug w/4 prong female plug. Used w/A.C. Unichannel Units.	5.30
1V 893228	2	10 ft. A.C. cord and plug w/2 prong female plug. Used w/freq. monitor and station receiver.	4.00



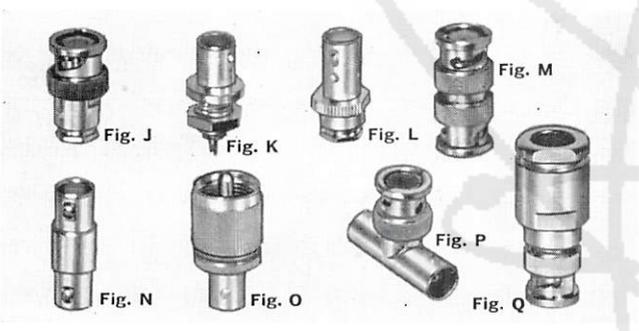
# connectors & plugs

## COAXIAL CONNECTORS

### UHF & Type "N" Connectors



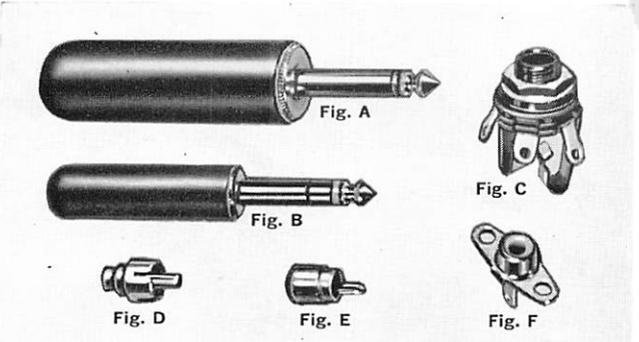
PART NO.	MIL OR OTHER NO.	FIG.	DESCRIPTION	NET PRICE
28A 42310	PL259	A	Plug for RG8/U, 11/U	.73
58A 854020	UG175/U	B	Reducer used with PL259 For RG58A/U	.14
58B 848363	UG176/U	B	Reducer used with PL259 For RG59/U	.21
9A 85615	SO-239	C	Receptacle	.73
15B 483599		C-1	Shield	.40
9A 86150	M358	D	"TEE"	2.59
58A 109152	PL258	E	Straight-Through	1.08
58A 475273	PL274	F	Straight-Through	1.84
28A 48250	UG646/U	G	Right Angle	1.66
58A 82273C01	UG146/U	H	Male "N" and Female "UHF" adapter	4.23
28B 82809C01		I	Male "N" plug for RG59/U	2.86
28B 808256	UG21B/U	I	Male "N" plug for RG11/U	1.91



### BNC Connectors

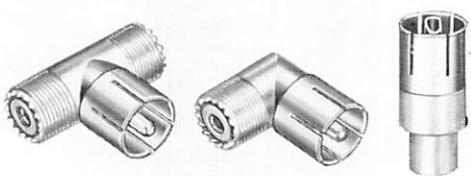
PART NO.	MIL OR OTHER NO.	FIG.	DESCRIPTION	NET PRICE
28B 844876	UG88/U	J	Plug for RG58/U	1.11
28B 868439	UG260/U	J	Plug for RG59/U	1.18
9B 855268	UG657/U	K	Chassis Receptacle	1.61
9B 855269	UG89/U	L	Jack for RG58/U	1.29
58A 82777A01	UG491A/U	M	Male Straight Adapter	2.78
58A 82577B01	UG914/U	N	Female Straight Adapter	2.30
58B 855270	UG273/U	O	Male UHF Female BNC Adapter	1.98
9A 82578B01	UG274/U	P	"TEE"	2.76
28B 82808C01	UG959A/U	Q	Male plug for RG11/U	3.13

## PHONO/PHONE PLUGS AND JACKS



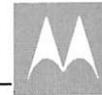
PART NO.	FIG.	DESCRIPTION	NET PRICE
28A 19484	A	Phone Plug (Black) Large Body. 2 circuit	.45
28A 804789	B	Phone Plug (Red) 2 circuit	.59
28A 804790	B	Phone Plug (Black) 2 circuit	.41
28A 855277	B	Phone Plug (Black) 3 circuit	.79
28A 855278	B	Phone Plug (Red) 3 circuit	.79
9A 20261	C	Jack, Open circuit 2 circuit	.27
9K 85656	C	Jack, Closed circuit 2 circuit	.26
9B 82281C01	C	Jack, Open circuit 3 circuit	.32
28K 474006	D	Plug	.37/10
9K 87120	E	Receptacle	.07
9B 54664	F	Receptacle	.05

## NEW "QUICK CHANGE" CONNECTORS



Just "push 'em on or pull 'em off." They save time by eliminating the "threading-on" of Standard UHF connectors used in routine servicing.

58P82350D01—"Quick Change" "T" Connector	Net Price	\$2.90
58P82350D02—"Quick Change" Right Angle Connector	Net Price	\$1.95
58A82093E01—"Quick Change" Ferrule only for PL259 (28A42310) Connector	Net Price	\$1.40/pr.



# sockets & shields

	PART NO.	DESCRIPTION	NET PRICE
	9B 87123	7-Contact Black Bakelite. Fig. A.	.09
	9B 87124	7-Contact Tan Bakelite Fig. A.	.11
	9K 849460	7-Contact Black Bakelite w/Tube Shield Base. Fig. B.	.15
	9B 834083	7-Contact Tan Bakelite w/Tube Shield Base Fig. B.	.20
	9B 86868	9-Contact Black Bakelite. Fig. C.	.12
	9K 825586	9-Contact Tan Bakelite Fig. C.	.14
	9K 832481	9-Contact Black Bakelite w/Tube Shield Base. Fig. D.	.21
	9K 881243	9-Contact Tan Mica Bakelite w/Tube Shield Base. Fig. D.	.23
	9C 857351	7-Contact Printed Ckt. Type used on "Motrac" Radio Fig. E.	.12
	9C 858152	9-Contact Printed Ckt. Type used on "Motrac" Radio Fig. E.	.18
	9C 857358	12-Contact Metering Socket "Motrac" Radio. Fig. F.	.41
	9B 6752	Octal, Black Molded Bakelite. Fig. G.	.19
	9K 6773	Octal, Tan Molded Bakelite. Fig. G.	.46
	9A 6771	Octal, Wafer Type Fig. H.	.17
	9K 83952	Loctal, Tan Molded Bakelite. Fig. I	.28
	9A 6734	4-Contact Wafer Type For 48B 880261 Vibrator and 4 Prong Tubes. Fig. J.	.10
	9K 6748	6-Contact Wafer Type For 48B800145 Vibrator and 6 Prong Tubes. Fig. K.	.17
	9A 83953	7-Contact Wafer Type for 48B 803700 Vibrator. Fig. L.	.22
	9A 6776	7-Contact Molded Type for 48C847730, 48C830032 Vibrators. Fig. M.	.19
	9A 893515	7-Contact Wafer Type for 48B 893518 Vibrator. Fig. N.	.45
	9A 824969	Steatite Socket for .486" Spaced, .050 Dia. Pins. Fig. O.	.24



Fig. P



Fig. Q



Fig. R



Fig. S



Fig. T



Fig. U



Fig. V



Fig. W



Fig. X



Fig. Y



Fig. Z



Fig. 1



Fig. 2



Fig. 3



Fig. 4

PART NO.	DESCRIPTION	NET PRICE
9K 82810	2-Contact Socket for .750" Spaced, .125" Dia. Pins. Fig. P.	.16
9K 857509	2-Contact Socket for .486" Spaced, .090" Dia. Pins. Fig. Q.	.14
9A 857508	4-Contact Socket for .486" Spaced, .090" Dia. Pins. Fig. R.	.25
9C 855941	6-Contact Socket for 2 Freq. Crystal Ovens Fig. S.	.24
9A 82050A01	4-Contact Socket for "Vibrasenders" & "Vibrasponders" Fig. T.	.19
9B 831135	5-Contact Socket for Sub-Miniature Tubes Fig. U.	.55
9A 890750	7-Contact Socket for CK5829 Type Tube Fig. V.	.31
9A 804942	8-Contact Socket for 6BF7 & 6BG7 Type Tubes. Fig. W.	.31

## Transistor Sockets

MK-10 TRANSISTOR MTG. KIT—Includes power transistor socket, teflon insulating washer and 2# sheet metal screws. Fig. X.	.23
MK-15 TRANSISTOR MTG. KIT—Same as MK-10 except mica insulating washer. Fig. X.	.23
MK-20 TRANSISTOR MTG. KIT—Same as MK-10 except anodized aluminum insulating washer. Fig. X.	.35
9B 851303 Transistor Socket Molded Phenolic Fig. Y.	.06
9C 850066 Transistor Socket Laminated Phenolic Fig. Z.	.06

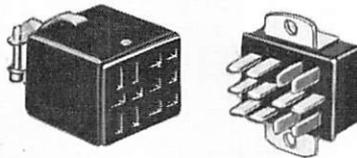
## Metering Sockets

28A 813576 Male Plug, 11 Pin Molded Phenolic Fig. 1.	.23
9A 86864 Female Receptacle 11 Contact w/Snap Ring. Fig. 2.	.19
15A 483149 Shell for 11 Contact Connectors w/Cable Clamp. Fig. 3.	.24
15A 475055 Shell for 11 Contact Connectors less Clamp. Fig. 3.	.20
15A 83157 Shell Same as Above except Hole in Side Fig. 3.	.30
41A 483715 Locking Ring for All Above Shells. Fig. 4.	.51/10



# sockets & plugs

## JONES SERIES 300 MATING SOCKETS AND PLUGS



Chassis Plug (Male)

MOTOROLA PART NO.	TYPE	CONTACTS	NET PRICE
28A 812540	P-302-AB	2	.19
28A 893284	P-304-AB	4	.27
28A 84886	P-306-AB	6	.34
28A 881246	P-308-AB	8	.45
28A 483376	P-312-AB	12	.49
28B 821728	P-315-AB	15	.66
28A 893612	P-318-AB	18	.82

Chassis Socket (Female)

MOTOROLA PART NO.	TYPE	CONTACTS	NET PRICE
9A 891118	S-302-AB	2	.22
9A 801241	S-304-AB	4	.37
9A 898284	S-306-AB	6	.49
9A 800449	S-308-AB	8	.77
9A 82732	S-312-AB	12	.60
9A 891537	S-315-EB	15	.77
9A 898910	S-318-AB	18	.93

Cable Socket (Female) w/Cable Clamp

MOTOROLA PART NO.	TYPE	CONTACTS	NET PRICE
9B 865701	S-302-CCT	2	.64
9B 893290	S-304-CCT	4	.69
9A 84885	S-306-CCT	6	.60
9A 881245	S-308-CCT	8	1.15
9A 880725	S-312-CCT	12	.92
9B 823659	S-315-CCT	15	1.39
9A 893613	S-318-CCT	18	1.50

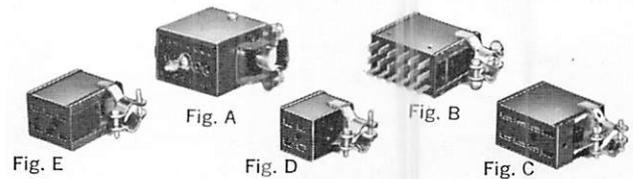
Cable Plug (Male) w/Cable Clamp

MOTOROLA PART NO.	TYPE	CONTACTS	NET PRICE
28A 891117	P-302-CCT	2	.57
28A 898881	P-304-CCT	4	.53
28A 898285	P-306-CCT	6	.57
28A 800657	P-308-CCT	8	.65
28A 82737*	P-312-	12	.72
28B 891298	P-315-CCE	15	1.03
28B 890846	P-318-CCT	18	1.60

\* Does not include Housing and Cable Clamps.

Order separate	15A 82739	Housing	.67
	14A 82738	Insulator	.10
	47A 82735	Pins (2 Req.)	.21/10
	42A 82740	Clamp	.12/PR.

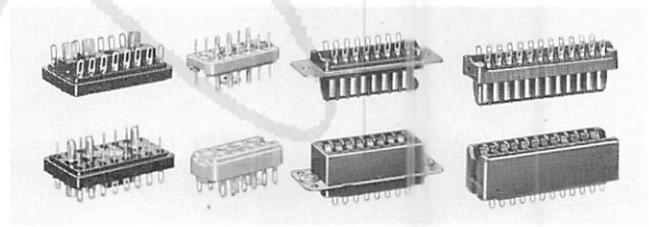
## STANDARD MOTOROLA CONTROL AND POWER CONNECTORS



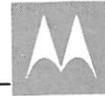
PART NO.	FIG.	DESCRIPTION	NET PRICE
1V 810424	A	19 contact female connector w/housing used on FMTR, FMTRU 41V and T41 and T43G, GGV series rear mt cable kit.	4.90 <sup>3.43</sup>
28B 890846	B	18 contact male plug w/housing used on all control cables for 15" housing mobiles.	1.60
9C 830033	C	6 contact female connector w/housing used on 12 volt power cable for T51G, etc.	3.99
9C 830034	C	6 contact female connector w/housing used on 6 volt power cable for T51G, etc.	4.95
9C 865124	C	8 contact female connector w/housing used on 6 volt power cable for T51GGD.	4.61
9C 865123	C	8 contact female connector w/housing used on 12 volt power cable for T51GGD.	4.38
9K 890845	C	6 contact female connector w/housing used on "80D and 140D" power cable.	4.79
9B 800566	D	4 contact female connector w/housing used on power cable for front mtg. uni-channel.	2.46
9B 834756	E	6 contact female connector w/housing used on power cable for front mtg. D41, 43GGV, etc.	3.42

## MATING SOCKETS AND PLUGS

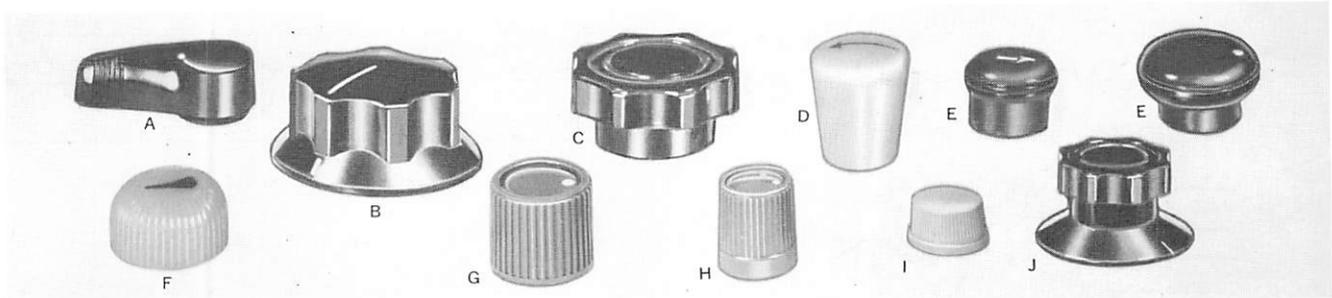
for Mobile, "Handie-Talkie," Industrial "Dispatcher" & Motorcycle Radio Units



PART NO.	DESCRIPTION	NET PRICE
9C 801050	19 Contact Female Socket	.85
28B 802820	19 Contact Male Plug	2.13
9B 804795	15 Contact Female Socket (Old "Handie-Talkie" Radio)	1.38
28B 804796	15 Contact Male Plug (Old "Handie-Talkie" Radio)	1.56
9B 848291	16 Contact Female Socket (New "Handie-Talkie" Radio)	2.13
28B 847027	16 Contact Male Plug (New "Handie-Talkie" Radio)	1.82
9B 851573	24 Contact Female Socket (Industrial "Dispatcher"—Motorcycle Radio)	2.51
28B 851574	24 Contact Male Plug (Industrial "Dispatcher"—Motorcycle Radio)	2.75



# knobs & shields



PART NO.	FIG.	SIZE	COLOR	NET PRICE
36A 55361	A	1-5/8	Black	.15
36B 844421	B	2	Black	.87
36A 813196	C	1-5/8	Black	.54
36K 475832	D	7/8	Natural	.44
36K 81229	E	5/8	Black	.42
36K 81195	E	7/8	Black	.47
36K 844351	E	5/8	Black	.29

PART NO.	FIG.	SIZE	COLOR	NET PRICE
36K 855070	E	1-1/8	Black	.18
36A 890188	F	1	Natural	.19
36K 844653	G	1	Dark Gray	.15
36K 855027	H	3/4	Dark Gray	.15
36A 82288B01	I	11/16	Natural	.20
36B 832199	J	1-1/2	Black	.59

## Tube Shields



PART NO.	SIZE	USAGE	NET PRICE
26A890035	1-3/8"	Tube Type—6AK5 7-Pin	.15
26A890034	1-3/4"	Tube Type—6BH6, 6AK6 7-Pin	.16
26A881244	1-15/16"	Tube Type—12AT7, 12AU7 9-Pin	.18
26K837400		Tube Type—5763	.25

## Tube Shield Base



PART NO.	SIZE	USAGE	NET PRICE
26A890012	1 1/8" x 7/8" x 3/4"	Fits 26A890034 and 26A890035 Tube Shields	.09

## ST-172 Anvil and Riveting Tool

A convenient tool for rivet fastening tube shields and bases. See page 69 for complete details.

## RUBBER SLEEVES



PART NO.	I.D.	LENGTH	NET PRICE
37K 61346	3/16	1-1/4	.15/10
37K 61347	1/4	1-1/4	.20/10
37K 61348	1/8	5/8	.35/TU of 30
37K 50637	1/2	1-1/4	.35/10
37K 50638	5/16	1-1/4	.15/10
37K 50639	5/32	1	.12/10
37K 847035	3/32	5/8	.20/10

## Coil Shields

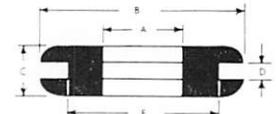


PART NO.	SIZE	USAGE	NET PRICE
26A86869	1-7/32 x 11/16"	"Dispatcher" or "Uni-Channel", Rec.	.08
26A824295	1-3/4 x 11/16"	"Monitor", Rec. (LO3-F)	.08
26A834766	1-55/64 x 11/16"	"G Line", Rec. (TA-140)	.06
26A842219	2-9/16 x 7/8"	Receiver (450-470MC TA-141-A)	.09
26A811222	2-17/64 x 31/32"	Transmitter, "Uni-Channel"	.08
26A834784	1-7/8 x 7/8"	Receiver (450-470MC TA-141-A)	.10
26K858720	2-7/32 x 7/8"	Unified Chassis (450-470MC) (U44BBT)	.09

## ST-133 Coil Shield Installation Tool

Save time and do a better installation job with this handy tool. See page 69 for complete details.

## FLEXIBLE RUBBER GROMMETS



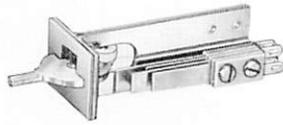
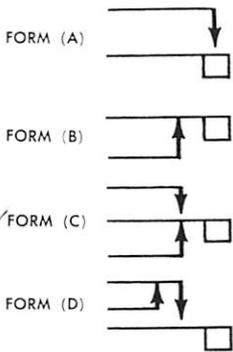
PART NO.	HOLE SIZE (A)	O.D. (B)	THICKNESS (C)	SLOT (D)	MTG. WIDTH (E)	NET PRICE
37K 16754	1/4	1/2	5/32	1/32	11/32	2.30/C
37K 106352	5/16	9/16	3/16	1/16	7/16	2.20/C
37K 107234	3/8	5/8	1/4	1/16	1/2	2.30/C
37K 18023	3/8	13/16	3/8	1/8	1/2	2.50/C
37K 806001	3/8	1-1/4	1/4	1/16	1	11.00/C
37K 83159	7/16	3/4	1/4	1/16	9/16	2.20/C
37K 101643	9/16	7/8	15/64	1/16	3/4	3.00/C
37K 107997	5/8	1-1/8	5/16	1/16	7/8	4.00/C
37K 103890	3/4	1-3/8	3/8	1/16	1-1/16	8.00/C
37K 891401	1	1-3/4	7/16	1/16	1-3/8	8.41/C



# switches

## Lever Switches

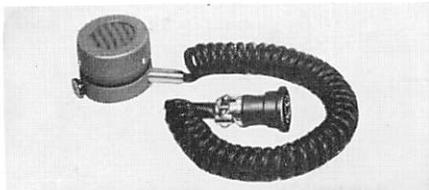
### SWITCH FORMS



PART NO.	CONTACT ASSEM.		TYPICAL APPLICATION	NET PRICE
	POS 1	POS. 2		
40K 855061	2 "A" (NL)	—	TK444	2.94
40K 855062	1 "C" (L)	2 "B" (L)	TK557 Supervisory Switch	3.52
40K 855063	2 "C" (L)	—	TK444 2 Freq. Switch	3.13
40K 855064	3 "B", 1 "A" (NL)	—	TK560 Intercom Switch	3.67
40K 855793	1 "A", 1 "C" (L)	—	TK561 Speaker Mute Switch	3.22
40K 857647	2 "B", 1 "A", 1 "C" (NL)	—	TK560 Intercom Switch	4.37
40K 824213*	2 "A" (NL)	2 "A" (NL)	P9373	3.89
40K 824214*	2 "A" (L)	2 "A" (NL)	P9372	3.78

"L" Locking Type. "NL" Non-Locking Type. \*With Black Plastic Knob. All Others Less Knob.

## NU-130 Microphone Switches, Pushbuttons



SWITCH NO.	NET PRICE	PUSH TO TALK BUTTON	NET PRICE	MANUFACTURER
40K 837081*	.72	38K 837079	.26	Shure Bros.
40K 865087	.91	38K 865089	.13	Turner

\*33A560 Return Spring use with 40K837081. . . . Net Price \$.25

## Knobs



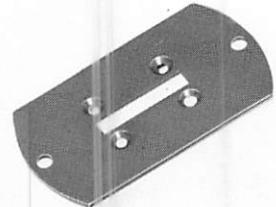
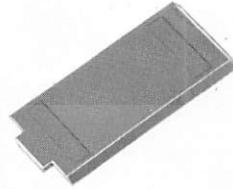
Fig. A



Fig. B

PART NO.	DESCRIPTION	NET PRICE
36A 82783C01	Knob (A)	.20
36B 850902	Knob (B)	.12

## Escutcheon Plates

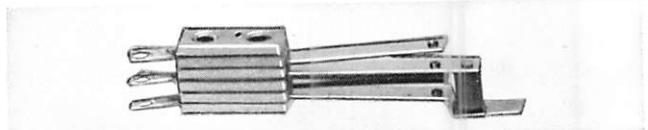


PART NO.	DESCRIPTION AND APPLICATION	NET PRICE
13B 850892	Blank plate, plastic used on TA270, T1200 Series Remote	.14
13K 850893	Slotted hole plate, plastic used on TA270, T1200 Series Remote	.24
13K 850894	Round hole plate, plastic used on TA270, T1200 Series Remote	.24
64A 891277	Slotted hole plate, metal used on FSC-1 Series Remote	1.97

## Printed Identification Labels

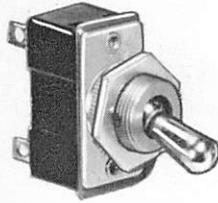
PART NO.	DESCRIPTION	NET PRICE
54B 855037	Volume	.14 ea.
54K 855038	Freq. 1	
54K 855039	Freq. 2	
54K 855040	Mute 2	
54K 855041	Monitor	
54K 855042	Intercom	
54K 855043	Transmit	
54K 855044	Tone	
54K 855045	Power	
54K 855046	On-Off	
54K 855047	Disable	
54K 855048	Take Over	

## Base Station Microphone Switches



SWITCH NO.	FOR MODEL	NET PRICE
40K 810173	P-7245 (Series)	1.13
40B 852735 (Transmit)	TU-532-A, TU-533-A, TU-535, TU-536	.42
40K 855145 (Monitor "Private-Line" Radio)	TU-533-A	.61
40A 880208	P-8255	1.45

## Toggle Switches



General purpose AC-DC type switches. Bakelite case. Solder lug terminals (except type HD) which has screw terminals.  $1\frac{1}{32}$ " diameter threaded stem. U.L. approved. Type M switches are momentary, heavy-duty AC units, slow-make, slow-break.

Type GP is general purpose. Type HD is heavy duty.  
\*20 AMP., 24 V.

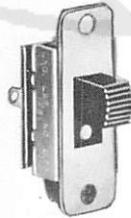
PART NO.	POLES CIRCUIT	AMPERES		TYPE	STEM LENGTH	NET PRICE
		125 V	250 V			
40A 482097	SPST	6	3	GP	11/32	.52
40A 80248	SPDT	3	1	GP	11/32	.90
40K 811753	SPDT	6	1	GP	11/32	.83
40K 811760	DPST	6	3	M	15/32	1.67
40K 811752	DPST	6	3	GP	11/32	1.38
40A 474034	DPST		3	GP	3/8	.95
40A 811748	DPST		20	HD	35/64	2.46
40A 475597	DPST	*		M	15/32	1.27
40A 80246	DPDT		3	GP	1/4	1.09
40K 811751	DPDT	6	3	GP	1/4	1.18
40A 800452	DPDT		*	M	1/2	1.21
40B 834757	3PST	15	10	HD	11/32	1.95

## Slider Switches

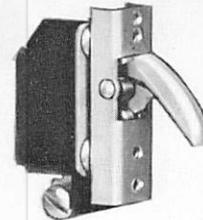
Cadmium plated housing with black phenolic button  $1\frac{1}{4}$ " mounting centers, solder to lug terminals. Size  $1\frac{3}{8}$  x  $1\frac{1}{32}$ .

\*  $1\frac{1}{8}$  x  $\frac{3}{8}$  (nylon button)  
\*\* Tapped screw mounting

PART NO.	ACTION	RATING	NET PRICE
40A 11589	SPST	.75 amp 125V	.12
*40B 861504	SPST	0.5 amp 50V	.32
**40B 82893D01	SPDT	.25 amp 8V	.18
40B 864400	DPDT	.50 amp 125V	.23



## Door Switches



Black bakelite cadmium plated frame with screw type terminals. Spring loaded, normally open.

PART NO.	ACTION	RATING	SIZE	NET PRICE
40A 80237	SPST	6 amp 125V	1-13/32 x 5/8	1.17
40D 891871	DPST	6 amp 125V	1-31/64 x 43/64	2.31

## Push Button Switches



$1\frac{1}{32}$  shank, solder lug terminals.

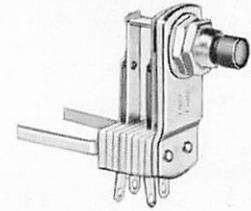
Red push button— $1\frac{1}{16}$  long by  $2\frac{1}{32}$

\*Black push button— $1\frac{1}{16}$  long by  $2\frac{1}{32}$

PART NO.	ACTION	DESCRIPTION	NET PRICE
40A 881084	SPST	(normally open)	.43
*40A 839660	SPST	(normally closed)	.25

# switches

## Rotary Switches



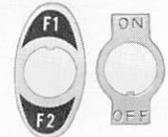
Single and multi-gang switches for all servicing and industrial applications.

40A 890194 includes power switch, 15 AMP. at 10V.

PART NO.	POLES	POSITION	GANGS	BASE DIA.	SHAFT	NET PRICE
40B 890194	1	4	1	1-1/4	5/16	1.52
40A 81254	1	5	1	1-1/4	11/32	1.01
40B 861889	1	12	1	1-5/16	3/8	1.45
40B 890196	2	3	1	1-3/4	5/16	.78
40B 892456	2	3	2	1-7/8	5/16	2.00
40B 891481	2	8	2	1-27/32	13/32	1.36
40B 892457	2	9	2	1-7/8	5/16	1.93
40B 891279	2	11	2	1-7/8	5/16	2.30
40B 822398	2	18	2	2-3/32	3/8	2.46
40B 893324	4	2	1	1-7/8	3/8	2.40
40B 837849	4	3	1	1-1/2	3/8	2.09

## Switch Plates, Toggle Type

PART NO.	DESCRIPTION	NET PRICE
13K 80910	On-Off	.07
13K 891577	F1—F2 Vertical reading	.24



## Seal Nut Assembly

Prevents dust or other foreign matter from entering switch mechanism. Will fit above bat handle type switches.

2A 474371 Seal Nut . . . . . Net Price \$.58

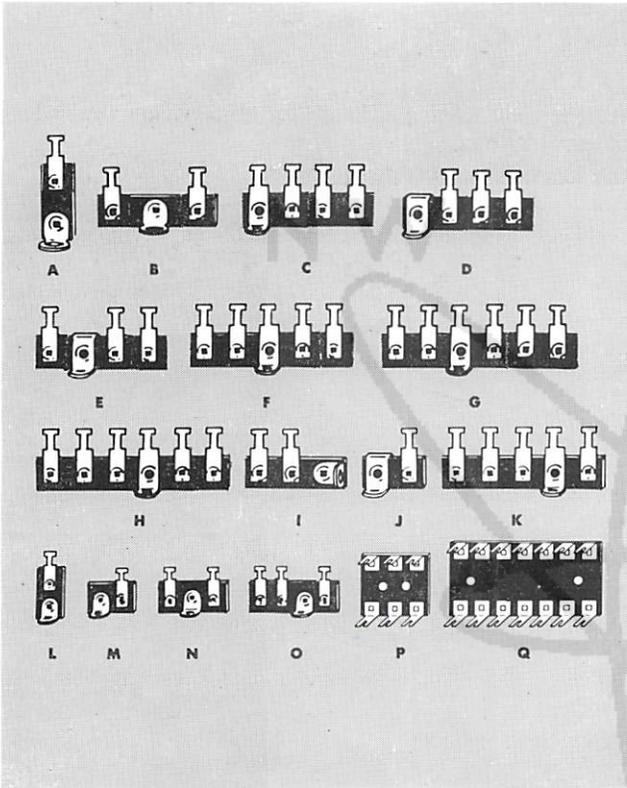




# terminals

## LUG TYPE TERMINAL STRIPS

Single and multiple contact terminal strips, selected for strength, low loss, effective insulation of isolated terminals and overall quality.



### Standard Terminal Strips

Bakelite strips are  $\frac{1}{16}$ " thick and  $\frac{3}{8}$ " wide. Solder lugs are spaced on  $\frac{3}{8}$ " centers.

PART NO.	NET PRICE
(A) 31R 490181	.17/10
(B) 31R 124665	.17/10
(C) 31K 121702	.20/10
(D) 31R 121255	.21/10
(E) 31R 121167	.21/10
(F) 31R 118964	.23/10
(G) 31R 120963	.30/10
(H) 31K 121701	.31/10
(I) 31R 119066	.17/10
(J) 31R 490140	.15/10
(K) 31R 121813	.26/10

### Miniature Terminal Strips

Phenolic insulation  $\frac{1}{16}$ " thick and  $\frac{5}{16}$ " wide. Solder lugs are spaced on  $\frac{1}{4}$ " centers.

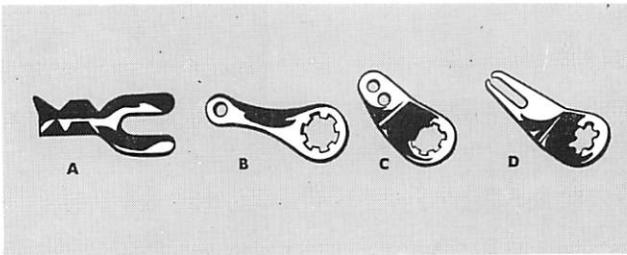
PART NO.	NET PRICE
(L) 31A 121810	.13/10
(M) 31R 119897	.13/10
(N) 31B 118476	.17/10
(O) 31R 120497	.25/10

### Terminal Boards

$\frac{1}{4}$ " lugs spaced on  $\frac{3}{8}$ " centers.

PART NO.	LUGS	DIMENSIONS	NET PRICE
(P) 31A 483523	6	1-1/8 x 1-1/16 x 3/32	.25
(Q) 31A 880813	14	2-5/8 x 1-5/16 x 1/16	.40
(Q) 31A 84849	22	4-1/8 x 1-1/16 x 3/32	.54

## SOLDER LUGS



PART NO.	FIG.	SCREW NO.	NET PRICE
29R 5260	(A)	6	.75/C
29R 5276	(A)	8	.75/C
29R 5265	(A)	10	.75/C
29R 5208	(B)	10	.75/C
29R 5248	(C)	6	.75/C
29R 5321	(C)	10	.75/C
29R 5207	(D)	6	.75/C
29R 5251	(D)	8	.75/C

## TERMINAL PINS



29K890401 to 29K890451 terminal pins. Last 2 digits in part number indicate number on pin. 29K802014 terminal pin is a blank. Available in packages of five, not assorted, and as a complete assortment with numbers from 1 to 51 plus a blank.

Package of 5 terminal pins with number	Net Price \$ .15
Package of 5 blank pins	Net Price \$ .12
Complete assortment—Order PDK-29-1	Net Price \$1.50

Optional pins, numbers, 52 to 56 now available in packages of 5.		
29K835340 #52	Net Price \$ .15	
29K847960 #53	Net Price \$ .15	
29K847961 #54	Net Price \$ .15	
29K847962 #55	Net Price \$ .15	
29K847963 #56	Net Price \$ .15	



# solderless terminals

## PKD-29-2 SOLDERLESS TERMINALS

Lug Assortment in Free Metal Rack  
A \$27.23 Value for Only \$19.95

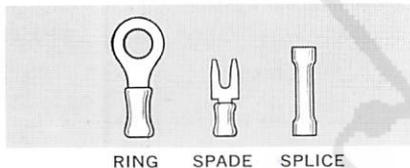
Solderless Terminals provide not only an efficient, time-saving method of connecting leads, they also assure better service through optimum contact between the wire or cable and the terminal. Motorola's line of "API" Terminals has been carefully selected to meet a wide variety of applications involving communications equipment. Solderless Terminals have characteristics which enable them to withstand maximum vibration and feature pull-out strength designed to approach closely the tensile strength of the wire. Complete package includes one tube each of the assortment listed below.

Insulated terminals are conveniently color-coded in red, blue, & yellow to readily identify wire size.



PKD-29-2 Solderless Terminal Assortment . . . . . Net Price \$19.95

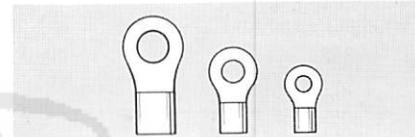
### Insulated Terminals and Splices



RING SPADE SPLICE

WIRE SIZE	STUD SIZE	PART NO.	DESCRIPTION	QTY. IN TUBE	NET PRICE PER TUBE
22-16	10	29A 867965	Lug, Ring	20	1.60
	5-6	29K 868310	Lug, Spade	20	1.60
		43K 867962	Splice	20	1.47
Coded Red					
16-14	10	29K 867966	Lug, Ring	20	1.60
	10	29K 867964	Lug, Spade	20	1.60
	43K 867963	Splice	20	1.47	
Coded Blue					
12-10	10	29K 867967	Lug, Ring	10	1.01
	5/16	29K 867968	Lug, Ring	10	1.09
	43A 857515	Splice	10	1.26	
Coded Yellow					

### Non-Insulated Ring Tongue Lugs



WIRE OR CABLE SIZE	STUD SIZE	PART NO.	QTY. IN TUBE	NET PRICE PER TUBE
22-16	5/16	29K 834053	10	.53
16-14	10	29K 832115	10	.43
	10	29K 824154	10	.59
12-10	1/4	29B 824152	10	.63
	5/16	29K 830073	10	.62
	3/8	29K 832116	10	.76
#8	1/4	29K 868311	5	.55
#8	5/16	29K 824454	5	.74
#8	3/8	29K 847817	5	.74
#6	1/4	29K 830075	5	.83
#6	5/16	29K 830074	5	.83
#6	3/8	29K 847816	5	.83
#4	1/4	29K 830076	5	1.15
#4	5/16	29K 824153	5	1.15
#4	3/8	29K 847815	5	1.15

## CRIMPING TOOLS FOR SOLDERLESS TERMINALS



Fig. A



Fig. B



Fig. C

"SUPER CHAMP" CRIMPER (A) Crimps terminals and strips wire from 22 to 10 gage, shears screws, and bolts up to 3/16" diameter—plastic sleeves on handles are shock and slip proof.

ST120 Super Champ . . . . . Net Price \$4.95

\*"Super Champ", "Certi-Crimp", and API are trademarks of Aircraft Marine Products, Inc.

HAND HYDRAULIC TOOL (B) Although extremely lightweight and compact, this hydraulic tool nevertheless crimps terminals for wire ranging from 8 through 2 gage.

ST123 Hand Hydraulic Tool . . . . . Net Price \$166.75

"CERTI-CRIMP" TOOL (C) Strong and compact hand tool has a special ratchet feature which prevents the tool from being opened before the crimp is completed; handles are color coded to match terminal insulation. Crimps terminals from 22 to 10 gage.

ST124 Certi-Crimp . . . . . Net Price \$22.25



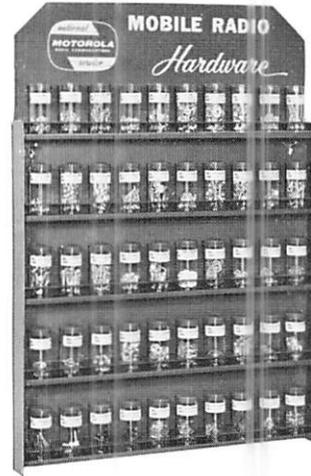
# hardware

## HARDWARE ASSORTMENT

### PDK-1-1 with Free Metal Rack

Lugs, nuts, screws, washers, terminal pins, soldering lugs, neoprene sleeves, rivets, etc. in individual, see-through tubes clearly identified as to part number and size.

- 50 Tubes of most commonly used hardware for 2-way radio servicing
- In clear plastic tubes with red-tops
- Identified for ease of stock inventorying, reordering and selection
- On sturdy metal rack finished in hammerloid blue
- Easily mounted on a wall
- For service trucks as well as shops



**A \$23.00 VALUE**

**FOR ONLY \$16.00**

Save \$7.00! Metal Hardware Rack with Tube Assortment PDK-1-1



### ST-103 Hardware Rack Only

For your own selection or additional tubes of hardware, the Hardware Rack only (less tubes) is available.

Order as ST-103 Empty Hardware Rack. . . . . Net Price **\$5.50**  
 For empty tubes—order ST-130 . . . . . Net Price **.05**

PART NO.	DESCRIPTION	APPROXIMATE NUMBER IN TUBE	PART NO.	DESCRIPTION	APPROXIMATE NUMBER IN TUBE
<b>MACHINE SCREWS</b>			<b>LOCKWASHERS</b>		
3S 2941	6-32 x 1/4 Ph. Rnd.	25	4S 7693	1/4 Med.	50
3S 7164	6-32 x 1/4 Slit. Bin	65	4S 7673	#10	75
3S 1529	6-32 x 3/8 Slit. Fil.	17	4S 7671	8 Med.	100
3S 1943	4-40 x 3/16 Slit. Bin	100	<b>HEXAGON NUTS</b>		
3S 7258	8-32 x 1/2 Slit. Bin	40	2S 7003	8-32 x 3/16 x 1/8	50
3S 7362	6-32 x 1/2 Slit. Bin	50	2S 7009	10-32 x 3/8 x 1/8	50
3S 9661	8-32 x 3/8 Slit. Bin	50	2S 7005	6-32 x 1/4 x 3/32	50
3S 7229	6-32 x 3/8 Slit. Bin	50	2S 7019	4-40 x 1/4 x 3/32	50
3S 7345	10-32 x 1/2 Slit. Rnd.	25	2S 7021	4-36 x 1/4 x 3/32	50
3S 1452	4-40 x 1/2 Slit. Bin	50	2S 7022	1/4-20 x 3/16 x 3/16	25
3S 7385	10-32 x 3/4 Slit. Bin	20	<b>METAL WASHERS</b>		
3S 2991	6-32 x 1/2 Pln. Hex	50	4S 7565	1/2 x .219 x .048	50
3S 7386	6-32 x 1 1/2 Slit. Rnd.	20	4S 7607	3/32 x .125 x .027	100
<b>SELF-TAPPING SCREWS</b>			4S 1720	3/8 x .156 x .030	100
3S 8101	8 x 1/2 Slit. Pan Hd.	40	4S 7562	1/16 x .187 x .033	50
3S 40015	14 x 3/4 Slit. Rnd.	12	<b>FIBRE WASHERS</b>		
3S 8179	4 x 1/4 Slit. Rnd.	50	4K 13240	3/16 x 3/8 x 1/16	50
3S 124183	8 x 1 Pln. Hex	15	<b>TERMINAL PINS</b>		
<b>LOCKSCREWS</b>			29R 5404	.156 dia. Red	6
3S 122080	6-32 x 1/4 Pln. Hex	25	29R 5405	.125 dia. Black	6
3S 122897	4-40 x 1/2 Pln. Hex	35	29R 5407	.125 dia. White	4
<b>ASSORTED RIVETS</b>			29R 5408	.156 dia. Tan	6
PDK 5-1	.122 x 1/8 — 3/16 x 3/32	100	29K 5416	.156 dia. Pln.	25
<b>LOCKWASHERS</b>			<b>SOLDERING LUGS</b>		
Internal Type			29R 5360	#6 Pin	50
4S 7683	#4	100	29R 5220	#8 Lock	35
4S 7670	1/4	75	29R 5241	#8 Side Spade	35
4S 7651	8	100	<b>EYELETS</b>		
4S 7650	6	100	5S 3172	.167 x .158 Brs. Pln.	25
4S 7658	10	100	<b>NEOPRENE SLEEVE</b>		
External Type			37K 61348	3/16 x 1/8 x 3/8	30
4S 7657	#8	100			

Individual tubes of hardware listed above and on following page . . . \$.35 per tube

# HARDWARE IN TUBES AND BOXES OF 500

## Machine Screw — Steel-Cad (Slotted Binder Head)



Part No.	Body Size TPI	Length	Approx. Qty. In Tube	Net Price Per Box
3S 1911	2-56	1/4	30	4.75
3S 1578	2-56	3/8	30	4.75
3S 1960	2-56	3/8	30	4.75
3S 1920	3-48	1/4	30	4.75
3S 114795	3-48	3/8	30	4.75
3S 8022	4-40	1/4	75	1.85
3S 1943*	4-40	3/8	100	1.90
3S 1930	4-40	3/8	75	1.85
3S 1452*	4-40	1/2	50	3.00
3S 1437	4-40	5/8	50	2.80
3S 2260	4-40	3/4	40	3.70
3S 114832	4-40	1	30	4.75
3S 7164*	6-32	1/4	65	2.25
3S 7178	6-32	3/8	50	2.80
3S 7229*	6-32	3/8	50	2.80
3S 7362*	6-32	1/2	50	2.80
3S 7342	6-32	5/8	40	3.70
3S 7346	6-32	3/4	30	4.75
3S 7363	6-32	1	25	5.60
3S 7154	8-32	1/4	50	2.80
3S 7162	8-32	3/8	50	2.80
3S 9661*	8-32	3/8	50	2.80
3S 7258*	8-32	1/2	40	3.70
3S 7279	8-32	3/4	30	4.75
3S 7365	8-32	5/8	25	5.60
3S 115341	8-32	1	20	6.40
3S 121768	10-32	1/4	40	3.70
3S 7171	10-32	3/8	40	3.70
3S 6963	10-32	3/8	40	3.70
3S 1209	10-32	1/2	30	4.75
3S 6946	10-32	5/8	25	5.60
3S 7385*	10-32	3/4	20	7.00
3S 118030	10-32	1	15	9.25

## 1/4-20 Hex Head Bolts (Steel Cad)



Part No.	Body Size TPI	Length	Approx. Qty. In Tube	Net Price Per 10
3S 122358	1/4-20	3/8	—	.10/10
3S 121856	1/4-20	1/2	—	.13/10
3S 6990	1/4-20	3/4	—	.20/10
3S 9693	1/4-20	1	—	.20/10
3S 7328	1/4-20	1 1/4	—	.23/10
3S 9694	1/4-20	1 1/2	—	.33/10
3S 114993	1/4-20	1 3/4	—	.25/10
3S 1845	1/4-20	2	—	.34/10
3S 1844	1/4-20	2 1/4	—	.35/10
3S 125428	1/4-20	2 1/2	—	.40/10

## Tapping Screws — Plain Hex



Part No.	Screw Size	Length	Type	Approx. Qty. In Tube	Net Price Per Box
3S 400356	4	1/4	B	40	3.75
3S 3398	6	3/8	B	20	7.00
3S 3360	6	1/2	B	20	7.00
3S 7454	8	1/4	B	30	4.75
3S 7467	8	3/8	B	30	4.75
3S 7512	8	1/2	B	30	4.75
3S 8153	8	3/4	A	30	4.75
3S 7453	8	1	B	25	5.60
3S 8176	10	3/8	B	30	4.75
3S 8188	10	1/2	B	30	5.00
3S 7482	10	3/4	B	25	5.60
3S 114056	10	1	A	20	7.00
3S 8146	10	1 1/4	A	15	9.25

## Internal Lockwashers — Steel-Cad



Part No.	Screw Size	Hole Size	O.D.	Thick-ness	Approx. Qty. In Tube	Net Price Per Box
4S 8406	# 2	.089-.095	.180	.012	100	1.40
4S 7683*	# 4	.116-.123	.250	.016	100	1.40
4S 7650*	# 6	.142-.150	.280	.018	100	1.40
4S 7651*	# 8	.168-.179	.331	.020	100	1.40
4S 7658*	#10	.195-.204	.375	.018	100	1.40
4S 7670*	1/4	.256-.267	.472	.025	75	1.85
4S 7674	3/8	.320-.332	.600	.030	50	2.80
4S 7655	3/8	.384-.398	.685	.035	35	3.50
4S 2640	1/2	.512-.529	.781	.010	25	5.60

## Flat Metal Washers — Steel-Cad



Part No.	Screw Size	Hole Size	O.D.	Thick-ness	Approx. Qty. In Tube	Net Price Per Box
4S 7607*	4	1/8	3/2	.027	100	1.40
4S 1720*	6	3/8	3/8	.030	100	1.40
4S 7562*	8	3/8	3/8	.033	50	2.80
4S 1706	10	1/2	3/8	.033	50	2.80
4S 1712	10	1/2	1/2	.033	50	2.80
4S 7563	10	1/2	5/8	.033	40	3.70
4S 1792	1/4	3/2	5/8	.090	30	4.75

## External Lockwashers — Steel-Cad



Part No.	Screw Size	Hole Size	O.D.	Thick-ness	Approx. Qty. In Tube	Net Price Per Box
4S 7667	4	.116-.123	.250	.016	100	1.40
4S 7666	6	.142-.150	.312	.020	100	1.40
4S 7657*	8	.168-.176	.375	.020	100	1.40
4S 7652	10	.195-.204	.400	.022	75	1.85

## Split Type Lockwashers



Part No.	Screw Size	Hole Size	O.D.	Thick-ness	Approx. Qty. In Tube	Net Price Per Box
4S 114583	4	—	—	—	100	1.40
4S 7669	6	—	—	—	100	2.00
4S 7671*	8	—	—	—	100	1.40
4S 7673*	10	—	—	—	75	1.85
4S 400449	1/4	—	—	—	50	2.80

## Hex Nuts — Steel-Cad



Part No.	Thread	Width	Thick-ness	Approx. Qty. In Tube	Net Price Per Box
2S 7041	2-56	3/8	3/8	50	2.80
2S 8354	3-48	3/8	3/8	50	2.80
2S 7019	4-40	1/2	3/2	50	2.80
2S 7005	6-32	1/4	3/2	50	2.80
2S 7003	8-32	3/8	1/8	50	2.80
2S 7048	10-32	3/8	1/8	50	2.80
2S 7009	10-32	3/8	1/8	50	2.80
2S 2878	1/4-20	3/8	3/8	25	5.60
2S 119495	1/4-20	3/8	3/2	15	9.25

## Rivets — Steel-Polished Nickel



Part No.	Body Size	Length	Approx. Qty. In Tube	Net Price Per Box
5S 8497	.088	1/8	50	2.80
5S 7771	.088	3/8	50	2.80
5S 7774	.088	1/4	50	2.80
5S 7759	.088	3/8	50	2.80
5S 7706	.122	1/8	50	2.80
5S 7701	.122	3/8	50	2.80
5S 7700	.122	1/4	50	2.80
5S 7728	.122	3/8	50	2.80
5S 7791	.122	3/8	50	2.80
5S 2839	.122	3/8	50	2.80

\* Included in Hardware Rack Assortment



# microphone parts

## MOBILE MICROPHONE PARTS

"Quality-checked" replacement cartridges, cords, components and hardware to restore full performance to the radio system—universal replacement parts for most microphones now in service.

### coiled cords

- 30B 84269—Standard Coiled Cord, 11" retracted, with trimmed and tinned leads. For TU341, TU351 and P255A microphones \$3.75
- 1V 80706A67—Standard Coiled Cord, 11" retracted. Includes 4 pin male microphone connector. For TU341, TU351 and P255A microphones 5.12
- 30K 475846—Standard Coiled Cord, 7" retracted, with trimmed and tinned leads. For TU342, TU352 and P255C microphones 3.55
- 1V 890681—Standard Coiled Cord, 7" retracted. Includes 4 pin male microphone connector. For TU342, TU352 and P255C microphones 4.90
- 30B 891505—Tinsel Coiled Cord, 11" retracted, terminated in 4 spade lugs for 50D 844798, 50D 845121 and 50B 890923 microphones 4.65
- 30K 848347—Tinsel Coiled Cord, 11" retracted, terminated in 5 spade lugs for 50D 845122 dynamic speaker—microphone 5.00
- 30B 822726—Tinsel Coiled Cord, 13" retracted. Includes 4 pin male microphone connector. For TU343, TU353 and P255E microphones 5.70
- 30K 848348—Tinsel Coiled Cord, 11" retracted. Includes 4 pin male microphone connector. For TU354 dynamic speaker—microphone 6.00

### cartridges, rings, pre-amp

- 50K 810470—Carbon Replacement Cartridge for TU341, TU342, TU343, P255A, P255E, 50D 844798 and 50B 890923 microphones \$5.52
- 50K 845123—Dynamic Replacement Cartridge for TU351, TU352, TU353, TU354, 50D 845121 and 50D 845122 dynamic microphones 7.40
- 42K 838820—Rubber Cartridge Mounting Ring for TU341, TU343, 50D 844798 and 50B 890923 microphones .20
- 42K 842121—Rubber Cartridge Mounting Ring for TU342 and P255C microphones 1.40
- 42K 844075—Clamping Ring for 50K 810470 cartridge .15
- 1V 848112—Pre-Amp Assem. for TU351 series 8.47

### microphone connectors

- 28A 16370—Male Connector, 4 contacts \$9.00
- 9B 16345—Chassis Receptacle, 4 contacts .66
- 28A 881072—Male Connector, 6 contacts 1.23
- 9A 881071—Chassis Receptacle, 6 contacts .71



### covers

- 15K 845233—Front cover for TU351, 352, 353 transistorized microphones; available in dark gray finish only \$2.25
- 15K 844845—Front cover for all carbon microphones; available in dark gray finish only 2.54
- 15K 844846—Back Cover for TU-342, TU-352 and P-255-C microphones less hang up stud (dark gray finish.) 2.92
- 15K 845379—Back cover for all microphones with hang up button; available in light gray finish only 2.92
- 15B 482462—Rubber Boot (weatherproof) for 4 contact male connector .30
- 15A 483033—Rubber Cover (weatherproof) for switch push to talk button (38K 848315) .58

### miscellaneous replacement parts

- 40K 51045—Replacement Switch for TU341, TU342, TU343, P255 series, 50D 844798 and 50B 890923 microphones \$.63
- 40K 852079—Replacement Switch for TU354 and 50D 845122 "Speaker" mikes .55
- 38K 848315—Switch Button (push to talk) for all models .18
- 3A 16380—Hang Up Button (fits into back cover) for hanging microphone to support plate. For all models except TU342, TU352 and P255C .21
- 1X 16241—Microphone Mounting Kit for hanging microphone. Includes one 64A 85596 support plate and two 3S 8101 mounting screws. For all models except TU342, TU352 and P255C .29
- 42B 893647—Strain-relief clamp and "S" hook for securing mike cable into control head .05
- 41K 838823—Plug End Spring for TU341, TU351, TU354 and P255A only .11
- 41A 852707—Microphone End Relief Spring for all models .11
- 35K 844077—Grille Cloth for all models .34/pkg. of 10
- 3S 1529—Cover Mounting Screw for all models .35/tube of 17

# MOBILE TRANSISTORIZED MICROPHONE PARTS

TU-351-A—TU-352-A—TU-353-A—1V852400

## coiled cords

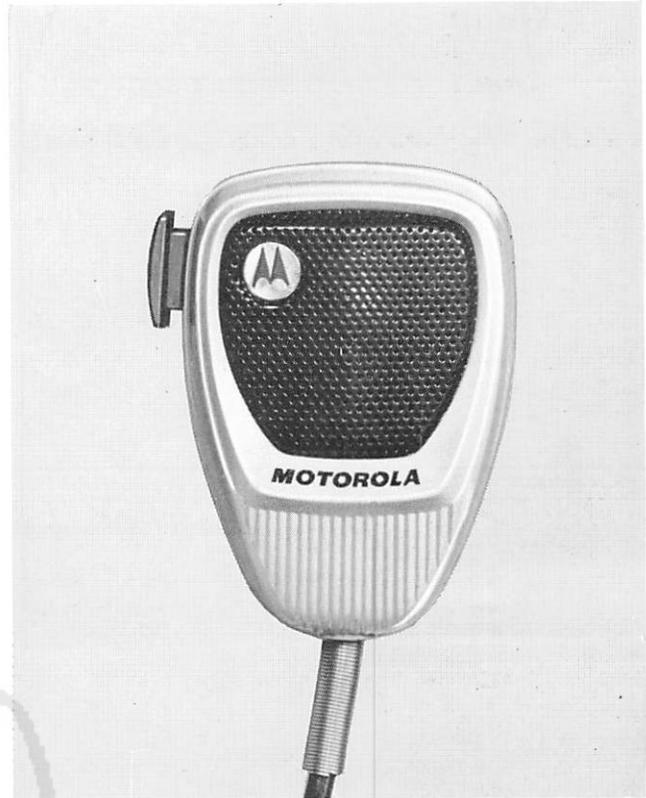
	NET PRICE
30B852740—Cord, Coiled 12" retracted. Used on TU-351-A.	\$3.90
1V854030—Coil Cord & Plug 12" retracted. Includes 4 pin male microphone connector. Used on TU-351-A	5.12
30B82565B06—Cord, Coiled 8" retracted. Used on TU-352-A	3.70
1V80707A56—Coil Cord & Plug 8" tinsel, retracted. Includes 4 pin male microphone connector with weatherproof connector cover. Used on TU-352-A.	4.90
30K852742—Cord, Coiled (tinsel) 12" retracted. Used on TU-353-A and 1V852400.	3.75
1V854034—Cord, Coiled (tinsel) 12" retracted. Includes 4 pin male microphone connector. Used on TU-353-A.	6.58
1V854006—Cord, Coiled w/solderless spade lugs. Used on 1V852400.	4.24

## electrical components

	NET PRICE
59C852603—Cartridge	\$7.87
40C82202B01—Switch (DPST) Used on TU-351-A only.	.50
40B852734—Switch (SPST) Used on TU-352-A, TU-353-A and 1V852400.	.52
1V861317—Pre-Amp. Assembly.	5.23
28B16370—4 pin male plug	.90
48A124317—Transistor (MN60)	.41
14A861196—Transistor Insulator	.07/10

## mechanical components

	NET PRICE
15D852566—Front Cover, light gray	\$.95
15K858486—Front Cover, driftwood	.82
1V854005—Back Cover, dark gray metallic	1.00
1V864588—Back Cover, blue gray metallic	.98
13B852703—Mic. Grill	.37
35A852701—Grille Cloth	.31/pkg. of 10
38A852699—Button, Switch	1.30/10
32B852702—Rubber Gasket	.15
41A852707—Spring (Strain Relief)	.11
42A852710—Clamp, Cable	.06/10
42A852705—Strap	.08
14A857137—Insulator (Between Clamp & Mic. Cart.)	.20/10
14A857138—Insulator (Printed Circuit Assem.)	.27/10
4K852762—Washer, Insulator spacer	.13/10
13A852709—Emblem	.34
3S124693—Screw (6-32x1/4 Phl. Rnd. Stl. Cad.)	.10/10
3S127481—Mch. Scr. (6-32x7/8 Phl. Rnd. Pol. Nk.)	.10/10
3S127924—Lockscrew (6-32x5/16 Phl. Rnd. Stl. Cad.)	.10/10
4S400386—Lockwasher (#6)	.75/100



## TINSEL CORD REPAIR KIT PDK-1-3

Kit includes Crimp Sleeves, Spade Lugs, Neoprene Sleeves. Enough material for repairing 5 tinsel cords.

PDK-1-3 Net Price \$ .50

## MOBILE MICROPHONE REPAIR KIT

P-255—TU-341—TU-351—TU-352—TU-353

SAVE 10%—A handy assortment of mechanical components for replacement in the mobile microphones listed above is now available in a clear, see-through, self-sealing plastic bag. This assortment includes such items as insulators, clamps, screws, springs, washers, grille cloths, etc. Up to 5 microphones can be repaired from this assortment.

Order PDK-59-2 microphone repair kit \$2.35

## TRANSISTORIZED MOBILE MICROPHONE REPAIR KIT



TU-351-A—TU-352-A—TU-353-A—1V852400

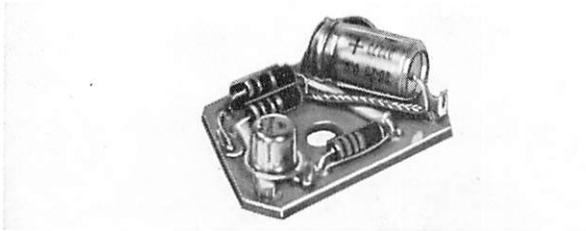
SAVE 10%—An assortment of mechanical components for replacement in the transistorized microphone as listed is now available in a clear, see-through, self-sealing plastic bag. This assortment includes such items as insulators, clamps, screws, washer, grille cloths, etc. Up to 5 microphones can be repaired from this assortment.

PDK-59-1 Transistorized microphone repair kit \$1.65

See Pages 60-61 for Handset Replacement Parts



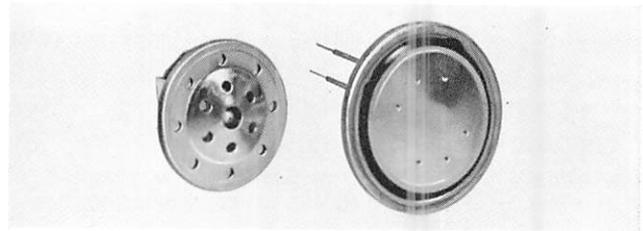
# microphone parts



**Pre-Amplifiers**

PART NUMBER	DESCRIPTION	NET PRICE
1V 861317	Pre-Amp for TU 535 and TU 536 series microphone	5.23
1V 80705A81	Pre-Amp for TMN 6007A and TMN 6008A microphones	10.88
1V 848112	Pre-Amp for TU 436 Microphone	8.47

3.92  
8.16  
5.93

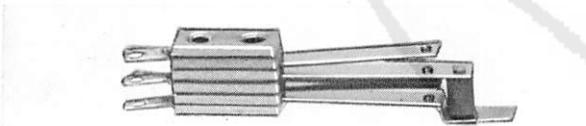


**Cartridges**

PART NUMBER	DESCRIPTION	NET PRICE
59C 852603	For all TU 532, TU 533, TU 535, TU 536 series and TMN 6007A and TMN 6008A microphones	7.87
59K 810174	For P7245 series microphone	6.90
59K 851807	For TU 436 Microphone	14.95

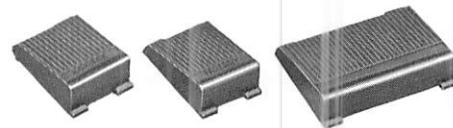
5.90

## SWITCHES AND PUSHBUTTONS



**Switches**

PART NUMBER	DESCRIPTION	NET PRICE
40B 852735	"Transmit" switch for TU 532, TU 533, TU 535, TU 536 series microphone	.42
40C 82424B01	"Transmit" switch for TMN 6007A and TMN 6008A microphones	.44
40K 855145	"Monitor" switch for TU 533 and TU 536 series microphone	.61
40C 82424B02	"Monitor" switch for TMN 6008A microphone	.55
40B 810173	Switch for P7245 series microphone	1.13
40K 845077	Switch for TU 436 microphone	1.70



**Push Buttons**

PART NO.	DESCRIPTION	NET PRICE
38B 855008	Large "Transmit" push button for TU 532, TU 535 series and TMN 6007A microphones	.28
38B 855009	Small "Transmit" push button for TU 533, TU 536 series and TMN 6008A microphones	.16
38K 855010	"Monitor" pushbutton for TU 533, TU 536 series and TMN 6008A microphones	.16
38K 850802	Push knob for P7245 and TU 436 series microphones	.48

## HANDSET REPLACEMENT PARTS



**Receiver Caps**

PART NO.	MODEL	NET PRICE
15K 840998	Western Electric and Roanwell Handsets	2.82
15K 850855	Stromberg-Carlson Handsets	1.22

**Transmitter Caps**

PART NO.	MODEL	NET PRICE
15K 840999	Western Electric and Roanwell Handsets	2.82
15K 850856	Stromberg-Carlson Handsets	1.19

**Receiver Cartridges**

PART NO.	HANDSET TYPE	NET PRICE
59K 51050	Western Electric and Roanwell Handsets	6.86
59K 850852	Stromberg-Carlson Handsets	6.48

**Transmitter Cartridges**

PART NO.	HANDSET TYPE	NET PRICE
59K 51049	Western Electric and Roanwell Handsets	4.12
59K 850965	Stromberg-Carlson (TU-460) Desk Sets	5.19
59K 850853	Stromberg-Carlson (NU-129) Handsets	5.19

**Push to Talk Switches**

PART NO.	HANDSET TYPE	NET PRICE
39X 51060	Western Electric (59-80214)	2.52
40K 834349	Roanwell (59-834032-804932)	4.68
40K 850860	Stromberg-Carlson (50-850961-847025)	2.68

**Contacts, Mtg. Screws**

PART NO.	DESCRIPTION AND TYPE	NET PRICE
42K 850857	(Center Contact) Stromberg-Carlson	.80/10
42K 850858	(Outer Contact) Stromberg-Carlson	.80/10
3K 850859	(Screw-Contact Mtg.) Stromberg-Carlson	.25/10
3K 82474	(Screw-Contact Mtg.) Western Electric	.10/10
#212618-000	(Screw-Switch Mtg.) Stromberg-Carlson	.03
#212433-000	(Switch to Mtg. Plate Screw) Stromberg-Carlson	.38/10

# HANDSET COIL CORD AND PLUG ASSEMBLIES

FOR MODEL	REPLACEMENT COIL CORD NO.	NET PRICE
P278C & F	1V 84354	7.57
P278D & L	1V 848171	8.92
P278G	1V 881202	9.56
NU 129	1V 848171	8.92
TU 475	1V 852731	5.39
TU476	1V 854064	6.05
TU 477	1V 854065	5.17
*TU 560	1V 854066	4.57
TMN 6005A	1V 80704A49	4.35
TMN 6006A	1V 80704A50	5.32
*1V 852500	1V 854066	4.57

\*Has spade lug terminations



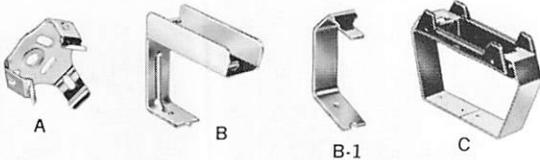
## MODEL NU 130 MICROPHONE PARTS

SUP-PLIER	CARTRIDGE	SWITCH	PUSH BUTTON	FRONT COVER	REAR COVER	COIL CORD	STRAIN RE-LIEF SPRING	MIKE PLUG
Turner	59K 865086 Net . . . 4.25	40K 865087 Net . . . .91	38K 865089 Net . . . .13	15K 865090 Net . . . 2.21	15K 865091 Net . . . 1.19	30K 838817 Net . . . 4.00	41K 865088 Net . . . .24	28A 16370 Net . . . .90
Shure	59K 865086 Net . . . 4.25	40K 837081 Net . . . .72	38K 837079 Net . . . .26	15K 865090 Net . . . 2.21	PK-70 Net . . . 2.12	30K 838817 Net . . . 4.00	41K 838816 Net . . . .14	28A 16370 Net . . . .90



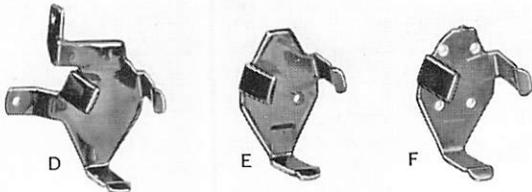
## MICROPHONE AND HANDSET HOLDERS

### For Handie-Talkie Units



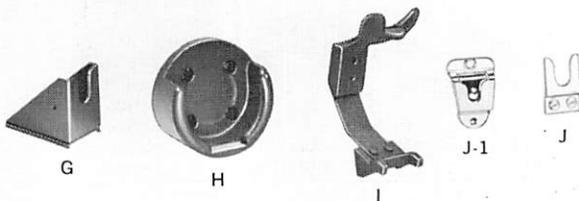
PART NUMBER	USAGE	NET PRICE
42K847537 (Fig. A)	"P" and "H" Series "Handie-Talkie" Units	.60
1V848554 (Fig. B)	"H" Series "Handie-Talkie" Units	2.15
7B847008 (Fig. B-1)	"H" Series "Handie-Talkie" Units	.88
1V881253 (Fig. C)	"Handie-Talkie" Units (Old)	3.52

### For Motorcycle Units



PART NUMBER	USAGE	NET PRICE
51A475849 (Fig. D)	Servi-Car 3-Wheel	3.42
51A483158 (Fig. E)	Solocycle 2-Wheel	2.99
7B845029 (Fig. F)	Transistorized Motorcycle "Dispatcher" Radio	3.60

### For Mobile and Base Station Units



PART NUMBER	USAGE	NET PRICE
7B801131 (Fig. G)	A.C. Utility	2.12
59B 80216* (Fig. H)	General	4.50
1V 858465 (Fig. I)	General (For Stromberg-Carlson)	1.45
51B 881190 (Fig. I)	For W.E. or Roanwell Handsets	5.23
1V 16241 (Fig. J)	Mobile	.29
1V 851093 (Fig. J-1)	General (Spring Loaded)	.88
* 1V 81514 Hardware Kit for Fig. H		.15



# speaker parts

## PERMANENT MAGNET SPEAKERS



Dependable, quality units for your direct replacement needs. Built to EIA standard dimensions, all models employ Alnico V magnets to provide efficient sound reproduction. Fully dust-proofed. Voice coil impedance 3.2 ohms.

PART NO.	SIZE	FRAME	USED ON	NET PRICE*
50C 855098	2x2 <sup>3</sup> / <sub>4</sub> "	Oval	TU-546 Test Set	3.66
50B 893245	2 <sup>1</sup> / <sub>2</sub> "	Square	H&P "Handie Talkie"	2.25
50C 852091	3 <sup>1</sup> / <sub>2</sub> "	Square	D31 & D33 "Dispatcher"	3.21
50B 470620	3 <sup>1</sup> / <sub>2</sub> "	Round	P8501 Test Set	2.85
50C 800112	4"	Square	A.C. Utility	2.40
50B 475501	4 <sup>1</sup> / <sub>2</sub> "	Round	P8263 Series Speakers	2.76
50C 850633	5"	Round	Pwr Voice & TU324A	2.91
50B 83595	6"	Round	P327 & P257	4.47

\* Speaker prices include F.E.T.

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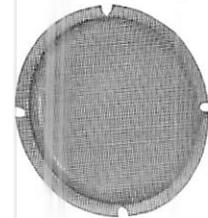
## VOICE COIL DRIVER UNIT REPLACEMENT



PART NO.	DESCRIPTION	NET PRICE
50K 867784	Voice Coil/Driver Unit—Replacement Unit for Speakers—TU 259, P 8257, P 8257A, P 8257B, P 8588, P 9084.	11.62
50C 851263	Voice Coil/Driver Unit—Replacement Unit for Speakers—TU 449, 6 or 12V TU 450, 6 or 12V.	10.37

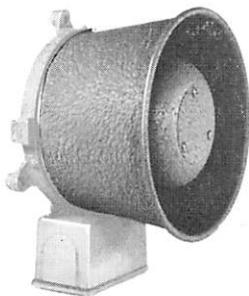
NOTE: Voice Coil Only is not replaceable.

## SCREENS



PART NO.	USED ON	NET PRICE
64B 890458	"BY" Base Station and PA8270 Remote	1.80
13K 850572	"Power Voice" Speakers	.79
64B 11058	"BR" Stations	1.04
64B 893874	All front mounting panels	1.06
13B 844380	Standard mobile and Motrac speakers	.75

## SPEAKER BELL REPLACEMENTS



PART NO.	DESCRIPTION	NET PRICE
15K 845355	Speaker Bell, Steel used on P 8257 and TU 259	4.50
15K 845354	Speaker Bell, Aluminum used on P8257 and TU 259	4.50

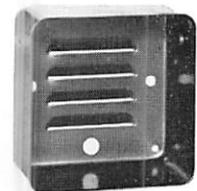


## BEZELS



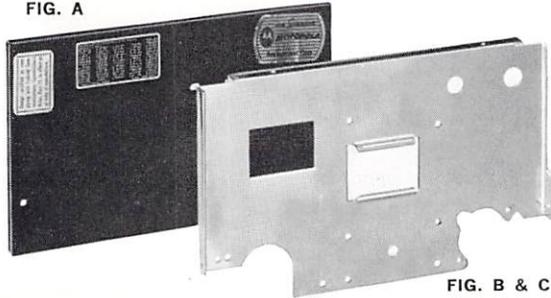
PART NO.	USED ON	NET PRICE
13B 891502	"BY" Base Station	1.63
13K 891855	"BR" Stations	2.26
13D 844376	Std. Mobile Speaker, Light Gray	2.07
13K 857968	"MOTRAC" Radio speaker, Driftwood	2.14

## HOUSINGS



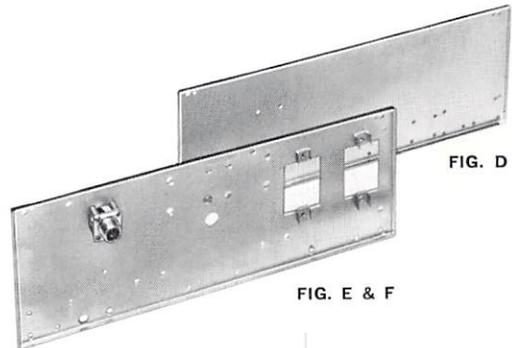
PART NO.	USED ON	NET PRICE
15C 847647	Standard Mobile, Dark Gray	1.93
15C 857969	"Motrac" Radio, Elue Metallic	1.93

FIG. A

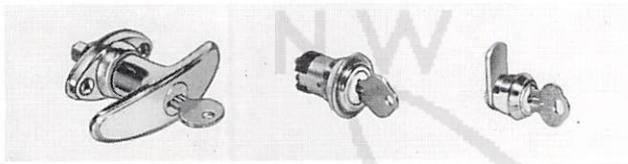


# panels & locks

PART NO.	DESCRIPTION	NET PRICE
64C 802703	Rear tie plate for all 10" models (fig. A)	1.75
64C 802701	Front sub panel for standard 10" models (fig. B)	2.50
64C 854389	Front sub panel for "T-Power" 10" models (fig. C)	2.50



## Standard Motorola Locks and Keys



MOTOROLA LOCK AND KEY #	MODEL	NET PRICE	MOTOROLA KEY # ONLY	MFG. KEY #	NET PRICE
55K893871	10" Mobile Housing	.86	✓ 55K893872	2135	.30
55B890567	15" Mobile Housing	3.69	✓ 55K890568	PA-235	.30
55B857664	15" Housing ("T-Power")	1.71	55K857665	AM-125	.30
55K893871	(BY) Cabinet	.86	✓ 55K893872	2135	.30
55K837338	(BR) Cabinet—Front Door	1.35	✓ 55K837339	2553	.30
55K837337	(BR) Cabinet—Rear Door	.99	✓ 55K837339	2553	.30
55K837360	(BR) Outdoor Cabinet	3.60	55K837361	CH-751	.30
55K87143	FMTRU-5-V "Dispatcher"	2.13	✓ 55K87144	AU-234	.30
55K893871	"Compa-Station"	.86	✓ 55K893872	2135	.30
55B851486	Transistorized Motorcycle "Dispatcher" Mtg. Rack	.86	✓ 55K851487	6K11	.07

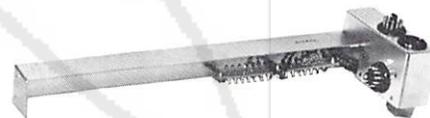
PART NO.	DESCRIPTION	NET PRICE
64C 849094	Rear tie plate for all 15" models (fig. D)	1.75
64C 890558	Front sub panel for standard 15" models (fig. E)	2.50
64C 859618	Front sub panel for "T-Power" 15" models (fig. F)	2.50

## Coaxial Lead Assemblies



PART NO.	DESCRIPTION	NET PRICE
1V 800193	Coaxial lead assembly 24" long	1.50
1V 891932	Coaxial lead assembly 30" long	1.75
1V 836807	Antenna Receptacle and lead 8" long	2.70
1V 830416	Antenna Receptacle and lead 14" long	2.76

## Chassis Adapter Kits



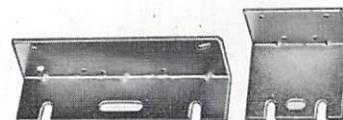
Used with "G" type receiver for mounting in 15" mobile units or for base station use in standard 19" racks.

PART NO.	DESCRIPTION	NET PRICE
TK 319	For standard and dual squelch receivers (mobile)	9.25

## Switch Locks and Keys

40A475830	Motorcycle —FMTRU —Series	2.15	55K861206	DM-279	.30
40B849041	Motorcycle S-31 and 33 Series	1.52	55K849042	63	.30
40A86741	FSTRU—250—BR	1.63	55K86743	—	.30

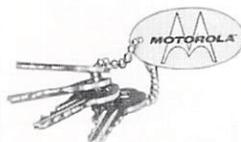
## Chassis Mounting Brackets



Used when mounting chassis in base stations, compa stations or any standard 19" rack.

PART NO.	DESCRIPTION	NET PRICE
7A 891271	Sensicon type receiver mounting bracket 4 7/8" wide	.41
7A 891269	Power Supply Mounting bracket 2 3/8" wide	.40

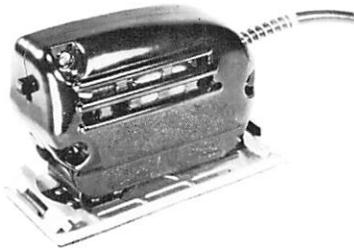
## Spare Keys



Save time by having sets of keys in both shop and service vehicles. With the purchase of four or more keys you receive as a free bonus an attractive key chain.



## servicing aids



**ST-154**  
Sander-Polisher

Simplifies removal of paint or rust from marred radio equipment housings or vehicles. The sander weighs only 2½ lbs. and takes little room in tool box, on bench, or in tool storage drawer.

ST-154 Sander Polisher ..... Net Price \$10.25



**ST-111**  
Electrician's  
Knife

Extra rugged. Blades are high-grade cutlery steel, carefully tempered. Plastic handle is extra sturdy; the 3" screwdriver blade locks in place during use—thumb pressure releases lock. Other blade is 2½" long.

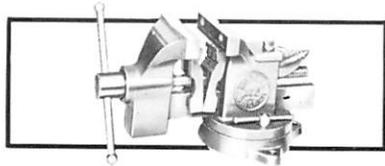
Net Price ..... \$1.65



**ST-226**  
Cavity Tuning  
Tool

Tool for tuning ISO-Q cavities in "Sensicon" receivers. Tool design permits firm grip needed for exact tuning.

Net Price ..... \$1.35



**ST-119**  
5" Utility Vise

Ideal for rugged shop work. Features removable, face-hardened steel face and pipe jaws . . . heavy base with positive slide lock . . . cut off tool.

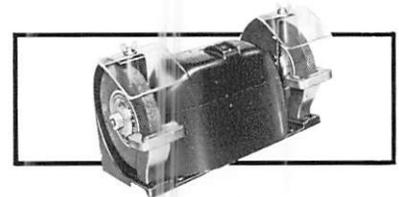
Net Price ..... \$13.67



**ST-131**  
50-ft. Fish Tape

Makes even long conduit runs easy; reel acts as sure-grip handle. Fine for antenna installations on buildings, vehicles. Flat-type, tempered-steel fish tape is always in conduit or reel—can't spring loose.

Net Price ..... \$4.60



**ST-142**  
Thor Model 128  
Bench Grinder

Heavy-duty grinder with ¼ hp, induction type, 3,450 rpm motor; 46 and 75-grit wheels.

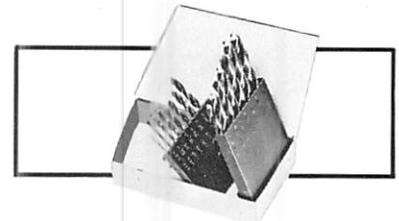
Net Price ..... \$25.00



**ST-143**  
Wen 2-Speed  
Power Drill

Powerful ⅜" electric drill runs at 3,000 and 1,000 rpm speeds. Provides right speed for all jobs. Geared chuck with key.

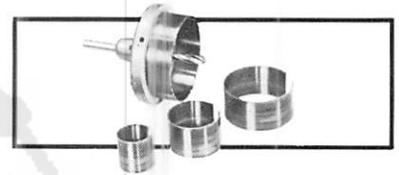
Net Price ..... \$19.95



**ST-144**  
Mechanics  
Drill Set

Includes 15 quality, high speed drills, from ⅛ through ½ inch, in graduations of sixteenths. Steel case has hinged cover; leaves hold drills in slots clearly marked as to size.

Net Price ..... \$13.00



**ST-145**  
Holesaw At-  
tachment for  
Electric Drill

Cuts 1, 1½, 2, 2½" hole in wood, plastic or metal. ¼" shank on arbor. High-carbon steel blades secured by set screw.

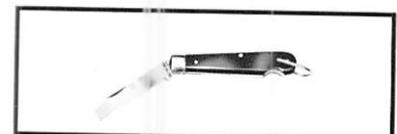
Net Price ..... \$4.00



**ST-146**  
Cordomatic 700  
Drop Light Reel

Drop light with 20' cord. Spring action reel mounts on wall or ceiling; gravity action locking, automatic rewinding.

Net Price ..... \$14.65

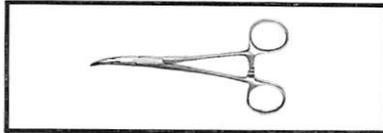


**ST-112**  
Wire-Skinning  
Knife

High-quality, finest carefully-tempered, cutlery steel. Flat-head on 2¼" blade speeds skinning. Sturdy plastic handle is equipped with ring for attaching to snap.

Net Price ..... \$1.50

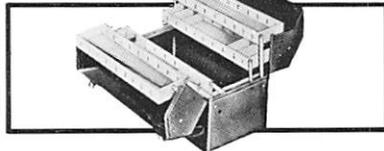
**ST-207  
Multi-Purpose  
Seizer**



Curved nose, extra-tight lock makes this stainless steel tool ideal for retrieving items in awkward places. Out-reaches and out-holds needle-nose pliers in applications such as holding wires for soldering or repairing. An excellent transistor heat sink.

Net Price ..... \$4.40

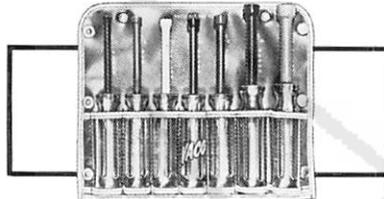
**ST-141  
Simonson  
Tool Box**



Four-tray fabricated tool box with water-tight body. 18" x 10½" x 13". Ten tray dividers.

Net Price ..... \$10.75

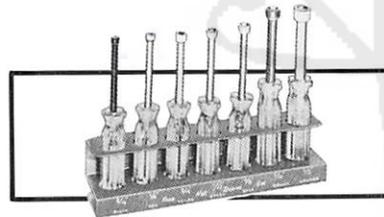
**ST-150  
Vaco Self-  
Standing Nut  
Driver Set**



Stands up, hangs up, folds up. 7 hex sizes ⅜" to ½". With color-coded shafts for quick identification.

Net Price ..... \$6.40

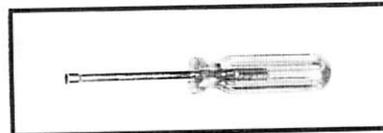
**ST-151  
Vaco Bench  
Stand Nut  
Driver Set**



Metal frame for permanent mounting on bench or wall. 7 hex sizes ⅜" to ½". With color-coded hollow shafts for quick identification.

Net Price ..... \$6.40

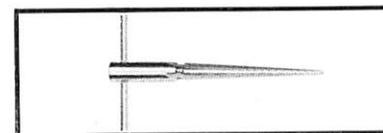
**ST-227  
Hex Nut Driver**



For removing screws from PA Shield of Uni-Channel and "G" type units. Designed for use with ⅞ inch hex size. Handle diameter is ⅞ inch, length 3½ inch. Overall length of tool is 6¾ inches.

Net Price ..... \$.72

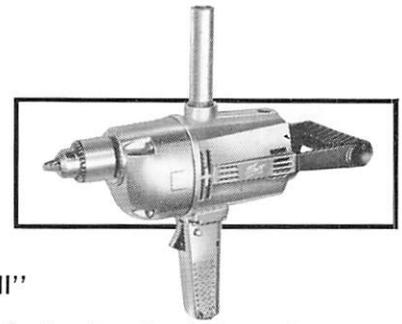
**ST-140  
Taper Reamer**



Precision tool with integrated "T" handle tapers from ⅝" to ½" dia. and can be used for cutting standard taper pin holes or for enlarging holes. Ideal for field service work.

Net Price ..... \$1.08

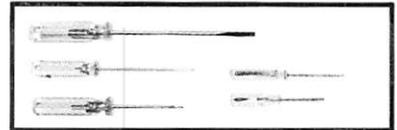
**ST-191  
½" Thor "Speedrill"**



Here's a powerful, professional quality ½" capacity power-drill featuring a 6.5 amp motor. End grip handle rotates to any desired position or is removable for close work. Has heavy duty special bronze spindle bearing. Drill features all-steel precision hobbled gears and well-balanced hi-polished die-cast aluminum housing for easy handling. Has geared chuck and key.

ST-191 ½" THOR "SPEEDRILL" ..... Net Price \$29.90

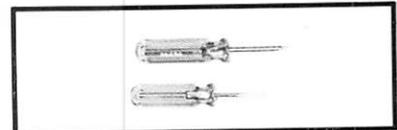
**Screwdrivers**



A quality line of screwdrivers with blades of chrome vanadium electric furnace steel. Fluted amber handles provide sure grip.

BLADE SIZE	PART NO.	NET PRICE
⅛" x 2⅛"	ST-231	.27
⅛" x 6"	ST-225	.42
⅜" x 3"	ST-230	.64
⅛" x 4"	ST-229	.53
¼" x 6"	ST-228	.88

**Phillips  
Screwdrivers**

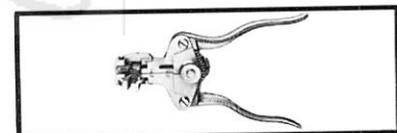


POINT SIZE	BLADE LGTH.	PART NO.	NET PRICE
‡0	2½"	ST-234	.58
*1	2⅛" x ⅜"	ST-233	1.09
*2	2½" x ¼"	ST-232	1.31

\* Combination Phillips and conventional screwdrivers with reversible blade.

‡ Ideally suited for removing screws from Pocket Receiver case.

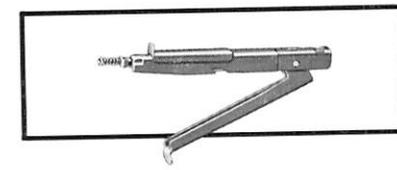
**ST-139  
Wood Specialty's  
Wire Stripper**



Fully automatic Speedex wire stripper for #8 to #22 wire. Simply squeeze and release.

Net Price ..... \$5.80

**ST-138  
Nibbling Tool**



Cuts distortion-free holes in formed sheet metal up to 18 ga. steel or 16 ga. aluminum.

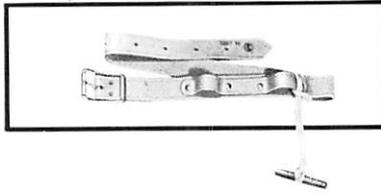
Net Price ..... \$3.85

ST-162 Replacement Punches ..... \$1.87



## servicing aids

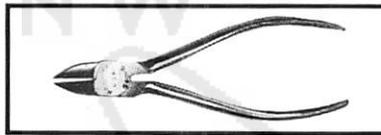
### ST-115 Electrician's Waist Belt



Lightweight, built of rugged harness-leather, belt is ideal for holding ST-113 tool pouch. Belt constructed with tool loops and tape thong. Available in 2 sizes: 32 to 40" and 38 to 46". State size.

Net Price ..... \$3.05

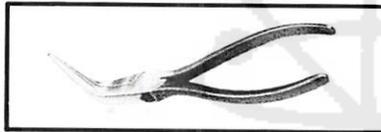
### ST-204 Klein Needle Point Diagonal Cutting Pliers



Professional pliers with full polished finish. Nose of diagonals is beveled at a 60° angle to give the cutters their fine 1/32" needle points. 6" long.

Net Price ..... \$3.50

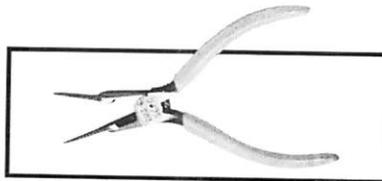
### ST-208 Klein Curved Long-Nose Pliers



Ideally suited for holding components in the correct positions when soldering or wiring . . . Eliminates awkward hand placements. Angle gives full clearance. Size: 6-in.

Net Price ..... \$2.40

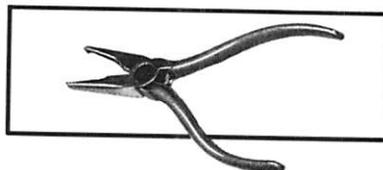
### ST-202 Needle Nose Pliers



Precision made for close tolerance work. Sure-grip tips provide firm holding of the most minute components. Plastic cushion grips make handling easy.

Net Price ..... \$3.52

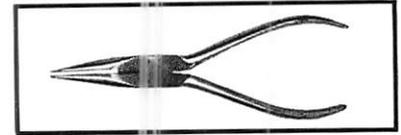
### ST-206 Flush Cutting Pliers



Extremely handy in working with printed circuits or when wires or leads must be cut flush with the work. Flush-cutting pliers facilitate cutting leads in compact equipment.

Net Price ..... \$4.10

### ST-203 Klein Long Nose Pliers



Full polished needle-point 6" pliers with cutter. Professional type for electronic servicing. Has milled jaws, tapers to 1/32" needle points.

Net Price ..... \$3.60

### ST-113 Combination Tool Pouch



Ideal for installation work. High quality leather for long life. Extra-large gusseted utility pocket, 3 plier pockets, 2 screwdriver pockets, knife snap. Size, 7x10"

Net Price ..... \$4.35

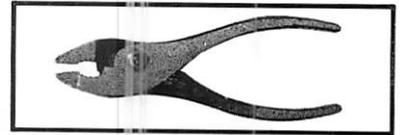
### ST-200 Oblique Cutting Pliers



This 4 7/16 inch unit has plated coil springs to hold jaws in open position when not in use. Handles are plastic coated to provide a firm, insulated grip.

Net Price ..... \$2.34

### ST-205 Combination Pliers



Six inch long unit can be used for a wide variety of servicing applications.

Net Price ..... \$1.55

### Miniature Pliers

These units are designed for use on smaller components. They are hammer-forged from high-grade alloy steel, individually fitted, tempered, adjusted, and tested.

### ST-201 Long Nose Pliers



Unit is 4 3/4 inches long. Ideal for reaching into small recesses. Coil spring holds pliers open when not in use.

Net Price ..... \$2.27

### Grip Spintite\* Wrenches

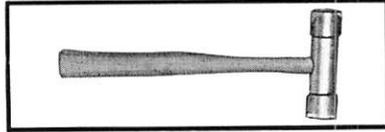


Prevents stripping of knurling on ring nuts and screws with raised heads. Ideal for switchwork. Push sleeve to clamp, pull sleeve to release. Shank and sleeve are of finest quality plated steel imbedded in strong plastic handle.

PART NO.	SWITCH TYPE	NET PRICE
ST-250	Cutler Hammer	3.70
ST-251	Hart Hageman	3.70

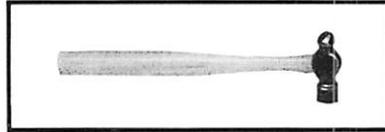
\* Registered trade mark of Stevens Walden Inc.

**ST-186 Plastic Tip Hammer**



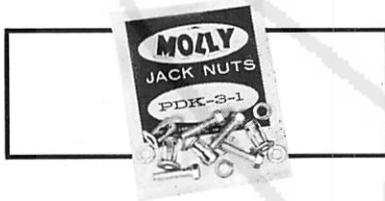
A light, tough resilient hammer designed for delicate machined radio parts. These replace lead or copper hammers. Body is made of tough steel with rugged plastic tips that are easily changed. The handle is top grade seasoned hickory.  
**ST-186 PLASTIC TIP HAMMER** ..... Net Price **\$3.45**

**ST-187 Ball Pein Hammer**



This hammer has been correctly designed for perfect balance and is made to stand up under long, hard service. It has been carefully drop forged and properly heat treated with highly polished face and pein. Finest quality well seasoned hickory handle.  
**ST-187 BALL PEIN HAMMER** ..... Net Price **\$2.60**

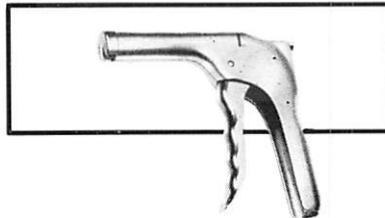
**"Molly" Jack Nut**



For mounting mobile housing, base stations, and cable clamps. Ideal in applications where it is difficult to use nut and lock washer . . . especially when only one side can be worked on. Grips any material up to 3/8" thick and provides permanent anchorage in space as small as 3/8" . . . fixtures can be removed for servicing without replacing nut.

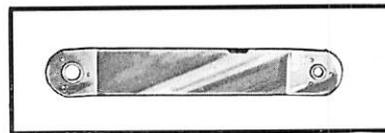
PART NO.	BODY SIZE	SCREW SIZE	NET PRICE PKG. OF 10
PDK-3-1	7/16"	1/4-20 x 1"	.35
PDK-3-2	5/16"	6/32 x 3/4"	.35
PDK-3-3	3/8"	10/24 x 3/4"	.35

**ST-118 Hi-Speed Installer**



Permits 5 to 8 jack nut installations per minute in prepared holes. Handles any size jack nut without adjustment . . . gun-type handle.  
**ST-118 HI-SPEED INSTALLER** ..... Net Price **\$12.00**

**FR-75 Friction Wrench**

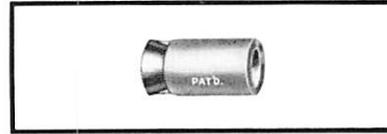


Designed to keep "Molly" jack nuts from rotating while screw is being tightened. Wrench FREE with each 10-package order of jack nuts or 10 cents each.

**Fastening Devices for Masonry Work**

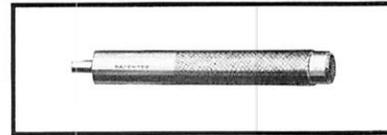
Concrete "Ackermans" provide the ideal solution for making secure, permanent fixture installations in concrete, brick or any masonry material.

**Screw Anchors**



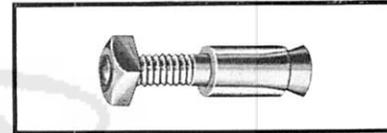
PART NO.	SCREW SIZE	NET PRICE PKG. 10
PDK 3-4	8/32"	.65
PDK 3-5	1/4-20"	1.10

**Setting Tool**



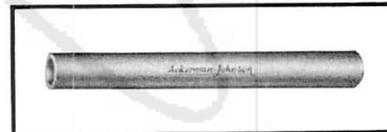
PART NO.	SCREW SIZE	NET PRICE
ST 196	8/32"	.22
ST 197	1/4-20"	.25

**Stud Type Expansion Bolts 1/4" Stud**



PART NO.	SCREW SIZE	NET PRICE PKG. 10
PDK 3-6	1-1/4"	.92
PDK 3-7	1-1/2"	.93
PDK 3-8	2"	.95

**1/4" Setting Tool**



PART NO.	SCREW SIZE	NET PRICE
ST 198	1-1/4"	.28
ST 199	1-1/2"	.28
ST 400	2"	.29

**Stud Type Expansion Bolts 5/16" Stud**

PART NO.	SCREW SIZE	NET PRICE PKG. 10
PDK 3-10	2"	1.14
PDK 3-11	2-1/2"	1.18

**5/16" Setting Tool**

PART NO.	SCREW SIZE	NET PRICE
ST 402	2"	.34
ST 403	2-1/2"	.35



## servicing aids

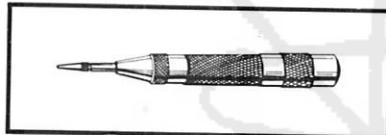
### Ratchet Wrench



The "MV Ratch-it" wrench is lightweight, simple and fast to operate, yet is designed and built to withstand maximum torque required for this type of wrench. In operation, the wrench snaps over the side of a nut in both tightening and unloosening action; the harder the pull on the wrench handle, the tighter the unit locks—yet the wrench will not crush even the lightest fittings. Removal of wrench from the nut is accomplished simply by pressing the wrench toward the nut until it snaps open.

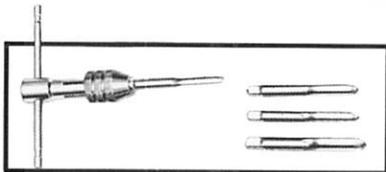
PART NO.	NUT HEX.	WIDTH OF WRENCH	THICKNESS OF WRENCH	OVERALL LENGTH	NET PRICE
ST-252	3/8"	3/4"	1/4"	5 3/16"	4.15
ST-253	7/16"	2 3/32"	3/32"	5 3/32"	4.15
ST-254	1/2"	2 3/32"	3/32"	5 1/4"	4.15
ST-255	5/8"	1 1/2"	3/16"	5 3/16"	4.15
ST-256	5/8"	1 3/16"	1/32"	6 1 3/16"	4.65
ST-257	1 1/4"	1 1/4"	1/32"	7"	4.65
ST-258	3/4"	1 3/16"	3/8"	7 7/16"	5.15

### ST-132 Automatic Center Punch



The user has only to place the tip of the unit on the spot to be marked, apply pressure and a spring-action cam causes the punch to trip and leave a tiny punch mark.  
Net Price ..... \$3.10

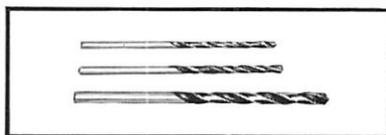
### ST-116 & ST-117 MACHINE SCREW TAP SETS



High carbon alloy steel insures long life and clean, accurate threads. Twist-grip chuck holds tap securely.

- ST-116 Taps holes for 4-40, 6-32, 8-32, 10-32 size screws  
Net Price \$1.65
- ST-117 Taps holes for 1/4-20, 5/16-18, 3/8-24, 1/2-24 size screws  
Net Price \$2.00

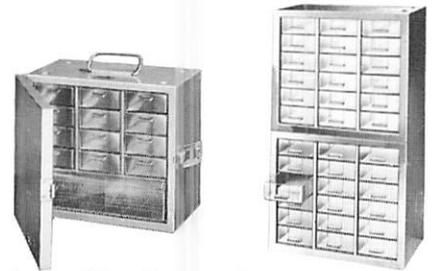
### REPLACEMENT DRILL BITS



Here are three of the most commonly used drill bits used in the installation of Motorola control heads, fuse blocks and "A" relays.

- ST-436 1/8 in. (.125) Drill Bit ..... Net Price \$1.00/PK3
- ST-437 3/64 in. (.140) Drill Bit ..... Net Price \$1.00/PK3
- ST-438 1 3/64 in. (.230) Drill Bit ..... Net Price \$1.05/PK2

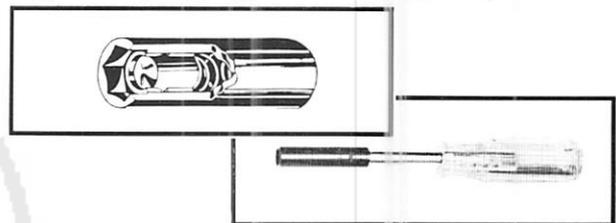
### Utility Cabinets



ST-148. Rugged steel, double tier small parts cabinet. Has 36 E-Z slide plastic drawers with dividers. Stands solidly on service bench or may be hung on wall. Size, 18" x 10" x 6". Net Price ..... \$10.75

ST-411. Here's a handy cabinet that can be hung on the wall or set on the bench and it's portable too. Ruggedly built of fine grade steel, the cabinet has 12 small drawers with dividers and one large drawer with a movable divider. Has front closure door with lock and key. Size, 10" x 5 3/4" x 9". Net Price ..... \$6.75

### Magnetic Spring Type Sockets 1/4" Square Drive



### Bolt Clearance Sockets for Driving Hex Nuts and Screws

Cornwell bolt clearance sockets are designed so the magnet contacts the nut thereby allowing maximum magnetic strength to hold the nut. The magnet is installed so it will retract into the socket, on return the magnet stops at a fixed position thereby controlling the depth of the hex opening. Magnet will retract for bolt clearance to 7/8".

PART NO.	HEX. Nominal	Wrench Size MIN.	MAX.	Outside Dia. S'cket H'ndle END	Ov'all L'gth	DEPTH TO Magnet	NET PRICE
ST275	1/4"	.252	.257	.390	.490	2"	.120 2.40
ST276	3/32"	.284	.289	.437	.490	2"	.125 2.40
ST277	5/16"	.315	.321	.474	.474	2"	.150 2.40
ST278	1/2"	.347	.353	.525	.525	2"	.170 2.40
ST279	3/8"	.378	.384	.542	.542	2"	.185 2.40
ST280	7/16"	.440	.446	.615	.615	2"	.205 2.40

ST-287 Magnetic Spring Socket Handle ..... Net Price \$1.30

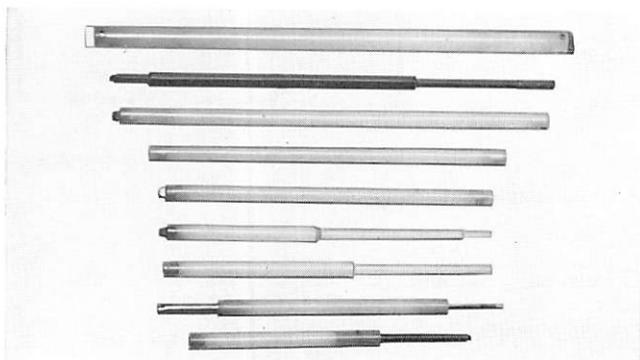
### ST-114 Stapling Kit



Speeds numerous jobs in the shop. Heavy-duty staple gun is richly chromed. Kit contains staple lifter and 5000 staples in 4 leg sizes: 2000, 1/4"; 1000, 3/8"; 1000, 1/2"; 1000, 5/16". Net Price ..... \$13.00

ST-409. Snap-on wire attachment for stapling small wire and cable is available as an accessory to ST-114 Stapling Kit. Net Price ..... \$1.00

## Tuning Tools



General purpose alignment tools, constructed of nylon or plastic materials, for simplicity of maintenance of all types of equipment.

- 66A835721—5 $\frac{5}{8}$ " long. One end has nylon blade; other end has recessed metal slot . . . . . Net Price **\$1.15**
- 66A891488—One end has recessed metal screwdriver; other end has metal recessed slot . . . . . Net Price **\$1.15**
- 66A891487—One end has metal screwdriver blade; other end has recessed metal screwdriver blade . . . . . Net Price **\$1.15**
- 66A835717—One end has hex body with screwdriver tip; other end has hex tip . . . . . Net Price **\$1.15**
- 66A847036—For portable equipment. One end has special metal screwdriver tip 1" long; other end has hollow metal end 1" long insulated with #12 clear vinylite tubing . . . . . Net Price **\$1.15**
- 66A810479—Has recessed metal slot on one end; other end has  $\frac{1}{8}$ " metal screwdriver tip . . . . . Net Price **\$1.15**
- 66A84645—For  $\frac{1}{4}$  kw final amplifier. Has metal blade ends. . . . . Net Price **\$1.80**
- 66A863627—For "Motrac" Radio. One end has recessed metal slot; other end has bonefibre blade . . . . . Net Price **\$1.15**
- 66B859078—For "Motrac" Radio. One end has  $\frac{1}{8}$ " metal screwdriver tip; other end has hex body  $\frac{1}{2}$ " long . . . . . Net Price **\$1.15**

## New Tuning Tool Kit — PDK-66



Here's an assortment of five of the most commonly used tuning tools to meet most servicemen's routine needs. The tools are offered in a convenient pocket-carrier kit with pencil-type clips with each tool.

Order the Motorola PDK-66 selected assortment listed below or pick your own five from the tuning tools listed on this page. When selecting your own assortment, any tool may be ordered except No. 66A 84645 due to its size and limited applications. *Be sure to ask for free pocket protector and clips when ordering your own five-tool assortment.*

Motorola PDK-66 suggested assortment: 66A 835721, 66B 859078, 66A 863627, 66A 891487, and 66A 847036.

Plus free pocket protector and pencil type clips.

PDK-66 Tuning Tool Kit . . . . . Net Price **\$5.50**

4.50

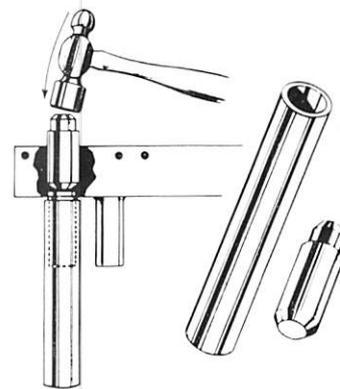
## ST-163 Sheet Metal Stop Punch Kit



Ideal for "under-the-hood" work—making sheet metal screw holes for mounting fuse blocks, "A" relays or cable clamps. One of the unique features of these high quality metal stop punches is the precision measure of the punch taper length. The tool will accurately pierce metal to the exact size desired for number 6, 8, 10 or 14 sheet metal screws. The punch extrudes the metal thus providing a firm base for threads of sheet metal screws.

ST-163 SHEET METAL STOP PUNCH KIT . . . . . Net Price **\$3.50**

## ST-133 Coil Shield Installation Tool

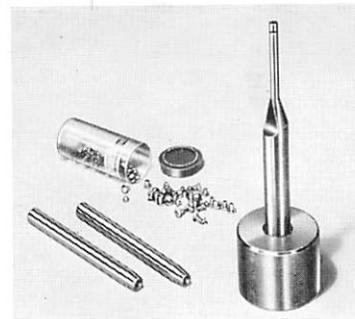


Install your coil shields quickly, efficiently, safely with this handy tool. All steel assembly consists of a sleeve and punch. To operate, merely put the coil shield into the sleeve and insert the open end of the shield into the chassis. Invert the chassis, place the free end of the sleeve on a solid surface, put the tapered end of the punch into the sleeve and insert the open end of the shield into the chassis. Invert the chassis opening and tap the punch with a hammer. Complete the operation by reversing the punch and again hitting it with a hammer to rivet the shield flush with the chassis.

ST-133 COIL SHIELD INSTALLATION TOOL . . . . . Net Price **\$3.00**

2.55

## ST-172 Anvil and Riveting Tool



Here's a handy tool that can be used for any item that must be rivet fastened. Position tube and crystal sockets . . . secure terminal boards to chassis . . . use it wherever a long lasting, secure rivet fastening is required. Complete kit includes anvil, sturdy metal base, 1 each size .088 and .122 riveting tools and tube of commonly used rivets.

ST-172 ANVIL AND RIVETING TOOL . . . . . Net Price **\$13.00**



# servicing aids

## American Beauty Soldering Irons

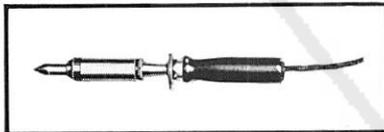
American Beauty Irons—Chosen for their high quality and long service life. Iron tips are pure copper with nickel plating. The casing body is made of seamless steel with satin-finish nickel plating. The shockproof, shatterproof wood handle is rubberoid coated for durability and ease of handling. Highest grade rubber plug and super flexible cord are supplied for heavy duty service.



### ST-182—100 Watt Soldering Iron

An excellent general purpose iron. Ideal for circuit wiring. 3/8" diameter copper tip. Length 12 7/8". For 110-120 volts, AC or DC.

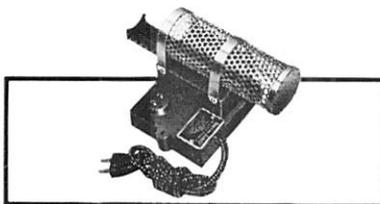
ST-182 100 watt soldering iron ..... Net Price \$7.15



### ST-183—200 Watt Soldering Iron

Ideal for working where a high heat iron is required. 5/8" diameter copper tip. Length 13 3/4". For 110-120 volts AC or DC.

ST-183 200 watt soldering iron ..... Net Price \$8.60



### ST-184—Temperature Regulating Stand

An automatic device for regulating and controlling the tip temperature of electric soldering irons while the iron is connected to current and at idle. Stand is equipped with safety guard.

ST-184—Regulating Stand ..... Net Price \$8.10



### Solder

Solder features super-active resin flux that cleans more thoroughly without being corrosive. Can be used for a wide range of metals, including zinc and nickel-plate. Ideal for printed circuit work.

ST-152 1 lb. Spool 1/16" DIA. 60/40 ..... Net Price \$1.67

ST-153 5 lb. Spool 1/16" DIA. 60/40 ..... Net Price \$8.15



### ST-147 Wen Soldering Gun

250-watt gun is perfectly balanced for ease of handling, provides instant heating, has built-in spotlight.

Net Price ..... \$9.50

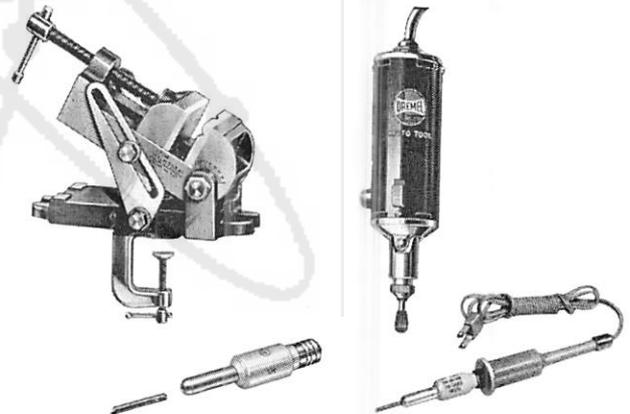
## Motorola TEK-4 Printed Circuit Repair Kit



Repair kit contains primary tools and supplies that a well-equipped service station requires for servicing printed circuit wiring. The kit includes: 47.5 W Pencil Soldering Iron and Tip, Flush-Cutting Pliers, Soldering Aid (needle point and double prong type), Tweezers, Magnifying Glass, Bottle of Solvent, Silicone Resin and Printed Circuit Solder.

TEK-4 Printed Circuit Repair Kit ..... Net Price \$11.95

## Supplementary Tools for Printed Circuit Servicing



For even greater convenience in servicing printed circuits, Motorola recommends the use of a good lightweight and easily handled high speed drill, a universal vise and a high power magnifying glass with accompanying light source for more thorough inspection.

TEKA-1 Universal Vise ..... Net Price \$11.90

TEKA-2 High Speed (25,000 RPM) Drill ..... Net Price \$11.25

TEKA-4 #535 23 1/2 Watt Soldering Element ..... Net Price \$ .98

TEKA-5 Ungar #PL338 Soldering Tip (Pointed) ..... Net Price \$ .47

TEKA-6 Ungar #PL333 Soldering Tip (Chisel) ..... Net Price \$ .47

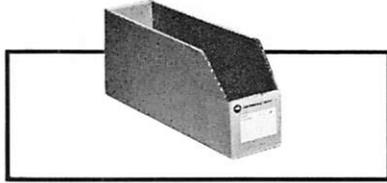
TEKA-7 Ungar #4035 47 1/2 Watt Soldering Element. Net Price \$ 2.35

TEKA-8 Ungar #776 Iron (Less Element) ..... Net Price \$ 1.50

TEKA-10 Soldering Iron Complete—Consists of TEKA-6, 7 & 8

Net Price \$ 4.00

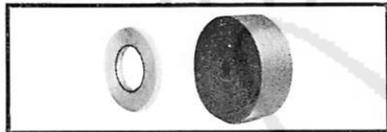
## New Stock Bins with Labels for Orderly Parts Storage



Ideal for small parts storage on shelves or racks. Heavy duty corrugated construction assures long life. Bins are available in three widths . . . 2½", 4" and 6". All are 12½" deep and 4½" high. Bins are sold in lots of 25 of one type only. Shipped knocked down with separately packed labels. Easily assembled in just a few seconds.

PDK-56-1—2½" wide . . . . . Net Price \$2.50 per 25  
 PDK-56-2—4" wide . . . . . Net Price \$2.85 per 25  
 PDK-56-3—6" wide . . . . . Net Price \$3.70 per 25

## Gummed Paper Tape



Ideal for assembling corrugated cartons and sealing boxes.

11M 8718 3" Gummed Paper Tape . . . Net Price \$1.22 600Ft./RI.  
 11M 120081 ½" Masking Tape . . . . Net Price \$1.06 180Ft./RI.

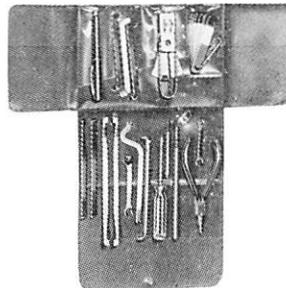
## ST-193 "Duxseal"



All-purpose, weatherproof, corrosion resistant sealing compound for indoor-outdoor caulking of conduit runs, antenna lead-ins, journal boxes and dozens of other sealing applications.

ST-193 "DUXSEAL"—1 lb. Can . . . . . Net Price \$ .59

## ST-104 Relay Maintenance Tool Kit



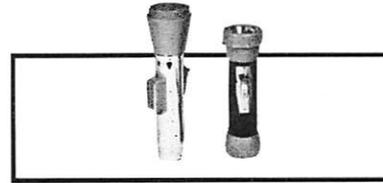
This kit includes all the tools required for adjusting, checking and trouble-shooting almost any type of relay.

For added convenience, all of the 18 tools in the kit are packaged in a sturdy Vinyl Plastic case which holds each tool in its own pocket, ready when you want it.

Included with each kit is an extensively illustrated and highly informative eight-page booklet covering application of the tools to relay maintenance.

ST-104 Relay maintenance tool kit . . . . . Net Price \$34.00

## Flashlights



A service shop or truck is not fully equipped without a reliable flashlight for emergencies. Here are two lights carefully selected to satisfy most shop and field needs.

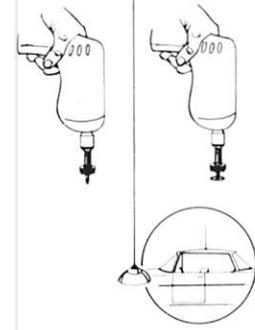
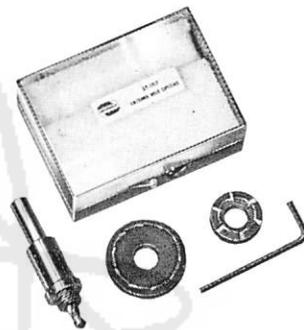
**MAGNET LIGHT**—Uses two #2 "D" cells. Has strong, life-time "Alnico" magnet. Ideal for fastening to dashboard or steering column. Flashlight barrel is copper clad, chrome-plated seamless steel.

ST-420 Magnet Light (Without Batteries) . . . . . Net Price \$1.47

**INDUSTRIAL LIGHT**—Heavy duty, chip-proof light that resists most acids, alkalies, oils, grease and temperature changes. Barrel is made of ribbed linear polyethylene with vinyl cushioned head and end cap.

ST-421 Industrial Light (Without Batteries) . . . . . Net Price \$1.41

## ST-157 Antenna Hole Cutting Tool



Speed up antenna installations with this time-saving, easy-to use tool. A ¼" drill bit is mounted in a mandrel which fits a ⅜" or larger power drill. The antenna hole cutting tool is screwed on a sleeve around the drill bit. Once the ¼" pilot hole is made, the hole cutting tool takes over to carve out a clean antenna hole. The tool bites only through the thickness of the metal being drilled. It can go no further, thus there is no danger of drilling through headliner fabric or material. While the hole is being cut, the tool also removes a fine line of paint from the metal around the circumference of the hole to provide a good ground for antenna installation. Kit includes mandrel with ¼" drill bit, Allen wrench, ¾" hole cutter for high-band antenna installations and 1½" hole cutter for low-band antenna installations.

ST-157 ANTENNA HOLE CUTTING TOOL . . . . . Net Price \$14.95

ST-158 1½" REPLACEMENT CUTTER . . . . . Net Price \$ 8.00

ST-159 ¾" REPLACEMENT CUTTER . . . . . Net Price \$ 6.00

## ST-175 Plastic Electrical Tape with Dispenser



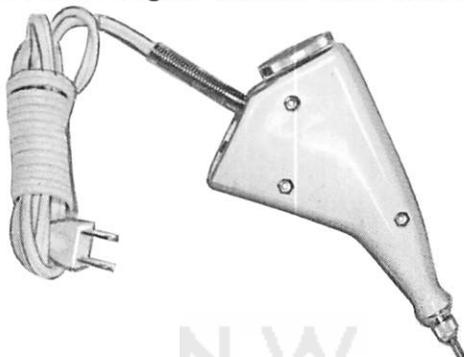
Here's 66 feet of ¾" tape that adheres easily on any irregular surface. Resists galvanic corrosion, rot, mildew, fungus, severe weather and is not affected by water, oil, grease, acid or alkalies.

ST-175 PLASTIC TAPE WITH DISPENSER . . . . . Net Price \$1.50



## servicing aids

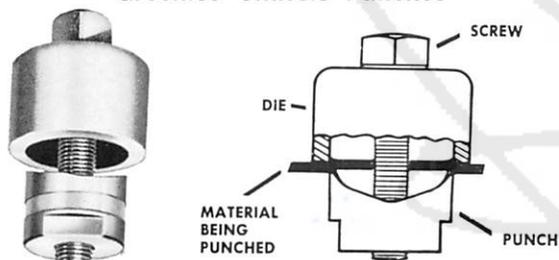
### ST-188 Burgess Electric Vibro-Graver



Engraves permanently on steel, aluminum, brass . . . practically any material. Ideal for marking mobile and base station identification plates . . . labelling parts bins, tools or any item that requires permanent identification.

ST-188 Vibro-Graver . . . . . Net Price \$8.63

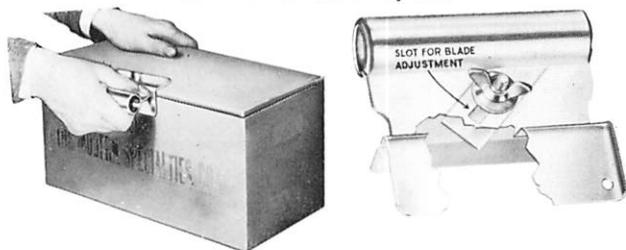
### Greenlee Chassis Punches



Speed cutting of clean, accurate holes in chassis, cabinets, and panels for sockets, plugs, controls, lights. Excellent for enlarging knockouts. Cuts up to 16-ga. metal.

PART NO.	FINISHED HOLE SIZE	NET PRICE
ST-300	5/8"	\$2.60
ST-301	3/4"	2.60
ST-302	13/16"	2.60
ST-303	1"	2.85
ST-304	1 1/16"	3.00
ST-305	1 1/8"	3.00
ST-306	1 3/16"	3.00
ST-307	1 1/4"	3.00

### ST-149 Carton Opener



Opener cuts cartons without injury to the contents. The first and regular length of the blade cuts 90% of all cartons, making very few adjustments of the blade necessary. Cuts off the flaps only. Has a reversible, adjustable blade with a specially-designed cutting edge. 5 Extra blades included.

ST-149 Carton Opener . . . . . Net Price \$ .75



### Heavy Duty Dymo Tape Embossing Tool

Make permanent raised letter labels quickly, easily with this precision embossing tool. You print labels on a pressure sensitive vinyl tape that sticks anywhere. Ideal for labeling parts bins, tools, cables, test equipment, mobile or base station identification tags and dozens of instances where a label is required. Label tape is available in 12-foot rolls in 8 colors . . . red, black, blue, green, brown, orange, yellow and gray.

ST-155 DYMO TAPE EMBOSING TOOL WITH 1 ROLL TAPE . . . . . Net Price \$39.95

ST-156 DYMO VINYL TAPE 12' x 1/2" (per roll any color) . . . . . Net Price \$1.65

ST-173 Package of 12 ROLLS OF TAPE . . . 3 BLACK, 3 RED AND 1 EACH OF OTHER COLORS . . . . . Net Price \$17.80

### NEW Handy Accessory Makes Vertical Labels

Make labels that read across, or up and down . . . 1 Tapewriter and 2 wheels! A quick switch of embossing die and you can make vertical and/or horizontal raised-letter labels!

ST-192 VERTICAL WHEEL (for ST-155 only) . . . . . Net Price \$13.10

### New Dymo Economy Kit



Includes thrift-line vinyl tape embossing tool which operates with disposable tape magazines, ten rolls of 10' x 3/8" different colored tape in individual magazines, tape magazine carrier and FREE deluxe carrying case. Tape colors available are gray, yellow, orange, brown, black, red, blue, green, gold and clear.

ST-408 Complete Dymo Economy Kit . . . . . Net Price \$36.20

ST-404 Dymo Economy Line Tapewriter Only . . . . . Net Price \$24.95

ST-405 Dymo Vinyl Tape In Disposable Magazines—10' x 3/8" (Per Roll Any Color) . . . . . Net Price \$1.25

### Dymo Metal Tape Embossing Tool

Designed specifically for embossing metal tape labels. Has hole punching device on embossed wheel which enables you to hang label with wire or secure with small nail or pin. Ideal when adhesive back of label is not practical for affixing label (i.e., extreme cold weather exposure). Metal tape is available in Contrast Aluminum style which provides maximum legibility of raised aluminum letters against a black background.

ST-406 Dymo Metal Tape Label Embossing Tool . . . . . Net Price \$49.95

ST-407 Dymo Metal Tape—10' x 1/2" Roll, Adhesive Back, Contrast Aluminum Style—per roll . . . . . Net Price \$1.65

# PAINTS, LUBRICANTS AND COMPOUNDS

## Touch-Up Spray Paints, Lacquers



Available in the dark and light gray lacquers most commonly used in Motorola equipment, in aluminum, flat black, driftwood and blue-gray paints. Handy spray cans speed touching-up mars and scratches, provide high-quality coverage, apply and dry in seconds.

Dark Gray Lacquer No. 11M401047	Net Price	\$2.25
Light Gray Lacquer No. 11M401048	Net Price	2.25
Aluminum Paint No. 11T82716A02	Net Price	1.25
Flat Black Paint No. 11T82716A01	Net Price	1.25
Drift-Wood 11T82716A03	Net Price	2.25
Blue Gray 11T82716A04	Net Price	2.25
ST-108 Spray Can Handle	Net Price	.88

## Krylon Spray Paints



Here are high quality spray enamels that are easy to apply and dry in minutes.

ST-423 Bright Gold	Net Price	\$1.17
ST-424 Bright Copper	Net Price	\$1.17
ST-425 Brass	Net Price	\$1.17
ST-426 O. D. Khaki	Net Price	\$1.17
ST-427 Glossy White	Net Price	\$1.17
ST-428 Flat White	Net Price	\$1.17
ST-429 Glossy Black	Net Price	\$1.17
ST-430 Puritan Grey	Net Price	\$1.17
ST-431 Fire Red	Net Price	\$1.17
ST-434 Fluorescent Red-Orange	Net Price	\$1.82

## Krylon Primers

ST-432 All-Purpose Gray	Net Price	\$1.17
ST-433 Zinc Chromate Green	Net Price	\$1.27

## Krylon Crystal Clear

A spray coating to preserve metal, wood, paper and leather surfaces. Guards against rust and corrosion.

ST-419 Crystal Clear Spray Coating	Net Price	\$1.27
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## Solvent Degreaser



Permits instant location of circuit components that are intermittent with temperature changes. 16 oz. pressure spray can.

ST-194 CIRCUIT COOLER	Net Price	\$2.13
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Here's a solvent that's free of toxic fumes and really does the job in removing grease and oil without damage to surface metal, paint or rubber. It's non-conductive and corrosion free.

11A82346D01 — Solvent.	
Net Price per 16 oz. pressure spray can	\$2.50

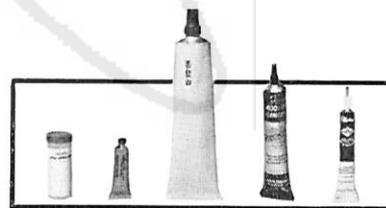


Red Glyptal Varnish is an over-all insulating material with high arc resistance characteristics that make it ideal for electronic applications. Resists heat, oils and acids . . . can be applied by brush or dip method. Two ounce bottle.

ST-195 INSULATING VARNISH	Net Price	\$ .56
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Solder flux. High quality, firm bonding resin flux.

11M121845 FLUX	Net Price	\$ .70 per bottle
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11M114110—Iron core and tuning slug lubricant powder.	
Net Price Tube—	\$ .25

11T834678—Silicone Grease. For type N and UHF fittings. Apply grease to fittings before joining to fill voids so that no moisture can collect. Prevents drop in efficiency of electrical insulation and resulting transmission losses. Net Price 1/4-oz. tube—\$ .44

11T848360—Anti-corrosion Compound. Coat cable terminal connections with this compound to prevent corrosion. Provides extended protection of metal surfaces exposed to battery acid and fumes, assuring low contact resistance. Net Price 5-oz. tube—\$ .36

11T861290—Ball bearing grease for dynamotors. Tested for operation over range of -55°F. to +200°F. Net Price 2-oz.—\$1.00

11M842335—Pliobond #20 Cement. Rapid drying adhesive for bonding rubber, metal, glass, plastics, fabrics. Net Price 1/2-oz. tube—\$ .24



# servicing aids

## STEEL SERVICE BENCH

Here's a top quality, heavy duty steel service bench that's tailor made for the 2-way radio service shop. The specially designed riser makes it the most useful service bench of its type . . . provides extra room for test equipment and other servicing tools both on top and under riser. The bench handily accommodates all necessary test equipment and tools for complete 2-way servicing and has room to spare! Bench top measures 72" long by 34" wide—provides plenty of uncrowded space for mobile unit repairs.

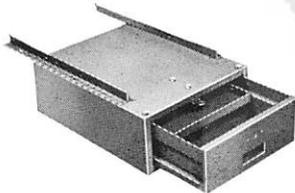


**Order This Complete Package Today!!!**  
**Only \$123.00 — and Motorola Pays the Freight**

- Bench with pressed wood cover over top, steel bottom shelf and stringer.
- Back & end stops which when fastened to back and ends of bench, guard against equipment and tools slipping off work surface. Back stop extends 3" above top . . . end stops taper to 1½".

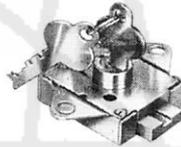
- Special riser with 2" backstop for holding test equipment. Bolts upright to bench. (Dimensions . . . 19" high, 15" deep).
- Electrical outlet strip with 7 sockets. Wired to carry 15 amps at voltages up to 125.
- One bench drawer. Operates on ball bearing rollers within its own complete case. Has automatic stops and sliding drawer tray. Overall dimensions, 15¾" wide, 20" deep, 6¾" high.

**MODEL ST-176 SERVICE BENCH COMPLETE . . . Net Price \$123.00**



Bench Drawer. Equipped with padlock attachment (padlock not furnished). Shipped FOB Chicago if ordered separately. If extra drawers are ordered *with bench package*, no additional freight.

**ST-181 BENCH DRAWER Net Price \$12.35**



Flat key lock. Easily installed through knock-out holes in bench drawer faces. Two keys supplied.

**ST-190 FLAT KEY LOCK Net Price \$1.45**



Bench Stool. Has pressed wood cover over steel seat. Stands 26" high. Sold in pairs only.

**ST-189 STOOL Net Price \$15.20 pair**

## STEEL SERVICE CART



You'll find dozens of uses for this handy worksaver. It's ideal for moving mobile units from a vehicle to the shop bench. Roomy shelves make the cart a natural for gathering parts or moving test equipment and other servicing aids from bench to bench or between other areas in your shop.

Cart measures 30 inches long, 16 inches wide by 32 inches high. Rugged pan-type metal shelves are 3 inches deep and welded to the sturdy tubular metal cart frame. Cart rolls smoothly on 5 inch diameter rubber-composition wheels. Rear wheels are swivel-type for easy maneuverability. Unit is supplied knocked down with complete assembly instructions included . . . drop shipped F.O.B. from Aurora, Illinois; Los Angeles, California; or York, Pennsylvania. Order from your nearest Motorola Parts Depot. Your order will then be processed through the most economical freight point.

**ST-418 Metal Service Cart . . . Net Price \$26.50**

## Illuminated Magnifying Glasses . . . Fluorescent Lamp



Fig. A

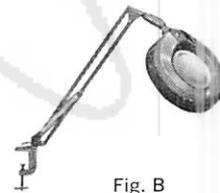


Fig. B



Fig. C

**Magnifying Glasses**—Ideal for visual accuracy on printed circuit work. Provides excellent magnification and cool, shadow-free light to increase precision during intricate operations and inspection. Single extension arm model has 30" reach with 180° sweep and precision ground, optical quality 3" diameter glass lens. Double arm model has 45" reach 360° sweep and 5" diameter, 3 diopter optically ground glass lens. Units are portable and UL approved.

**Fluorescent Lamp**—Excellent quality, all-purpose bench lamp. Has clamp for simple desk, bench or table mounting. Fully adjustable. Has push button starter and 19 x 4½" shade. Supplied with two 15 watt bulbs.

**TEKA-27 Magnifying Glass (double arm) Fig. A . . . Net Price \$32.74**

**TEKA-12 Magnifying Glass (single arm) Fig. B . . . Net Price \$27.50**

**TEKA-30 Fluorescent Lamp Fig. C . . . Net Price \$22.12**

**VACUUM/BLOWER TOOL.** Here's a versatile tool that solves a wide variety of cleaning problems while saving considerable time and effort. The unit acts as a powerful suction cleaner or can be reversed to provide blower-type action. It's particularly ideal for cleaning all 2-way radio equipment. Special attachments included with the unit make it possible to clean all those "hard to get at" places such as a tiny receiver chassis or wiring complex.

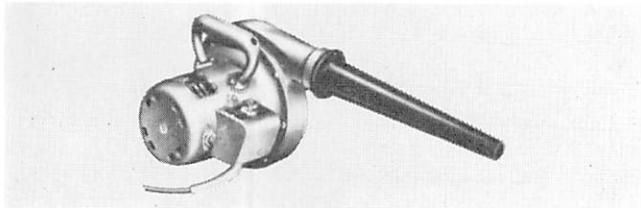
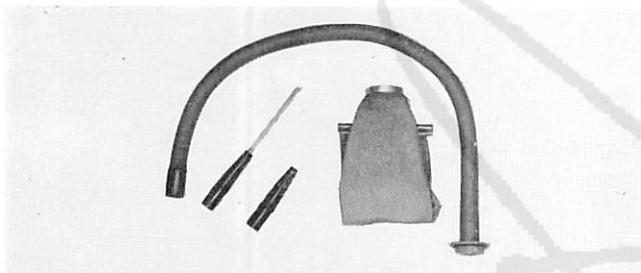


Fig. A

**ST-415 HEAVY DUTY, 2-SPEED UNIT.** High speed, one horsepower — Low speed,  $\frac{3}{4}$  horsepower. Has sealed, precision ball bearings that require no oiling. Furnished for 115-volt AC-DC. Supplied with 20-foot, 3-wire power cord and basic attachments.

Net Price Fig. A ..... \$115.00



**HANDY ATTACHMENTS ARE INCLUDED WITH EACH CLEANER.** Rugged swivel hose — 7 feet long by  $\frac{1}{4}$  inch inside diameter, dust bag, general purpose cleaning nozzle and two metal crevice tools.

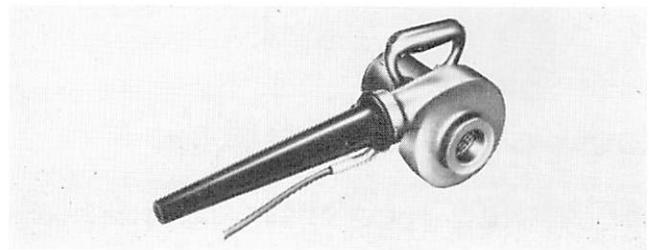
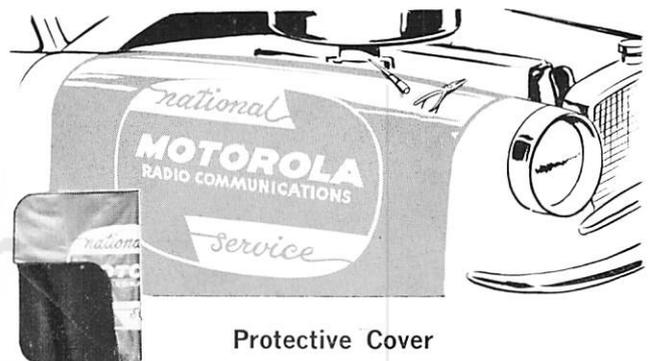


Fig. B

**ST-416 GENERAL PURPOSE UNIT.** Has same features as Heavy Duty model except motor is single speed  $\frac{1}{2}$  horsepower unit.

Net Price Fig. B ..... \$85.50



Protective Cover

You'll find plenty of uses for this handy cover when working either inside or outside a vehicle. It covers a fender to prevent accidental scratches to the paint finish. Use it as a seat cover to guard against soiling upholstery. Cover measures 36" by 25"—has a rugged plastic top, a greaseproof, treated foam rubber backing and is completely washable.

ST-422 ..... Net Price \$4.95

## MOTOROLA TUBE AND TOOL CADDIES

**ST-135 TUBE CADDY**—Roomy enough to hold up to 300 tubes of various types and sizes and has special compartment to accommodate sundry tools and parts. Has button down covers on each wing section to prevent tubes from falling out when case is opened. Lightweight and ruggedly built for long life. Closed size is 22" x 9 $\frac{1}{4}$ " x 16 $\frac{1}{2}$ ".

Net Price ..... \$21.95

**ST-136 TUBE CADDY**—Accommodates an assortment of 150 tubes. Provides more than ample room for carrying basic tube requirements needed for any servicing job. When case is open, all tubes are easily accessible and in plain view. Closed size is 16 $\frac{1}{4}$ " x 8 $\frac{1}{2}$ " x 11 $\frac{3}{4}$ ".

Net Price ..... \$12.95

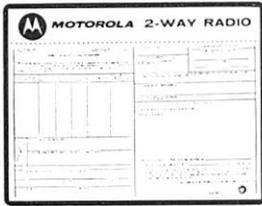
**ST-137 TOOL CADDY**—Ideal for on-the-spot or in-shop service. Holds soldering gun and many other tools in base of case. Has separate and removable tray for parts and tools as well as tool space in cover. Closed size is 16 $\frac{1}{2}$ " x 7 $\frac{3}{8}$ " x 9 $\frac{3}{4}$ ".

Net Price ..... \$12.95





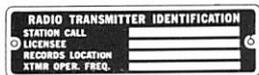
## servicing aids



### FCC LICENSE FRAME

An attractive, leatherette covered hard-back frame with a clear plastic front to provide full, easy-to-read display of your 2-way radio license. Frame has grommet hole at top-center for easy hanging. License fits snugly in special flap-type plastic pocket. Measures 8½" x 6⅝".

Order part No. 54A82773B01 . . . . . Net Price \$.60



### TRANSMITTER IDENTIFICATION TAGS

Metal type transmitter identification nameplate for affixing to mobile or base station equipment. Supplied with 2 mounting screws. Information can be applied to plate with metal stamps or with a metal writing tool. See tool section for Burgess Vibra tool which is ideal for this purpose.

ORDER SK-9422 . . . . . Net Price \$.30

## RADIO STATION LOG BOOK



The Motorola Radio Station log is the ideal way of keeping a record of the operations of a radio station, including maintenance performed and periodic adjustments, as is required by the FCC.

The log consists basically of an operating section and a maintenance section. In addition, space is set aside for an inventory record of spare tower-lighting lamps. The FCC requires that an inventory of spare lamps be kept on hand for immediate replacement in event of tower light failure at radio stations using an illuminated antenna tower.

68P845609 Motorola Radio Station Log . . . . . Net Price \$.90

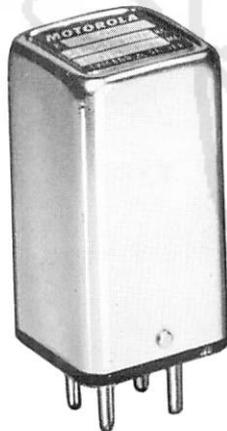
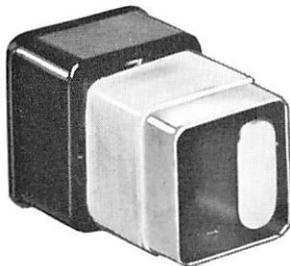


Attractive 2-color adhesive backed I.D. tags that can be affixed quickly and easily to any surface. No water or glue to bother with . . . just write or type in the necessary information on the tag, peel it off the paper backing and place on transmitter. Tags measure 3½" x 1½".

Order part No. 54A82389B01 . . . . . Pack of 10 \$.25



## crystals



Motorola crystals are the combined result of extensive study and development by a highly skilled staff of engineers . . . the use of special laboratory processes . . . careful supervision of production procedures and testing.

Painstaking attention to design and fabrication means that Motorola crystals provide optimum stability at the exact frequency required by the user. To minimize oscillator frequency drift caused by temperature variations, the crystal is enclosed in a thermostatically controlled "oven".

Since the oven temperature is maintained at a constant level by using carefully selected elements and controlled circuits, Motorola crystals assure tighter temperature coefficient control . . . add to stability. Motorola crystals are subjected to intensive high temperature aging tests . . . must meet frequency tolerances of ± 20 parts per million . . . must operate at design temperatures from -30°C to +80°C.

### CRYSTAL ORDERING INFORMATION

When ordering crystals, include the following information:

**COMPLETE CRYSTAL NUMBER** — Crystal oven suffix letters indicate heater voltage rating. No suffix = 6 Volts, "A" = 12 Volts, "B" = 24 Volts.

**CARRIER FREQUENCY** — New frequency desired or frequency marked on old crystal; Example: 155.000 mc.

**CRYSTAL FREQUENCY** — New frequency desired or frequency marked on old crystal to 3 decimal places in kilocycles; Example: 29400.000 kc.

**CHASSIS MODEL NUMBER**—Always specify complete model number; Example: PA 9033F-H.

**TO EXPEDITE CRYSTAL ORDERS** — Do not mix crystals with orders for parts, kits, tubes, etc.

Use crystal order forms whenever possible. Forms are available upon request.

**CRYSTAL INSERTS**—for "Z" and "K" types are available for field replacement. "R" type crystal inserts are not available for field replacement because of the sealed construction. Defective "R" types should be returned to Motorola Crystal Service Dept. for repair or replacement.

**CRYSTAL RETURNS**—All returned crystals should be sent to address listed below, accompanied by your packing list with complete details listing reason for return. Always refer to Motorola's invoice or order number.

**WHERE TO ORDER**—Motorola C & E Inc. • 916 N. Kilbourn Ave. Chicago 51, Illinois • c/o Crystal Service Dept. • Phone: SP 2-6500

## CRYSTAL TYPES

NO.	NET PRICE
AMLX-10	\$13.75
A01 to A17, AM, AN, ANL, AS	11.00
ANX-2	12.00
AQL, AQLS, AQS,	16.25
ASLX1	11.75
AUL, AULX	11.00

NO.	NET PRICE
C01 to C07	\$14.00
G01 to G06-S	11.75
R02 to R37, RM, RN, RS	18.00
SFMT-1, 2, 3, 6	12.00
T02 to T07 (Replaces F01 to F07)	16.00
YM, YN	12.00

NO.	NET PRICE
Z02 to ZM16 series with 1 Crystal	\$24.00
with 2 Crystals	37.00
ZMM and ZNN series with 1 Crystal	18.00
with 2 Crystals	31.50
48C475327 (25-30MC)	35.00
48C475808 (30-50MC)	30.00

## CRYSTAL FORMULAS

### LEGEND:

$f_x$  = crystal frequency

$f_c$  = carrier frequency

$f_1$  = 1st IF frequency

All frequencies in megacycles.

"R" and "Z" types are oven crystals available with 6, 12 and 24 VDC heaters. When ordering, add suffix letter "A" for 12 volt, "B" for 24 volt, no suffix letter for 6 volt.

CRYSTAL NO.	CRYSTAL	CRYSTAL FORMULA
SFMT-1	3.00000-3.62500	$f_x = \frac{f_c}{48}$
SFMT-2	1.000-13.000	$f_x = f_c \pm 5^n$ (Note 1)
SFMT-3	1.56200-3.12500	$f_x = f_c/16$ $f_x = f_c/36$
FMT-5 1-freq. pt. no. 48C475808	.93750-	$f_x = \frac{f_c}{24}$
2-freq. pt. no. 48C475327	1.56250	$f_x = \frac{f_c}{32}$
SFMT-6	6.30000-7.25000	$f_x = f_c/24$
A01	4.40000-4.45000	I.F. Crystal
A04	5.95500	I.F. Crystal
A05	3.35500	I.F. Crystal
A06	1.50000-6.00000	$f_x = f_c + .455$
A07	8.45700	I.F. Crystal
A08	4.75700	I.F. Crystal
A09	8.45500	I.F. Crystal
A10	4.75500	I.F. Crystal
A11	1.70000-6.00000	(Note 4)
A12	5.45500-6.45500	(Note 2)
A13	3.05500-3.65500	(Note 3)

CRYSTAL NO.	CRYSTAL	CRYSTAL FORMULA
A14	5.17500-11.42500	#1 $f_x = \frac{f_c - 4.3}{4}$ #2 $f_x = \frac{f_c - 4.3}{5}$ 3 $f_x = \frac{f_c - 4.3}{10}$
A15 (Note 4)	28.35393-32.92890	—
A16 (Note 4)	8.00000-10.00000	—
AM (Note 4)	10.00000-75.00000	—
AM-9	28.42500-32.99600	$f_x = \frac{f_c - 8.045}{14}$
AM-12	24.54500-53.54500	$f_x = f_c - .455$
AM-13	28.70900-34.70900	$f_x = \frac{f_c - .455}{5}$
AM-18	25.56700-27.75000	$f_x = \frac{f_c - 72}{32}$
AN (Note 4)	1.25000-16.00000	—
ANL	2MC to 6M 10MC-75MC	—
AN-1	6.00000-7.25000	$f_x = \frac{f_c}{24}$
AN-2	1.56250-3.37500	$f_x = \frac{f_c}{16}$
AQL	.280-.500	—
AQLS	.280-.800	—
AQS	.280-.800	—
AUL	6-10MC	—
AULX	6-10MC	$f_c \pm 455KC$
AS (Note 4)	1.25000-16.00000	—

CRYSTAL NO.	CRYSTAL	CRYSTAL FORMULA
ASLX-1	6333.3 7250.0	$f_x = \frac{f_c}{24}$
C01	4.75000-5.43750	$f_x = \frac{f_c}{32}$
C02	29.92000-35.22000	$f_x = \frac{f_c + 2.1}{5}$
C03	4.65000-8.65000	$f_x = \frac{f_c - 2.1}{6}$
C04	6.77500-8.02500	$f_x = \frac{f_c + 2.1}{4}$
C05	1.66667-3.00000	$f_x = \frac{f_c}{18}$
C06	1.38900-1.66667	$f_x = \frac{f_c}{18}$
C07	1.66667-2.33333	$f_x = \frac{f_c}{18}$
G01	8.61500-10.26200	$f_x = \frac{f_c + .455}{17}$ 25-30 MC $f_x = \frac{f_c + .455}{4}$
G02	6.09100-9.07580	30-40 MC $f_x = \frac{f_c + .455}{5}$ 40-50 MC $f_x = \frac{f_c + .455}{6}$
G03	12.45500	I.F. Crystal
G04	5.95500	I.F. Crystal
G05	21455	I.F. Crystal
G06	12455	I.F. Crystal
R02	9.30000-18.9666	$f_x = \frac{f_c + 2.9}{3}$
R03	5.41666-7.25000	$f_x = \frac{f_c}{24}$
R04	1.56250-3.37500	$f_x = \frac{f_c}{16}$



# crystals

CRYSTAL NO.	CRYSTAL	CRYSTAL FORMULA
R05	3.16666-3.62500	$f_x = \frac{f_c}{48}$
R06	1.56250-3.12500	$f_x = \frac{f_c}{16}$
R07	29.30000-33.70000	$f_x = \frac{f_c - 5.5}{5}$
R08	9.30000-18.96666	$f_x = \frac{f_c + 2.9}{3}$
R09	6.00000-7.25000	$f_x = \frac{f_c}{24}$
R10	1.56250-3.37500	$f_x = \frac{f_c}{16}$
R11	2.50000-5.00000	Fundamental 5-8 (overtone) 30-34 (overtone)
R12	2.00000-2.11111	$f_x = \frac{f_c}{36}$
R13	25.83333-27.16666	$f_x = \frac{f_c + 5.5}{3}$
R14	5.00000-12.00000	#1 $f_x = \frac{f_c - 2.7}{3}$
		#2 $f_x = \frac{f_c - 2.7}{4}$
		#3 $f_x = \frac{f_c - 2.7}{5}$
		#4 $f_x = \frac{f_c - 2.7}{4}$
		#5 $f_x = \frac{f_c - 2.7}{5}$
		#6 $f_x = \frac{f_c + 1.7}{13}$
		#7 $f_x = \frac{f_c - 3.8}{16}$
		#8 $f_x = \frac{f_c + 1.7}{17}$
		#9 $f_x = \frac{f_c + 1.775}{17}$
		#10 $f_x = \frac{f_c + 1.85}{17}$

Specify chassis no. and fundamental crystal frequency when ordering.

CRYSTAL NO.	CRYSTAL	CRYSTAL FORMULA
R15	27.20000-33.20000	$f_x = \frac{f_c - 8}{5}$
R16	9.76666-18.10000	$f_x = \frac{f_c + 4.3}{3}$
R17	37.00000-38.00000	$f_x = \frac{f_c - f_r}{8}$ (Note 6)
R18	12.85000-17.85000	$f_x = \frac{f_c - 4.3}{2}$
R19	38.00000-39.00000	$f_x = \frac{f_c - f_r}{8}$ (Note 6)
R20	25.43333-26.76666	$f_x = \frac{f_c + 4.3}{3}$
R21	27.20000-33.20000	$f_x = \frac{f_c - 8}{5}$
R22	11.43333-19.43333	$f_x = \frac{f_c + 4.3}{3}$
R24	16.66666-20.00000	$f_x = \frac{f_c}{24}$
R25	9.76666-11.43333	$f_x = \frac{f_c + 4.3}{3}$
R26	25.43333-26.76666	$f_x = \frac{f_c + 4.3}{3}$
R27	26.40000-32.40000	$f_x = \frac{f_c - 12}{5}$
R28	11.83333-19.83333	$f_x = \frac{f_c + 5.5}{3}$
R29	10.16666-11.83333	$f_x = \frac{f_c + 5.5}{3}$
R32	9.30000-18.96666	(Note 3)
R35	11.83 to .1583	$\frac{f_c + 5.5}{3}$
R37	4.12037-4.44444	$f_x = \frac{f_c}{144}$
RM-10	26.40000-32.40000	$f_x = \frac{f_c - 12}{5}$
RM-14	30.50000-45.50000	$f_x = f_c + 5.5$
RM-15	34.50000-48.50000	$f_x = f_c - 5.5$
RM-16	24.90000-33.70000	$f_x = \frac{f_c - 5.5}{5}$

CRYSTAL NO.	CRYSTAL	CRYSTAL FORMULA
RM-17	10.00000-75.00000	(Note 2)
RM-21	27.900-42.900	$f_c + 2.9$
RM-22	37.100-51.100	$f_c - 2.9$
RM-23	.....	(Note 7)
RM-24	45.5-55.5	$f_c + 5.500$
RM-27	31.833-33.8333	$\frac{f_c + 5.5}{5}$
RM-28	.....	(Note 7)
RN-1A	6.000-7.2500	$f_x = \frac{f_c}{24}$
RN-3	2.08333-4.50000	$f_x = \frac{f_c}{12}$
RN-19	1.38888-3.00000	$f_x = \frac{f_c}{18}$
RN-20	4.12037-4.44444	$f_x = \frac{f_c}{216}$
RN-31A	6.09100-7.61375	$f_x = \frac{f_c + .455}{4}$
RN-32A	6.09100-10.0110	$f_x = \frac{f_c + .455}{5}$
RN-33A	9.07580	$f_x = \frac{f_c + .455}{6}$
RN-34A	8.61500-10.2620	$f_x = \frac{f_c + .455}{16}$
RS (Note 4)	1.25000-16.00000	-
RS-1	6.00000-7.25000	$f_x = \frac{f_c}{24}$
VN1-	ORDER NED6000A	
YM-14	30.5000-47.5000	$f_c + 5500$
YM-15	36.500-48.500	$f_c - 5500$
YM-29	44.000-54.000	$\frac{f_c - 12000}{3}$
YM-35	45.767-46.856	$\frac{f_c - 11.700}{3}$
YN	5.955	I.F. XTAL
YN	11.545	I.F. XTAL
YN	11.245	I.F. XTAL

## 2 FREQUENCY OVEN ASSEMBLIES (Z SERIES)

CRYSTAL ASSEM. NO.	CRYSTAL NO. (Note-5)	RANGE (in mc) CRYSTAL	CRYSTAL FORMULA
Z02	T02	9.30000-18.66666	$f_x = \frac{f_c + 2.9}{3}$
Z03	T03	29.30000-33.70000	$f_x = \frac{f_c - 5.5}{5}$
Z04	T04	9.30000-18.96666	$f_x = \frac{f_c + 2.9}{3}$
Z05	T05	28.80000-33.20000	$f_x = \frac{f_c - 8}{5}$

CRYSTAL ASSEM. NO.	CRYSTAL NO. (Note-5)	RANGE (in mc) CRYSTAL	CRYSTAL FORMULA
Z06	T06	9.76666-18.10000	$f_x = \frac{f_c + 4.3}{3}$
Z07	T07	12.85000-17.85000	$f_x = \frac{f_c - 4.3}{2}$
ZM16	T01	26.70000-33.70000	$f_x = \frac{f_c - 5.5}{5}$

## CRYSTALS FOR "BUSINESS DISPATCHER" & "MOTRAC" TRANSMITTERS

CRYSTAL ASSEM. NO.	CRYSTAL INSERT NO.	FREQ. EQPT.	RANGE CRYSTAL	FORMULA
ZNN-3A	HN3	25-54	2.0833 4.5000	$f_x = \frac{f_c}{12}$
1-FREQ.	(1-REQ.)	150-174	12.5000 14.5000	$f_x = \frac{f_c}{12}$
ZNN-3-3A	HN3	25-54	2.0833 4.5000	$f_x = \frac{f_c}{12}$
2-FREQ.	(2-REQ.)	150-174	12.5000 14.5000	$f_x = \frac{f_c}{12}$

## CRYSTALS FOR "MOTRAC" RECEIVERS

CRYSTAL ASSEM. NO.	CRYSTAL INSERT NO.	FREQ. EQPT.	RANGE CRYSTAL	FORMULA
ZMM-39A 1-FREQ.	HM-39 (1-REQ.)	136-150.8 MC	28.800- 32.560	$f_x = \frac{f_c + 12}{5}$
ZMM-10A 1-FREQ.	HM-10 (1-REQ.)	150.8-174 MC	27.760- 32.400	$f_x = \frac{f_c - 12}{5}$
ZMM39-39A 2-FREQ.	HM-39 (2-REQ.)	136-150.8 MC	28.800- 32.560	$f_x = \frac{f_c + 12}{5}$
ZMM10-10A 2-FREQ.	HM-10 (2-REQ.)	150.8-174 MC	27.760- 32.400	$f_x = \frac{f_c - 12}{5}$
ZMM-14A 1-FREQ.	HM-14 (1-REQ.)	25-42	30.500- 47.500	$f_x = f_c + 5.5$
ZMM-14-14A	HM-14 (2-REQ.)	25-42	30.500- 47.500	$f_x = f_c + 5.5$
ZMM-15A	HM-15 (1-REQ.)	42-54	36.500- 48.500	$f_x = f_c - 5.5$
ZMM-15-15A	HM-15 (2-REQ.)	42-54	36.500- 48.500	$f_x = f_c - 5.5$

## TRANSMITTER & RECEIVER CRYSTAL IN SAME OVEN USED IN U44BT SERIES EQUIPMENT

406-420 MC

CRYSTAL ASSEM. NO.	CRYSTAL	CRYSTAL RANGE	CRYSTAL FORMULA
KMM-140A	JM1 TRANS.	16916.6- 19583.3	$f_x = \frac{f_c}{24}$
	JM40 RECVR.	47444.4- 49000.0	$f_x = \frac{f_c + 21}{9}$

450-470 MC

CRYSTAL ASSEM. NO.	CRYSTAL	CRYSTAL RANGE	CRYSTAL FORMULA
KMM-126A	JM1 TRANS.	18750.0- 19583.3	$f_x = \frac{f_c}{24}$
	JM26A RECVR.	47666.6- 49888.8	$f_x = \frac{f_c - 21}{9}$

## REPLACEMENT LISTINGS FOR NON-CURRENT CRYSTALS

OBSOLETE CRYSTAL NO.	REPLACED BY CURRENT CRYSTAL NO.	OBSOLETE CRYSTAL NO.	REPLACED BY CURRENT CRYSTAL NO.	OBSOLETE CRYSTAL NO.	REPLACED BY CURRENT CRYSTAL NO.	OBSOLETE CRYSTAL NO.	REPLACED BY CURRENT CRYSTAL NO.
BM16	T01	48A16522	Obsolete	800-FT243 (48A84005)	A14	FMT-1 (48B85327)	SFMT-1
D01	RM16	48A83115	Obsolete	801 (48C85412)	R14	FMT-2 (48B86610)	SFMT-2
D31	RM17	48A83128	Obsolete	801A (48K86674)	R14	FMT-3 (48K86728)	SFMT-3
D34	RN3	48A83182	Obsolete	802 (48C82426)	C03	FMT-4 (48C82427)	C05
D36	R37	48B82418	A14/with adapter (58A83532)	804 (48B890013)	A01	FMT-6 (48C881077)	SFMT-6
E01	ZM16	48B82524	FMT-5 (48C475808)	180-G (48B81946)	FMT-5 (48C475808)	FMT (48B82527)	FMT-5 (48C475808)
E02 to E07	Z02 to Z07	48B893644	SFMT-2	AR3 (48B81486)	FMT-5 (48C475808)	FMT (48B83851)	FMT-5 (48C475327)
E08	ZM16	48K82417	A-11/with adapter (58A83532)	B5R (48B81487)	A14/with adapter (58A83532)	FT243 (48A50647)	A14
EM16	ZM16	800 (48B483539)	A-11	B5R (48A81488)	A-11/with adapter (58A83532)	H16 (48A808465)	Obsolete
F02 to F07	T01 to T07	800 (48B83765)	A-11				
TX1	AQLS or AQS	800	A-11				
TX2	AQLS or AQS	(48B83998)					

### All other "D" type Crystals are replaced by "R" type with equivalent numbers.

NOTE 1. <sup>n</sup> = 7, 8, 9, 30, 31, or 32 for Frequency Monitor. Specify Receiver Control Frequency when ordering.

NOTE 2. RM-17 and A12 crystals are used in No. 2 receiver as follows: (RM-16 crystal is used with tabulated formula for No. 1 receiver of 2-receiver models.)

a. For frequency separations of less than 500 kc;  
RM-17 is  $f_x = \frac{F_1 - 5.5}{5}$ .

A12 is  $f_x = F_2 - F_1 + 5.955$  mc.

b. For frequency separations 5.0 to 5.5 mc;  
RM-17 is  $f_x = \frac{F_1 - 6.0}{5}$ , A12 is  $f_x = 6.455$  mc.

c. For frequency separations 5.5 to 6.0 mc;  
RM-17 is  $f_x = \frac{F_1 - 5.0}{5}$ , A12 is  $f_x = 5.455$  mc.

NOTE 3. R32 and A13 crystals are used in No. 2 receiver as follows: (R32 crystal is used with tabulated formula for No. 1 receiver of 2-receiver models.)

a. For frequency separations of less than 300 kc;  
R32 is  $f_x = \frac{F_1 + 2.9}{3}$ , A13 is  $f_x = F_1 - F_2 + 3.355$  mc.

b. For frequency separations 2.6 to 2.9 mc;  
R32 is  $f_x = \frac{F_1 + 3.2}{3}$ , A13 is  $f_x = 3.655$  mc.

c. For frequency separations 2.9 to 3.2 mc;  
R32 is  $f_x = \frac{F_1 + 2.6}{3}$ , A13 is  $f_x = 3.055$  mc.

NOTE 4. Specify the carrier frequency of the equipment used in and the crystal frequency stamped on the crystal or the crystal oven.

NOTE 5. "T" Series crystals are used in "Z" and "ZM" Series two-frequency crystal assemblies respectively. They can be ordered without returning oven to enable the chassis to remain operative on the other frequency.

NOTE 6.  $f_r$  is the frequency of the receiver used with the converter.

NOTE 7. These crystals are used in 2 receiver base stations. When ordering specify:

- Operating frequency desired and frequency of IF crystal.
- Operating frequency of other receiver and frequency of IF crystal.



# crystals

## Transmitters (25-54 MC)

CHASSIS NO.	CRYSTAL TYPE	CHASSIS NO.	CRYSTAL TYPE
TA 104	RN3	PA 8625B	RO4
TA 105	RN3	PA 8671 series	RO4
TA 130	RN3	PA 8672 series	RO4
TA 169	RN3	PA 8673 series	RO4
TA 179	RN3	PA 8691 series	RO4
TA 180	RN3	PA 8692 series	RO4
TA 181	RO4	PA 8693 series	RO4
TA 193	RO4	P 9030 series	R10
TA 194	RO4	P 9050 series	R10
TA 200	RN3	TTB 1011 to	
TA 201 T series	RN19	TTB 1016AA, AB	RN3
TA 202 series	RN19	TTB 1011 to	
PA 7203B	RO4	TTB 1015AC, AD	RN19
P 8020	48C 475808	TTB 1021AG to	
25-44 mc	(1 freq.)	TTB 1026AG	RN19
form. #1 *	48C 475327	TTB 1031 to	
	(2 freq.)	TTB 1036AA, AB	RN3A
P 8020	48C 475808	TTB 1031 to	
30-50 mc	(1 freq.)	TTB 1036AC, AD	RN19A
form. #2 *	48C 475327	TTB 1041 to	
	(2 freq.)	TTB 1046AA, AB	RN3A
P 8620	SFMT3	TTB 1041 to	
P 8620B	RO6	TTB 1046AC, AD	RN19A

## Receivers (25-54 MC)

CHASSIS NO.	CRYSTAL TYPE	CHASSIS NO.	CRYSTAL TYPE
TA 108 (25-30 mc)	R29	PA 8633 series	R02
TA 108 (30-54 mc)	R28	PA 8633A	R32
TA 111 (25-30 mc)	R29	(#2 Control Receiver)	
TA 111 (30-54 mc)	R28	P 8658 series	Z02
TA 111A (25-30 mc)	R29	PA 8663 series	RO2
TA 111A (30-54 mc)	R28	PA 9034	RO8
TA 111B (25-30 mc)	R29	PA 9034A, B, C,	R16
TA 111B (30-54 mc)	R28	& F (25-30 mc)	
TA 111C (25-40 mc)	RM14	(40-50 mc) only	
TA 111C (40-54 mc)	RM15	PA 9034A, B, C, &	R18
TA 162 (25-30 mc)	R29	F (30-40 mc) only	
TA 162 (30-54 mc)	R28	PA 9074	Z04
TA 162A (25-30 mc)	R29	PA 9074A, B & C	Z06
TA 162A (30-54 mc)	R28	(25-30 mc)	
TA 164 (25-30 mc)	R29	PA 9074A, B & C	Z07
TA 164 (30-54 mc)	R28	(30-40 mc)	
TA 164A (25-30 mc)	R29	PA 9074A, B & C	Z06
TA 164A (30-54 mc)	R28	(40-50 mc)	
TA 165 (25-30 mc)	R29	PA 9137A	RO2
TA 165 (30-54 mc)	R28	PA 9145	RO2
TA 189	RO2	PA 9146	RO2
TA 189A series	RM21	P 9181	Z02
(25-40 mc)		PA 9219A	RO2
TA 189A series	RM22	PA 9244 series	R25
(40-54 mc)		(25-30 mc)	
TA 189-R2	Z02	PA 9244 series	R22
TA 192	RO2	(30-54 mc)	
P 8028 series	A14	PA 9265	RO2
(25-44 mc)	form. #1 *	PA 9266	RO2
P 8028 (39-50 mc)	A14	PA 9273	RO2
Converted from	form. #2 *	WE 9273	RO2
25-44 mc	A14	TRB 1050AA	RM21
P 8028C (25-44 mc)	form. #1 *	25-40 mc	
P 8116A & B	A14	TRB 1050AB	RM22
(25-44 mc)	form. #1 *	TRB 1060AA, AB	40-50 mc
P 8116A & B	A14	TRB 1071 to	RM/RP14
(39-50 mc)	form. #2 *	TRB 1074AA, AB,	25-40 mc
Converted from		AC, AD, AE, AF, AH	RM/RP15
25-44 mc		40-54 mc	
P 8116C, D	R14	TRB 1081AA to	RM/RP14
(25-44 mc)	form. #4 *	TRB 1084AA	25-40 mc
P 8116C, D	R14	40-54 mc	
(39-50 mc)	form. #5 *	RM/RP14	
Converted from		40-54 mc	
25-44 mc		RM/RP14	
PA 8619B	R14	TRB 1091AA to	RM/RP14
P 8628 series		TRB 1094AA	25-40 mc
(25-50 mc)		RM/RP15	
		40-54 mc	

## Transmitters (144-174 MC)

CHASSIS NO.	CRYSTAL TYPE	CHASSIS NO.	CRYSTAL TYPE
TA 139 series	RS1	TTD 1000AA, AB,	
TA 170 series	RS1	AC, AD	RN1
TA 190	RO3	TTD 1020AA	RN1A 6V
TA 192	RO3		RN1A 12V
TA 205 series	RS1	TTD 1040AA, AB	RN1
TU 402-C4	ASLX-1	TTD 1060AA, AB,	
(152-174 mc)		AC, AD	RN1A
TTD 1060 series	RN1A	TTD 1070AA, AB,	
PA 7291C	RO3	AC, AD	RO3A
P 8320 series	SFMT-1	TTD 1080AA	RO3
(152-174 mc)		TTD 1090AA, AB,	
PA 8461 series	RO3	AC, AD, AE, AF, AG	RO3
PA 8462 series	RO3	TTD 1100A	RO3
PA 8463 series	RO3	TTD 1120AA	RN1A
PA 8491 series	RO3	TTD 1140AA, AB	RN1
PA 8492 series	RO3	TTD 1240AA	RN1 6V
PA 8493 series	RO3		RN1A 12V
P 8520, A, B	SFMT-1	TTD 1320AA, AB,	
(152-174 mc)		AC, AD	RO3A
P 8520E	RO5	TTD 1330AA	RO3
152-174 mc)		TTD 1340AA, AB,	
PA 8664B	RO3	AC, AD	RO3
PA 8665 B	RO3	TTD 1350AA	RO3
P 9020 series	RO9	TTD 1370AA,	ZNN1A
P 9040 series	RO9	AB, AC	
		TTD 1137AD	ZNN1-1A
		TTD 1380AA, AB	ZNN1-1A

## Receivers (144-174 MC)

CHASSIS NO.	CRYSTAL TYPE	CHASSIS NO.	CRYSTAL TYPE
TA 101	R27	PA 9073A & B	Z05
TA 140	R27	(152-174 mc)	
TA 140A	R27	PA 9147	RM16
TA 140B	RM10	PA 9148	RM16
TA 161	R27	(144-174 mc)	
TA 163	R27	PA 9243 series	R21
TA 163A	RM10	PA 9267	RM16
TA 178	R27	PA 9268	RM16
TA 182	R27	TRD 1040AD	RM27
TA 182A	RM10	(150-162 mc)	
TA 191	RM16	TRD 1011AB, AD	
TA 191-R2	ZM16	TRD 1012AB, AD	RM10
TA 198-R3	RM10	TRD 1021AB, AD	
TA 199-R4	RM10	TRD 1022AB, AD	RM10A
TA 206	RM10	TRD 1031AA, AB	RM27
PA 7250 series	ZM16	TRD 1032AA, AB	RM16
PA 7251 series	ZM16	TRD 1031AC, AD	ZM27
PA 7254 series	RM16	TRD 1032AC, AD	ZM16
PA 7265 series	RM16	TRD 1041AA, AB	RM27
P 8328 & A	R14	TRD 1042AA, AB	RM16
(152-162 mc)	form. #7 *	TRD 1041AC, AD	ZM27
P8328B&C	R14	TRD 1042AC, AD	ZM16
(152-162 mc)	form. #8 *	TRD 1051AA, AB	RM27
PA 8433 series	RM16	TRD 1052AA, AB	RM16
(144-174 mc)		TRD 1080A	R15
PA 8433A	RM17	TRD 1090A	R15 or R38
(#2 Receiver only)			for shifted IF
PA 8438 series	RM16	TRD 1100A	RM27
PA 8443 series	RM16	TRD 1111AD	RM10 6V
PA 8476 series	ZM16	TRD 1122AD	RM10A 12V
P 8528	R14	TRD 1121AD	
(152-162 mc)	form. #8 *	TRD 1122AD	RM10
Before July 1949		TRD 1151AA, AB,	
P 8528 series	R14	AC, AD, AE,	
(152-159 mc)	form. #8 *	AF, AH	
After July 1949		TRD 1152AA	RM10
P 8528 series	R14	TRD 1171AA, AB,	
(159-166 mc)	form. #9 *	AC, AD, AE,	
After July 1949		AF, AH	
P 8528 series	R14	TRD 1172AA	RM10A
(166-174 mc)	form. #10 *	TRD 1181AA, AB	
After July 1949		TRD 1182AA, AB	RM10
PA 9033	RO7	TRD 1260AA, AB	RM10
(152-174 mc)		TRD 1311AB, AD	
PA 9033A, B & F	R15	TRD 1312AB	RM10A
PA 9073	Z03		
(152-174 mc)			

**Industrial "Dispatcher" and Portable Units (25-54 MC)**

MODEL NO.	DESCRIPTION	CRYSTAL TYPE
FHTR, FPTR series	25-30 mc Transmitter Receiver	CO6 CO4
H11, P11 series	30-54 mc Transmitter Receiver	CO5 CO3
H21-1 to -15 H21-1000 series	Transmitter Receiver	AN2 AM12
H21-3000 series	Transmitter 25-42 mc 42-54 mc Receiver	AB2 AN2 AM12
P31-1 to -6 P31-1000 series	Transmitter Receiver	(.002%) AN2 (.0025%) ANX2 AM12
P31-3000 series	Transmitter 25-42 mc 42-54 mc Receiver	(.0025%) ABX2 (.0025%) ANX2 AM12
All D21-T21-D31- T31 and 1000 series (std. squelch)	Transmitter Receiver	(.002%) AN2 (.0025%) ANX2 AM2
D-21-T21-D31- 3000 series (private line)	Transmitter (25-42 mc) (42-54 mc) Receiver	(.0025%) ABX2 (.0025%) ANX2 AM12
HO1ANC	Pocket Receiver (25-42 mc) (42-54 mc)	YM14 YM15
H11NBC	Pocket Transmitter	AB2
H21ANC	Pocket Transmitter (25-54 mc)	AN2
X11-1A	"Handie-Microtalkie" Unit (30-42 mc)	CO7

**Receivers (400-470 MC)**

CHASSIS NO.	CRYSTAL TYPE	CHASSIS NO.	CRYSTAL TYPE
TA 109	Control IF A15 A16	TA 222	Control IF RM AN
TA 129	Control IF A15 A16	TA 223	Control IF RM AN
TA 141	Control IF AS AN	TA 229	Control IF RM9 AN
TA 141A	Control IF AM AN	PA 9343	Control IF A15 A16
TA 143	Control IF AS AN	PA 9344	Control IF A15 A16
TA 146	Control IF AS AN	TRE 1000AA, AE	Control IF RM AN
TA 183	Control IF AM9 AN	TRE 1010AA	Control IF RM9 AN
TA 183A	Control IF AM9 AN	TRE1020AA	Control IF KMM26A G05
TA 185	Control IF AM9 AN	TRE1021AA	Control IF KMM40A G05
TA 197	Control IF AM AN	TRE1020AC	Control IF KMM26-26A G05
TA 216	Control IF RM AN	TRE1021AC	Control IF KMM40-40A G05
TA 219 Z	Control IF RM AN	TRE1020AE	Control IF KMM26A G05
TA 220 Z	Control IF RM AN	TRE1020AG	Control IF KMM26-26A G05

**Industrial "Dispatcher" and Portable Units (144-174 MC)**

MODEL NO.	DESCRIPTION	CRYSTAL TYPE
FHTRU, FPTRU series H13, P13 series	Transmitter Receiver	CO1 CO2
H23-1 to -16 P33-1 to -6 H23-1000 series D23-1, -4 -10 T23-1, -4 D33-1, -4, -7, -10 T33-1, -4, -7	Transmitter (See note below)	For .0025% stability order ANI For conversion to .0005% stability order NED 6001A For replacement of .0005% (type VNI xtal) order NED 6000A
	Receiver (all models)	AM13
D23, T23, D33, P33 T33-1000 and 3000 series	Transmitter (See note Below)	For conversion to .0005% stability order NED 6001A For replacement of .0005% (type VNI xtal) order NED 6000A
	Receivers (all models)	AM13
	Pocket Receiver (149.001 to 152.270 mc) using IF xtal 11.245 mc	YM35
HO3ANC	144-149 and 152.3-174 mc using IF xtal 11.545 mc	YM29
HO3ANC-1000B & C Series	144-148.5 mc using IF Xtal 11.545 mc 148.5-174 mc using IF Xtal 11.245 mc	YM29 YM35
H13NBC H23ANC	Pocket Transmitter	AN1
X13T 1 & 2	"Handie-Microtalkie" Unit	CO1

NOTE: NED 6001A crystal kit contains type VN1 crystal and components for .0005% stability with instructions for conversion to high stability oscillator.

**Transmitters (400-470 MC)**

CHASSIS NO.	CRYSTAL TYPE
TA 110, TA 147, TA 184, TA 204, TU 260, P 9350, PA 9355	R24
TTE 1000AA, AB, AC	R24
TTE 1010AA	R24
TTE 1020AA	RN20

**Alert Monitor Receivers (25-54 MC)**

MODEL NO.	CRYSTAL TYPE
LOIF series (25-54 mc)	GO2
LO1FNB (25-30 mc)	GO2 (Wide Band) RN31A (Split Channel)
LO1FNB (30-40 mc)	GO2 RN32A
LO1FNB (40-50 mc)	GO2 RN33A

**Alert Monitor Receivers (144-174 MC)**

MODEL NO.	CRYSTAL TYPE
LO3F—1 to 5	GO1
LO3FNB Models	GO1 Wideband RN34A Split Channel



# crystals

## Transmitters (72-76 MC)

TRANSMITTER NO.	CRYSTAL TYPE	RECEIVER NO.	CRYSTAL TYPE
P 7220	SFMT3		Form. #6 *
PA 9110 A	R12	PA 9102	R13
P 7228	R14	PA 9329	R26
		TTC 1000AA	R12

## Receivers (72-76 MC)

### Miscellaneous

MODEL NO.	CRYSTAL TYPE
PA 7225 series Monitor	R11
PA 7225 series	SFMT2
PA 7226 series	SFMT2
PA 7226 series Monitor	R11
PA 9077 series (1.6-3.2 mc)	AO6



# conversion kits

## 6 TO 12-VOLT TRANSMITTER CONVERSION KITS

MODEL NO.	CONVERSION KIT NO.	NET PRICE	MODEL NO.	CONVERSION KIT NO.	NET PRICE	MODEL NO.	CONVERSION KIT NO.	NET PRICE	MODEL NO.	CONVERSION KIT NO.	NET PRICE
PA-8021	PS3-25*	1.74	PA-8463-B	PS3-22	11.27	PA-8671-C	PS3-5	2.86	P-9020	PS3-1	4.39
PA-8026	PS3-27*	.92	PA-8491	PS3-6	3.82	PA-8672	PS3-17	6.06	P-9020-A	PS3-1	4.39
PA-8029	PS3-2*	2.87	PA-8491-A	PS3-6	3.82	PA-8672-A	PS3-17	6.06	P-9020-B	PS3-1	4.39
PA-8329†	PS3-28*	2.05	PA-8491-B	PS3-6	3.82	PA-8672-B	PS3-17	6.06	P-9020-C	PS3-1	4.39
PA-8329-E†	PS3-29*	3.07	PA-8492	PS3-7	4.83	PA-8672-C	PS3-17	6.06	P-9030	PS3-15	4.56
PA-8329F†	PS3-10*	2.83	PA-8492-A	PS3-7	4.83	PA-8673	PS3-21	11.27	P-9030-A	PS3-15	4.56
PA-8342	PS3-26*	3.50	PA-8493	PS3-23	10.76	PA-8673-A	PS3-21	11.27	P-9030-B	PS3-15	4.56
PA-8461	PS3-4	5.05	PA-8493-A	PS3-23	10.76	PA-8673-B	PS3-21	11.27	P-9030-C	PS3-15	4.56
PA-8461-A	PS3-4	5.05	PA-8493-B	PS3-23	10.76	PA-8691	PS3-8	3.72	P-9040	PS3-18	8.59
PA-8461-B	PS3-4	5.05	P-8520	PS3-14	14.30	PA-8691-A	PS3-8	3.72	P-9040-A	PS3-18	8.59
PA-8461-C	PS3-4	5.05	P-8520-A	PS3-14	14.30	PA-8691-B	PS3-8	3.72	P-9040-B	PS3-18	8.59
PA-8462	PS3-16	6.06	P-8520-B	PS3-14	14.30	PA-8692	PS3-9	4.83	P-9040-C	PS3-18	8.59
PA-8462-A	PS3-16	6.06	P-8520-E	PS3-13	18.48	PA-8692-A	PS3-9	4.83	P-9050	PS3-19	8.59
PA-8462-B	PS3-16	6.06	P-8620	PS3-20	14.51	PA-8692-B	PS3-9	4.83	P-9050-A	PS3-19	8.59
PA-8462-C	PS3-16	6.06	PA-8671	PS3-5	2.86	PA-8693	PS3-24	8.57	P-9050-B	PS3-19	8.59
PA-8463	PS3-22	11.27	PA-8671-A	PS3-5	2.86	PA-8693-A	PS3-24	8.57	P-9050-C	PS3-19	8.59
PA-8463-A	PS3-22	11.27	PA-8671-B	PS3-5	2.86	PA-8693-B	PS3-24	8.57	P-9350	PS3-11	1.19

†For the PA-8329 series transmitter (used in the FMTU-30 series of models), specify final amplifier tube type (2E24, 2E26 or 5516).

\*Also requires Power Supply Conversion.

## 6 TO 12-VOLT RECEIVER CONVERSION KITS

RECEIVER MODEL NO.	CONVERSION KIT NO.	NET PRICE	RECEIVER MODEL NO.	CONVERSION KIT NO.	NET PRICE	RECEIVER MODEL NO.	CONVERSION KIT NO.	NET PRICE	RECEIVER MODEL NO.	CONVERSION KIT NO.	NET PRICE
P-8028	PS2-12	.51	PA-8633-A	PS2-9	2.89	PA-9073-A	PS2-24	2.71	PA-9243-R3	PS2-22	4.26
P-8116	PS2-15	.03	PA-8658	PS2-19	3.77	PA-9073-B	PS2-24	2.71	PA-9244	PS2-10	1.97
P-8116-A	PS2-15	.03	PA-8658-A	PS2-9	2.89	PA-9074-A	PS2-26	6.20	PA-9244-R2	PS2-23	3.19
P-8116-C	PS2-6	.60	PA-8663	PS2-18	1.82	PA-9074-B	PS2-26	6.20	PA-9244-X-R2	PS2-23	3.19
*PA-8333	PS2-2	2.96	PA-8663-A	PS2-9	2.89	PA-9074-C	PS2-26	6.20	PA-9244-R3	PS2-1	4.39
*PA-8333-A	PS2-16	2.94	PA-9033	PS2-3	2.71	PA-9137	PS2-9	2.89	WE-9267	PS2-8	2.79
PA-8433	PS2-5	2.59	PA-9033-A	PS2-4	2.79	PA-9138	PS2-8	2.79	WE-9267-A	PS2-8	2.79
PA-8433-A	PS2-8	2.79	PA-9033-B	PS2-4	2.79	PA-9158	PS2-4	2.79	WE-9273	PS2-9	2.89
PA-8476A	PS2-8	2.79	PA-9034	PS2-20	2.90	PA-9158-A	PS2-4	2.79	PA-9344	PS2-14	.37
P-8528-C	PS2-17	1.21	PA-9034-A	PS2-20	2.90	P-9181	PS2-9	2.89	TA-140	PS2-28	3.16
PA-8628	PS2-13	1.24	PA-9034-B	PS2-20	2.90	PA-9243	PS2-7	1.85	TA-140A	PS2-28	3.16
PA-8633	PS2-18	1.82	PA-9034-C	PS2-11	2.95	PA-9243-R2	PS2-21	3.05	TA-140 R3	PS2-27	8.55
									TA-140AR3	PS2-27	8.55

\*For the PA-8333 Series receivers (used in the FMRU-16V and FMTU-30D Series of models) specify whether standard (PA-8333 including P-8328) or precision selectivity (PA-8333-B including P-8328-B or converted earlier model). Standard selectivity models use a discriminator coil T-841 (clearly stamped on coil shield) and precision selectivity models use discriminator coil T-841-A.

## Receivers & Transmitters (890-960 MC)

CHASSIS NO.	CRYSTAL TYPE
TA 144 Transmitter	R37
TA 145 Receiver	AM
TA 210B Transmitter	RN20
TA 211 Receiver	AM18
TTF 1000AA Transmitters	RN20
TRF 1000AA Receivers	AM-18
	AN

## Alignment Crystals for Use in Motorola Test Sets and Generators

P8501	AQS	Shipped with Socket Adaptor 51A821802
P8501A & B	AQLS	For IF Alignment (.280 to .500)
TU 546 or S1056A Test Set	AQL	For IF Alignment (.280 to .500)
TK589 or SLN 6057A Peaking Generator	AUL	For Carrier Alignment (48-960 MC)
	AULX	For IF Alignment (6 to 10 MC Only)
	ANL	For use with Deviation Meter
		For IF Alignment 2 MC to 6 MC
		10 MC to 75 MC

Complete with instructions for converting Motorola mobile radio units from 6-volt operation to 12-volt operation. When ordering specify complete model numbers.



# conversion kits

## 6 TO 12-VOLT POWER SUPPLY CONVERSION

Dynamotor powered models can be converted by replacing the dynamotor armature and powering the 6-volt field

winding from 12-volts or by replacing the complete 6-volt dynamotor with a complete 12-volt dynamotor.

POWER SUPPLY MODEL NO.	CONVERSION KIT NO.	NET PRICE
P-8027	PS1-18	16.94
P-8030	PS1-7	15.16
P-8050	59K84420 New Dyn or PS1-35 Arm & Brush	63.53 39.39
P-8051	59K842052 New Dyn For 59C81490 or PS1-21 Arm & Brush 59K842054 New Dyn For 59C483332 Dyn or PS1-1 Arm & Brush	91.58 51.76 65.18 39.39
P-8115	PS1-2	8.23
P-8317	59K85487 New Dyn or PS1-8 Arm & Brush	62.70 42.76
P-8431	PS1-33 Plus New Dyn 59K892977 or PS1-33 Plus PS1-8 Arm & Brushes	10.26 64.35 10.26 42.76
P-8431-C	PS1-39 Plus New Dyn 59K892977 or PS1-39 Plus PS1-8 Arm & Brushes	10.89 64.35 10.89 42.76
P-8661	PS1-29 Plus New Dyn 59K892978 or PS1-29 Plus PS1-26 Arm & Brushes	10.24 92.40 10.24 56.26
P-9027	PS1-4	3.16
P-9027-C2	PS1-4	3.16
P-9027-A	PS1-5	6.60
P-9027-A-C2	PS1-5	6.60

POWER SUPPLY MODEL NO.	CONVERSION KIT NO.	NET PRICE
P-9027-C	PS1-5	6.60
P-9027-C-C2	PS1-5	6.60
P-9087	PS1-37	23.43
P-9149	PS1-20	9.77
P-9150	PS1-20	9.77
P-9231-A	PS1-19	5.09
P-9331	PS1-9	4.83
TU-180	PS1-30 Plus New Dyn 59K892977 or PS1-30 Plus PS1-8 Arm & Brushes	12.05 64.35 12.05 42.76
TU-181	PS1-28 Plus New Dyn 59K892978 or PS1-28 Plus PS1-26 Arm & Brushes	11.93 92.40 11.93 56.26
TU-184	PS1-10	6.11
TU-185	PS1-10	6.11
TU-264	PS1-38 Plus New Dyn 59K892977 or PS1-38 Plus PS1-8 Arm & Brushes	4.80 64.35 4.80 42.76
TU-264-2F	PS1-38 Plus 59K892977 or PS1-38 Plus PS1-8 Arm & Brushes	4.80 64.35 4.80 42.76
TU-264-3F	PS1-38 Plus New Dyn 59K892977 or PS1-38 Plus PS1-8 Arm & Brushes	4.80 64.35 4.80 42.76

## 6 TO 12-VOLT ACCESSORY CONVERSION

MODEL NO.	KIT NO.	NET PRICE	MODEL NO.	KIT NO.	NET PRICE	MODEL NO.	KIT NO.	NET PRICE
P-8022	PS4-22	.23	P-8452-B	PS4-6	1.10	K-9038	PS4-4	.93
K-8025-A	PS4-7	.21	WE-8454	PS4-21	.91	K-9042	PS4-19	.80
K-8025-B	PS4-8	.21	P-8522	PS4-22	.23	P-9136-A-B	PS4-4	.93
K-8025-D	PS4-9	.21	K-8525-B	PS4-13	.79	P-9136-C	PS4-4	.93
K-8102	PS4-20	.69	P-9022	PS4-22	.23	P-9136-C-2	PS4-4	.93
K-8340	PS4-20	.69	P-9024	PS4-2	1.00	P-9136-H	PS4-4	.93
P-8422	PS4-22	.23	K-9024-3F	PS4-24-A	4.05	P-9136-J	PS4-4	.93
P-8442	PS4-22	.23	K-9025	PS4-3	.91	K-9325	PS4-17	.20
P-8452	PS4-16	1.38	K-9037	PS4-1	.70	P-9332	PS4-22	.23
P-8452-A	PS4-14	.90	K-9037-A	PS4-1	.70	K-9525	PS4-23	.32

## 6/12V TO 12V CONVERSION KITS

**SK9475**—Converts T41GGV, D41GGV and T51GGV series standard squelch 6/12-volt mobile units to 12-volt only operation. Net **\$1.50**

**SK9476**—Converts T43GGV, D43GGV, T33GGV and D33GGV series standard squelch 6/12-volt mobile units to 12-volt only operation. Net **\$1.50**

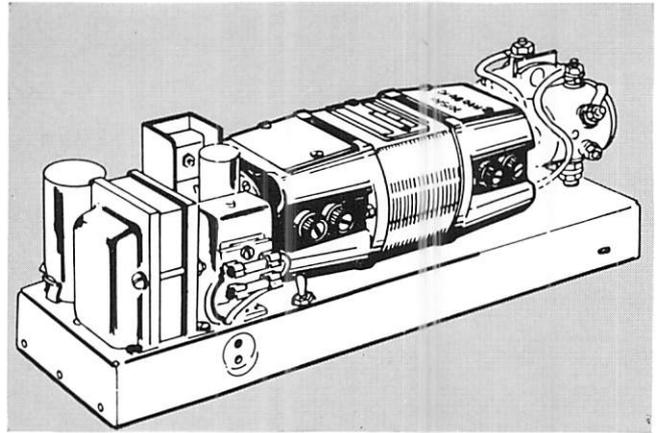
**SK9477**—Converts following 6/12-volt mobile units to 12-volt only operation: T44AV (standard, PL and Dual Squelch), T41GGV and D41GGV (PL and Dual Squelch), T51GGV (PL and Dual Squelch), T43GGV and D43GGV (PL and Dual Squelch), and T33GGV and D33GGV (PL and Dual Squelch). Net **\$1.50**



# dynamotors

## DYNAMOTORS AND ACCESSORIES

Rugged, efficient dynamotors and dynamotor replacement parts conservatively designed for long life in heavy-duty mobile radio applications.



DYNAMOTOR PART NO.	MFGR. NO.	INPUT VOLTS	EQUIPMENT USAGE	NET PRICE	ARMATURE PART NO.	MFGR. NO.	NET PRICE	INPUT BRUSH* 1.13 ea.	OUTPUT BRUSH* .75 ea.
59K 81860	617V	6	25-50 MC 30W Deluxe	57.75	59K 831395	279-2	33.75	39K 837806	39K 83950
59K 84420	617B	12	25-50 MC 30W Deluxe	63.53	59K 831396	234-4	37.13	39K 85905	39K 83950
59C 81490	VSF630	6	25-50 MC 50W Deluxe	56.47	24K 842158	279-2-2	54.00	39K 83948	39K 83951
59K 842052	BFS630	12	25-50 MC 50W Deluxe	91.58	59K 842053	255-4	49.50	39K 842150	39K 83951
59C 483332	624VS	6	25-50 MC 50W Low Drain Deluxe	65.18	24K 880131	309-2	40.50	39K 837806	39K 83950
59K 842054	624BS	12	25-50 MC 50W Low Drain Deluxe	65.18	59K 831396	234-4	37.13	39K 85905	39K 83950
59C 85352	4228VS	6	152-162 MC 30W Deluxe	62.70	59K 831397	207-2	37.13	39K 837806	39K 83950
59K 85487	4228BS	12	152-162 MC 30W Deluxe 25-54 MC 30W	62.70	24K 892997	176-4	43.55	39K 85905	39K 83950
59C 890909	4228VSC	6	152-174 MC 30W Research 25-54 MC 30W	64.35	24K 892996	195-2	40.50	39K 837806	39K 83950
59K 892977	4228BSC	12	152-174 MC 30W Research 25-54 MC 30W	64.35	24K 892997	176-4	43.55	39K 85905	39K 83950
59C 890911	VSF6237	6	152-174 MC 60W Research 25-54 MC 60W	83.25	24K 892189	301-2	54.00	39K 892192	39K 83951
59C 892978	BSF6237	12	152-174 MC 60W Research 25-54 MC 60W	92.40	24K 892998	279-4	54.00	39K 892192	39K 83951
59D 840694	4432VBNS	6/12	152-174 MC 30W Research 25-54 MC 60W	82.09	59K 840720	195-2-2	45.38	39K 837806	39K 83950
59D 840695	TVBS6537	6/12	152-174 MC 60W Research	107.25	59K 845231	207-1-2	57.75	39K 845229	39K 83951
59D 837805	7138VBNS	6/12	25-54 MC 50W Research "G"	95.70	59K 837811	183-138-2-2	57.75	39K 837806	39K 83950
59K 845431	6825VBNS	6/12	100 Watt	86.08	59K 845432	216-1-2	45.38	39K 837806	39K 83950
59K 850582	4228VBNS	6/12	30 Watt	81.68	59K 850597	186-2-2	45.38	39K 837806	39K 83950
59K 855304	5223VBNS	6/12	60 watt	81.68	59K 855305	216-2-2	56.93	39K 837806	39K 83950

\*Note: Two required.

### Brush Caps and Brush Holders

15K 880128	Brush Cap—30 watt models	Net Price .19	9K 837807	Brush Holder—input 6/12—30, 60, 100 watt.**	Net Price 1.13**
15K 892195	Brush Cap—60 watt models	Net Price .56	9K 837808	Brush Holder—input 6/12—30, 60, 100 watt.***	Net Price 1.13***
46K 880129	Brush Holder—input—30 watt	Net Price .75	9K 837809	Brush Holder—output 6/12—30, 60, 100 watt.**	Net Price 1.13**
46K 880130	Brush Holder—output—30 watt	Net Price .75	9K 837810	Brush Holder—output 6/12—30, 60, 100 watt.***	Net Price 1.13***
46K 892193	Brush Holder—input—60 watt	Net Price .75			
46K 892194	Brush Holder—output—60 watt	Net Price .75			

### Replacement Bearings

43K 842156	Bearing for 30 watt models and for 50 watt dynamotors 59C 483332 and 59K 824054.*	Net Price 1.88*	43K 842157	Bearing for 60 watt models and for 50 watt dynamotors 59C 81490 and 59K 42052.*	Net Price 1.88*
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\* Two Required

\*\* Left Hand Side

\*\*\* Right Hand Side



# split-channel conversion kits

Any Motorola mobile or base station 2-way communications equipment manufactured since 1949 is readily convertible to Split-channel operation by means of the appropriate kits described below. When recommended installation procedures are followed, Motorola radios are guaranteed to meet stringent FCC performance specifications for split-channel operation.

The conversion kits are of three types: receiver conversion components ("Permakay" Filter and necessary audio recovery components), transmitter crystal oven (no crystal changeout necessary), and transmitter low pass audio filter. All low band Motorola units already meet FCC split-channel stability requirements and do not require the transmitter crystal oven conversion kit. Full installation instructions are included with each kit.

## Split-Channel Conversion Kits

KIT NO.	NET PRICE								
SK9401B	21.00	SK9443A	20.00	SK9453A	21.00	SK9478	2.60	SK9498	20.00
SK9419	20.00	SK9444A	21.00	SK9461A	21.00	SK9483	20.00	SK9499	20.00
SK9426B	20.00	SK9445A	20.00	SK9468	3.85	SK9487	20.00	SK9800	2.60
SK9427B	20.00	SK9449	20.00	SK9469	3.85	SK9490	20.00	SK9801A	21.00

## CRYSTAL OVEN ASSEMBLIES

### Replacements "D" & "E" Type Crystal Holders When Converting to Split-Channel

"R" type single frequency oven and thermostat complete for transmitter or receiver crystals (replaces "D" type).

"Z" type 2-frequency oven and thermostat complete for receiver crystals (replaces "E" type).

HEATER VOLTAGE		NET PRICE
6-volt	Order SK 9800	2.60
12-volt	Order SK 9478	2.60
24-volt	Order IV 848083	3.40

HEATER VOLTAGE		NET PRICE
6-volt	Order IV 857316	5.34
12-volt	Order IV 857317	5.34
24-volt	Order IV 857318	5.34

## AN IMPORTANT REMINDER FOR 2-WAY RADIO LICENSEES

When the FCC established split channel operation in the 25-50 and 152-174 mc bands, it increased the number of channels available for 2-way radio use. To prevent interference to users operating on the new split-channels, the FCC ruled that the deviation of all transmitters in Part 10 of the Public Safety Radio Services, on all frequencies in these bands, regardless of when initially licensed, were to be reduced to 5 kc by August 1, 1960. After that date, you are in violation of the rules if you operate with wide-band (15 kc) deviation.

At the same time, we suggest that you consider making the total changeover to split-channel operation. Although the FCC does not require you to do this until November 1, 1963, it may well be to your advantage to do so as soon as possible. You will not only eliminate possible interference to your system and others, but you will also assure yourself of the best overall system performance.

Full split channel conversion of the transmitter, as spelled out by the FCC, calls for tightening transmitter stability and the addition of a transmitter low pass audio filter as well as  $\pm 5$  kc deviation.

The transmitter crystal stability of Motorola mobile and base stations operating in the 25-50 mc band already meets FCC requirements for split-channel operation. If you have earlier Motorola sets operating in the 152-174 mc band,

it may be necessary to replace the crystal heater to obtain the required frequency stability.

The reduction of transmitter deviation to  $\pm 5$  kc will result in greatly reduced audio output from the receiver, approximately one-third that obtained with wide band deviation. In most cases it will be advisable to alter the discriminator circuit (generally by changing a few resistors) to restore the original audio level.

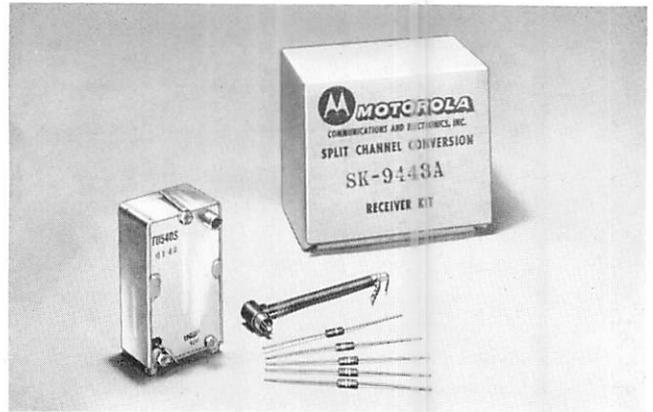
If you operate in areas where the density of adjacent channel transmitters is high, you will also find it advantageous to improve receiver performance by reducing its modulation acceptance bandwidth from 15 kc to 5 kc. This is accomplished simply by changing the IF filter in the receiver. In this way, you cut out reception from that part of the channel that you are no longer using, improve the signal-to-noise ratio to assure yourself of maximum communications range, and prevent interference from adjacent channel systems. The FCC has stated that it will not consider the latter type of interference as legally constituting "harmful interference" if the user's receivers have wideband selectivity.

Conversion kits available for Motorola units are listed on the following pages. Your Motorola Radio Communications Representative will be happy to discuss the ramifications of split-channel conversion and answer any questions you may have.

For information on equipment that cannot be converted to full split-channel operation, write for Motorola "Split-Channel Conversion Kit, Supplementary Bulletin (TIC 1288)"



# split-channel conversion kits



## RECEIVER SECTION 25-50 MC

RECEIVER CHASSIS	CONVERSION KIT	RECEIVER CHASSIS	CONVERSION KIT	RECEIVER CHASSIS	CONVERSION KIT
PA8663 Series	SK9401B	PA9266	SK9401B	TA111-CWT-R2	SK9498
PA8619 Series	SK9401B	PA9273	SK9401B	TA111-DWT-R2	SK9498
PA8633 Series	SK9401B	WE9273 Series	SK9401B	TA162 Series	SK9427B
PA8658 Series	SK9401B	TA108 Series	SK9427B	TA164 Series	SK9490
PA9034-12V	SK9487	TA111	SK9427B	TA189-W	SK9444A
PA9034	SK9487	TA111-R2	SK9427B	TA189-X	SK9444A
PA9034-A	SK9419	TA111-X	SK9427B	TA189-X-R2	SK9444A
PA9034-A-12V	SK9419	TA111-X-R2	SK9427B	TA189-W-R2	SK9444A
PA9034-B	SK9419	TA111-A	SK9426B	TA189-N-WE	SK9444A
PA9034-B-12V	SK9419	TA111-A-R2	SK9426B	TA189-N-WE-R2	SK9444A
PA9034-C	SK9419	TA111-AX	SK9426B	TA189-AW	SK9801A
PA9034-C-12V	SK9419	TA111-AX-R2	SK9426B	TA189-AWQ	SK9801A
PA9074	SK9487	TA111BW	SK9443A	TA189-AXQ	SK9801A
PA9074-A	SK9419	TA111BWR2	SK9443A	TA189-ANQ	SK9801A
PA9074-B	SK9419	TA111-BX	SK9443A	TA232 Series	SK9498
PA9074-C	SK9419	TA111-BX-R2	SK9443A	TA233-WQ	SK9801A
PA9074-C-12V	SK9419	TA111-BWQ	SK9443A	TA235-R2	SK9443A
PA9137 Series	SK9401B	TA111CW	SK9443A	TA235-W	SK9443A
PA9145 Series	SK9401B	TA111CW-R2	SK9443A	TA235-W-R2	SK9443A
PA9146	SK9401B	TA111CWQ	SK9443A	TA235-X	SK9443A
PA9157 Series	SK9419	TA111-CX	SK9443A	TA235-X-R2	SK9443A
PA9181	SK9401B	TA111-CX-R2	SK9443A	TA235-WT	SK9498
PA9219 Series	SK9401B	TA111-BN-R2-WE	SK9443A	TA235-WT-R2	SK9498
PA9244 Series	SK9483	TA111-CN-R2-WE	SK9443A	TA235-WZ	SK9498
PA9265	SK9401B	TA111-CWT	SK9498	TA235-WZ-R2	SK9498

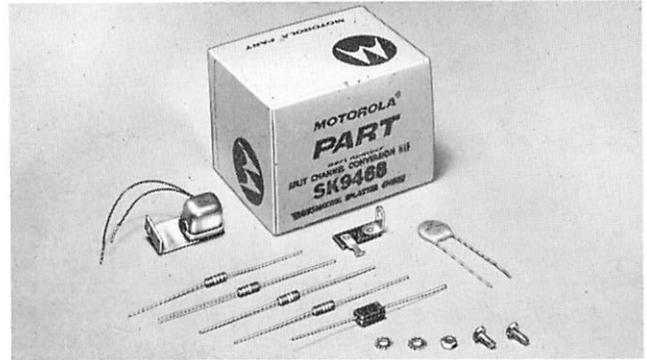
## RECEIVER SECTION 144-174 MC

RECEIVER CHASSIS	CONVERSION KIT	RECEIVER CHASSIS	CONVERSION KIT	RECEIVER CHASSIS	CONVERSION KIT
PA7250 Series	SK9461A	PA9267	SK9461A	TA163AX	SK9490
PA7251 Series	SK9461A	PA9268	SK9461A	TA182 Series	SK9445A
PA7254 Series	SK9461A	TA140	SK9445A	TA191 Series	SK9453A
PA7265 Series	SK9461A	TA140-R2	SK9445A	TA198-R3	SK9443A
PA8433 Series	SK9461A	TA140-R3	SK9445A	TA199-R4	SK9443A
PA8438 Series	SK9461A	TA140X	SK9445A	TA206 Series	SK9443A
PA8443 Series	SK9461A	TA140X-R2	SK9445A	TA207-R4	SK9443A
PA8476 Series	SK9461A	TA140BW	SK9443A	TA213	SK9443A
PA9033	SK9487	TA140BW-R2	SK9443A	TA218WQ	SK9453A
PA9033-12V	SK9487	TA140BW-R3	SK9443A	TA228 Series	SK9443A
PA9033A	SK9449	TA140BWQ	SK9443A	TA230 Series	SK9443A
PA9033A-12V	SK9449	TA140BWT	SK9498	TA237	SK9443A
PA9033B	SK9449	TA140BWT-R2	SK9498	TA237-R2	SK9443A
PA9033B-12V	SK9449	TA140BX	SK9443A	TA237W	SK9443A
PA9073	SK9487	TA140BX-R2	SK9443A	TA237W-R2	SK9443A
PA9073A	SK9449	TA140CWT	SK9498	TA237X	SK9443A
PA9073B	SK9449	TA140CWT-R2	SK9498	TA237X-R2	SK9443A
PA9138 Series	SK9461A	TA161	SK9445A	TA237WT	SK9498
PA9147	SK9461A	TA161-R2	SK9445A	TA237WT-R2	SK9498
PA9147A	SK9453A	TA161X	SK9445A	TA237WZ	SK9498
PA9148	SK9461A	TA163	SK9499	TA237WZ-R2	SK9498
PA9158 Series	SK9449	TA163X	SK9499	TA238W	SK9498
PA9243 Series	SK9483	TA163AW	SK9490	TA238S	SK9498

# TRANSMITTER SECTION

25-50 MC

Crystal Conversion Not Required



TRANSMITTER CHASSIS	SUFFIX NO.	KIT REQUIRED AUDIO FILTER	TRANSMITTER CHASSIS	SUFFIX NO.	KIT REQUIRED AUDIO FILTER
PA7203 Series	All	SK9468	PA8691C	All	not req'd
PA8625 Series	All	SK9468	PA8692	All	SK9468
PA8671	All	SK9468	PA8692A	All	SK9468
PA8671A	All	SK9468	PA8692AP	All	SK9468
PA8671AP	All	SK9468	PA8692APX	All	SK9468
PA8671APX	All	SK9468	PA8692AX	All	SK9468
PA8671AX	All	SK9468	PA8692B	0 to 10	SK9468
PA8671B	0 to 11	SK9468	PA8692B	11 & higher	not req'd
PA8671B	12 & higher	not req'd	PA8692B-12V	All	not req'd
PA8671BP	0 to 11	SK9468	PA8692BP	0 to 10	SK9468
PA8671BP	12 & higher	not req'd	PA8692BP	11 & higher	not req'd
PA8671C	All	SK9468	PA8693	All	SK9468
PA8671D	0 to 6	SK9468	PA8693A	All	SK9468
PA8671D	7 & higher	not req'd	PA8693AX	All	SK9468
PA8671D-12V	All	not req'd	PA8693B	0 to 10	SK9468
PA8672	All	SK9468	PA8693B	11 & higher	not req'd
PA8672A	All	SK9468	P9030 Series	All	SK9469
PA8672AP	All	SK9468	P9050 Series	All	SK9469
PA8672APX	All	SK9468	P9186	All	SK9469
PA8672AX	All	SK9468	TA104	0 to 13	SK9469
PA8672B	0 to 11	SK9468	TA104	14 & higher	not req'd
PA8672B	12 & higher	not req'd	TA104-C2	0 to 13	SK9469
PA8672B-12V	All	not req'd	TA104-C2	14 & higher	not req'd
PA8672B-24V	All	not req'd	TA104F	0 to 4	SK9469
PA8672BP	0 to 11	SK9468	TA104F	5 & higher	not req'd
PA8672BP	12 & higher	not req'd	TA104F-C2	All	not req'd
PA8672C	0 to 4	SK9468	TA104F-2	All	not req'd
PA8672C	5 & higher	not req'd	TA104M	All	not req'd
PA8672CP	0 to 4	SK9468	TA105 Series	All	SK9469
PA8672CP	5 & higher	not req'd	TA169	0 to 9	SK9469
PA8673	All	SK9468	TA169	10 & higher	not req'd
PA8673A	All	SK9468	TA169-C2	0 to 8	SK9469
PA8673AX	All	SK9468	TA169-C2	9 & higher	not req'd
PA8673B	0 to 11	SK9468	TA193	0	SK9468
PA8673B	12 & higher	not req'd	TA193	1 & higher	not req'd
PA8691	All	SK9468	TA193-C2	0	SK9468
PA8691A	All	SK9468	TA193-C2	1 & higher	not req'd
PA8691AP	All	SK9468	TA194	0	SK9468
PA8691APX	All	SK9468	TA194	1 & higher	not req'd
PA8691AX	All	SK9468	TA194-C2	0	SK9468
PA8691B	0 to 10	SK9468	TA194-C2	1 & higher	not req'd
PA8691B	11 & higher	not req'd	TA200 Series	All	not req'd
PA8691BP	0 to 10	SK9468	TA201T Series	All	not req'd
PA8691BP	11 & higher	not req'd	TA202 Series	All	not req'd
PA8691BR	0 to 10	SK9468	TA208	All	not req'd
PA8691BR	11 & higher	not req'd	TA214	All	not req'd
PA8691BY	0 to 10	SK9468	TA234 Series	All	not req'd
PA8691BY	11 & higher	not req'd	TA241 Series	All	not req'd

**IMPORTANT NOTE:** The type designation of transmitters that have been modified in the field to meet split-channel standards should be changed to indicate this modification. SK9805 kit, which includes a compliance tag to be filled out and located on front panel of the equipment according to instructions, will be provided free on request. The new transmitter type designation system

uses a 3-digit number to indicate that the equipment meets split-channel standards, but require modification (addition to audio filter and/or crystal oven changeout). All Motorola equipment shipped from the factory after August, 1958, has a 4-digit number to indicate equipment meets split-channel standards as shipped from the factory.

**SK9805**—Split-channel compliance tag ..... no charge

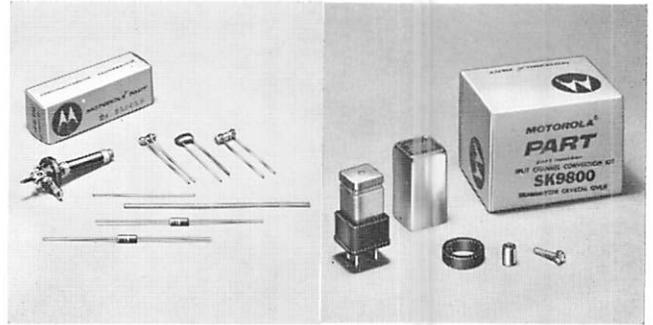


# split-channel conversion kits

## TRANSMITTER SECTION

144-174 MC

CHASSIS TRANSMITTER	SUFFIX NO.	KITS REQUIRED	
		AUDIO FILTER	CRYSTAL CONVERSION
PA7291 Series	All	SK9468	SK9478
PA7292 Series	All	SK9468	SK9478
PA7293 Series	All	SK9468	SK9478
PA7295, A, B	All	SK9468	SK9478
PA7295C	0 to 12	SK9468	SK9478
PA7295C	13 & higher	not req'd	SK9478
PA7296, A, B	All	SK9468	SK9478
PA7296C	0 to 12	SK9468	SK9478
PA7296C	13 & higher	not req'd	SK9478
PA7297	All	SK9468	SK9478
PA7297A	All	SK9468	SK9478
PA7297B	All	SK9468	SK9478
PA7297C	0 to 12	SK9468	SK9478
PA7297C	13 & higher	not req'd	SK9478
PA8461, A	All	SK9468	SK9800
PA8461AP	All	SK9468	SK9800
PA8461B	0 to 14	SK9468	SK9800
PA8461B	15 & higher	not req'd	SK9800
PA8461BP	0 to 14	SK9468	SK9800
PA8461BP	15 & higher	not req'd	SK9800
PA8461C	0 to 8	SK9468	SK9800
PA8461C	9 & higher	not req'd	SK9800
PA8462, A	All	SK9468	SK9800
PA8462AP	All	SK9468	SK9800
PA8462B	0 to 14	SK9468	SK9800
PA8462B	15 & higher	not req'd	SK9800
PA8462C	0 to 8	SK9468	SK9800
PA8462C	9 & higher	not req'd	SK9800
PA8462BC	0 to 13	SK9468	SK9800
PA8462BC	14 & higher	not req'd	SK9800
PA8462BP	0 to 14	SK9468	SK9800
PA8462BP	15 & higher	not req'd	SK9800
PA8462CP	0 to 8	SK9468	SK9800
PA8462CP	9 & higher	not req'd	SK9800
PA8463, A	All	SK9468	SK9800
PA8463B	0 to 14	SK9468	SK9800
PA8463B	15 & higher	not req'd	SK9800
PA8491, A, AP	All	SK9468	SK9800
PA8491B	0 to 13	SK9468	SK9800
PA8491B	14 & higher	not req'd	SK9800
PA8491BC	0 to 2	SK9468	SK9800
PA8491BC	3 & higher	not req'd	SK9800
PA8491BP	0 to 13	SK9468	SK9800
PA8491BP	14 & higher	not req'd	SK9800
PA8491BPT	All	not req'd	SK9800
PA8491BPTS	All	not req'd	SK9800
PA8491BR	0 to 2	SK9468	SK9800
PA8491BR	3 & higher	not req'd	SK9800
PA8491BT	All	not req'd	SK9800
PA8491BTS	All	not req'd	SK9800
PA8491BY	0 to 13	SK9468	SK9800
PA8491BY	14 & higher	not req'd	SK9800
PA8491CPT	All	not req'd	SK9800
PA8491CT	All	not req'd	SK9800
PA8492, A	All	SK9468	SK9800



TRANSMITTER CHASSIS	SUFFIX NO.	KITS REQUIRED	
		AUDIO FILTER	CRYSTAL CONVERSION
PA8492AP	All	SK9468	SK9800
PA8492B	0 to 13	SK9468	SK9800
PA8492B	14 & higher	not req'd	SK9800
PA8492BP	0 to 13	SK9468	SK9800
PA8492BP	14 & higher	not req'd	SK9800
PA8493	All	SK9468	SK9800
PA8493A	All	SK9468	SK9800
PA8493B	0 to 13	SK9468	SK9800
PA8493B	14 & higher	not req'd	SK9800
PA8664 Series	All	SK9468	SK9478
PA8665 Series	All	SK9468	SK9478
P9020, A, B, C	All	SK9468	SK9800
P9020-12V	All	SK9468	SK9478
P9020B-12V	All	SK9468	SK9478
P9020C-12V	All	SK9468	SK9478
P9020C-LP	All	SK9468	SK9800
P9040, A, B	All	SK9468	SK9800
P9040-12V	All	SK9468	SK9478
P9040B-12V	All	SK9468	SK9478
P9040C-12V	All	SK9468	SK9478
P9185	All	SK9468	SK9800
TA139*	All	SK9468	SK9800
TA139-C2*	All	SK9468	SK9800
TA139A	0 to 1	SK9468	SK9800
TA139A	2 & higher	not req'd	SK9800
TA139A-C2	0 to 1	SK9468	SK9800
TA139A-C2	2 & higher	not req'd	SK9800
TA139A-C4	All	not req'd	SK9800
TA139AT	All	not req'd	SK9800
TA139AF	0 to 1	SK9468	SK9800
TA139AF	2 & higher	not req'd	SK9800
TA170	All	SK9468	not req'd
TA170A	0 to 1	SK9468	not req'd
TA170A	2 & higher	not req'd	not req'd
TA192	0 to 2	SK9468	SK9800
TA192	3 & higher	not req'd	SK9800
TA205	All	not req'd	SK9800
TA227 Series	All	not req'd	SK9800
TA231 Series	All	not req'd	SK9800
TA236 Series	All	not req'd	not req'd
TA242 Series	All	not req'd	not req'd

\*The SK9466 Oscillator stability kit is also required, one for each frequency. . . . . Net Price \$1.00

## 450-470 MC TRANSMITTER CONVERSION KITS

**SK9455-A Selectivity Conversion Kit**—Converts 450-470 mc receivers and transmitters from 100 kc to 50 kc channel spacing. Includes "Permakay" filter, modulation choke and other components. Can be used with TA141, TA143, TA146 and TA171 receivers and associated transmitters. Can also be used with PA9343, PA9344, TA109, and TA129 receivers and associated transmitters when used in conjunction with SK9460 Receiver Conversion Kit. . . . . Net Price \$24.00

**SK9460 450-470 Receiver Conversion Kit**—Limits "barriers" of Automatic Frequency Control circuit so that adjacent channel cannot gain control over the receiver by swinging the oscillator to the adjacent channel frequency. Also provides reserve RF gain especially required when equipment is exposed to excessive temperatures. (For PA9343, PA9344, TA109 and TA129 receivers.)

Net Price \$8.00



# split-channel conversion kits

## "Motrac" Radio Split-Channel Conversion Kits

DESCRIPTION	ORDER KIT
25-54 mc and 144-174 mc "A" versions "Motrac" Radio	TEN 6014A
25-54 mc and 144-174 mc "B" versions "Motrac" Radio using TFN 6006A Filter in receiver	TEN 6022A
25-54 mc and 144-174 mc "B" versions "Motrac" Radio using TFN 6008A Filter in receiver	TEN 6034A

## Pocket Receiver Split-Channel Kits

DESCRIPTION	ORDER KIT
Split-Channel conversion kits for Pocket Receivers, 25-54 mc and 144-174 mc	NEN 6004A

## Kit Numbers

KIT NO.	PRICE	KIT NO.	PRICE
PK 1	1.80	PK 11	4.12
PK 2	.90	PK 12	1.10
PK 3	1.80	NEN 6000A	25.00
PK 4	.90	NEN 6001A	25.00
PK 5	2.70	NEN 6002A	20.00
PK 6	.94	NEN 6004A	20.00
PK 7	1.10	TEN 6014A	25.00
PK 8	1.10	TEN 6022A	22.50
PK 9	1.10	TEN 6034A	22.50
PK 10	1.10	TLN 6064A	15.75
		TLN 6065A	22.50

## "HANDIE-TALKIE" AND "DISPATCHER" RADIO

### 25-54 mc

EQUIPMENT MODEL	TRANSMITTER	TRANSMITTER KIT NO.	RECEIVER KIT NO.
D21-1, 4, 10	NU102	None Required	NEN6001A
H21-1 to -15	NU102	None Required	NEN6000A
T21-1, -4	NU102	None Required	NEN6001A
D31-1, -4, -7, -10	NU102/NU142	ANX2 Crystal	NEN6001A
P31-1 to -6	NU102/NU142	ANX2 Crystal	NEN6000A
T31-1, -4, -7	NU102/NU142	ANX2 Crystal	NEN6001A
D21—1000 Series	NU102	None Required	NEN6002A
H21—1000 Series	NU102	None Required	NEN6002A
T21—1000 Series	NU102	None Required	NEN6002A
D31—1000 Series	NU102/NU142A	None Required	NEN6002A
P31—1000 Series	NU102/NU142A	None Required	NEN6002A
T31—1000 Series	NU102/NU142A	None Required	NEN6002A

### 144-174 mc

EQUIPMENT MODEL	TRANSMITTER	TRANSMITTER KIT NO.	RECEIVER KIT NO.
D23-1, -4, -10	NU105	None Required	NEN6001A
H23-1 to -16	NU105	None Required	NEN6000A
T23-1, -4	NU105	None Required	NEN6001A
D33-1, -4, -7, -10	NU105/NU183	NED6001A	NEN6001A
P33-1 to -6	NU105/NU143	NED6001A	NEN6000A
T33-1, -4, -7	NU105/NU183	NED6001A	NEN6001A
D23—1000 Series	NTD6000AA	None Required	NEN6002A
H23—1000 Series	NTD6000AA	None Required	NEN6002A
T23—1000 Series	NTD6000AA	None Required	NEN6002A
D33—1000 Series	NTD6000AA/NU183	None Required	NEN6002A
P33—1000 Series	NTD6000AA/NU143	None Required	NEN6002A
T33—1000 Series	NTD6000AA/NU183	None Required	NEN6002A

## "HANDIE-TALKIE" PORTABLE RADIOPHONE EQUIPMENT

### 25-50 mc Models

MODEL SERIES	FREQ.	ORDER TRANSMITTER KIT NO.	ORDER RECEIVER KIT NO.
FHTR (all)	25-50	PK7	PK11
FPTR Series	25-50	PK7	Not Required
FPTR-1 (BLL) 1C-2	25-30	PK9	Not Required
H11, 1A, 2A, 3, 3A, 4A, 5A	25-40	PK7	PK11
H11, 1A, 2A, 3, 3A, 4A, 5A	40-50	PK9	PK11
H11-6A	30-50	PK7	PK11
H11-7A	30-50	PK7	PK11
H11-8	30-40	PK7	PK11
H11-8	40-50	PK9	PK11
H11-18, 18A, 19, 19A	25-40	PK7	PK11
H11-18, 18A, 19, 19A	40-50	PK9	PK11
P11-1A	25-40	PK7	Not Required
P11-1A	40-50	PK9	Not Required
P11-6A	25-30	PK9	Not Required
P11-6A	30-50	PK8	Not Required
P11-11A	25-40	PK7	Not Required
P11-11A	40-50	PK9	Not Required

### 152-174 mc Models

MODEL SERIES	ORDER TRANSMITTER KIT NO.	ORDER RECEIVER KIT NO.
FHTRU (all)	PK7	PK11
FPTRU (all)	PK7	Not Required
H13-1A to 7A	PK8	PK11
H13-11A, 12A	PK7	PK11
H13-18A, 19A	PK8	PK11
P13-1A	PK8	Not Required
P13-9A	PK8	Not Required
X13T 1 & 2 "Micro-Talkie"	PK12	

## "Research Line" Receivers

Note: The following kits are for audio recovery modification only. For complete conversions to split-channel see pages 85-89.

RECEIVER MODEL NO.	CONVERSION KIT
TA111 TA189 TA191	PK4
TA111C, DWT, TA140B, CWT	PK13

## DELUXE AND "DISPATCHER" RADIO EQUIPMENT

### 25-50 mc

EQUIPMENT MODEL SERIES	ORDER TRANSMITTER KIT NO.	ORDER RECEIVER KIT NO.
FMTR-25V-30D-50D	PK1 or TLN6064A	PK2
FMATR-25V-30D-50D		
FMTR-40V	PK5	None Required
FMT, FST-50B	Add K8330A & K8411 Cable Kit. (If equipped w/above turn IDC Control down to 5 kc Deviation)	
FMATR, FSATR-50B		PK2
FST-250BC		
FSATR-250B		

### 152-174 mc

EQUIPMENT MODEL SERIES	ORDER TRANSMITTER KIT NO.	ORDER RECEIVER KIT NO.
FMTRU-15V-30D Series	PK1 or TLN6064A	PK2
FMTRU-5V		
FMTRU-40V	PK3 or TLN6065A	*None Required
FMTRU-40V (A)		
FSTRU-50B Series	Add K8330A & K8411 Cable Kit. (If equipped w/above, turn IDC Control down to 5 kc Deviation)	PK2
FSTRU-250		



CHECK #161 for correct kit

## 2-frequency conversion kits

### 25-54 mc Receivers

CHASSIS NO.	FREQ. RANGE	ORDER KIT NO.	CHASSIS NO.	FREQ. RANGE	ORDER KIT NO.
TA 108 Series	25-30 mc	PK-24	PA 9244	25-30 mc	PK-17
	30-40 mc	PK-25		30-40 mc	PK-18
TA 111 Series	40-54 mc	PK-26		40-50 mc	PK-19
TA 111A, B, C	25-30 mc	PK-37	TRB 1061 to		
TA 162A, B	30-40 mc	PK-38	TRB 1063AA		
	40-50 mc	PK-39	TRB 1071 to		
TA 164A, B	50-54 mc	PK-40	TRB 1073		
			AE, AF	25-30 mc	PK-21
TA 232	25-30 mc	PK-21	TRB 1081 to	30-54 mc	PK-20
TA 235	30-54 mc	PK-20	TRB 1084AA, AB		
PA 9034B	25-30 mc	PK-47	TRB 1081 to		
PA 9034C	30-40 mc	PK-48	TRB 1083AE, AF		
PA 9157A, B	40-50 mc	PK-49			

TA 140H PK-32  
TA 140HX

### 144-174 mc Receivers

CHASSIS NO.	FREQ. RANGE	ORDER KIT NO.	CHASSIS NO.	FREQ. RANGE	ORDER KIT NO.
TA 140L	144-152 mc	PK-33	TRD 1151AA,		
TA 161	152-174 mc	PK-32	AB, AE, AF		
TA 140B	144-152 mc	PK-22	TRD 1152AA,		
TA 237			AB, AE, AF		
TA 238	152-174 mc	PK-23	TRD 1171AA,		
			AB, AE, AF	144-152 mc	PK-22
PA 9033	152-162 mc	PK-34	TRD 1172AA,	152-174 mc	PK-23
	162-174 mc	PK-35	AB, AE, AF		
PA 9033A, B, C	152-162 mc	PK-43	TRD 1181AA,		
PA 9158A, B	162-174 mc	PK-44	AB		
PA 9243	152-162 mc	PK-41	TRD 1182AA,		
	162-174 mc	PK-42	AB		

### 25-54 mc Transmitters

CHASSIS NO.	FREQ. RANGE	ORDER KIT NO.	CHASSIS NO.	FREQ. RANGE	ORDER KIT NO.
TA 104 Series	25-54 mc	PK-30	P 9030	25-30 mc	PK-27
TA 130	25-54 mc	PK-30			
TA 169	25-54 mc	PK-30	TTB 1031 to		
TA 201AT	25-54 mc	PK-31	TTB 1035AA,		
TA 234 Series	25-54 mc	PK-30	AB, AC, AD	25-54 mc	PK-30

### 144-174 mc Transmitters

CHASSIS NO.	FREQ. RANGE	ORDER KIT NO.	CHASSIS NO.	FREQ. RANGE	ORDER KIT NO.
TA 139	144-174 mc	PK-45	TA 235	144-174 mc	PK-29
TA 139A	144-174 mc	PK-29	TTD 1000AA	152-174 mc	PK-50
TA 139AF	144-174 mc	PK-29	TTD 1000AC	152-174 mc	PK-50
TA 139AN	144-174 mc	PK-29	TTD 1060AA	152-174 mc	PK-50
TA 170	144-174 mc	PK-29	TTD 1060AC	152-174 mc	PK-50
TA 231	144-174 mc	PK-29	P 9020	152-174 mc	PK-27

### 450-470 mc Receivers

CHASSIS NO.	FREQ. RANGE	ORDER KIT NO.	CHASSIS NO.	FREQ. RANGE	ORDER KIT NO.
P 9344	450-470 mc	PK-28	TA 141	450-470 mc	PK-16
TA 109	450-470 mc	PK-28	TA 146	450-470 mc	PK-16

### 450-470 mc Transmitters

CHASSIS NO.	FREQ. RANGE	ORDER KIT NO.	CHASSIS NO.	FREQ. RANGE	ORDER KIT NO.
TU 110	450-470 mc	PK-46	TU 204T	450-470 mc	PK-46
TA 147	450-470 mc	PK-46	TU 205	450-470 mc	PK-46
TA 147T	450-470 mc	PK-46	TU 451	450-470 mc	PK-46
TU 204	450-470 mc	PK-46	P 9350	450-470 mc	PK-46

### Two-Frequency Control Head Escutcheons

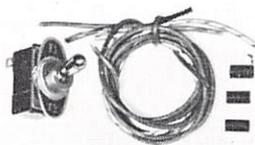
FOR 1-FREQ. CONTROL HEAD MODEL NO.	ORDER 2-FREQ. ESCUTCHEONS	FOR 1-FREQ. CONTROL HEAD MODEL NO.	ORDER 2-FREQ. ESCUTCHEONS	FOR 1-FREQ. CONTROL HEAD MODEL NO.	ORDER 2-FREQ. ESCUTCHEONS	FOR 1-FREQ. CONTROL HEAD MODEL NO.	ORDER 2-FREQ. ESCUTCHEONS
TU124A	64K844644	TU414	64K844644	TU559A	13K855134	TCN6000AE	13K859615
TU375	64K844644	TU554	13K855134	TU559AT	13K855136	TCN6000AG	13K859617
TU375A	64K844644	TU554A	13K855134	TU559AZ	13K855138	TCN6001AA	13K859615
TU376	64K844644	TU557AZ	13K855138	TU559Z	13K855138	TCN6001AC	13K859617
TU376A	64K844644	TU554Z	13K855138	TU561	13K855134	TCN6001AG	13K859617
TU377	64K844644	TU555	13K855134	TU561T	13K855136	TCN6004AE	13K861380
TU378	64K844644	TU555Z	13K855138	TU561Z	13K855138	TCN6007AE	13K861380
TU379	64K844644	TU559	13K855134	TCN6000AC	13K859617		



**K8678—2-FREQUENCY SWITCH KIT**

For local control base stations.

Net Price .....\$6.25



**PK-51—2-FREQUENCY SWITCH KIT**

For control heads and panels.

Net Price .....\$90



**PK-52—2-FREQUENCY CABLE**

For all mobile cable kits (except "Motrac" Radio) when 2 frequency leads are required.

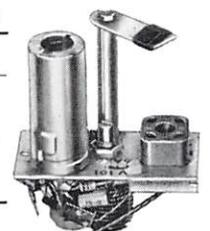
Net Price .....\$1.00

### Two-Frequency R.F. Decks

MODEL	FREQ.
25-30 mc	TU 280R2L
30-40 mc	TU 280R2M
40-50 mc	TU 280R2H
144-162 mc	TU 282R2L
162-174 mc	TU 282R2H

### Two-Frequency Oscillator Decks

TRANSMITTER MODEL NO.	ORDER KIT NO.
PA 8461, PA 8491, PA 8671, PA 8691, PA 9110, TA 190	P8455
TA 241	TU-606-C2
TA 200, TA 200A	TU-364 & 1V848122



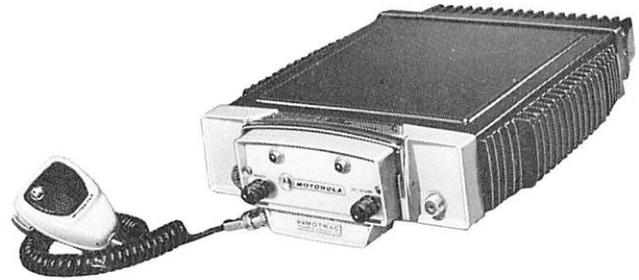
SEE PAGE 91 FOR PRICES

## "MOTRAC" RADIO 2-FREQUENCY CONVERSION KITS

"Motrac Radio" conversion kits include all electrical parts including transistors or tubes as required, plus necessary eyelets, wires, etc. to modify the receiver oscillator module or the transmitter exciter board to 2 freq. operation. Crystals are not included and should be ordered separately. See pages 76 to 82.

"A" MODELS are 12-volt negative ground only "Motrac" radios and can be identified by the presence of a rear heat sink only.

"B" MODELS are  $\pm 6/12$ -volt "Motrac" radios. They can be identified by the presence of a rear heat sink plus a heat sink added on each side as pictured.



25-54 mc

144-174 mc		
MODEL	DESCRIPTION	ORDER KIT NO.
"A"	Transmitter	PK-81
"B"	Transmitter	PK-82
"A"	Receiver	PK-83
"B"	Receiver	PK-84

MODEL	DESCRIPTION	ORDER KIT NO.
"A"	Transmitter	PK-72
"B"	Transmitter	PK-72
"A"	Receiver 25-30 mc 30-36 mc or 42-50 mc 36-42 mc or 50-54 mc	PK-73 & PK-74 PK-73 & PK-75 PK-73 & PK-76
"B"	Receiver 25-30 mc 30-36 mc or 42-50 mc 36-42 mc or 50-54 mc	PK-77 & PK-78 PK-77 & PK-79 PK-77 & PK-80

### "MOTRAC" RADIO 2-FREQUENCY CONTROL HEAD CONVERSION KITS

These kits contain a 2 frequency switch, new escutcheon, wiring and, in some cases, a new on-off and volume control for placement on the existing control head unit for 2 frequency operation.

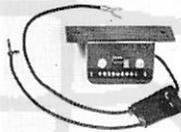
CONTROL HEAD NO.	ORDER KIT NO.	CONTROL HEAD NO.	ORDER KIT NO.
TCN 6008AE	PK-85	TCN 6027AG	PK-89
TCN 6009AE		TCN 6030AG	
TCN 6025AE		PK-90	TCN 6045AE
TCN 6026AE			TCN 6047AE
TCN 6008AG	PK-86	TCN 6045AG	PK-91
TCN 6009AG		TCN 6047AG	
TCN 6025AG	PK-87	TCN 6046AE	PK-92
		TCN 6048AE	
TCN 6027AE	PK-88	TCN 6046AG	PK-93
TCN 6030AE		TCN 6048AG	



#### "MOTRAC" RADIO CABLE CONVERSION KIT

—Includes a 20-foot length of control cable complete with soldered on pins to replace the existing 1 frequency control cable.

Order Kit No. PK-94 . . . . . Net Price **\$13.00**

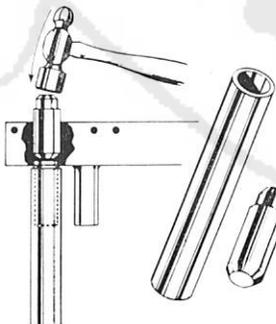
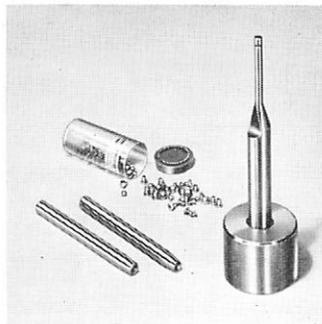


#### 2-FREQUENCY EXTERNAL CONTROL UNIT—

As an option to the 2 frequency conversion of existing control heads, a self contained unit has been developed that can be mounted under the dashboard for 2 frequency control unit operation.

Order Kit No. PK-95 . . . . . Net Price **\$8.00**

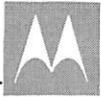
**ST-172 Riveting Tool Kit—**  
Useful when installing sock-ets, terminal boards, eye-lets in printed circuitry, etc.  
Net Price **\$13.00**



**ST-133 Coil Shield Installa-tion Tool —** For mounting coil shields in receiver chas-sis. . . . . Net Price **\$3.00**

## PRICE LIST

KIT NO.	NET PRICE	KIT NO.	NET PRICE	KIT NO.	NET PRICE								
PK 16	\$11.40	PK 27	\$5.00	PK 38	\$10.00	PK 50	\$ 5.85	PK 81	\$ 5.06	PK 92	\$ 3.02	K8678	\$6.25
PK 17	3.69	PK 28	9.45	PK 39	8.65	PK 51	.90	PK 82	18.16	PK 93	3.33	IV 848122	7.14
PK 18	3.44	PK 29	8.90	PK 40	7.80	PK 52	1.00	PK 83	8.20	PK 94	13.00	64K 844644	1.97
PK 19	2.78	PK 30	6.45	PK 41	7.15	PK 72	11.88	PK 84	10.07	PK 95	8.00	13K 855134	.82
PK 20	6.20	PK 31	5.55	PK 42	7.60	PK 73	4.58	PK 85	3.00	TU 280R2L	61.00	13K 855136	.68
PK 21	6.60	PK 32	8.25	PK 43	8.55	PK 74	4.99	PK 86	3.10	TU 280R2M	61.00	13K 855138	.68
PK 22	9.00	PK 33	7.45	PK 44	7.50	PK 75	4.24	PK 87	3.27	TU 280R2H	61.00	13K 859615	.68
PK 23	10.00	PK 34	8.95	PK 45	7.55	PK 76	4.14	PK 88	3.02	TU 282R2L	81.50	13K 859617	.68
PK 24	5.45	PK 35	9.15	PK 46	6.55	PK 77	4.21	PK 89	3.35	TU 282R2H	81.50	13K 857972	.71
PK 25	5.85	PK 36	7.60	PK 47	4.55	PK 78	3.29	PK 90	4.72	TU 364	8.50	13K 857976	.71
PK 26	6.75	PK 37	7.30	PK 48	4.45	PK 79	3.28	PK 91	5.03	TU 606-C2	8.75	13K 861380	8.19
				PK 49	4.45	PK 80	3.28						



# microphones

## MOTOROLA TRANSISTORIZED MOBILE DYNAMIC MICROPHONE

The new Motorola palm type microphone was developed to provide the form factor found best for ease of handling. A true dynamic microphone, it provides unexcelled voice clarity for mobile radio transmissions. By improving message intelligibility, it increases communications range and assures accurate reception of messages.

A built-in transistorized amplifier boosts microphone output to normal transmitter input level, thereby eliminating the need for a preamplifier in the transmitter and overcoming the noise pick-up problem inherent in mobile installations.

This dynamic microphone is a direct replacement for carbon microphones formerly used with Motorola equipment. The transistorized amplifier draws its power from standard "talking current" supply.

Unit is enclosed in all-metal, splash-proof, dust-proof housing, will withstand severe shock and vibration.

All models have 500-ohm output impedance, draw 7 ma. at 4 VDC, produce 0.25 volt output for normal voice input. Control is push-to-talk, nylon plastic button, SPST switch.

### Dynamic Microphones

**TU351A.** For base station test. Has standard 4-pin male connector, 12" stranded coiled cord and hang-up button for mounting \$27.00

**TU353A.** For mobile use. With standard 4-pin microphone connector, 12" tinsel coiled cord and hang-up button for mounting ... \$27.50



**TU609** Same as TU353A but supplied with phone-type plug PL68/PJ068 for aircraft use ..... Net Price \$27.00

Dynamic Microphone (Weather Proof) for motorcycle or industrial use; supplied with an 8-inch coiled cord. Two-tone gray.

**NMN6003A** DYNAMIC MICROPHONE ..... Net \$35.00

Dynamic Microphone (same as above, except black and white trim.

**NMN6005A** DYNAMIC MICROPHONE ..... Net \$35.00

**TMN6011A.** Carbon microphone w/standard 4-pin connector, 12" stranded coiled cord and hang up button ..... \$19.20

**IV80707A64.** Similar to TU351A, but with 4 spade lugs ... \$30.25

**TK460.** Conversion Kit. Adapts "Deluxe" Line models for use with dynamic microphones ..... \$ 1.00

## DYNAMIC SPEAKER-MIKE



A dual purpose version of the dynamic microphone. Serves as both conventional mobile speaker and as a press-to-talk microphone. Utilizes the same dynamic element and transistor amplifier as the dynamic microphone. The SPEAKER-MIKE can be held near the operator's ear to overcome ambient noise or for low-volume semi-private reception. Speaker is rated at 2 watts, has 50-ohm input impedance.

Includes 11" tinsel coiled cord, hang-up button for dash mounting, and push-to-talk button that disconnects receiver audio output and connects transmitter audio output when depressed.

Can be adapted for use with Motorola trunk-mount mobile units using carbon mics by adding SK9450 Control Head Conversion Kit.

**Model TU354** Transistorized Dynamic SPEAKER-MIKE. With 4-pin male connector ..... \$32.00

**Model 50D845122** Transistorized Dynamic SPEAKER-MIKE. Similar to TU354, but with 5 spade lugs ..... \$32.00

**SK9450** Control Head Conversion Kit (includes matching transformer for receivers having 3-ohm output impedance) ..... \$ 4.00

**TK460** Conversion Kit, for "Deluxe" Line Adaptations ... \$ 1.00

## DESK STAND MICROPHONES

A low output, uni-directional desk stand dynamic microphone for use with all Motorola locally controlled base stations having a preamplifier and also for use with the T1200 series and FSC series remote control consoles.

Output impedance is 100 ohms, output voltage 0.01 volts with normal voice input. Unit measures 9½ x 5¾ x 5" wide. Both models have 7 ft., 4-conductor stranded cord and 6-prong connector.

**TU532A** Desk Stand Microphone (without Amplifier) ..... \$23.00  
(For standard squelch systems)

**TMN6017A** Desk Stand Microphone with compulsory monitor function before transmit. (With preamplifier.) (Replaces TU-533A.)  
Net Price \$28.00

High output, uni-directional dynamic microphones with transistorized amplifier in microphone base to boost microphone output to normal transmitter input level. For use with units normally equipped with a carbon microphone or a transistorized dynamic military microphone, including the AC Utility and "Compa-Station" base stations.

Output impedance is 500 ohms. Output voltage is 0.25 volts, with normal voice input. Input power required is 7 ma. at 4 VDC. Measures 9½ x 5¾ x 5" wide.

Both models have 7 ft. stranded cord with 4-prong connector.

**TMN6007A** Transistorized desk stand mike for standard squelch units. (Replaces TU535) ..... \$35.00

**TMN6016A** Transistorized Desk Stand Mike. Has compulsory monitor function before transmit. Use with Private Line Dual Squelch systems. (Replaces TU536 and TMN6008A.) ..... Net Price \$38.00



20.00



**P7246** 6-pin to 4-pin connector adapter for use with PA8270 series remote control units. (Used with TU532A, TMN6017A.) ... \$ 4.00

## DESK SET MICROPHONES

For Local, Extended Local and Remote Control, "Private-Line" or dual squelch operation.

The TMN6009A and TMN6010A Desk Sets provide complete local control of transmitter and receiver. They can also be connected to a Motorola Remote Control Console for extended remote control operation. Can be used with all Motorola locally controlled base stations without preamplifier and with the T1200 series, TA270 series and PA8270 series remote control consoles.

Desk sets have built-in 4" speaker, dynamic telephone handset with built-in transistorized amplifier, self-retracting coiled cord and built-in volume control. Optional speaker connection in base permits user to mute the speaker when the handset is removed from the desk set or to leave the speaker "on" when the handset is removed. For local operation, handset audio level is controlled by screw driver adjusted volume control. Audio level of the speaker is adjusted by a volume control located on the right hand side of the cradle base. Output impedance is 500 ohms. Output voltage is 0.25 volts with normal input. Input power required is 7 ma. at 4 VDC.



The Desk Sets are supplied less the connecting cable. Order the appropriate cable kit from cable kits listed on page 94 to meet specific requirements.

**TMN6009A** Desk Set (standard squelch replaces TU473) ... \$62.50

**TMN6010A** Desk Set ("Private-Line") ..... \$63.50



# microphones

## HANDSET AND HANG-UP BOX

For Local, Extended Local and Remote Control.

The TMN6005A Handset and Hang-Up Box also provides complete local control to transmitter and receiver. For use with all Motorola locally controlled base stations without preamplifier, and also, with the T1200 series, TA270 series and PA8270 series remote control consoles.

Handset has a dynamic microphone element with a transistorized preamplifier and a dynamic receiver cartridge. Push-to-talk switch is incorporated in the handle. Volume control is a knob located at the top of the box. Hang-up switch mutes speaker when handset is in use for "personal" conversation facilities.

Output impedance is 500 ohms. Output voltage is 0.25 volts with normal voice input. Input power required is 7 ma. at 4 VDC.

The TMN6005A Handset and Hang-Up Box is supplied without connecting cable. Order appropriate cable kit from kits listed below to meet specific requirements.



TMN6005A Handset and Hang-Up Box (Replaces TU460 & TU560) ..... \$60.00  
 TMN6012A Handset and Hang-Up Box for Private Line Use ..... 65.00

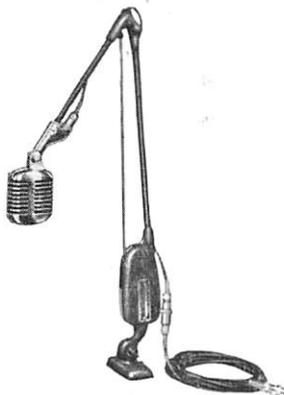
## CABLE KITS

For use with desk set or handset and hang-up box. Have 6-wire cable. Connect to desk or hang-up box by means of attached spade lugs.

- TKN6064A Cable Kit. For extended local control of either a desk-top or upright cabinet base station. With 25-foot cable terminated in spade lugs for connection to desk set or hang-up box. .... \$5.25
- TKN6065A Cable Kit. For local control of desk-top base stations. With 8' cable terminated in spade lugs ..... \$3.25
- TKN6066A Cable Kit. For use with FSC series remote control console. With 8' cable terminated in 6-contact microphone connector. Cannot be used with TA270 Series Consolettes. .... \$4.50
- TKN6067A Cable Kit. For use with the P-8201 series of line amplifiers used in the PA-8270 Remote Control Consolettes. With 8' cable terminated in 4-contact microphone connector ..... \$4.50
- TKN6068A Cable Kit. For use with the TMN6010A microphone in "Private-Line" installations. 8' cable. .... \$4.25
- TKN6069A Cable Kit. Same as TKN6068A except 25' long ..... \$6.25

### Application Chart

FOR USE WITH	USE DESK MICROPHONE	USE DESK SET or HANDSET AND HU BOX WITH CABLE
T1200 & TA270 Series Remote	TU532A	TKN6065A
T1200 & TA270 Series Remote	TU532A or	TKN6068A or
in "Private-Line" system	TMN6017A	TKN6069A
PA-8270 Series Remote	TU532A + K-7246	TKN6067A
FSC Series Remote	TU532A	TKN6066A
Desk Top Station	TU532A	TKN6065A
Desk Top "Private-Line" Station	TU532A or	TKN6065A
Remotely Controlled Station	TMN6017A	TKN6064A or
AC Utility Base Station		TKN6065A
"Compa-Station" Base Station	TMN6007A	TKN6065A



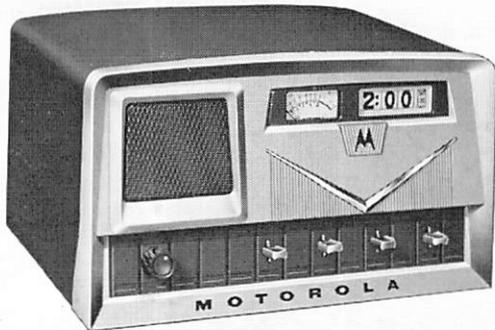
## DYNAMIC FLOATING ARM MICROPHONE

TU587 Unidyne floating arm microphone leaves operator's hands free. Has moving coil element for full range voice frequency response. Uni-directional coverage (down 6 db at sides, 15 db at rear) minimizes pick-up of background noise. Impedance range adjustable to meet system requirements. With 6-prong connector on 12 ft. cable. Requires foot switch or an external "transmit" switch.

- TU587 Unidyne Floating Arm Microphone ..... \$77.50
- Floating Arm only for TU587—45C 831428 ..... \$36.00
- P7246 6-prong to 4-prong connector adaptor. For using floating arm microphone with T1200 series remote control unit or other units requiring a 4-prong connector. .... \$4.00



## remote control console



An attractive remote control console providing exceptional flexibility. Designed to meet *all* operational requirements of any two-way system.

This smartly styled desk-top unit extends the control functions of the upright type base station to the dispatching office. The basic unit includes all the essential control facilities for operation of a single or two-frequency base station over two or four wire control lines. Can be used with conventional or "Private-Line" radio systems. Operates from 117 volts AC.

Basic unit features a Transistorized Compression Amplifier which provides volume compression of *both* incoming and outgoing messages; DC control voltage supplies; transformer line balancing; 4½" noise limiting bandpass speaker, volume control and transmit indicate light. Includes chassis mounted controls for microphone level, line input level, line output level and compression level. Front panel has 13 removable plates for addition of optional or accessory kits. Rear terminal board has provisions for external speaker, foot switch, handset (with or without speaker muting), two or four wire control without external kit, high level input for carbon or transistorized dynamic microphones, low level input for dynamic microphones, "Quik-Call" input terminals, and auxiliary terminals for "Private-Line" system monitoring.

### Remote Control Chassis

The TLN6297A and TLN6298A are intended to permit remote operation of any AC utility or "BY" type base station. Comes complete with termination facilities and the necessary DC relays.

**TLN 6297A** Single Freq. Transmitter Control.

**TLN 6298A** Two Freq. Transmitter Control. (Cannot be used with 2 freq. receiver or 2 receiver models.)

**TK 570** Private Line Disable Relay Kit

**T1260A** Remote Control Chassis.

(TLN 6297A and TK 570 Relay complete with mtg. brkts.)

### Remote Control Consoles

**T-1200A** One-frequency operation.

**T-1201A** One or 2-frequency operation. Has switch for muting 2nd receiver.

**T-1202A** One-frequency operation with cyclometer clock and volume unit meter.

**T-1203A** One or two-frequency operation, with switch for muting 2nd receiver, clock and volume unit meter.

**T-1204A** One-frequency operation with cyclometer clock, volume unit meter and "Private-Line" monitoring facility.

**T-1207A** "Private-Line" operation, less "PL" monitor switch. To be used with microphone with "PL" monitor switch.

### Optional Kits

Control facilities that can be added easily at the factory or in the field to meet special system requirements are:

**TK551 Two-Frequency Control Facility**, consisting of B + muting of the second receiver and a transmitter frequency selection switch for selection of operating frequency.

**TLN6051A Cyclometer Clock and Volume Unit Meter**, The VU meter is calibrated from - 20 to + 3 volume units for indication of both send and receive line levels.

**TK553 "Private-Line" Radiophone Monitor Facility**, providing monitor-before-transmit and equipment testing with "Private-Line" radio systems.

**TLN6132A Alert Tone Kit** provides 1000 cycle tone for system adjustments and "alerting" purposes. (For T1200 series only.)

**TK555 AC Switch and Pilot Light Kit** provides a visual indication through attractive translucent plate AC power is "on".

**TK556 Line Equalizer Kit** compensates for high-frequency loss to maintain flat frequency response.

**TK557 Supervisory Switch Kit** provides supervisory control of master console over other consoles on same control line.

**TLN6148A\* RF Indicator Kit** provides uncalibrated indication of transmitter RF output on transmitting.

**TK559 Push-to-Talk Switch Kit** permits front panel switch operation of the push-to-talk relay in the base station remote control chassis.

**TLN6149A Intercom Kit** permits intercommunication between consoles on the same control line without actuation of the transmitter turn-on relays.

**TK561 Partial Mute Kit** permits receiver audio level to be reduced by a pre-determined amount.

\*requires P8295A RF Monitor Probe.

*Because of system considerations, it is always advisable to contact your Motorola Radio Communications Representative when ordering a new remote control unit. He will be happy to supply you with prices, further information and assist you in integrating these units into your radio system.*

## MOTOROLA FOOT SWITCHES



Heavy duty foot switches now available in two new models. Particularly helpful for operating personnel that must have both hands free to record information or handle papers while transmitting. Single pedal model for standard squelch systems, dual pedal model for dual-squelch "private-line" systems.

**TLN6377A FOOT CONTROL SWITCH, SINGLE** ..... Net \$10.75

**TLN6287B FOOT CONTROL SWITCH, DOUBLE** ..... Net \$28.00



# control heads



## DIE-CAST TYPE

### CONTROL HEADS FOR GENERAL REPLACEMENT



Will replace both pad and DC type volume control models used with Standard or Private Line squelch units. Available with or without microphones. Pilot light jewels can be removed from the front of the control head for fast re-

placement of pilot lamps.

See numerical listing in back of Catalog for specific replacement of "P" and "TU" series of earlier line Control Heads.

### TRUNK MOUNT WITH ATTACHED SPADE LUG TYPE MICROPHONE

for standard squelch units  
pad type volume control

MODEL	DESCRIPTION	NET PRICE
TCN 6001AA	1 Freq.—Standard Squelch	\$45.50
TCN 6001AB	2 Freq.—Standard Squelch	46.85

for "private line" squelch units

TCN 6001AC	1 Freq.—Dual Squelch	\$46.85
TCN 6001AD	2 Freq.—Dual Squelch	48.20

### TRUNK MOUNT WITH MICROPHONE CONNECTOR, LESS MICROPHONE

for standard squelch units

MODEL	DESCRIPTION	NET PRICE
TCN 6001AE	1 Freq.—Standard Squelch	\$18.00
TCN 6001AF	2 Freq.—Standard Squelch	19.35

for "private line" squelch units

TCN 6001AG	1 Freq.—Dual Squelch	\$19.35
TCN 6001AH	2 Freq.—Dual Squelch	20.70

### "DELUXE" AND "DISPATCHER" CONTROL HEAD REPLACEMENT

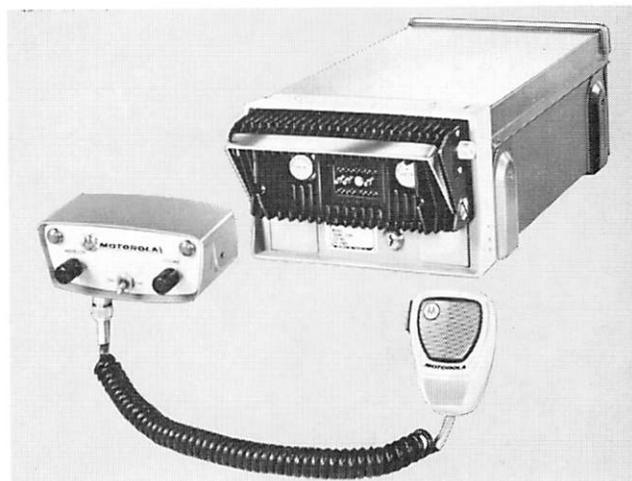
A replacement for the P-8022, P-8422, P-8522 series heads as originally used with "Deluxe" 30, 50D and "Dispatcher" 5V lines of equipment. Has a standard squelch and pad type volume control on front panel plus a 500k potentiometer on rear panel to "Pre-set" volume level on those units requiring this control. Comes complete with 3 adapter plugs to make this a truly interchangeable head. Simply select the pre-wired adapter plug for the correct application, checking against the instructions supplied with the control head.



TCN 6006AF CONTROL HEAD. . . . . Net Price \$31.35

## FRONT MOUNT CONTROL HEADS FOR "T" POWER MOBILES

These control heads are designed to permit front mount operation of a universal U41, U43GGT, etc. series. They are available with a spade lug microphone, or less microphone with a four prong receptacle for a "Plug-in" mike or handset. An adapter is available to convert from front mount to rear mount operation. Control heads for rear mount "T" power are shown on opposite page.



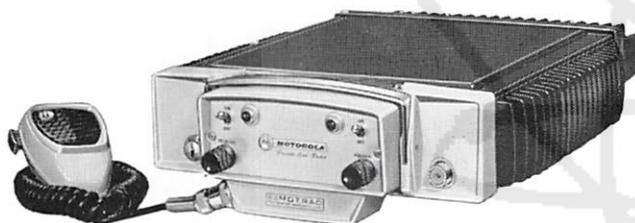
Control Head Complete with  
Spade Lug Type Microphone

MODEL	DESCRIPTION	NET PRICE
TCN6000AA	1 Freq.—Standard Squelch	\$48.85
TCN6000AB	2 Freq.—Standard Squelch	50.20
TCN6000AC	1 Freq.—Dual Squelch	50.20
TCN6000AD	2 Freq.—Dual Squelch	51.50

Control Head Only  
with Connector, Less Microphone

MODEL	DESCRIPTION	NET PRICE
TCN6000AE	1 Freq.—Standard Squelch	\$21.35
TCN6000AF	2 Freq.—Standard Squelch	22.70
TCN6000AG	1 Freq.—Dual Squelch	22.70
TCN6000AH	2 Freq.—Dual Squelch	24.00

## "MOTRAC" RADIO CONTROL HEADS



"A" MODELS are 12-volt negative ground only "Motrac" radios. They can be easily identified by the presence of a rear heat sink only.

"B" MODELS are  $\pm 6/12$ -volt "Motrac" radios. They can be identified by the presence of a rear heat sink plus a heat sink added on each side as pictured.

## CONTROL HEADS (All Less Microphone)

### Front Mount-Standard Squelch

MODEL NO.	DESCRIPTION ("A" MODELS)	NET PRICE
TCN6008AE	1-freq. 12V Neg. Gnd. Only	\$23.65
TCN6008AF	2-freq. 12V Neg. Gnd. Only	25.00
("B" MODELS)		
TCN6027AE	1-freq. 6V	21.35
TCN6027AF	2-freq. 6V	22.70
TCN6025AE	1-freq. 12V	21.35
TCN6025AF	2-freq. 12V	22.70
(EXTENDER MODELS)		
TCN6047AE	1-freq. 6V	24.00
TCN6047AF	2-freq. 6V	25.35
TCN6048AE	1-freq. 12V	24.00
TCN6048AF	2-freq. 12V	25.35

### Front Mount "Private-Line" Dual Squelch Radio

MODEL NO.	DESCRIPTION ("A" MODELS)	NET PRICE
TCN6008AG	1-freq. 12V Neg. Gnd. Only	\$25.00
("B" MODELS)		
TCN6027AG	1-freq. 6V	22.70
TCN6027AH	2-freq. 6V	24.00
TCN6025AG	1-freq. 12V	22.70
TCN6025AH	2-freq. 12V	24.00
(EXTENDER MODELS)		
TCN6047AG	1-freq. 6V	25.35
TCN6047AH	2-freq. 6V	26.65
TCN6048AG	1-freq. 12V	25.35
TCN6048AH	2-freq. 12V	26.65

### Rear-Mount-Standard Squelch

MODEL NO.	DESCRIPTION ("A" MODELS)	NET PRICE
TCN6009AE	1-freq. 12V Neg. Gnd. Only	\$20.00
TCN6009AF	2-freq. 12V Neg. Gnd. Only	21.35
("B" MODELS)		
TCN6030AE	1-freq. 6V	18.00
TCN6030AF	2-freq. 6V	19.35
TCN6026AE	1-freq. 12V	18.00
TCN6026AF	2-freq. 12V	19.35
(EXTENDER MODELS)		
TCN6045AE	1-freq. 6V	20.70
TCN6045AF	2-freq. 6V	22.00
TCN6046AE	1-freq. 12V	20.65
TCN6046AF	2-freq. 12V	22.00

### Rear-Mount-"Private-Line" Dual Squelch Radio

MODEL NO.	DESCRIPTION ("A" MODELS)	NET PRICE
TCN6009AG	1-freq. 12V Neg. Gnd. Only	\$21.35
TCN6009AH	2-freq. 12V Neg. Gnd. Only	22.60
("B" MODELS)		
TCN6030AG	1-freq. 6V	19.35
TCN6030AH	2-freq. 6V	20.70
TCN6026AG	1-freq. 12V	19.35
TCN6026AH	2-freq. 12V	20.70
(EXTENDER MODELS)		
TCN6045AG	1-freq. 6V	22.00
TCN6045AH	2-freq. 6V	23.35
TCN6046AG	1-freq. 12V	22.00
TCN6046AH	2-freq. 12V	23.35



# handsets, microphones, hang-up boxes

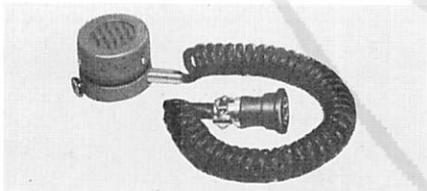


- TMN6001A Handset for railroad radio units (Carbon type) 6 prong plug ..... **\$35.00**
- TMN6002B Handset for railroad radio units (Dynamic type) 6 prong plug ..... **\$35.00**
- TMN6003A Handset microphone for railroad radio applications (Carbon type) 4 prong plug ..... **\$35.00**
- TMN6004B Handset for railroad radio units (Dynamic type) 4 prong plug ..... **\$35.00**

TMN6006A Dynamic Handset for mobile use (Replaces TU475) ..... **\$38.00**

1V80704A48 Dynamic Handset with 5 conductor coil cord terminated in 5 spade lugs (Replaces 1V852500) ..... **\$27.29**

NMN6007A Handset microphone for use with "Handie-Talkie" portable radiophones (Replaces NU129) ..... **\$30.00**

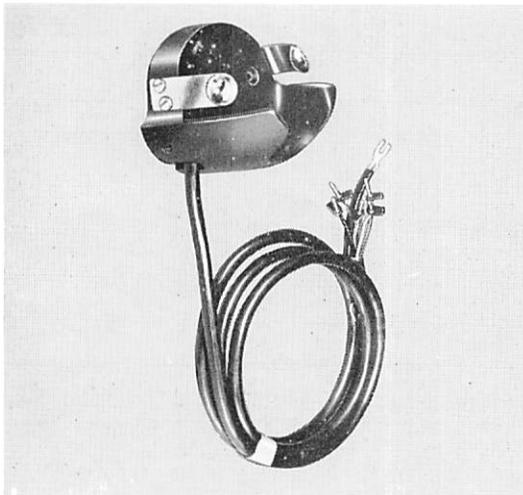


NMN6008A Carbon microphone for use with "Handie-Talkie" portable radiophones (Replaces NU130) ..... **\$20.00**

P7255-A Noise cancelling microphone with 4-prong plug for mobile applications (carbon type) ..... **\$28.00**

1V811540 Same as P7225A except supplied w/spade lugs ..... **\$30.80**

## HANG-UP SWITCH BOX



The TU526, TU527, TU528 and TU529 Hang-Up Switch Boxes are wired for operation with Motorola Dual Squelch "Private-Line" mobile two-way radio sets. "Dual squelch" equipment include receivers equipped for both "Private-Line" and carrier squelch operation. These hang-up switch boxes provide automatic switching to the carrier squelch circuit when the microphone or handset is picked up.

Certain revisions in connections are required if these units are used in the following applications:

- (a) Mobile two-way radio installations which use Motorola "Quick-Call" selective signalling without the "Dual Squelch" feature (radio sets with conventional carrier squelch or "Private-Line" squelch).
- (b) When the hang-up box is used as a replacement for a K-8439 series or a P-9059 series hang-up switch box.

Modification instructions are provided with kit.

HANG-UP SWITCH BOX MODEL	HANG-UP FACILITIES FOR	CABLE TERMINATION	APPLICATION	NET PRICE
TU526	Handset	Individual "Pin-Tip" Plugs	Rear Mount Radio Set	21.00
TU528	Microphone	Individual "Pin-Tip" Plugs	Rear Mount Radio Set	15.00
TU527	Handset	5 Pin Plug	Front Mount Radio Set	21.00
TU529	Microphone	5 Pin Plug	Front Mount Radio Set	15.00
TLN6146A	Microphone	"Pin-Tip" Plugs	Rear Mount "Private-Line" Radio Only	3.00
TLN6246A	Microphone	"Pin-Tip" Plugs	"Motrac" Radio "Private-Line," Rear Mount	7.95



# ignition noise suppression kits

## MODERNIZE YOUR MOTOROLA 25-50 MC FM 2-WAY RADIO SYSTEM WITH "EXTENDER" OPERATION

### Extender Operation Benefits for Your Motorola FM 2-Way Radio System

- Greater Usable Range
- Clearer Messages
- Improved Mobile-to-Mobile Coverage
- Ignition Noise Protection from All Vehicles
- Transistorized Circuit Reliability
- Simple, Economical Installation

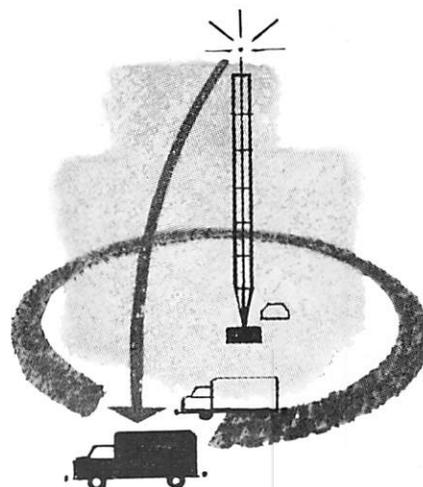
If you have an ignition noise problem, "Extender" operation is your best solution. Why? Because "Extender" circuitry gets right at the root of the problem . . . suppresses ignition noise in the early receiver stages.

The farther a radio-equipped vehicle is from the base station, the weaker the radio signal becomes. This can cause messages to be missed or misunderstood because of the strength of the overriding ignition noise.

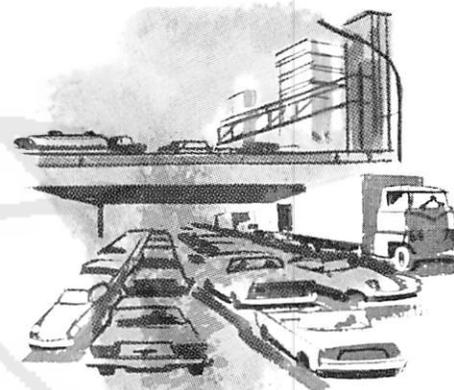
With "Extender" operation suppressing the disrupting ignition noises, the weaker signals are received more clearly. This means increased usable operating range.

"Extender" circuitry suppresses ignition noise both from your vehicle and from other passing cars, buses and trucks. This means greater message clarity throughout your system, even in areas of high ignition noise interference. You get more efficient operation in both base-to-mobile and mobile-to-mobile operations. "Extender" circuitry kits are fully transistorized. You get all the inherent benefits of transistor performance—highest dependability . . . low power needs . . . high switching speeds.

"Extender" operation minimizes need for expensive mechanical suppression devices which provide protection only from the motor in your own vehicle and often involve complicated installation by persons unfamiliar with 2-way radio equipment.



Greater Usable Range



Clearer Messages in Heavy Ignition Noise Areas

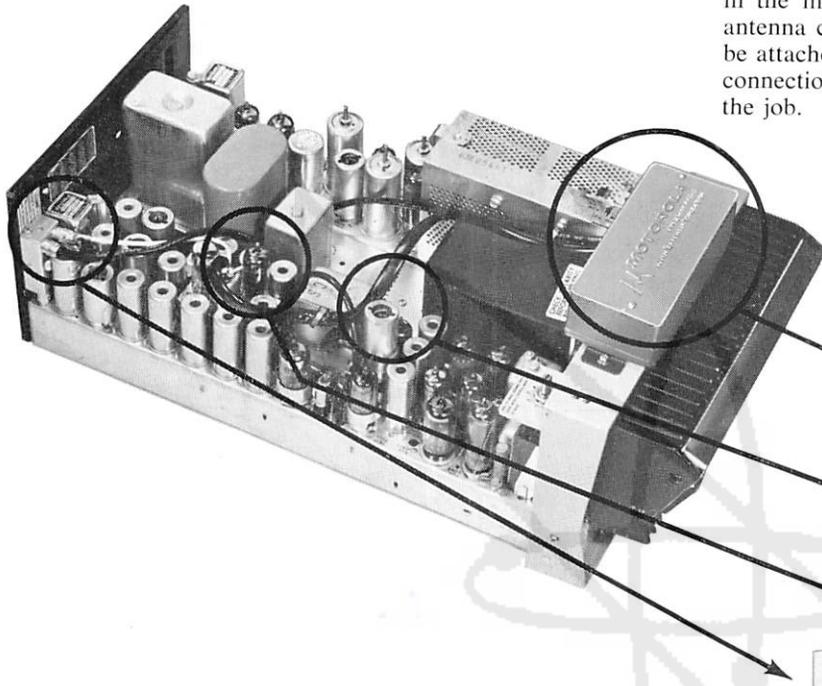


Improved Coverage Mobile-to-Mobile



# ignition noise suppression kits

## TYPICAL "EXTENDER" KIT INSTALLATIONS



Convenient plug-in module design makes "Extender" kit installation fast and easy in "Twin-V" and "T-Power" radio. Three tubes and the antenna lead are first removed from their sockets. The "Extender" module, fig. A & B, and antenna coil, fig. C, is then plugged into these tube and antenna sockets. The 3 tubes are reinserted into sockets in the module and the antenna lead is plugged into the antenna coil. "Extender" circuit housing, fig. D, may then be attached to top or side of mobile housing. Simple solder connections at the bottom of the receiver chassis complete the job.

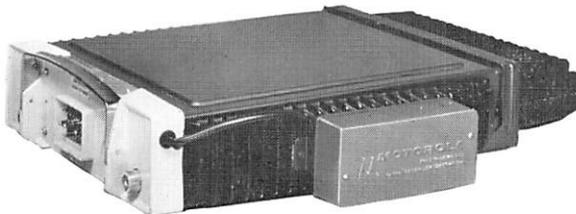
Typical Completed Installation of "Extender" Kit For a Motorola "T-Power" Radio With 10" Housing.

Fig. C

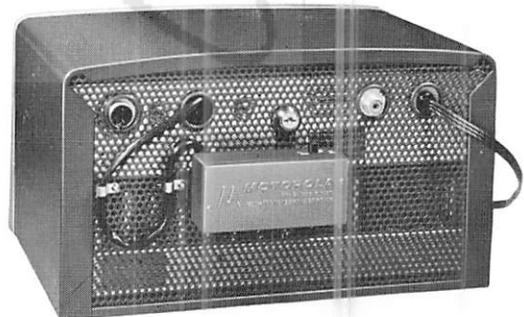
Fig. B

Fig. A

All kits are fully transistorized for greater reliability and low current drain. The addition of "Extender" kits does not degrade the basic receiver performance specifications. Kits for mobile units will operate interchangeably on 6/12 volt, positive or negative ground. Universal mounting brackets are supplied to facilitate attaching kit to top or side of either 10" or 15" housings.



Field modification of MOTRAC radio for "Extender" operation can be completed in a short time. Several component parts are soldered to the IF strip of the MOTRAC radio receiver. Again, the die-cast housing containing the bulk of the "Extender" circuit is fastened externally to the mobile housing.



There are 6 plug-in kits for base stations: Two for units with "G" receivers and four for units with "Sensicon" "A" receivers. Unit shown here is mounted externally on Motorola Console Base Station. Kits for certain Base Stations may be mounted internally or externally.

**NOTE:** Because of generated heat and physical dimensions, installation of "Extender" kits on mobiles with weatherproof housings is impractical and not recommended.

## Ignition Noise Suppression at Both Ends of Your Radio System

## SELECTING "EXTENDER" KITS FOR FIELD INSTALLATION

### Early "Sensicon" "A" Receivers— Base Stations Only

FREQ. RANGE	"EXTENDER" KIT NO.	NET PRICE
25 to 40 mc	TEB6031A	\$85.00
40 to 50 mc	TEB6032A	\$85.00

These kits are available for field or factory installation in any of the following split channel receivers.

PA8633A Series	PA9137A Series	PA9266A Series
PA8658A Series	PA9181A Series	TA189 Series
PA8663A Series	PA9265A Series	

### Late "Sensicon" "A" Receivers— Base Stations Only

FREQ. RANGE	"EXTENDER" KIT NO.	NET PRICE
25 to 40 mc	TEB6041A	\$85.00
40 to 50 mc	TEB6042A	\$85.00

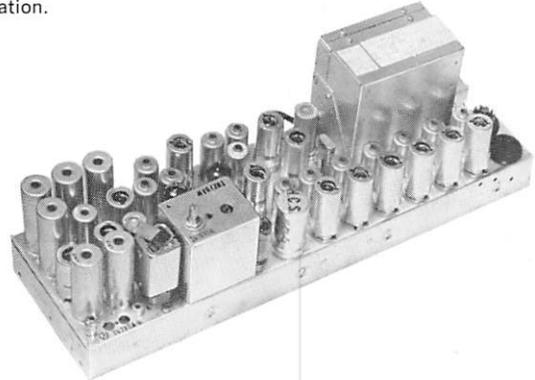
These kits are available for field or factory installation in any of the following split channel receivers.

TA189A Series	TRB1052AA&AB	TRB1062AA&AB
TA233 Series	TRB1053AA&AB	TRB1063AA&AB
TRB1051AA&AB	TRB1061AA&AB	

"Extender" kits are available for early and late "Sensicon" A receivers. To determine the age, check the number of tubes and antenna input jacks on the RF deck.

Early model "A" receivers have four tubes and one antenna input jack on the RF deck. Late model "A" receivers have three tubes and two antenna input jacks on the RF deck.

**NOTE:** Base stations employing cavity resonators, antenna couplers or receiver shield covers may not be converted to "Extender" operation.

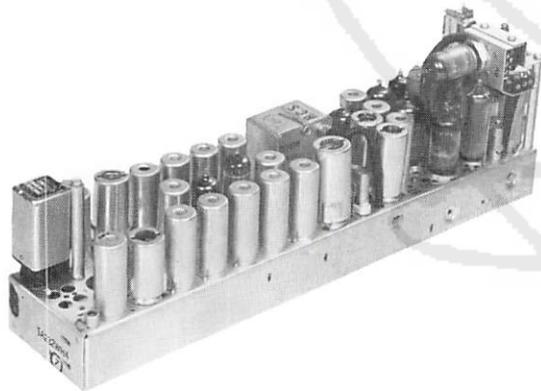


### "Motrac" Radio-"G" Receivers—Mobiles and Base Station

FREQ. RANGE	EXTENDER KIT NO. FOR MOBILE UNIT	EXTENDER KIT NO. FOR BASE STATION	NET PRICE
25 to 40 mc	TEB6001A	TEB6021A	\$85.00
40 to 50 mc	TEB6002A	TEB6022A	85.00
25 to 36 mc (MOTRAC radio)	TEB6011A	.....	82.00
36 to 42 mc (MOTRAC radio)	TEB6012A	.....	82.00
42 to 50 mc (MOTRAC radio)	TEB6013A	.....	82.00

These kits are available for field or factory installation in any of the following split channel receivers.

Series	Series	Series
TA111A, B, C, D	TRB1071AA to AH	TRB1081AA to AH
TA232	TRB1072AA to AH	TRB1082AA to AH
TA235	TRB1073AA to AH	TRB1083AA to AH

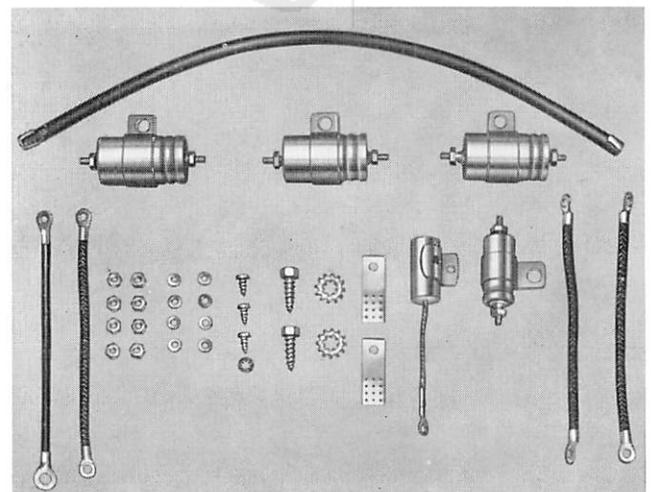


The TLN625A IGNITION NOISE-REDUCTION KIT improves reception of any mobile FM or AM 2-way radio by minimizing noise generated by the vehicle's electrical system. The kit is designed for use in both low and high-band installations. Included in the kit are: lead and lug assemblies, coaxial capacitors, generator field suppressor assembly, ignition coil suppressor cable, mounting hardware.

### TLN625A Noise Reduction Kit Parts Listing

PART NUMBER	DESCRIPTION	NET PRICE
1V839913	Lead & Lug Assembly	.44
1V80700A88	Lead Assembly	.43
8C82571B02	Capacitor, Coaxial (.1 MFD-100V)	2.18
8C82571B01	Capacitor, Coaxial (.5 MFD-100V)	2.21
1V80700A89	Generator Field Suppressor Assem.	1.25
30A502396	Ignition Coil Suppressor Cable	.16
1V80700A91	Mtg. Hardware Kit	.64

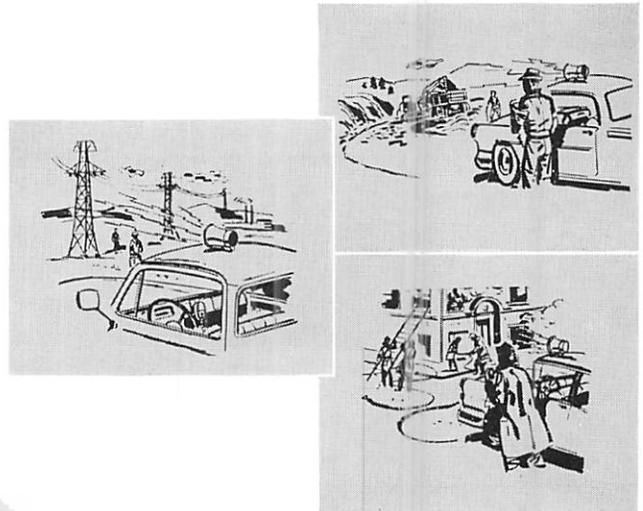
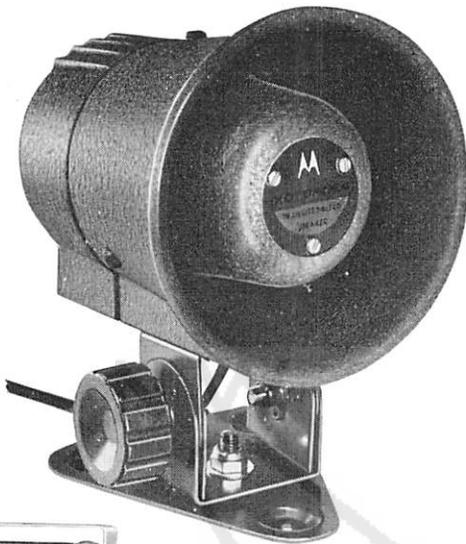
## TLN625A NOISE REDUCTION KIT



TLN625A Kit ..... Net Price \$9.60



# motorola "big voice" power speaker



## Versatile 3-Way Operation

### Advanced Design Provides Unusual Flexibility

**COMPLETELY TRANSISTORIZED**—5 transistors—3 in control unit pre-amplifier and 2 in "Big Voice" Power Speaker—hold vehicle battery drain to a minimum.

**AVAILABLE FOR 6 OR 12 VOLT OPERATION**—Output is 15 watts at 12 volts; 5 watts at 6 volts.

**EASILY ATTACHED TO ANY CONVENTIONAL 2-WAY RADIO**—Requires only cable connection to present control head and one wire to power. No soldering is necessary when used with vehicles having negative ground.

**RADIO ALWAYS IN OPERATION — NO MISSED MESSAGES** — Dash-mounted speaker is not disabled when "BIG VOICE" Power Speaker is used for public address system.

**USABLE WITH ANY TYPE OF MOTOROLA MICROPHONE**—Any standard Motorola mobile dynamic or carbon microphone having 4-prong or lug-type connector can be used.

**SWIVEL MOUNT FOR DIRECTIONAL CONTROL**—Optional accessory for outside mounting. Simple to install . . . has large knurled knob that locks speaker in desired position.

With "Big Voice" radio, your drivers can hear every message, even if they are hundreds of feet away from their vehicles. And without leaving the driver's seat, they can project their own voices to others far away. Hearing range extends to 2,000 feet, even farther under ideal conditions.

With a flick of the 3-way selector switch, the driver can (1) use the radio for normal transmission and receive through the regular speaker, (2) feed the receiver output through the outside "Big Voice" Power Speaker, or (3) use the control unit and the "Big Voice" Power Speaker as a public address system, regular speaker remains connected to radio receiver.

## "Big Voice" Power Speakers\*

	NET PRICE
TU450-6V "Big Voice" Speaker for 6-volts. (grey) . . . . .	\$95.00
TU450-12V "Big Voice" Speaker for 12-volts. (grey) . . . . .	95.00
TU449-6V "Big Voice" Speaker for 6-volts. (red) . . . . .	95.00
TU449-12V "Big Voice" Speaker for 12-volts. (red) . . . . .	95.00

\*Speakers are interchangeable between 6 & 12-Volt vehicles by simple jumper modifications.

## Accessories

	NET PRICE
TK474 Swivel Mount (grey) . . . . .	\$11.00
TK473 Swivel Mount (red) . . . . .	11.00
TCN6023AA Pre-amplifier and Selector Unit . . . . .	50.00

## VOICE COIL/DRIVER UNIT REPLACEMENT

MODEL	DESCRIPTION	NET PRICE
50K 867784	Voice Coil/Driver Unit — Replacement Unit for Speakers — TU 259, P 8257, P 8257A, P 8257B, P 8588, P 9084.	\$11.62
50C 851263	Voice Coil/Driver Unit — Replacement Unit for Speakers — TU 449, 6 or 12V TU 450, 6 or 12V.	10.37

NOTE: Voice Coil Only is not replaceable.





# power voice megaphone



## Features 15 Watts of Power Output

The lightweight Motorola Power Voice Megaphone is three times more powerful than any other electronic megaphone of its type. Its wide range of applications include police, fire, civil defense, heavy construction, petroleum—any industry or operation requiring communications control over a wide-open area.

The only completely self-contained electronic megaphone with *all* of these advantages:

**SIX-TRANSISTOR AMPLIFIER**—Far more rugged, more compact and less expensive to operate than tube-amplifier units.

**STANDARD FLASHLIGHT CELLS**—With the low power requirements of transistors, inexpensive standard type "D" flashlight cells power the unit for weeks or months, depending upon usage. No hard-to-get batteries required.

**VOLUME CONTROL**—Set the power output level only as high as you require.

**DETACHABLE MICROPHONE**—Dynamic microphone can be detached easily for use when megaphone is carried on shoulder strap, or when unit is mounted on tripod or platform.

**TRIPOD MOUNTING**—Threaded hole at bottom of pistol grip handle permits mounting on any standard tripod.

**CARRYING STRAP**—For ease of handling while moving through crowds, or for extended use.

**PLUG CONNECTION FOR EXTERNAL POWER**—With a simple adapter, any external source of 6 or 12 volt power can be quickly connected when extended use is required.

**WEATHER RESISTANT**—For use in any weather, and on boats or docks.

## Specifications

Weight	8 lbs.
Power Out	15 watts, 1000-cycle tone, 10% distortion, full battery voltage.
Current Drain	No current drain until microphone or trigger button is pushed. Current drain at standby—100 milliamperes; at rated power output—averages approximately 500 milliamperes.
Microphone	Dynamic type.
Amplifier	Six Transistors; preamplifier, amplifier, push-pull driver and push-pull power output.
Speaker	Reentrant type horn with 8 $\frac{3}{8}$ " diameter bell opening.
Size	14" long, 10 $\frac{1}{2}$ " high and 8 $\frac{3}{8}$ " wide.

Net Price

NA120 "Power Voice" Megaphone including carrying strap, batteries and microphone	\$170.80
NU185 "Power Voice" Megaphone including carrying strap, less batteries	169.50
NK173 Battery Kit (10 type "D" cells)	1.30
50C851924 Replacement Microphone and cord	30.18

## Optional Accessories

### MICROPHONE EXTENSION CABLE



25 feet long, with connectors. Two may be used in series to remote microphone 50 feet away.

NK175 Microphone Extension Cable . . . . . \$10.00

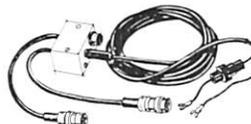
### EXTERNAL POWER ADAPTOR CABLE



12' long cable permits Megaphone use with either 6 or 12 volt DC external power source. Cable is furnished with in-line fuse for 12 volt operation.

NK176 External Power Adapter Cable . . . . . \$10.00

### MULTI-UNIT ADAPTER



Permits one microphone to be used with two Megaphones as a public address system. Kit includes external power adaptor cable for multi-unit use only.

NK179 Multi-Unit Adapter . . . . . \$25.00

### CARRYING CASE



For safe storage and transportation of Megaphone and accessories. Brown color harmonizes with Megaphone.

NK180 Plywood Carrying Case with Plex-tone finish . . . . . \$20.00



# speakers

## TRANSISTORIZED POWER VOICE MOBILE SPEAKER

A compact, inexpensive speaker-amplifier combination that delivers 10 times as much power as the conventional passive speaker. Ideal for mobile radio installations where ambient noise is apt to be high or where driver wishes to hear radio while he is working some distance from his vehicle.

The POWER VOICE speaker has a built-in transistorized amplifier utilizing two audio power transistors in Class B push-pull circuit. Approximately 1 watt input to the amplifier provides 15 watts output in 12-volt vehicles and 5 watts output in 6-volt vehicles. Speaker output is varied by adjusting the usual receiver volume control to control the input to the transistor amplifier. Battery drain is less than .3 amp on standby—only 1.0 amp at rated output on speech peaks.

Speaker element has a bandpass frequency response tailored specifically for mobile service, accenting voice frequencies but suppressing ignition noise and other interference outside the basic voice frequency range. The amplifier has a flat response within  $\pm 1$  db from 300 to 3000 cps. At full rated output, distortion is less than 10%.

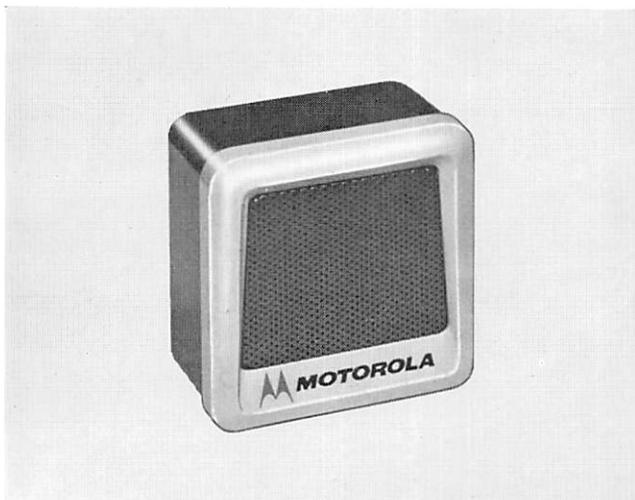
Speaker can be installed on firewall, under the dash or (with optional mounting kit TK-395) on steering column. Quick-detach mounting bracket and 5-ft. coiled cord (4-conductor) facilitate mounting outside vehicle window for monitoring of received messages from a considerable distance away.



The 5" POWER VOICE speaker weighs about 6 pounds; case dimensions are 5¼ x 5¼ x 3¼" exclusive of mounting bracket. The TU433A series is easily converted from 6 to 12 volt or 12 to 6 volt operation by changing one connection on the transformer and can be used with any receiver having a 3.2 ohm output.

- Model TU433A-6V POWER VOICE Speaker (for 6-volt operation; 5 watts output) ..... Net Price **\$39.30**
- Model TU433A-12V POWER VOICE Speaker (for 12-volt operation; 15-watts output) ..... Net Price **\$39.30**
- Model TSN6002A Power Voice speaker for "MOTRAC" radio (for 12-volt operation only; 15-watt output) Net Price **\$39.30**
- TK395 Steering Column Adapter Kit ..... Net Price **\$ 1.85**

## STANDARD MOBILE 5" SPEAKER



Standard bandpass speaker has frequency response tailored for optimum mobile communications—accents voice frequencies and suppresses ignition noise. Trunion mounting provides mounting flexibility, so that speaker can be mounted on any flat surface within the vehicle.

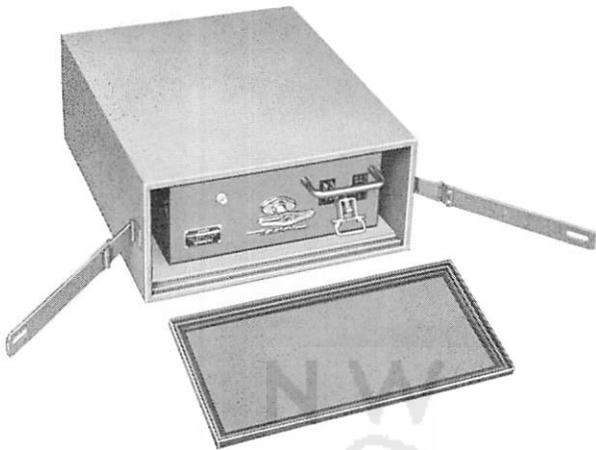
Speaker assembly consists of 3 ohm 5" PM speaker assembled in a louvered steel housing with a removable front bezel and grill. Includes 8 feet of 2-conductor speaker cable terminated with black pin connectors to interconnect speaker with control head.

For steering column mounting, order kit TK395.

- TU324A Standard Trunion-Mount Mobile 5" Speaker ..... Net Price **\$9.33**
- TSN6000A "MOTRAC" radio mobile 5" speaker... Net Price **\$9.33**
- TK395 Steering Column Adapter Kit ..... Net Price **\$1.85**



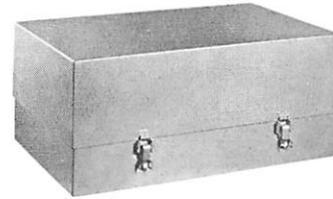
# weatherproof housings & accessories



Weatherproof Housing for 15" and 20" Units



"Motrac" Radio Weatherproof Housing



TK272 Weatherproof Housing

These weatherproof housings offer maximum protection to the equipment under the most adverse weather conditions. They are rigidly constructed of cold rolled steel and feature two heavy duty hasps for security purposes. The cover is completely sealed by the use of gaskets and the complete housings are attractively finished in a gray wrinkle enamel or red for fire truck applications.

Note: 10 inch "T-Power" Units should be installed in 15 inch or 20 inch weatherproof housings only with standard housing cover removed and TK363 hold-down kit to secure unit case.

MODEL	DESCRIPTION	COLOR	NET PRICE
TK272	For 10" housing	(gray)	\$35.00
K8696	For 15" housing	(gray)	40.50
K8697	For 20" housing	(gray)	50.50
TK630	For 10" housing	(red)	35.00
TK308	For 15" housing	(red)	41.00

"MOTRAC" RADIO WEATHERPROOF HOUSINGS—especially designed for "Motrac" radio units. Allows maximum dissipation of heat. Housing includes weatherproof cable outlet and new "heat sink" as required.

MODEL	DESCRIPTION	NET PRICE
THN6020A	For 60-80 watt 150-174 mc units	\$43.00
	For 100-watt 25-54 mc units	
THN6021A	For 30 & 50-watt 25-54 mc units	46.50
THN6022A	For 25-watt 150-174 mc units	46.50

WEATHERPROOF CABLE OUTLET KIT—provides a weatherproof entrance for power and control cables.

MODEL	DESCRIPTION	NET PRICE
K8699-A	Cable entrance kit (hose type)	\$ 5.10
K8699-B	Cable entrance kit (louver type)	5.10

## Housing Hold Down Kit

MODEL	DESCRIPTION	NET PRICE
TK363	Housing Hold-Down Kit	\$ 3.50

## Shockmount Kits

Protects radio units subjected to excessive vibrations; includes all equipment necessary for a shock mount installation.

MODEL	DESCRIPTION	NET PRICE
TK404	For 10" K9045 housing	\$16.25
K8413	For 15" K8455-B and TK424 housings	17.85

## Standard Installation Kits (Rigid Mount)

MODEL	DESCRIPTION	NET PRICE
TLN6000A	Installation Kit	\$ .25
TLN6001A	Mounting Bracket Kit (10" mobiles)	6.70
TLN6002A	Mounting Bracket Kit (15" mobiles)	6.70
TLN6238A	Mounting Brackets for Front Mount "Motrac"	6.70
TLN6380A	Installation Kit for "Business Dispatcher"	5.30
TLN6042A	Installation kit "Motrac" Radio	.75
TLN6043A	Mounting Bracket kit "Motrac" Radio	7.35



# cable kits

## TRUNK MOUNT CABLE KITS

MODEL NO.	REPLACEMENT FOR	DESCRIPTION	APPLICATION	NET PRICE
TKN 6001A	TK 154, TK 202 series, TKN 6000A	6-volt, 20 ft. 1 or 2 freq.	All 6/12 450-470mc 18-20 watt	\$32.65
TKN 6003A	TK 156, TK 203 series, TKN 6002A	12-volt, 20 ft. 1 or 2 freq.	T51G, T51GGV series 50 to 60 watt	
TKN 6005A	TK 208, TK 161 series, TKN 6004A	6-volt, 20 ft. 1 or 2 freq.	T41G, GGV series T43G, GGV series	25.65
TKN 6007A	TK 209, TK 162 series, TKN 6006A	12-volt, 20 ft. 1 or 2 freq.	U41GGT, U43GGT series 10 and 25 watt	

MODEL NO.	REPLACEMENT FOR	DESCRIPTION	APPLICATION	NET PRICE
TKN 6008A	TK 312 series	6-volt, 20 ft. 1 or 2 freq.	T43AAD, T43GAD T51GGD series T53GKT, T71GJT, "T Power", 60 & 100 watt	\$34.65
TKN 6009A	TK 313 series	12-volt, 20 ft. 1 or 2 freq.	T53GAD, T61GJD 60-watt and 100-watt	45.35
TKN 6010A	TK 314 series	6-volt, 20 ft. 1 or 2 freq.	Dynamotor models	
TKN 6011A	TK 315 series	12-volt, 20 ft. 1 or 2 freq.		

## TRUNK MOUNT CABLE KITS "MOTRAC" RADIO AND "BUSINESS DISPATCHER"

MODEL NO.	DESCRIPTION	PRICE
TKN 6056A	12 volt, 1 or 2 freq. 25, 30 & 50 watt units	\$22.65
TKN 6058A	6 volt, 1 or 2 freq. 25, 30 & 50 watt units	22.65
TKN 6060A	12 volt, 1 or 2 freq. 80 & 100 watt units	29.35
TKN 6097A	6 volt, 1 or 2 freq. 30 & 50 watt with "Extender"	22.65
TKN 6100A	"Business Dispatcher" radio (All models)	5.00

## DASH MOUNT CABLE KITS

MODEL NO.	DESCRIPTION	APPLICATION	NET PRICE
TK 190	6-volt, 1 or 2 freq.	D41G, GGV series	\$9.35
TK 191	12-volt, 1 or 2 freq.	D43G, GGV series	9.35

## 6 TO 12-VOLT CABLE CONVERSION KITS

MODEL NO.	DESCRIPTION	NET PRICE
SK9420	Converts T41, T43G, 6V.	\$1.85
SK9415	Converts T51G & T44A 6V.	4.80
TEN 6001A	Converts TKN 6000A, TKN 6001A	3.75
TEN 6002A	Converts TKN 6004A, TKN 6005A	1.75
TEN 6003A	Converts TKN 6008A	.75
TEN 6004A	Converts TKN 6010A	6.00



Fig. A



Fig. B



Fig. C



Fig. D



Fig. E



Fig. F



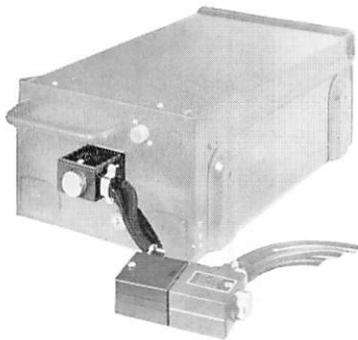
Fig. G



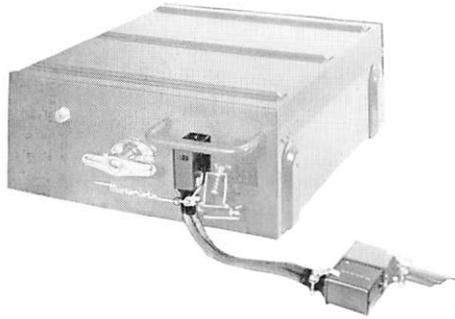
Fig. H

PART NO.	FIG.	DESCRIPTION	NET PRICE	
1V834441 (6V)	A	Power & Control Cable 20 ft., 1 or 2 Freq. for all 6/12 or "T-Power" 10" Housings	\$19.00	
1V834444 (12V)	A		18.83	
1V 80715A11	A		Power & control cable, 1 or 2 freq. for 25, 30 & 50 watt "Motrac" radio, 12 volt	19.65
1V 80704A19	A		Same as above except 6 volt	21.00
1V 80715A18	A		Power & control cable, 1 or 2 freq. for 80 & 100 watt "Motrac" radio, 12 volt.	23.65
1V831573	B	Control Cable 20 ft., 1 or 2 Freq. for all Vibrator, 6/12 Models in 15" Housings	11.73	
1V831574 (6V)	C	Power Cable 20 ft., 1or 2 Freq. for all T51GGV and T44A series 6/12-Volt Models	11.78	
1V831576 (12V)	C		10.69	
1V859419	B	Control Cable 20 ft., 1 or 2 Freq. for all Dynamotor and "T-Power" Models	15.42	
1V865349 (6V)	C	Power Cable 20 ft., 1 or 2 Freq. for 6/12-Volt Dynamotor Models and "T-Power" Mobile Units	15.50	
1V865351 (12V)	C		12.79	
1V865350 (6V)	C		16.65	
1V832065	D	3 Ft. Long #10GA Cable 12-Volt T43GGV & T51GGV and other similar units	.62	
1V831622	D	3 Ft. Long #6GA Cable 6-Volt T43GGV and other similar units	1.53	
1V830176	D	3 Ft. Long #4GA, Cable 6-Volt T51GGV and other similar units	2.78	
1V859440	E	Relay & Fuse Assembly 6 or 12-Volt (Horn type Relay)	10.68	
1V859448	E	Relay & Fuse Assembly 6-Volt (Solenoid type Relay)	8.86	
1V859441	F	IN-Line Fused lead w/pin #6 and Lug for Horn type Relay	.92	
1V858087	F	IN-Line Fused lead w/pin #6 and Lug for Solenoid Relay	1.20	
1V859428	G	Relay lead, 68 in. long w/pin #5 and Lug	.35	
1V830178	—	One each of Fig. "F & G" for Horn type Relays	1.73	
1V847414	H	Ignition Switch Lead, 5 ft. long w/lugs	.32	

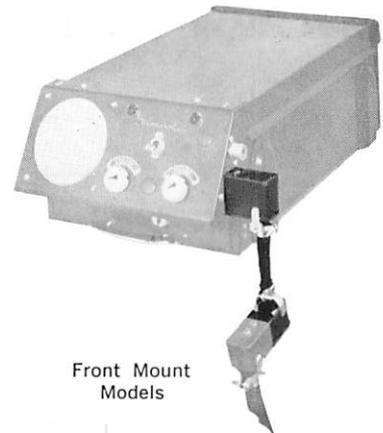
## CABLE ADAPTER KITS



Rear Mount  
(10") Models



Rear Mount  
(15") Models



Front Mount  
Models

Cable adapter kits can be used frequently to provide interchangeability in fleets having both "Twin-V" 6/12-volt radio equipment and earlier 6-volt and 12-volt radio equipment. By using the appropriate cable adapter and making the proper wiring changes in those cases where it is re-

quired, the 6/12 volt set can utilize existing 6-volt or 12-volt cable installations, and conversely, the earlier 6 or 12-volt radio set can utilize current 6/12-volt cable installations when operated at its characteristic voltage.

RADIO UNIT	TO OPERATE RADIO SET	WITH CABLE DESIGNED FOR	CABLE NO.	USE ADAPTER KIT	NET PRICE
FRONT MOUNT MOBILE UNITS	6/12 Volt	6 Volts Only	K-9038	TK215	\$ 8.75
	6/12 Volt	12 Volts Only	K-9038-12V	TK217	8.75
	"41V" (6V)	6/12 Volts (6V)	TK190	TK216	8.75
	"41V" (12V)	6/12 Volts (12V)	TK191	TK218	8.75
10" REAR MOUNT MOBILE UNITS	6/12 Volt	6 Volts Only	K-9037 or K-9037-A	TK211 (N1)	12.75
	6/12 Volt	12 Volts Only	K-9037-12V	TK213 (N1)	12.75
	"41V" (6V)	6/12 Volts (6V)	TK161 or TK208	None	
	"41V" (12V)	6/12 Volts (12V)	TK162 or TK209	TK214	12.75
15" REAR MOUNT (DYNAMOTOR P. S.) WITH 25-30 WATTS RF OUTPUT	6/12 Volt	6 Volts Only	K-9025-A	TK316 (N2)	12.00
	6/12 Volt	12 Volts Only	K-9043	TK317 (N2)	12.00
	"80D" (6V)	6/12 Volts (6V)	TK312	None	
	"80D" (12V)	6/12 Volts (12V)	TK313	TK318 N3)	12.00
15" REAR MOUNT (DYNAMOTOR P. S.) MOBILE UNITS WITH 50-60 WATTS RF OUTPUT	6/12 Volt	6 Volts Only	K-9024-A	TK321 (N2)	12.00
	6/12 Volt	12 Volts Only	K-9044	TK317 (N2)	12.00
	"140D" (6V)	6/12 Volts (6V)	TK312 or TK314	None	
	"140D" (12V)	6/12 Volts (12V)	TK313 or TK315	TK318 (N3)	12.00
15" REAR MOUNT (VIBRATOR P. S.) MOBILE UNITS	6/12 Volt	6 Volts Only	K-9025-A	TK277 (N1, N2, N4)	12.00
	6/12 Volt	12 Volts Only	K-9043	TK278 (N1, N2, N4)	12.00
	"80D" (6V)	6/12 Volts (6V)	TK202 or TK154	TK275 (N4)	12.00
	"80D" (12V)	6/12 Volts (12V)	TK203 or TK156	TK276 (N4)	12.00

TK279 Control Cable Adapter Kits for Two-Frequency Units . . . Adapter cable for "80D" type control cable to T51G type control cable \$12.00

### Notes

The following changes are made for full interchangeability when the proper adapter is used.

**N1 "Twin-V" Radiophone models with "G" type receiver** require addition of a permanent jumper in the receiver from terminal 5 on board to "B" plus.

**N2 Permanent "A" relay and fuse replacement** required.

**N3 Control Head pilot bulb** must be changed permanently.

**N4 Two-Frequency Models** also require TK279 Control Cable Adapter.

**N5 The following models** are directly interchangeable without adapter or modification when DC type volume control (Type TU124, TU146, TU147, or TU203 Series Control Head) is employed:

T41G and T41GGV — T21G and T21GGV — T33G and T33GGV

T43G and T43GGV — T23G and T23GGV — T51G and T51GGV

If a pad type volume control is involved in these installations Note 1 (N1) applies to the "GV" radio set.



# closed circuit television

## CLOSED-CIRCUIT TELEVISION ENABLES YOU TO SEE AND CONTROL REMOTELY

**HERE'S WHAT IT IS:** A closed-circuit television system is normally used to view and control operations involving a remotely located object or area. Basically, a system includes a camera and a receiver which are connected by coaxial cable. Camera and receiver derive power from any convenient AC electrical source.

The user may want an audio intercom system and thus take advantage of two-way voice communications between the control point and the spot where the camera is located.

Lenses are available to suit every need — including the versatile “zoom” lens which permits from close-up, pin-point scrutiny to surveying of wide areas from a distant control location.

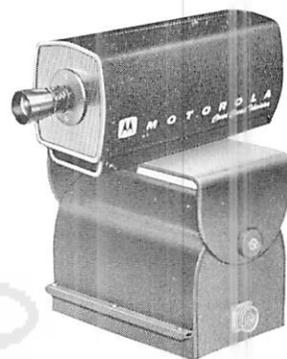
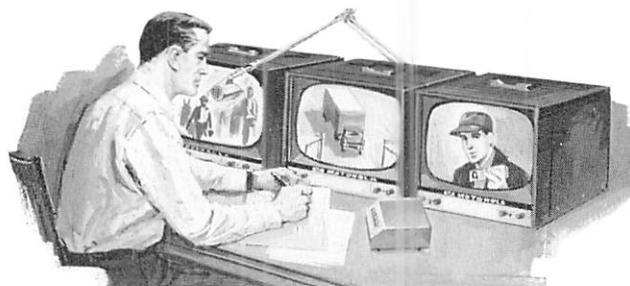
**ADDING VERSATILITY:** From this initial approach, it is possible to add accessories which enable the user to control as well as see the remotely located operation.

Remotely controlled “pan and tilt” mechanism allows moving the camera from side to side or tilting it up and down to get the best view or to cover more than one location.

Further sophistication is achieved with the addition of remote controls to start and stop machines, to open and close gates, to turn lights on and off and other functions. Benefits of closed-circuit television can further be enhanced by adding more cameras and receivers. One man can thus continuously supervise and control operations at several locations.

The use of Motorola Closed Circuit Television is rapidly expanding in hundreds of businesses throughout the country. Just a few of the applications of this time and cost-saving tool are:

- |                      |                           |
|----------------------|---------------------------|
| Airports             | Petroleum & Gas Companies |
| Bus Terminals        | Police Departments        |
| Brokers              | Public Utilities          |
| Construction         | Processing Plants         |
| Express Companies    | Retail Stores             |
| Freight Handling     | Shipyards                 |
| Hotels               | Toll Bridges              |
| Hospitals            | Traffic                   |
| Manufacturing Plants | Truck Loading             |
| Mines                | Warehouses                |
| Motels               |                           |



Motorola makes it easy for you to handle CCTV servicing by providing a wide selection of replacement parts and module units to solve most CCTV service problems.

*Because of system considerations, it is always advisable to contact your Motorola Closed Circuit Television Representative when ordering these units. He will be happy to supply you with further information and assist you in integrating these units into your system.*



# monitor receiver

## ALERT-MONITOR FM RECEIVER

25-54 mc or 146-174 mc; 117 VAC operation

New, compact alert-monitor receiver for fast, reliable emergency communications . . . compatible in any monitoring or alerting application . . . fully compatible with FCC requirements pertaining to wide band and "split channel" operation. All models certified for OCDM matching funds program.

**CRYSTAL CONTROLLED OSCILLATOR**—thermostatically controlled crystal assembly maintains overall frequency stability to within .004% for 25-54 mc models—within .0015% for 146-172 mc models. Assurance of optimum reception at all times.

**VERSATILE APPLICATION**—provides aural monitoring facilities in civil defense applications. Ideal as home receiver for alerting key personnel in police, fire, public utilities, transportation and educational activities.

**DESIGNED FOR SPLIT-CHANNEL OPERATION**—precision frequency control, high bandpass selectivity and optimum sensitivity are maintained in the alert-monitor receiver to meet the exacting demands of split-channel operation.

**PROVEN RELIABILITY FEATURES**—incorporates Motorola's long-proven communications receiver features . . . double conversion superheterodyne circuitry; patented noise-compensated squelch; full one watt of low distortion audio output.

**RADIO CONTROL OF ALARM DEVICES**—optional Single-Tone or "Quik-Call" decoder unit will turn on alarm signal, warning light or ring bell by radio signal transmitted from civil defense headquarters.

**SELECTIVE CALLING**—models with built-in Single-Tone or "Quik-Call" decoder units available to alert personnel individually or in selected groups. Decoder unit mounts directly on receiver chassis, silences speaker until specific tone signal is received.

**CONVENIENT TEST SWITCH**—panel-mounted switch checks for normal operation by unsquelching receiver. Panel-mounted volume control also available on optional models.

### Monitor Receivers

*Because of system considerations, it is always advisable to contact your Motorola Radio Communications Representative when ordering these units. He will be happy to supply you with further information and assist you in integrating these units into your radio system.*



### 25-54 mc Monitor Receivers

MODEL		Net Price
L01FNB-1001A	1 freq. recvr. 40kc	\$134.00
L01FNB-1101A	1 freq. recvr. 20kc	\$134.00
L01FNB-1002A	1 freq. recvr. 40kc w/pwr-vol control.	\$137.00
L01FNB-1102A	1 freq. recvr. 20kc w/pwr-vol control.	\$137.00
L01FNB-1003A	1 freq. recvr. 40kc w/pwr-vol control and single tone decoder*	\$194.00
L01FNB-1103A	1 freq. recvr. 20kc w/pwr-vol control and single tone decoder*	\$194.00
L01FNB-1004A	1 freq. recvr. 40kc w/pwr-vol control and "Quik-Call" decoder	\$216.00
L01FNB-1104A	1 freq. recvr. 20kc w/pwr-vol control and "Quik-Call" decoder	\$216.00
L01FNB-1005A	1 freq. recvr. 40kc w/pwr-vol control and "Quik-Call" decoder (Grp Call)	\$216.00
L01FNB-1105A	1 freq. recvr. 20kc w/pwr-vol control and "Quik-Call" decoder (Grp Call)	\$216.00

\*NOTE: Decoder frequency must be supplied.

### 146-174 mc Monitor Receivers

MODEL		Net Price
L03FNB-1001A	1 freq. recvr. 60kc	\$134.00
L03FNB-1101A	1 freq. recvr. 30kc	\$134.00
L03FNB-1002A	1 freq. recvr. 60kc w/pwr-vol control.	\$137.00
L03FNB-1102A	1 freq. recvr. 30kc w/pwr-vol control.	\$137.00
L03FNB-1003A	1 freq. recvr. 60kc w/pwr-vol control and single tone decoder*	\$194.00
L03FNB-1103A	1 freq. recvr. 30kc w/pwr-vol control and single tone decoder*	\$194.00
L03FNB-1004A	1 freq. recvr. 60kc w/pwr-vol control and "Quik-Call" decoder	\$216.00
L03FNB-1104A	1 freq. recvr. 30kc w/pwr-vol control and "Quik-Call" decoder	\$216.00
L03FNB-1005A	1 freq. recvr. 60kc w/pwr-vol control and "Quik-Call" decoder (Grp Call)	\$216.00
L03FNB-1105A	1 freq. recvr. 30kc w/pwr-vol control and "Quik-Call" decoder (Grp Call)	\$216.00

\*NOTE: Decoder frequency must be supplied.



# portable accessories

## Antennas—25-54 MC

Collapsible Type—a telescopic antenna for replacement of the whip type antenna normally supplied with both “H” and “P” series models operating in the 25-54 mc range. Extendable to a full quarter-wave length for optimum radiation characteristics, the antenna collapses to approximately 1' in height for storage.



**NAB6090A** (was NU133) Collapsible Antenna (For “H” and “P” series) . . . . . Net Price **\$12.45**

Standard Whip Type—25-54 mc. Includes loading coil for reduced rod length and UHF connector to mate with radiophone antenna receptacle. For “H” and “P” series radiophones. (Specify exact frequency).

FREQ. RANGE	MODEL	NET PRICE
25-30 mc	NAB 6081A	\$12.45
30-36 mc	NAB 6082A	12.45
36-42 mc	NAB 6083A	12.45
42-48 mc	NAB 6084A	12.45
48-54 mc	NAB 6085A	12.45

### Loading Coils Only

FREQ. RANGE	MODEL	NET PRICE
25-30 mc	1V 80711A30	\$7.56
30-36 mc	1V 80711A31	7.56
36-42 mc	1V 80711A32	7.56
42-48 mc	1V 80711A33	7.56
48-54 mc	1V 80711A34	7.56

**47B 483170** Rod only for the above antennas. . . . . Net Price **\$6.90**

Long Wire Type (not illustrated) — 25-54 mc. Flexible wire antenna with impedance matching transformer. Approximately 12 ft. Replaces standard antenna and loading coil for greater antenna efficiency and better coverage. For both “H” and “P” series. Specify frequency.

FREQ. RANGE	MODEL	NET PRICE
25-30 mc	NAB 6101A	\$11.00
30-36 mc	NAB 6102A	11.00
36-42 mc	NAB 6103A	11.00
42-48 mc	NAB 6104A	11.00
48-54 mc	NAB 6105A	11.00

## Antennas—144-174 MC

Standard Whip Type — 144-174 mc range. Supplied complete with UHF connector to mate with radiophone antenna receptacle. For “H” and “P” series radiophones.

**NAD 6121A** (was NU132L)—144-162 mc  
Net Price . . . . . **\$2.85**

**NAD 6122A** (was NU132H)—162-174 mc  
Net Price . . . . . **\$2.85**



## Gutter Antenna 130-174 MC (Specify Frequency)

Designed for use with “Handie-Talkie” or “Pocket Receiver” equipment. Clamps securely to the vehicle rain gutter. Supplied with 10 ft. of coaxial cable w/plug. Rated at 10 watts maximum. Frequency must be specified.

**NDD 6000A** Gutter Antenna. Net Price **\$7.00**



## Dummy Load Antennas

Provides convenient visual indication of transmitter RF power output. Assembly consists of a lamp and coaxial connector which plugs directly into the radiophone antenna receptacle. Relative output power is indicated by lamp brilliance.

**NLN 6145A** (was NK138) For “H” series, 25-54, 144-174 mc, 1.5 watts maximum. Net Price . . . . . **\$2.00**

**NLD 6060A** (was NK139H) For “P” series, 144-174 mc, 8 watts maximum. Net **\$2.00**

**NLB 6040A** (was NK139L) For “P” series, 25-54 mc, 8 watts maximum. . Net **\$2.00**



## Headset and Microphone Kit

An aircraft type headset and lip microphone with excellent noise cancelling characteristics. Ideally suited for “hand-free”, aircraft and high ambient noise level applications of the “Handie-Talkie” radiophone.

**NMN 6009A** (repl. for NU141) headset and microphone kit. (For “H” and “P” series.)  
Net Price . . . . . **\$80.00**

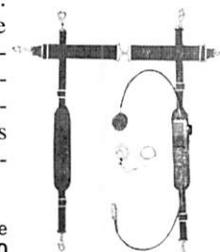


## Carrying Harness Kit

A convenient harness kit permitting “H” series “Handie-Talkie” radiophones to be carried as a back pack. The kit contains, in addition to the carrying straps, a microphone, earpiece and volume control for “in-motion” “hand-free” operation. This feature is available only for those models initially equipped with handset facilities.

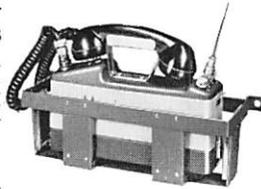
Harness w/earpiece and microphone  
**NLN 6132A** (was NK130) Net Price **\$54.00**

Harness only **NLN 6133A** (was NK135)  
Net Price . . . . . **\$13.50**



## Shock Mounting Rack

A shock and vibration absorbing, wall-mounting holder for "H" series models of the "Handie-Talkie" radiophone. The rack holds the radiophone in place and protects it when mounted in a moving vehicle.



NLN 6135A (was NK131) Net Price \$22.00

## Carrying Bags

Padded, weather-resistant carrying bags, constructed of sturdy canvas material with full zipper enclosure for "H" series and convenient snap fasteners for "P" series.



NLN 6130A (was NK125) Carrying Bag  
(For "H" series) Net Price \$18.00

NLN 6131A (was NK126) Carrying Bag  
(For "P" series) Net Price \$25.00



## Ni-Cad Battery Charger and Accessories

For recharging nickel-cadmium wet cell batteries. The Motorola nickel-cadmium battery charger accommodates four batteries per charge period.

NLN 6029A Battery Charger Kit Net Price \$50.00

NKN 6052A Cable Kit for charging batteries in "H" series Power Supply NPN 6010A only Net Price \$6.50

NKN 6053A Cable Kit for charging batteries in "P" series Power Supply NPN 6011A only Net Price \$6.50

## 6 or 12-Volt Vehicular Cable Kits

Permits vehicular installation of "H" and "P" series model radiophones equipped with nickel-cadmium wet cell power packs. Can also be used for a bench test cable. All cables 6 or 12 volt.

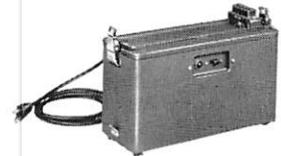
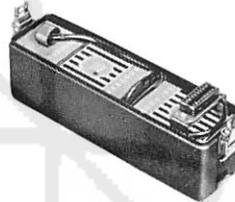
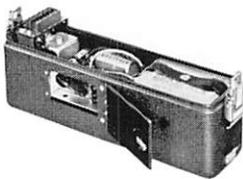
NK136 cable kit, "H" series, for use with NU137 power supply \$5.00

NK137 cable kit, "P" series, for use with NU138 power supply \$5.00

NKN 6040A cable kit, "H" series, for use with NPN 6010A power supply Net Price \$5.00

NKN 6041A cable kit, "P" series, for use with NPN 6011A power supply Net Price \$5.00

## PORTABLE POWER PACKS



Optional, quick snap-on "Handie-Talkie" radiophone power packs are easily interchanged to suit various needs.

### For partially transistorized receiver H21, H23, P31, P33-"A" Models

#### Dry Battery Packs

NPN 6000A (NU125) Standard Power Pack (for "H" series). Less batteries Net Price \$20.00

NPN 6001A (NU126) Extra Duty Power Pack (for "H" series). Less batteries Net Price \$25.50

NPN 6002A (NU144) Power Pack (for "P" series). Less batteries. Net Price \$35.50

#### Nickel Cadmium Packs

NU137 6/12 VDC Nickel-Cadmium Power Pack for "H" series. Less battery Net Price \$150.00

NU138 6/12 VDC Nickel-Cadmium Power Pack for "P" series. Less batteries Net Price \$230.00

NU182 12/24 VDC Nickel-Cadmium Power Pack for "H" series. Less battery Net Price \$141.00

NU187 12/24 VDC Nickel-Cadmium Power Pack for "P" series. Less batteries Net Price \$221.00

#### AC Power Packs

AC power pack, 117-volt 60 cycle for emergency or auxiliary fixed operations.

NU139 AC Power Pack (for "H" series) Net Price \$99.00

NU140 AC Power Pack (for "P" series) Net Price \$110.00

### For completely transistorized receiver H21, H23, P31, P33-"B" models

#### Dry Battery Packs

NPN 6021A Standard Power Packs (for "H" series) less batteries. Net Price \$20.00

NPN 6022A Extra Duty Power Pack (for "H" series) less batteries. Net Price \$25.50

NPN 6023A Power Pack for "P" Series, less batteries Net \$35.50

#### Nickel-Cadmium Packs

NPN 6010A 6/12 VDC Nickel-cadmium Power Pack for "H" series (less battery) Net Price \$150.00

NPN 6011A 6/12 VDC Nickel-cadmium Power Pack for "P" series (less batteries) Net Price \$230.00

#### AC Power Packs

AC Power Pack, 117-volt, 60 cycle for emergency or auxiliary fixed operations.

NPN 6012A AC Power Pack (for "H" series) Net Price \$99.00

NPN 6013A AC Power Pack (for "P" series) Net Price \$110.00

## ACCESSORIES

NLN 6126A Cushion for use with Back Pack Harness Net \$7.50

NLN 6127A Tuning Tool kit for 144-174 mc models Net \$1.15

NLN 6129A Carrying Strap (supplied as part of all models) Net Price \$4.25

NLN 6128A Tuning Tool Kit for 25-54 mc models Net Price \$2.30

NLN 6136A Cover Kit for spare power supply Net Price \$8.00

NLN 6137A Locking Kit for locking volume and squelch controls. Net Price \$9.95

NKN 6042A Antenna Extension Cable (20' RG-58/AU) Net \$5.65



# vhf pocket receiver, transmitter kits, accessories

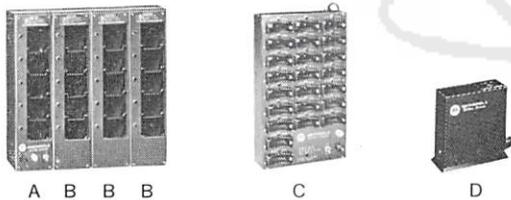


**Antennas For Pocket Receiver**

MODEL NO.	DESCRIPTION	NET PRICE
NAB6000A	Leg Antenna 25-54 mc w/phone plug	\$ 5.25
NAB6020A	Leg Antenna 25-54 mc w/2 prong plug	5.25
NAD6000A	Leg Antenna 144-174 mc w/phone plug	10.25
NAD6070A	Leg Antenna 144-174 mc w/2 prong plug	10.25
*NAD6050A	Helmet Antenna 144-174 mc w/phone plug	20.00
*NAD6060A	Helmet Antenna 144-174 mc w/2 prong plug	20.00

\* Helmet not supplied by Motorola

## Battery Chargers



Each charger is designed to prevent overcharging if left unattended. The master is equipped with a Neon "on" indicator lamp and individual "charge"- "no charge" lights for each compartment. Master charger must be used as a basic unit. Auxiliaries plug into master to expand facilities.

PART NO.	DESCRIPTION	NET PRICE
NLN6011A	A Master Charger. Charges up to 5 batteries while in pocket receivers.	\$ 71.00
NLN6118A	A Master Charger. Charges up to 5 batteries while in transmitter	80.00
NLN6060A	B Auxiliary Unit will accept from 1 to 5 pocket receivers. Used with NLN6011A	48.00
NLN6119A	B Auxiliary Unit. Will accept from 1 to 5 transmitters. Used with NLN6118A	48.00
NLN6079A	C Charger for batteries only. Charges up to 23 batteries. (For receiver)	155.00
NLN6120A	C Charger for batteries only. Charges up to 12 complete battery kits from transmitter	155.00
NLN6104A	D Single Unit charger (receiver)	31.00
NLN6121A	D Single Unit charger (transmitter)	35.00



**Battery Kits**

MODEL NO.	DESCRIPTION	NET PRICE
NLN6020A	For H21, 23NAC Transmitter. (5) 30-volt and (1) 1½ volt dry batteries	\$ 6.31
NLN6010A	Kit for receiver. (2) 4-volt and (1) 2.5 volt mercury batteries	2.84
NLN6012A	Rechargeable nickel-cadmium battery for receiver	19.50
NLN6116A	For H11, 13NBC transmitter. Consists of (4) 4 volt mercury batteries.	4.00
NLN6117A	For H11, 13NBC transmitter. Consists of (2) 8 volt nickel-cadmium rechargeable batteries	49.50

## Battery Charger Mounting Kits



MODEL NLN6062A Kit is designed for mounting the Master Battery Charger and the Auxiliary Battery Charger to a rack or wall. Mounting plate will hold one master charger and three auxiliary units.

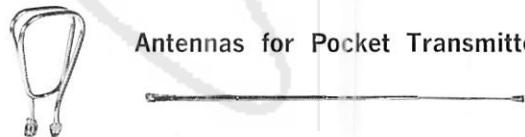
Net Price \$13.75

NLN6061A Used for mounting Master and Auxiliary Battery Chargers to a weighted base for desk top use. Kit includes base, connector plates, and mounting hardware.

Net Price \$4.75

NLN6082A Used when mounting the NLN6079A and NLN6120A Chargers to a rack. Mounting plate holds two chargers

Net Price \$18.00



**Antennas for Pocket Transmitter**

MODEL NO.	DESCRIPTION	NET PRICE
NAD6100A	Rigid loop antenna for H13NBC, 132-174 mc	\$8.00
NAD6082A	Telescopic Antenna for H11, 13NBC, 25-54 mc & 132-174 mc	8.00
NAD6092A	Whip Antenna for H11, H13NBC, 25-54 mc & 132-174 mc	2.85

## Adapter Cables



MODEL NO.	DESCRIPTION	NET PRICE
NKN6002A	Adapter Cable for vehicle antenna or bench test—2 prong plug	\$6.30
NKN6011A	Adapter Cable for vehicle antenna or bench test—phone plug	5.75



MODEL NO.	DESCRIPTION	NET PRICE
NLN6066A	Case, leather for receiver (brown)	\$6.00
NLN6067A	Case, leather for receiver (black)	6.00
NLN6032A	Belt, leather (brown)	2.50
NLN6042A	Belt, leather (black)	2.50

MODEL NO.	DESCRIPTION	NET PRICE
NLN6030A	Case, leather for H21, 23NAC xmitter (brown)	\$10.00
NLN6040A	Case, leather for H21, 23NAC xmitter (black)	10.00
NLN6122A	Case, leather for H11, 13NBC xmitter (black)	5.50
NLN6123A	Case, leather for H11, 13NBC receiver (brown)	5.50



MODEL NO.	DESCRIPTION	NET PRICE
NSN6000B	Lapel Speaker—2 prong plug	\$14.25
NSN6003A	Lapel Speaker—phone plug for parallel operation. 500 mw audio models	13.00
NSN6005A	Lapel Speaker—phone plug for "Speaker-Disconnect". 500 mw audio models	13.00



MODEL NO.	DESCRIPTION	NET PRICE
NSN6001A	Earpiece w/volume control — 2 prong plug	\$17.50
NSN6004A	Earpiece w/volume control — phone plug	16.00

### Lapel Speaker Replacement Parts

PART NO.	DESCRIPTION	NET PRICE
50B 865340	Replacement speaker for NSN 6000B & NSN 6003A.	\$10.75
50C 82320C01	Replacement speaker for NSN 6005A.	6.98
30B 865341	Replacement cable & plug for NSN 6000B.	3.55
30B 82203A01	Replacement cable & plug for NSN 6003A & NSN 6005A.	3.55

### Earpiece & Volume Control Replacement Parts

PART NO.	DESCRIPTION	NET PRICE
50B 864045	Replacement earpiece only for NSN 6001A & NSN 6004A.	\$6.73
42K 850709	Replacement ear clip only for NSN 6001A & NSN 6004A.	.66
30K 864044	Replacement cable & volume control for NSN 6001A.	9.35
50C 82202A02	Replacement cable & volume control for NSN 6004A.	9.35

## POCKET RECEIVER REPLACEMENT HOUSINGS & COVERS

100 MW  
Audio Models



500 MW  
Audio Models



VHF  
Pager Models



PART NO.	DESCRIPTION	NET PRICE
1V 865173	Housing, front	\$4.00
1V 80708A43	Hinged cover & clip	8.02
1V 80708A44	Hinged cover less clip	2.46

PART NO.	DESCRIPTION	NET PRICE
1V 80700A08	Housing, front	\$4.00
1V 80700A09	Hinged cover & clip	7.00
1V 80700A10	Hinged cover less clip	4.00

PART NO.	DESCRIPTION	NET PRICE
1V 80700A02	Housing, front	\$4.00
1V 80700A04	Hinged cover & clip	7.00
1V 80700A05	Hinged cover less clip	4.00

## POCKET TRANSMITTER REPLACEMENT HOUSINGS & COVERS

H21, 23 NAC Pocket Transmitter

MODEL NO.	DESCRIPTION	NET PRICE
15C 82417B01	Housing only	\$8.20
42B 82820A01	Pocket clip only	1.90
41A 857282	Spring for clip	.11.15
22B 82395B01	Pin, clip	.21
1V 865335	Top cover & battery chassis (1-freq. model)	9.87
1V 865336	Top cover & battery chassis (2-freq. model)	9.79
NMN 6001A	Microphone replacement kit	21.00



H11, 13 NBC  
Pocket Transmitter

MODEL NO.	DESCRIPTION	NET PRICE
1V 80716A76	Housing only (1-freq. model)	\$7.83
NHN 6031A	Complete housing kit (1-freq. model) including switch, battery retainer & internal wiring	25.00
NLN 6124A	Metal cover for housing	3.50





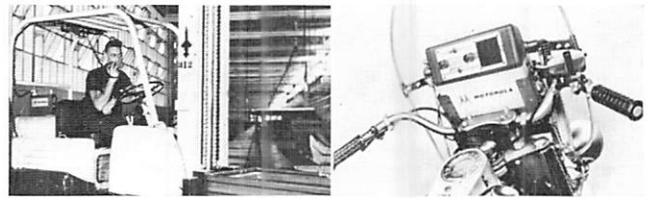
# "dispatcher" radio parts, accessories

## MICROPHONES

MODEL NO.	DESCRIPTION	NET PRICE
NMN6003A	Dynamic Microphone (Weather Proof) for motorcycle or industrial use; supplied with an 8-inch coiled cord. Two-tone gray.	\$35.00
NMN6005A	Dynamic Microphone (same as above, except black and white trim).	
NMN6010A	Dynamic Microphone (same as NMN6003A, except blue-grey metallic and driftwood trim).	

## INDUSTRIAL REMOTE CONTROL CABLE KITS

DESCRIPTION	ORDER KIT NO.	NET PRICE
Standard Squelch One Frequency Industrial Applications	With spade lugs for T31, 33 "AAT" series.	NKN156-6V NK156-12V NK156-24V \$25.00
	With pin tips for T31, 33 "AAT" series.	NKN6029A-6V NKN6031A-12V NKN6033A-24V 22.65
	With pin tips for T31, 33 "BAT" series.	NKN6054A-6V NKN6046A-12V NKN6048A-24V 22.65
Standard Squelch Two Frequency Industrial Applications	With spade lugs for T31, 33 "AAT" series.	NK156-C2-6V NK156-C2-12V NK156-C2-24V 26.35
	With pin tips for T31, 33 "AAT" series.	NKN6030A-6V NKN6032A-12V NKN6034A-24V 24.00
	With pin tips for T31, 33 "BAT" series.	NKN6056A-6V NKN6047A-12V NKN6049A-24V 24.00
"Private Line" Dual Squelch One Frequency Industrial Applications	With spade lugs for T31, 33 "AAT" series.	NKN6005A-6V NKN6006A-12V NKN6007A-24V 25.00 25.00 22.65
	With pin tips for T31, 33 "AAT" series.	NKN6035A-6V NKN6036A-12V NKN6037A-24V 22.65
	With pin tips for T31, 33 "BAT" series.	NKN6055A-6V NKN6050A-12V NKN6051A-24V 22.65



## MOTORCYCLE REMOTE CONTROL CABLE KITS

### "Spade" Lug Type Terminals

MODEL NO.	DESCRIPTION	NET PRICE
NK172	1 or 2 Freq. for 1961 and earlier servi-car	\$27.65
NK201	1 or 2 Freq. for 1957 and earlier solocycle	24.35
NK208	1 or 2 Freq. for 1958-59-60-61 solocycle	25.00
NKN6008A	1 Freq. "Private-Line" Dual Squelch radio for Servi-Car	26.35
NKN6009A	1 Freq. "Private-Line" Dual Squelch radio for solocycle	26.35

### "Pin" Type Terminals

MODEL NO.	DESCRIPTION	NET PRICE
NKN6025A	1 or 2 Freq. for 1961 and earlier servi-car	\$25.00
NKN6026A	1 or 2 Freq. for 1957 and earlier solocycle	22.00
NKN6027A	1 or 2 Freq. for 1958-59-60-61 solocycle	25.00
NKN6038A	1 Freq. "Private-Line" Dual Squelch radio for Servi-Car	26.35
NKN6039A	1 Freq. "Private-Line" Dual Squelch radio for solocycle	26.35

### Industrial Local Control Cable Kits

MODEL NO.	DESCRIPTION	NET PRICE
NKN6043A	For Industrial use D21, D31, D33, Series Units	\$9.35
NKN6044A-12V		
NKN6045A-24V		
NKN6000A	117V-AC cable for D21, D23 Series Units (Low Power)	9.00
NKN6001A	117V-AC cable for D31, D33 Series Units (Hi Power)	9.00

## "DISPATCHER" RADIOPHONE CONTROL UNITS

### "Screw" Type Terminal Boards

MODEL NO.	DESCRIPTION	NET PRICE
NU181	Speaker and Control Unit, single freq. for T31 and T33. Used in Motorcycle application.	\$30.65
NU181-C2	Speaker and Control Unit, two freq. for T31 and T33. Used in Motorcycle application.	32.00
NU175	Speaker and Control Unit, single freq. for T21, 23, 31, 33. Used in Industrial application.	30.60
NU175-C2	Speaker and Control Unit, two freq. for T21, 23, 31, 33. Used in Industrial application.	31.65
NCN6012A	Speaker and Control Unit, single freq. "Private Line" dual squelch for T31, 33. Used in Industrial application.	28.90
NCN6015A	Speaker and Control Unit, single freq. "Private Line" dual squelch for T31, 33. Used in Motorcycle application.	29.35

### "Pin" Type Terminal Boards

MODEL NO.	DESCRIPTION	NET PRICE
NCN6017AE	Speaker and Control Unit, single freq. for T31 and T33. Used in Motorcycle application.	\$28.00
NCN6017AF	Speaker and Control Unit, two freq. for T31 and T33. Used in Motorcycle application.	29.35
NCN6035AE	Speaker and Control Unit, single freq. for T21, 23, 31, 33. Used in Industrial application.	27.80
NCN6035AF	Speaker and Control Unit, two freq. for T21, 23, 31, 33. Used in Industrial application.	28.90
NCN6035AG	Speaker and Control Unit, single freq. "Private Line" dual squelch for T31, 33. Used in Industrial application.	28.90
NCN6020AG	Speaker and Control Unit, single freq. "Private Line" dual squelch for T31, 33. Used in Motorcycle application.	29.35

## MOTORCYCLE ANTENNAS

37-50 MC band — designed for Solocycles and Servicers.  
(Not illustrated.)

MODEL NO.	DESCRIPTION	NET PRICE
NAB6121A (37-40 mc)	Servi-Car	\$26.25
NAB6122A (40-42 mc)		
NAB6123A (42-45 mc)		
NAB6124A (45-50 mc)		
NAB6131A (37-40 mc)	Solo-Cycle	32.50
NAB6132A (40-42 mc)		
NAB6133A (42-45 mc)		
NAB6134A (45-50 mc)		

(144-174mc) The NAD 6031A and NAD 6032A Antennas can be mounted on the compartment cover of Servicers or on the dust covers of over rear fender mounted radios on Solocycles. The NAD 6041A and NAD 6042A Antennas are for 1957 and earlier Solocycles for rear mounting.

MODEL NO.	DESCRIPTION	NET PRICE
NAD6031A	} Fig. B (144-162 mc)	\$6.00
NAD6032A		} (162-174 mc)
NAD6041A	} Fig. A (144-162 mc)	8.35
NAD6042A		} (162-174 mc)



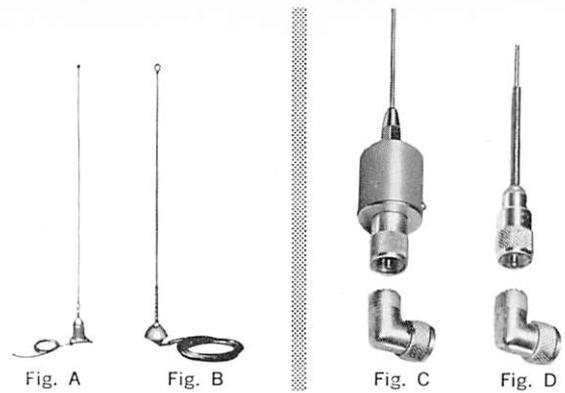
### REAR FENDER INSTALLATION KITS

Includes Mtg. Rack, Dust Cover, Microphone-Holder & necessary Hardware to install a Dispatcher Radiophone. All black enamel except mtg. rack which is blue gray.

MODEL NO.	DESCRIPTION (Solocycle)	NET PRICE
NLN6167A	For 1958 and 1959 Solocycle Standard Squelch Units	\$83.35
NLN6169A	1960 to 1962 Solocycle Standard Squelch Units	87.00
NLN6168A	1958 and 1959 Solocycle "Private-Line" Dual Squelch Units	93.00
NLN6170A	1960 to 1962 Solocycle "Private-Line" Dual Squelch Units	102.00

### Remote Control Installation Kits

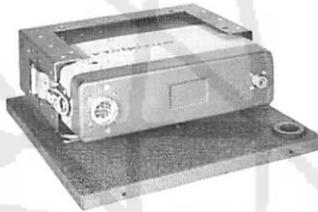
MODEL NO.	DESCRIPTION (Servi-car)	NET PRICE
NLN6160A	For 1957 & Earlier Servi-car (Standard Squelch Units)	\$21.00
NLN6162A	For 1958 & 1959 Servi-car (Standard Squelch Units)	21.00
NLN6165A	For 1960 to 1962 Servi-car (Standard Squelch Units)	24.50
NLN6163A	For 1958 & 1959 Servi-car ("Private-Line"—Dual Squelch Units)	50.00
NLN6164A	For 1957 & Earlier Servi-car "Private-Line"—Dual Squelch Units	50.00
NLN6166A	For 1960 to 1962 Servi-car ("Private-Line"—Dual Squelch Units)	55.00



## LOW POWER INDUSTRIAL ANTENNAS

Recommended for installations of a temporary nature and for industrial installations in vehicles not normally exposed to adverse weather conditions. Rated for a maximum power of 12 watts RF. Low band antennas complete with loading coil and right angle plug. (Fig. C & D.)

MODEL NO.	DESCRIPTION	NET PRICE
NAB6111A	(was TU398L) 25-30 mc Antenna	\$13.50
NAB6112A	(was TU398ML) 30-36 mc Antenna	13.50
NAB6113A	(was TU398MH) 36-42 mc Antenna	13.50
NAB6114A	(was TU398HL) 42-48 mc Antenna	13.50
NAB6115A	(was TU398HH) 48-54 mc Antenna	13.50
NAD6131A	(was TU399L) 144-162 mc Antenna	4.00
NAD6132A	(was TU399H) 162-174 mc Antenna	4.00



### INDUSTRIAL INSTALLATION AND SHOCKMOUNT KITS

MODEL NO.	DESCRIPTION	NET PRICE
NLN6138A	Low power installation kit with hardware and mtg. frame.	\$14.65
NLN6139A	High power installation kit with hardware and mtg. frame.	14.65
NLN6154A	Vertical shockmount kit with bracket and shockmounts.	39.50
NLN6155A	Horizontal shockmount kit with plate and shockmounts.	39.50

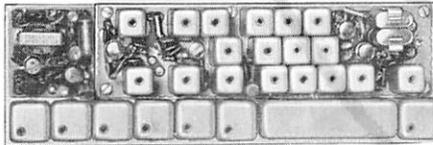
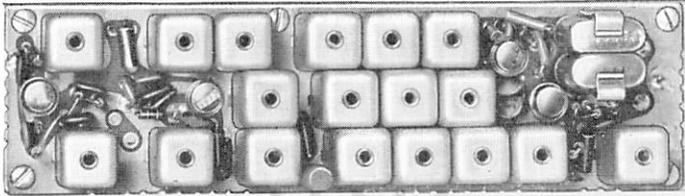
### Motorcycle Conversion Kits

MODEL NO.	DESCRIPTION	NET PRICE
NEN6005A	Installation Conversion Kit. All necessary Parts (Cable Kit, Mtg. Frame, Dust Cover, Hardware) To adapt a 1957 or earlier Front Mt. Remote Control to a 1960 Solocycle for over the Rear Fender Mount.	\$56.00
NEN6006A	Speaker Mounting, Bracket Kit. to adapt a 1958-59 Speaker-Control Unit to a 1960 to 1962 Solocycle.	10.00
NEN6007A	Dashmount adapter kit to adapt a Front mount "Dispatcher" Radiophone (All models) to 1960 to 1962 Motorcycle.	12.50
NEN6010A	Shock Mount Kit. Contains 4 shock mounts, bolts, etc.	4.25



# portable conversion kits

## CONVERSION KITS, "HANDIE-TALKIE" AND "DISPATCHER" RADIOPHONES, 25-54 AND 144-174mc



If your "Handie-Talkie" or "Dispatcher" Radiophones have a *transistorized power supply*, you can get even greater reliability, improved sensitivity and drastically reduced operating and maintenance costs by converting your radios to units with fully transistorized receivers.

These conversion kits represent new and outstanding examples of Motorola's stress on obsolescence-free design . . . feature engineering advances that pay for themselves in a short time through greater operating economies. Both receiver and power supply conversion kits are quickly and easily installed.

In the "Handie-Talkie" line, conversion to the fully-transistorized receiver means more than twice the battery life from "lightweight" and "extra duty" dry battery packs . . . more utility and longer service from nickel-cadmium rechargeable wet packs.

Conversion of motorcycle and "Industrial Dispatcher" Radiophones adds greatly to their reliability . . . further improves outstanding performance of units built specifically for the rugged usage encountered in motorcycle and materials handling applications. Complete instructions are included in each kit.

### Receiver Conversion Kits

Kits include RF and Oscillator circuit board necessary for conversion to fully transistorized receiver.

25-30	mc—order Kit No. <b>NEB6001A</b>	Net Price <b>\$60.00</b>
30-42	mc—order Kit No. <b>NEB6002A</b>	Net Price <b>\$60.00</b>
42-54	mc—order Kit No. <b>NEB6003A</b>	Net Price <b>\$60.00</b>
144-174	mc—order Kit No. <b>NED6004A</b>	Net Price <b>\$70.00</b>

### Power Supply Conversion Kits (Dry Battery)

Includes new intercabling assemblies necessary to convert "dry" battery supplies for use with fully transistorized receiver.

To convert "standard" "Handie-Talkie" supplies NU125/NPN6000A, order Kit No. <b>NEN6023A</b>	Net Price <b>\$10.00</b>
To convert "extra duty" "Handie-Talkie" supplies NU126/NPN6001A, order Kit No. <b>NEN6024A</b>	Net Price <b>\$10.00</b>
To convert "Pack Set" power supplies NU144/NPN6002A, order Kit No. <b>NEN6025A</b>	Net Price <b>\$10.00</b>

### Power Supply Conversion Kits (AC and Nickel Cadmium)

To convert nickel-cadmium supplies NU137 and NU138, order Kit No. **NEN6026A** . . . Net Price **.07**

To convert AC "Handie-Talkie" power supplies NU139 and NU140, order Kit No. **NEN6028A** . . . Net Price **.30**

### Motorcycle and Industrial Dispatcher Power Supply Conversions

To convert all DC Motorcycle and Industrial "Dispatcher" supplies NU168, NU169, NU170, NU171, NU190 order **NEN6027A**.

Net Price **\$1.85**

To convert AC Industrial "Dispatcher" power supplies NU188, NU189, order **NEN6028A** . . . Net Price **.30**



# mobile antennas

## Cadmium Plated Swivel Base 25-54 mc



Supplied with 96" stainless steel whip (or cut to exact frequency if specified). Cadmium plated spring and cast swivel base and RG8/U cable. Complete installation hardware and allen wrench included. Supplied in two models depending on coaxial cable length.

MODEL NO.		NET PRICE
TU 304L (25-30 mc)	5 ft. cable	\$23.04
TU 304H (30-54 mc)	5 ft. cable	23.04
TU 305L (25-30 mc)	20 ft. cable	25.92
TU 305H (30-54 mc)	20 ft. cable	25.92
Specify frequency.		



## Rooftop Spring Base 36-50 mc

A spring base antenna for rooftop mounting on cars or trucks. Because of rod length, frequency range is limited to 36 to 50 mc. Rod length will vary from 58 to 82 inches, depending on frequency.

Supplied with 14 ft. RG8/U coaxial cable and UHF plug.

MODEL NO.	NET PRICE
P 8253C	\$23.25

## Stainless Steel Swivel Base 25-54 mc



Supplied with a 96" stainless steel whip (or cut to exact frequency if specified) stamped stainless steel swivel base and a stainless steel spring. Recommended where atmospheric conditions are likely to cause rusting of antennas. Complete installation hardware and allen wrench included. Supplied with 5 ft. RG8/U cable.

MODEL NO.	FREQUENCY	NET PRICE
TAB 6011B	25-30 mc	\$36.00
TAB 6012B	30-54 mc	36.00
Specify frequency.		

## Disguise Type Cowl Mount 30-50 mc



Disguise type antennas have the appearance of a standard auto antenna. Available in two basic types, simulated telescopic type or solid tapered rod. Each type is available with 6 ft. or 20 ft. coaxial cable for front or rear mount equipment. Each antenna is supplied with a special tuned stub built into the antenna lead-in. It is therefore important to specify exact transmitter frequency when ordering.

MODEL NO.	TYPE	CABLE	NET PRICE
P-7234A	Simulated Telescope Cowl	6 feet	\$23.25
P-7234-A20	Mount (disguise)	20 feet	24.25
P-7234C	Solid Rod Cowl	6 feet	23.25
P-7234-C20	Mount (disguise)	20 feet	24.25



## converters

### 6 TO 12 VOLT DC CONVERTER MODEL TLN6014A

The TLN6014A is a fully transistorized 6 to 12 volt DC converter with a common emitter circuit. It will provide, from a 6 volt source, the 12 volts necessary to operate Motorola "T-Power" mobile radio sets.

The converter input is 6 volts DC, positive or negative ground, with an output of 6 volts DC, isolated from the battery. This voltage is stacked, by the use of a jumper, on battery voltage providing a total output of 12 volts DC. This is possible because of the isolation provided by the transformer.

Output rating 17 amperes at 12 volts DC.

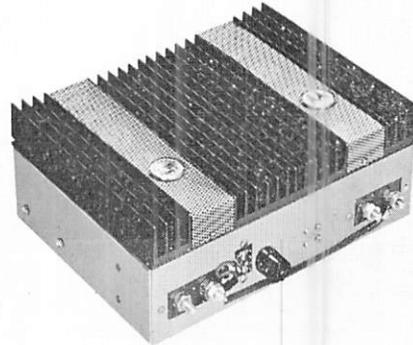
**TLN 6014A** ..... Net Price **\$93.50**

Complete cable kits are available for all "T" power units U41GGT, U43GGT, U44BBT, U51GGT.

**TKN 6012A** for engine mounted converter and trunk mount radio. Net Price **\$31.00**

**TKN 6013A** for trunk mounted converter and trunk mount radio. Net Price **\$31.00**

**TKN 6014A** for engine mounted converter and dash mount radio. Net Price **\$17.50**



### 12 TO 6 VOLT DC CONVERTER MODELS TA142, TA187

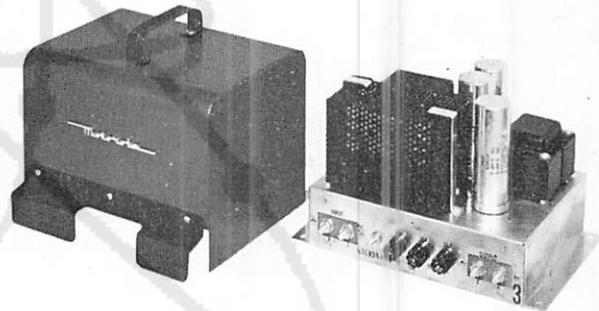
The primary function of this converter is to provide a DC voltage "step-down" for operation of 6 VDC Motorola mobile radio equipment from a 12 VDC primary power source. The kit provides the auxiliary fusing, ground cable and hardware necessary for proper installation of the converter unit.

The TA142 converter is designed for use with mobile units requiring total battery currents of between 30 and 50 amperes under "transmit" conditions.

**Model TA 142 Converter** ..... Net Price **\$69.50**

The TA 187 converter is designed for use with 10 and 12 watt unichannel equipment requiring up to 25 amperes under "transmit" conditions.

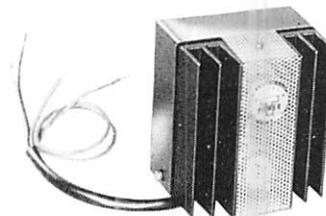
**Model TA 187 Converter** ..... Net Price **\$69.50**



### TRANSISTOR POWER SUPPLY KIT

The transistorized power supply kits can be used to increase the reliability of mobile units using vibrators by eliminating the use of the vibrator for the receiver. These kits supply the mobile receiver B+, thereby reducing the load on the vibrator power supply and increasing the service life of the vibrator.

They are readily attached to the outside housings of (1) 12-volt Motorola 15" trunk mounted unit or 10" trunk mounted or dash mounted units, (2) Motorola "Twin-V" 6/12 volt mobile radios converted to operate from 12 volts DC, or (3) 12-volt operated equipment requiring approximately 200 volts at 100 ma or less of operation power. Can be used with either positive or negative ground electrical systems.



**TK648**—For 10" Trunk models ..... Net Price **\$40.00**

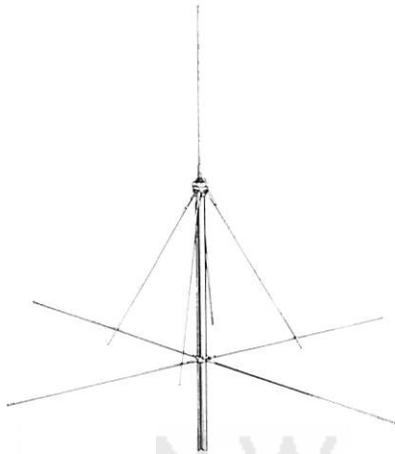
**TK649**—For 10" Dash models ..... Net Price **\$40.00**

**TK650**—For 15" trunk mounted models\* ..... Net Price **\$40.00**

\* Cannot be used with models F41GGV and F43GGV and models T44AAV-1A, T44AAV-2A, T44AAV-20, or T44AAV-40.

## "ISOPLANE" ANTENNAS

**30-54 mc.**



An ideal, low-cost antenna providing omni-directional coverage. 250 watt power rating. Recommended for use with low and medium power stations, pick-up receivers and frequency and modulation monitors. For both permanent and temporary installations.

Vertically polarized to give maximum radiation of RF power in the horizontal plane for greater area coverage. Precision mechanical design limits VSWR to less than 2:1 across the frequency band and provides optimum matched impedance for 52 ohm transmission lines.

Rugged construction includes an all aluminum mast head, durable phenolic molded insulator and a 1¼" IPS galvanized support mast. Designed to sustain a horizontal wind-loading of 100 mph with half inch radial ice. Use of corrosion resistant materials — aluminum and brass-cadmium plated construction—assures years of dependable service with minimum maintenance.

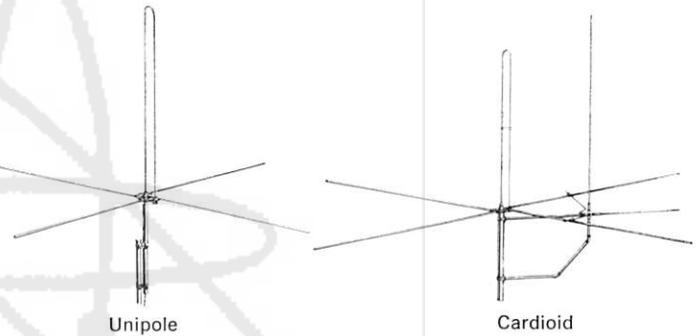
TU311AL (30-34 mc) TU311AH (38-43 mc) Net Price **\$68.50**  
 TU311AM (34-38 mc) TU311AHH (43-54 mc)

## UNIPOLE AND CARDIOID ANTENNAS

**25-54 mc. 72-76 mc.**

Vertical radiating element produces vertically polarized omni-directional signal in the horizontal plane. 250 watt power rating. Available in standard and hurricane models. Standard models have high strength aluminum alloy support tube and vertical element. Ground rods are cadmium plated steel. Hurricane models have stainless steel elements and special reinforcement for resistance to high winds, icing, salt water spray and adverse climatic conditions.

Cardioid Antenna is a modification of the Unipole with a vertical reflecting element to provide a cardioid radiation pattern for coverage of 180 degrees with a minimum forward gain of 3 db. and a front to back ratio of 15 db.



### Standard Unipole Antennas

MODEL	FREQUENCY	NET PRICE
DS-9682-A	(25-30MC)	140.00
DS-9682-B	(30-44MC)	70.00
DS-9682-C	(44-54MC)	65.00
DS-9683-A	(72-76MC)	85.00

### Standard Cardioid Antennas

MODEL	FREQUENCY	NET PRICE
DS-9692-A	(30-35MC)	175.00
DS-9692-B	(35-44MC)	150.00
DS-9692-C	(44-50MC)	100.00
DS-9692-D	(50-54MC)	100.00

### Hurricane Unipole Antennas

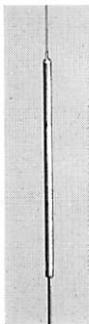
MODEL	FREQUENCY	NET PRICE
DS-9682-AH	(25-30MC)	500.00
DS-9682-BH	(30-44MC)	240.00
DS-9682-CH	(44-54MC)	220.00
DS-9683-AH	(72-76MC)	180.00

### Hurricane Cardioid Antennas

MODEL	FREQUENCY	NET PRICE
DS-9692-AH	(30-35MC)	500.00
DS-9692-BH	(35-44MC)	360.00
DS-9692-CH	(44-50MC)	360.00
DS-9692-DH	(50-54MC)	300.00

## SKIRTED COAXIAL ANTENNA

**TU 310 25-54 mc.**



The vertically polarized dipole single skirt coaxial antenna gives a low angle, omni-directional radiation pattern for base stations up to 1000 watts. Built for quick and easy attachment to a standard 2-2½" O. D. pipe stub support, the antenna is supplied with all required mounting hardware. Weather resistant, pressurized construction utilizes

aluminum support tube and skirt, stainless steel rod, cadmium plated steel parts and a durable molded phenolic insulator.

It is supplied with a swivel flange termination for use with air dielectric line.

TU310L Skirted Coaxial Antenna 25-30 mc. . . . . Net Price **\$154.00**  
 TU310H Skirted Coaxial Antenna 30-54 mc. . . . . Net Price **\$154.00**  
 (Specify exact frequency when ordering.)



# base station antennas

## OMNI-DIRECTIONAL ANTENNAS

132-174 mc

Radiation pattern over full 360° for normal coverage applications. Basic half-wave center fed design provides low radiation angle and increased radiating aperture which gives up to 1.5 db gain over typical quarter-wave "ground plane" antennas.

The Omni-Directional series Unity Gain Antennas use a vertically polarized coaxial dipole configuration, which provides an omni-directional radiation pattern. A unique grounded element minimizes received signal degradation caused by precipitation static and other forms of electrostatic discharges.

These antennas provide as much as 1.5 db gain over typical "ground-plane" antennas because of their increased radiating aperture and low angle of radiation. Mast coupling and pattern distortion has been minimized through careful design of the coaxial skirt section. A low-loss,



Impedance ..... 50 ohms (nominal)  
 Maximum Power ..... 500 watts  
 Maximum VSWR ..... 1.5:1  
 Maximum Height ..... 56 in.  
 Mounting ..... to 1 1/8"-3 1/2" O.D. pipe  
 Maximum Lateral Thrust with 100 mph  
 wind and 1/2" radial ice ..... 32 lbs.  
 Net Weight ..... 6 lbs.

broadband matching transformer is mounted in the support staff to maintain less than 1.5 vswr (voltage standing wave ratio) over the frequency specified.

These antennas are terminated in a UHF connector which will accept a PL259 or equivalent plug.

MODEL NO.	FREQ. RANGE	NET PRICE
TAD6071A	132-141 mc	54.00
TAD6072A	141-150 mc	54.00
TAD6073A	150-162 mc	54.00
TAD6074A	162-174 mc	54.00

## CARDIOID

132-174 mc



Impedance ..... 50 ohms (nominal)  
 Maximum Power ..... 500 watts  
 Maximum VSWR ..... 1.5:1  
 Half-Power Angle ..... 180°  
 Front-to-back Ratio ..... 10 db  
 Gain Over Half-Wave Dipole .....  
 ..... 3 db in forward direction  
 Maximum Height ..... 56 in.  
 Mounting ..... to 1 1/8"-3 1/2" O.D. pipe  
 Maximum Lateral Thrust with 100 mph  
 wind and 1/2" radial ice ..... 55 lbs.  
 Net Weight ..... 7 lbs.

Extended coverage over 180° angle with minimum gain of 3 db in direction of maximum signal strength. Ideal for special coverage applications, particularly base stations on shorelines or geographical borders.

The Cardioid Antennas and Uni-Directional Antennas use a vertically polarized coaxial dipole and reflector configuration, which provides a directional radiation pattern. Maximum signal is achieved in one direction decreasing to unity gain (relative to 1/2 wave dipole) at 90° either side of maximum signal. For the Cardioid antenna the beam width of the Uni-Directional antennas is 45° either side of maximum signal strength.

A unique grounded element minimizes received signal degradation caused by precipitation static and other forms of electrostatic discharges.

Cardioid antennas provide 3 db gain over 1/2 wave "dipole" antennas, and as much as 4.5 db gain over typical "ground-plane" antennas.

Yagi design provides uni-directional pattern for point-to-point and selected area coverage use. Radiation concentrated in forward direction with minimum forward gain of 5.8 db.

## UNI-DIRECTIONAL

150-174 mc



Impedance ..... 50 ohms (nominal)  
 Maximum Power ..... 500 watts  
 Maximum VSWR ..... 1.5:1  
 Half-Power Angle ..... 85°  
 Front-to-back Ratio ..... 10 db  
 Gain Over Half-Wave Dipole .....  
 ..... 5.8 db in forward direction  
 Maximum Height ..... 56 in.  
 Mounting ..... to 1 1/8"-3 1/2" O.D. pipe  
 Maximum Lateral Thrust with 100 mph  
 wind and 1/2" radial ice ..... 75 lbs.  
 Net Weight ..... 7 1/2 lbs.

Uni-Directional antennas provide 5.8 db gain over other folded coaxial dipole antennas.

A low loss broad band matching transformer is mounted in the support staff to maintain less than 1.5 VSWR (voltage standing wave ratio) over the range specified.

These antennas are supplied terminated in a UHF connector which will accept a PL259 or equivalent plug.

### Uni-Directional

MODEL NO.	FREQ. RANGE	NET PRICE
TAD6095A	150-156 mc	85.00
TAD6096A	156-162 mc	85.00
TAD6097A	162-168 mc	85.00
TAD6098A	168-174 mc	85.00

### Cardioid

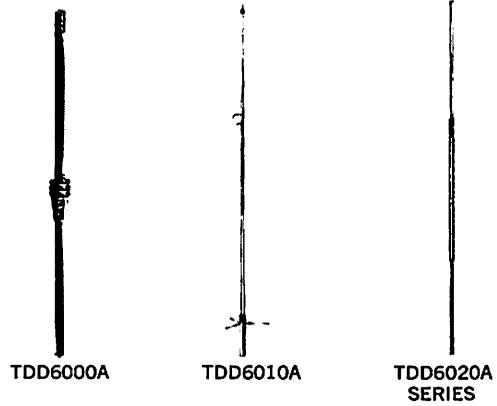
MODEL NO.	FREQ. RANGE	NET PRICE
TAD6081A	132-141 mc	70.00
TAD6082A	141-150 mc	70.00
TAD6083A	150-162 mc	70.00
TAD6084A	162-174 mc	70.00

## 136-174 mc. GAIN ANTENNAS

TDD 6000A and DS 9671 (not shown) are 4.3 db gain models with a minimum band width of 6.3 mc. Ideal for wide spaced 2-frequency operation.

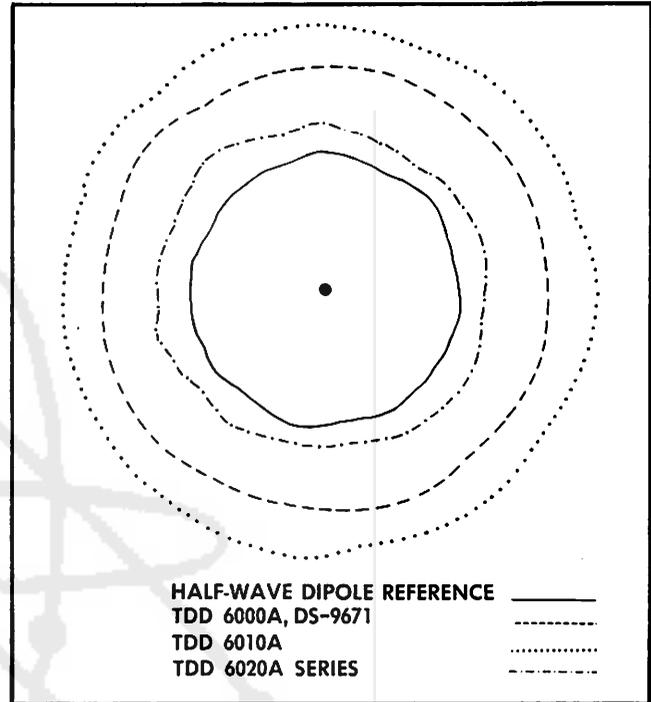
TDD 6010A offers 5.8 db gain in the 144-174 mc range and 5.5 db gain in the 136-144 mc range. Minimum band width 800 kc.

TDD 6021, 22, 23 & 24A series are smaller in size and lighter in weight, engineered to provide 2.8 db gain across their respective frequency ranges. These antennas exhibit wide band characteristics, as much as 12 mc in the 150-174 mc range.



### HIGH GAIN ANTENNAS

MODEL NO.	DESCRIPTION	NET PRICE
DS-9671	4.3 db gain antenna (flange termination)	\$301.00
TDD 6000A	4.3 db gain antenna (UHF termination)	\$294.00
TDD 6010A	5.5-5.8 db gain antenna (UHF termination)	\$183.00
TDD 6021A	2.8 db gain antenna (UHF female termination) 136-141 mc	\$108.00
TDD 6022A	2.8 db gain antenna (UHF female termination) 141-150 mc	\$108.00
TDD 6023A	2.8 db gain antenna (UHF female termination) 150-162 mc	\$108.00
TDD 6024A	2.8 db gain antenna (UHF female termination) 162-174 mc	\$108.00



MODEL	TDD 6000A	DS-9671	TDD 6010A	TDD 6021A	TDD 6022A	TDD 6023A	TDD 6024A
FREQUENCY	136-174 mc			136-141 mc	141-150 mc	150-162 mc	162-174 mc
TERMINATION	UHF Female Swivel Flange		UHF Female	UHF Female			
WIND RATING WITH 1/2" RADIAL ICE WITHOUT ICE	100 mph 125 mph		100 mph	70 mph 90 mph	70 mph 90 mph	80 mph 100 mph	80 mph 100 mph
IMPEDANCE	50 ohms (nominal)						
MAXIMUM VSWR	1.5:1						
HALF-POWER ANGLE	26°		18°	34°			
BANDWIDTH (% OF CENTER FREQUENCY)	4.5		0.6°	3.6	6.2	7.7	7.2
GAIN OVER HALF-WAVE DIPOLE	4.3 db across frequency band		5.8 db (144-174 mc) 5.5 db (136-144 mc)	2.8 db across frequency band			
NET WEIGHT	25 lbs.		30 lbs.	8 lbs.			
SHIPPING WEIGHT	80 lbs.		65 lbs.	10 lbs.			
OVERALL LENGTH	15 1/2 ft.		20 1/2 ft.	120 in.	113 in.	107 in.	98 in.
MOUNTING	To 1 7/8-3 1/4 in. O.D. pipe		To 1-2 3/8 in. O.D. pipe	To 1-2 3/8 in. O.D. pipe			

\*Antenna may be used for duplex operation when "transmit" and "receive" frequencies are no more than 5 mc apart. With duplex operation, "transmit" frequency gain will be as specified; "receive" frequency gain will be 4.0 db.

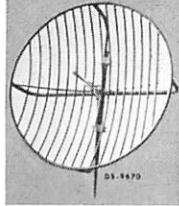
Dimensions and weights are approximate



# base station antennas

## PARABOLIC ANTENNAS

400-470 mc



Parabolic antennas are used primarily in point to point and repeater applications where a high gain, highly directional antenna is required.

A high gain reflector antenna for use in the 400-470 MC band. Corrosion resistant, open grid construction provides light weight and reduced wind loading, permitting savings in tower and installation costs. Radiator assemblies are pressure tight and are equipped with swivel flange fittings for 7/8" air dielectric cable.

Antennas can be horizontally oriented. A mounting clamp kit, for mounting to 2" to 2 1/2" O.D. pipe, and a bracing kit are supplied.

Available in two size and gain types, 6 foot (16 db gain at 450 mc), 10 foot (19 db gain at 450 mc).

DS-9670 Gain antenna 6 foot . . . . . Net Price **\$540.00**  
 TDE6001A Gain antenna 10 foot . . . . . Net Price **\$1008.00**

## 400-420 mc, 450-470 mc. GAIN ANTENNAS



These Base Station antennas are omni-directional antennas designed to meet the requirements of fixed base stations operating in the 400-420 mc and 450-470 mc ranges. Sturdy but lightweight fiberglass construction is used to permanently seal these antennas from the effects of weather and to provide the necessary strength properties.

All antennas will withstand 100 mph wind velocity with 1/2" radial ice load.

All models are supplied with one K-8269 Mounting Clamp Kit to mount the antenna to a 2 to 2 1/2" O.D.

The DS-9641 terminates in a type N recessed female connector and can be used with solid dielectric coaxial transmission line. Solid dielectric transmission lines have high losses at these frequencies, and their use should be restricted to installations requiring only a short length of lead-in cable.

TU 114 4 db gain antenna (450-470 mc) "N" termination. Net Price **\$108.00**  
 DS-9641 7.2 db Gain Antenna (450-470 mc) . . . Net Price **\$294.00**  
 Rated 100 watts ("N" Termination).

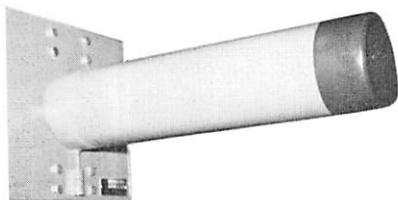
The DS-9645 and TDE 6000A antennas terminate in a swivel flange which fits the flange on 50-ohm air dielectric transmission line.

TU 115 4 db gain antenna (450-470 mc) 7/8" flange. Net Price **\$130.00**  
 DS-9645 7.2 db Gain Antenna (450-470 mc) . . . Net Price **\$301.00**  
 Rated 250 watts (Flange Termination).  
 TDE6000A 7.2 db Gain Antenna (400-420 mc) . Net Price **\$512.00**  
 Flange termination for 7/8" 50 ohm airline. Rated 250 watts.

MODEL NUMBER	TU114	TU115	DS9641	DS9645	TDE6000A
FREQUENCY BAND	450 to 470 mc				406 to 420 mc
GAIN (OVER HALF WAVE DIPOLE)	4 db		7.2 db		
POWER RATING (ANTENNA ONLY)	100 watts		100 watts	250 watts	
IMPEDANCE	50 ohms (nominal)				
TERMINATION	type "N" female	7/8" flange	type "N" female	7/8" flange	7/8" flange
VSWR	1.5 : 1 or better across the frequency band				
VERTICAL PATTERN BEAM WIDTH (HALF POWER POINTS)	28°		9.8°		
LATERAL THRUST (100 MPH WINDS & 1/2" OF ICE)	30 lbs.		95 lbs.		100 lbs.
WIND RATING	with 1/2" of ice: 100 mph with no ice: 125 mph				
BENDING MOMENT (REFERRED TO TOP OF SUPPORT)	65 foot lbs.		550 foot lbs.		600 foot lbs.
CONSTRUCTION	cellular core, encased in fiberglass				
MOUNTING	mount to 2.0" to 2.5" O.D. pipe				
DIMENSIONS (APPROX.)					
OVERALL HEIGHT	6 feet		15 1/2 feet		16 1/2 feet
RADIATOR HEIGHT	4 feet		12 feet		13 feet
RADIATOR O.D.	2 1/2 inches		2 5/8 inches		2 5/8 inches
WEIGHT					
NET	10 lbs.		20 lbs.		22 lbs.
SHIPPING	12 lbs.		80 lbs.		95 lbs.

## HELICAL BEAM ANTENNAS

400-470 mc



Uni-directional type antennas designed to meet requirements of point-to-point systems operating in the 400-470 mc range. Advantageous not only from the propagation standpoint, but also for system separation in repeater station applications. Use of right and left hand (opposite sense) helices provides a highly efficient means of discriminating between adjacently operated repeater system. Helices of opposite senses discriminate as much as 20 db between correctly and incorrectly polarized waves.

Both DS-9602 (right hand helix) and DS-9603 (left

hand helix) achieve a gain of 10 db. An added 3 db gain may be achieved by a stacked two-helix array. Beam width at half power points is 48° at 460 mc. The helical conductor is integrally molded into the surrounding cylindrical fiberglass housing, which completely seals the unit from the effects of the weather and also provides required strength.

The cylindrical housing offers low wind loading and in addition offers a high dielectric constant with snow or ice.

Since the ice forms on the fiberglass dielectric rather than on the conductor, the effect on antenna performance is minimized.

The fiberglass molded helix is rigidly mounted to a 16" square ground plate which terminates in the type "N" female connector. A K-8269 Mounting Clamp included for mounting the antenna to a 2 to 2½" OD mounting pipe.

- DS-9602 Helical Beam Ant. (400-470 right hand helix). Net Price **\$117.00**  
 DS-9603 Helical Beam Ant. (400-470 left hand helix). Net Price **\$117.00**

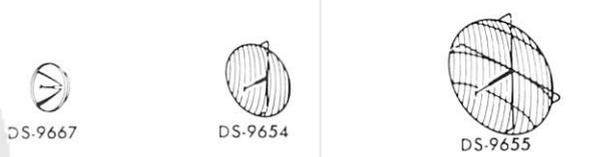
## GAIN PARABOLIC ANTENNAS (890-960 mc)

The DS-9667 Parabolic Antenna is 42" dia., provides a 17 DB gain and is constructed of solid spun aluminum. Antenna can be either horizontally or vertically polarized.

The DS-9654 (6' dia.) and DS-9655 (10' dia.) are of the open grid type of construction to reduce wind loading.

These antennas terminate in a 7/8" swivel flange. DS-9667, DS-9654, and DS-9655 antennas are supplied with horizontal adjustable mounting clamp kit, K-8269.

DS-9667A, DS-9654A, and DS-9655A antennas are supplied with the DS-9665 vertical and horizontal adjustable mounting clamp kit. The 6' and 10' dia. antennas are supplied with a bracing kit.



- DS-9667 42" dia. 17 DB Parabolic Antenna Net Price **\$207.00**  
 DS-9667A 42" dia. 17 DB Parabolic Antenna Net Price **\$225.00**  
 DS-9654 6' dia. 22 DB Parabolic Antenna Net Price **\$510.00**  
 DS-9654A 6' dia. 22 DB Parabolic Antenna Net Price **\$528.00**  
 DS-9655 10' dia. 27 DB Parabolic Antenna Net Price **\$978.00**  
 DS-9655A 10' dia. 27 DB Parabolic Antenna Net Price **\$996.00**

## FOAM HELIAX TRANSMISSION LINE KITS



### Recommended Maximum Cable Lengths

CABLE TYPE	LOW BAND	HIGH BAND	450 MC	960 MC
½" Foam Heliac	200'	100'	50'	Not Recommended
¾" Foam Heliac	500'	250'	125'	Not Recommended
¾" Air Heliac	600'	300'	200'	100'

### Attenuation per 100 Feet in db.

CABLE TYPE	40 MC	150 MC	450 MC
½" Foam Heliac	.48	1.0	1.95
¾" Foam Heliac	.28	.6	1.2
¾" Air Heliac	.25	.5	.88

Foam Heliac Transmission Line provides a low loss, economical connection between base station and antenna. Carefully engineered foam dielectric design incorporates superior electrical characteristics, long-life corrosion resistant copper conductors, high strength corrugated construction and installation-aiding flexibility.

**SUPPLIED IN COMPLETE INSTALLATION KITS**—Foam Heliac Transmission Line is provided in two sizes, ½" and ¾", as part of four complete line kits. Two kits are for use with antennas with UHF Male terminations, two for antennas with N Male terminations.

¾" air foam heliax is also available in 2 kits, terminated in a flange and supplied with air valve and gauge.

**LOW LOSS**—Both foam heliax and air heliax use high conductivity copper for the center conductor and the outer jacket. Low-loss foam polyethylene is used as a dielectric or insulating material. The result is less attenuation through ohmic and dielectric losses.

**CORROSION RESISTANCE**—Copper, one of the most corrosion resistant of the common metals, is used for Motorola transmission lines because of its superior weathering characteristics.

**STRENGTH**—Corrugated construction of the outer jacket provides excellent resistance to crushing and/or kinking.

**FLEXIBILITY**—Because of its corrugated construction it can be curved around building configurations, tower elements and other obstructions and can be pulled through conduits. Since it is flexible it can be taken down and moved to a new location if necessary. (See following pages.)



# base station antennas

## UHF FEMALE TERMINATIONS

### Transmission Line Kit TDN 6009A 1/2" Foam Heliax

Connector to Antenna—UHF Male—1C82915C01

Main Transmission Line  
1/2" Foam Heliax—30B82951C01

Connector UHF Female—1C82917C01

Connector—UHF Male—28A42310

Jumper—RG-8/U—30C82345

Connector to Base Station—  
—UHF Male—28A42310



### Transmission Line Kit TDN 6011A 7/8" Foam Heliax

Connector to Antenna—  
—UHF Male—1C82915C01

1/2" Foam Heliax—30B82951C01

Connector—UHF Male—1C82915C01

Connector—UHF Female—1C82918C01

Main Transmission Line  
7/8" Foam Heliax—30B82951C02

Connector—UHF Female—1C82918C01

Connector—UHF Male—28A42310

Jumper—RG-8/U—30C82345

Connector to Base Station—  
—UHF Male—28A42310



### Applicable Antennas

MODEL	FREQUENCY	MTG CLAMP KIT
TU311A	30-54 mc	TK459
DS-9682 Series	25-50 mc	DS-9629
DS-9683 Series	72-76 mc	DS-9629
DS-9692 Series	25-54 mc	DS-9629
TAD6070 Series	136-174 mc	TLN6340A
TAD6080 Series	136-174 mc	TLN6340A
TAD6090 Series	136-174 mc	TLN6340A
TDD6000A	136-174 mc	K8269*
TDD6010A	136-174 mc	TDN6017*

\* Supplied with antenna.

TDN6009A Line Kit . . . . . Net Price \$17.00 Plus .45/ft. †

TDN6011A Line Kit . . . . . Net Price \$29.00 Plus 1.10/ft. †

43A 82195E01 Split Sleeve for connectors 1C82915C01 & 1C82917C01 . . . . . Net Price \$ .55

43A 82195E02 Split Sleeve for connector 1C82918C01 . . . . . Net Price \$1.10

† Kits also include binding material, silicone grease, vinyl tape and base station jumper mounting hardware. Connectors are attached to line at factory unless otherwise specified. Standard tools can be used to complete the installation.

# N FEMALE TERMINATIONS

## Transmission Line Kit TDN 6010A 1/2" Foam Heliax

Connector to Antenna—N Male—1C82916C01

Main Transmission Line  
1/2" Foam Heliax—30B82951C01

Connector—UHF Female—1C82917C01

Connector—UHF Male—28A42310

Jumper—RG-8/U—30C82345

Connector to Base Station—  
—UHF Male—28A42310



## Transmission Line Kit TDN 6012A 7/8" Foam Heliax

Connector to Antenna—N Male—1C82916C01

Jumper—1/2" Foam Heliax—30B82951C01

Connector—UHF Male—1C82915C01

Connector—UHF Female—1C82918C01

Main Transmission Line  
7/8" Foam Heliax—30B82951C02

Connector—UHF Female—1C82918C01

Connector—UHF Male—28A42310

Jumper—RG-8/U—30C82345

Connector to Base Station—  
—UHF Male—28A42310



### Applicable Antennas

MODEL	FREQUENCY	MTG. CLAMP KIT
TU114	450-470 mc	K8269*
DS-9641	450-470 mc	K8269*
DS-9602	406-470 mc	K8269*
DS-9603	406-470 mc	K8269*

\* Supplied with antenna.

TDN6010A Line Kit . . . . . Net Price \$18.00 +.45/ft.

TDN6012A Line Kit . . . . . Net Price \$31.00 +1.10/ft.

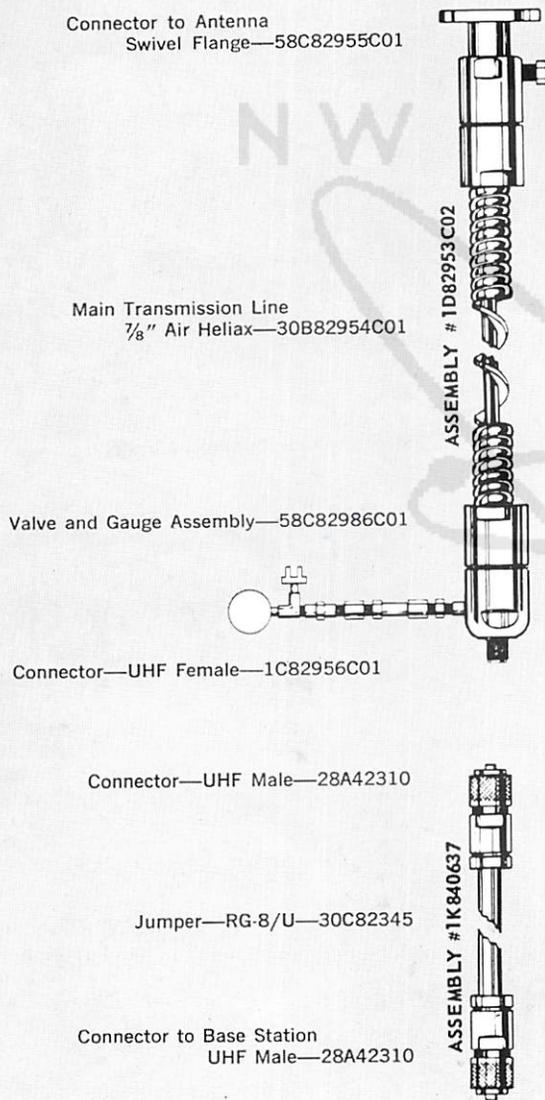
Kits also include binding material, silicone grease, vinyl tape and base station jumper mounting hardware. Connectors are attached to line at factory unless otherwise specified. Standard tools can be used to complete the installation.



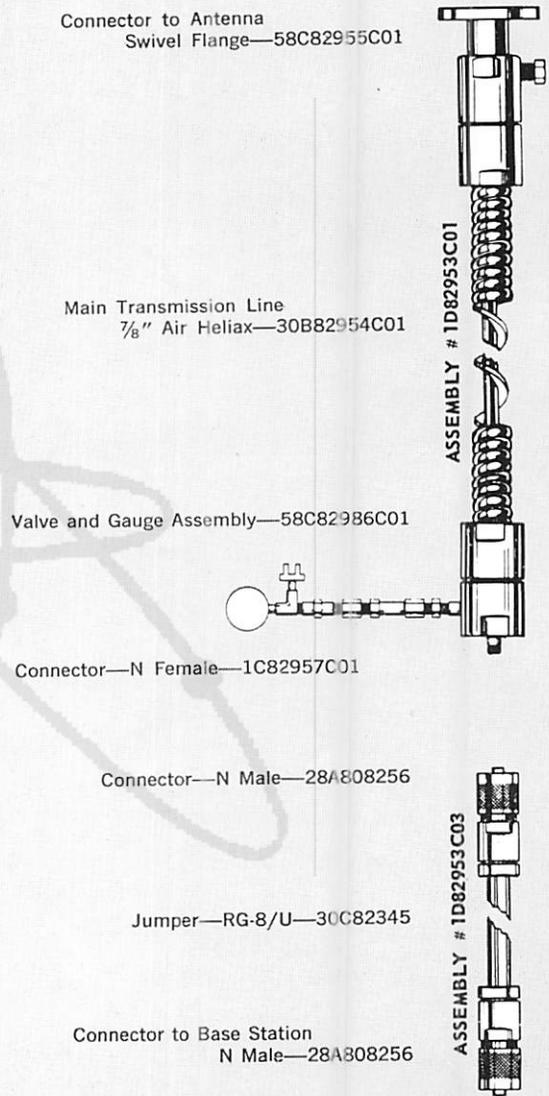
# base station antennas

## SWIVEL FLANGE TERMINATIONS

### Transmission Line Kit TDN 6014A 7/8" Air Heliax (UHF)



### Transmission Line Kit TDN 6013A 7/8" Air Heliax (Type N)



### Applicable Antennas

MODEL	FREQUENCY	MTG. CLAMP KIT
TU310	25-54 mc	K8269*
DS-9671	136-174 mc	K8269*
TU115	450-470 mc	K8269*
DS-9645	450-470 mc	K8269*
TDE6000A	406-420 mc	K8269*
TDE6001A	406-470 mc	K8269*
DS-9670	406-470 mc	K8269*

\* Supplied with antenna.

TDN6014A Line Kit ..... Net Price \$52.00 +1.40/ft.

TDN6013A Line Kit ..... Net Price \$56.00 +1.40/ft.

Kits also include binding material, silicone grease, vinyl tape and base station jumper mounting hardware. Connectors are attached to line at factory unless otherwise specified. Line is shipped under dry air pressure. Standard tools can be used to complete the installation.

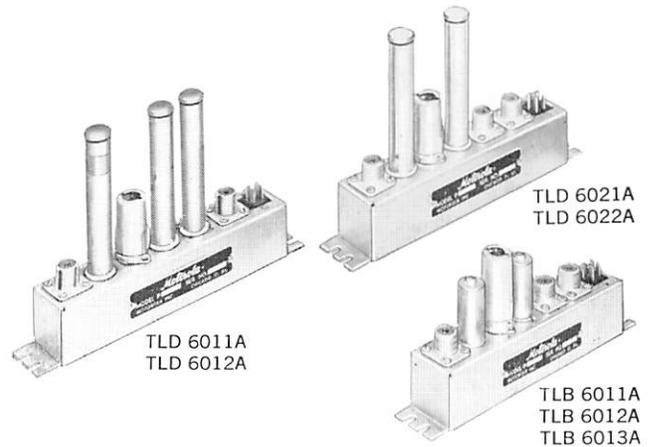
## MOTOROLA ANTENNA COUPLING UNITS

For coupling up to four receivers to one antenna with minimum loss of sensitivity.

These efficient tuned amplifiers are designed to overcome the effective loss in sensitivity normally encountered when two or more receivers are operated from a common antenna. They also supplement the gain of single RF stage receivers, providing full sensitivity for a longer period of time and additional front-end rejection of spurious or image signals.

Chassis have versatile mounting slots to facilitate mounting easily in any position in Motorola remotely controlled and locally controlled base stations or in any mobile radio housing which has sufficient space.

TKN6038A Cable Kit required with these antenna couplers.



MODEL	FREQ. RANGE	MAX. NO. OF RECVRS. USING "T" CONNECTORS	MAX. FREQ. SEPARATION	OVERALL DIMENSIONS			NET PRICE
				LENGTH	WIDTH	HEIGHT	
TLB6011A	25-30MC	4	120kc	8 <sup>5</sup> / <sub>8</sub> "	1 <sup>5</sup> / <sub>8</sub> "	3 <sup>1</sup> / <sub>4</sub> "	43.00
TLB6012A	30-40MC	4	180kc	8 <sup>5</sup> / <sub>8</sub> "	1 <sup>5</sup> / <sub>8</sub> "	3 <sup>1</sup> / <sub>4</sub> "	43.00
TLB6013A	40-50MC	4	240kc	8 <sup>5</sup> / <sub>8</sub> "	1 <sup>5</sup> / <sub>8</sub> "	3 <sup>1</sup> / <sub>4</sub> "	43.00
TLD6021A	144-162MC	4	1 mc	8 <sup>5</sup> / <sub>8</sub> "	1 <sup>5</sup> / <sub>8</sub> "	5 <sup>1</sup> / <sub>4</sub> "	58.00
TLD6022A	162-174MC	4	1 mc	8 <sup>5</sup> / <sub>8</sub> "	1 <sup>5</sup> / <sub>8</sub> "	5 <sup>1</sup> / <sub>4</sub> "	58.00
TLD6011A	144-162MC	2	1 mc	8 <sup>5</sup> / <sub>8</sub> "	1 <sup>5</sup> / <sub>8</sub> "	5 <sup>1</sup> / <sub>4</sub> "	58.00
TLD6012A	162-174MC	2	1 mc	8 <sup>5</sup> / <sub>8</sub> "	1 <sup>5</sup> / <sub>8</sub> "	5 <sup>1</sup> / <sub>4</sub> "	58.00

TKN6038A Cable Kit for Antenna Couplers Net Price \$4.35

## PRECISION SELECTOR CAVITY RESONATORS

For minimizing interference in 30-50, 118-132, 132-174 and 400-470 mc ranges. Cavity resonators minimize mutual interference when transmitters and receivers operating on different frequencies are connected to the same or separate antennas in the same vicinity. These multi-purpose, temperature-compensated RF filters are incorporated in the base station antenna circuits.

They reject unwanted received signals to minimize receiver desensitization and intermodulation, and attenuate unwanted emissions of spurious and harmonic signals from the transmitter output.

Choice of selectivity in all frequency ranges permits optimum performance in each specific application. Only a new coupling loop is needed to change selectivity characteristics. Matched impedance assures low voltage standing wave ratio—50-72 ohms input and output impedance.



Cavity Resonators

Because of system considerations, it is always advisable to contact your Motorola Radio Communications Representative when ordering these units. He will be happy to supply you with further information and assist you in integrating these units into your radio system.

MODEL	ELECTRICAL				Bandwidth at 1/2 Power Points	MECHANICAL			MAXIMUM POWER INPUT FOR COUPLING LOOP INSERTION LOSS	
	Frequency	Coupling Loop Kit	Insertion Loss	Loaded "Q"		Height	Width	Weight		
TU313L	30-34.8 mc	TK335	0.5 db	290	120 kc	78 inches	12 inches	63 lbs.	0.5 db	250 watts
		TK334	2.0 db	1090	32 kc					
TU313M	34.8-40 mc	TK335	0.5 db	290	120 kc	32 inches	12 inches	33 lbs.	1.0 db	60 watts
		TK334	2.0 db	1090	32 kc					
TU313H	40-50 mc	TK336	2.0 db	1260	36 kc	32 inches	12 inches	33 lbs.	1.5 db	60 watts
		TK326	0.5 db	548	230 kc					
		TK327	1.0 db	1070	120 kc					
		TK328	1.5 db	1620	77 kc					
TU312L	118-132 mc	TK329	3.0 db	2930	43 kc	16 inches	6-1/4 inches	4 lbs.	2.0 db	30 watts
		TK330	0.5 db	650	240 kc					
		TK331	1.0 db	1300	120 kc					
		TK332	1.5 db	1980	77 kc					
TU312H	132-174 mc	TK333	3.0 db	3600	43 kc	16 inches	6-1/4 inches	4 lbs.	3.0 db	30 watts
		TK301	0.5 db	350	1250 kc					
		TK302	1.0 db	770	565 kc					
		TK303	3.0 db	2100	207 kc					



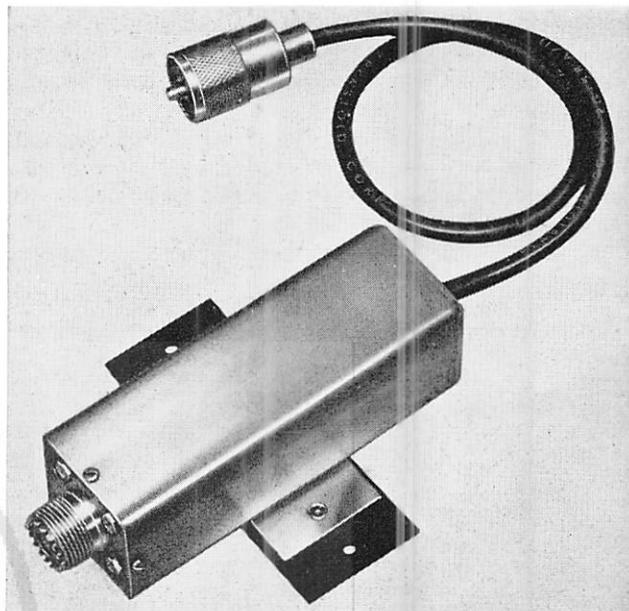
## harmonic filters

### MODEL TU410 AND TU411

Model TU410 Harmonic Filter is designed for use with equipment in mobile or fixed-location installations operating within the 144-174 mc band where the transmitter has an RF output of not more than 100 watts. This filter attenuates harmonic emissions to approximately 90 db. below the carrier level from 250 mc. to 1000 mc.

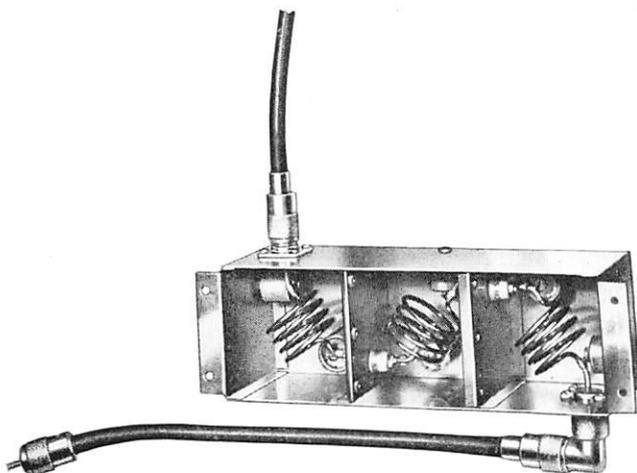
Harmonic filters of the TU411 Series are designed for use with equipment in mobile or fixed-location installations operating within the 25-50 mc band where the transmitter has an RF output of not more than 100 watts. These filters attenuate harmonic emissions to approximately 90 db. below the carrier level from 1½ times carrier frequency to 1000 mc.

The electrical components of this filter are mounted on a small chassis which is contained within a shield housing measuring 1½" x 1½" x 3⅞". The three filter sections are electrically shielded from each other by divider walls which are mounted on the chassis. The connection from one filter section to another is by means of hermetical seal feed-through terminals in the divider walls.



MODEL NO.	FREQUENCY RANGE	CUT-OFF FREQUENCY	NET PRICE
TU410	144-174 mc.	180 mc.	\$12.75
TU411-L	25-30 mc.	31 mc.	\$14.00
TU411-ML	30-35 mc.	36 mc.	
TU411-MM	35-40 mc.	41 mc.	
TU411-HL	40-45 mc.	46 mc.	
TU411-HM	45-50 mc.	51 mc.	

### MODEL PA-9260 AND PA-9261



The PA-9260 Transmitter Harmonic Filter is designed for use with ¼ kw. transmitters in fixed service operating within the 25-50 mc. band.

The PA-9261 Transmitter Harmonic Filter is designed

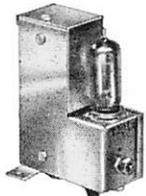
for use with ¼ kw. transmitters in fixed service operating in the 152-174 mc. band.

The electrical components of the filter are in a box 2¾" x 2¾" x 8½". 12 inches of RG-8/U coaxial cable with two male terminations, a right angle adaptor and a single contact female receptacle form the input end of the filter, and a single contact female receptacle the output end. The filter should be installed between the transmitter output and the antenna change-over relay.

KIT NO.	MAXIMUM POWER RATING	FREQUENCY (MC.)	INSERTION LOSS (LESS THAN)	CUT-OFF FREQUENCY	NET PRICE
PA9260	250 watts	25-30	0.5 db.	31 mc.	\$38.70
		30-35		36 mc.	
		35-40		41 mc.	
		40-45		46 mc.	
PA9261	250 watts	45-50	1.0 db.	51 mc.	
		152-174		180 mc.	



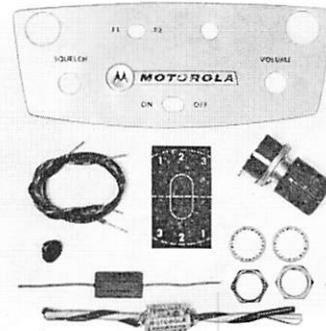
# single tone equipment



**P-9301-A**



**P-9303**



The P-9303 Single-Tone Decoder is used in conjunction with the P-9301-A Single-Tone Oscillator, P-9306 Ten Button Control Box and Signal Generator, or with special versions of these sending units. Single-tone facilities can be used for selective signalling by remote control of visual or audible alarms such as found in the Civil Defense and Public Safety services or may be used in any application where a circuit closure function is needed. Single-tone signals may be sent over microwave, radio, power line carrier, telephone carrier, or any system which provides an audio circuit.

## 3 FREQUENCY SWITCH KITS

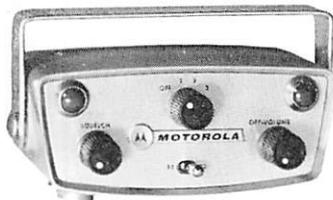
Installation of a 3 frequency switch kit will increase the flexibility of the system by adding 2 additional frequencies. The chart shown, lists the five standard oscillator frequencies and the second and third frequencies.

KIT NO.	DESCRIPTION	NET PRICE
P 9301A*	Single tone generator. 1800 through 2950 cps. Specify frequency.	\$ 26.25
P 9303*	Single tone decoder. 600 to 3200 cps. Specify frequency.	55.00
P 9306	Selector box, 10 freq. 1050 to 2400 in 150 cycle steps.	175.00
K 9058	Panel 19" w/hardware for mounting one or two decoders in upright type base stations.	4.35

\*Stock frequencies are 1800, 1950, 2100, 2250, 2400 cps.

NO.	DESCRIPTION	NET PRICE
TLN 6019A	3 frequency switch kit for all panel kits and sheet metal control heads.	\$8.00
TLN 6003A	3 frequency switch kit. Same components as above except has a replacement panel for new die-cast heads.	8.50

P-9301-A BASIC FREQUENCY	3-FREQUENCY KIT FREQUENCY 2	3-FREQUENCY KIT FREQUENCY 3
1800 cps	2000 cps	2200 cps
1950 cps	2135 cps	2324 cps
2100 cps	2272 cps	2452 cps
2250 cps	2412 cps	2580 cps
2400 cps	2552 cps	2712 cps



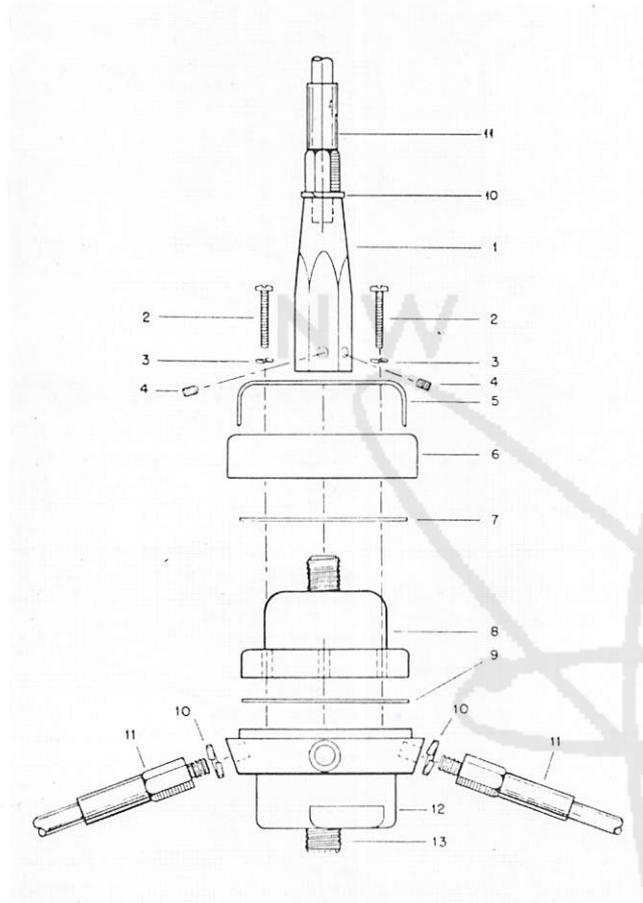
These control heads provide a selective tone for Motorola "Motrac" or Tube-Type mobile radio sets. They permit mobile to base station selective calling, or provide remote switching functions for control of standby equipment.

## TRANSISTORIZED SINGLE TONE CONTROL HEADS

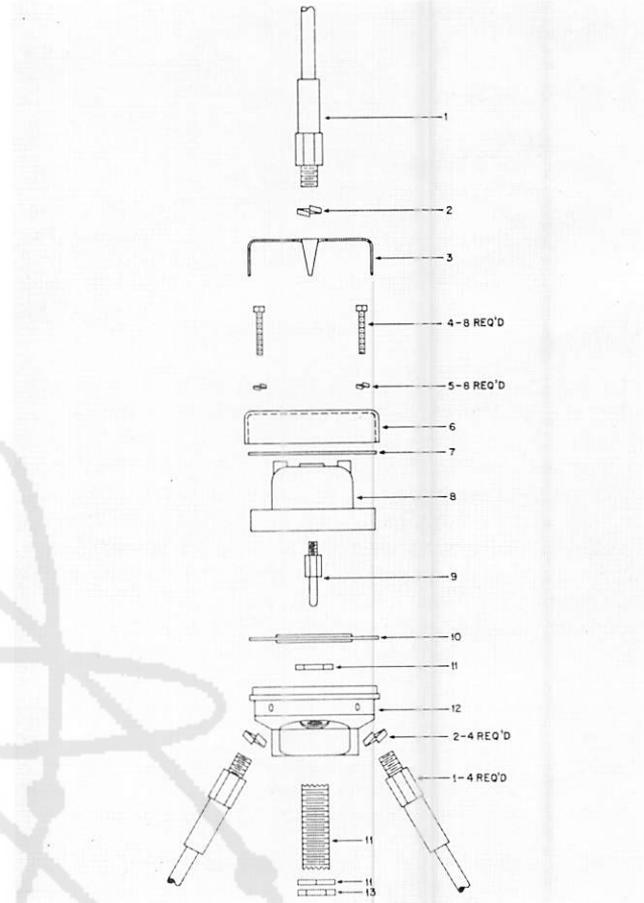
MODEL	FREQUENCIES	APPLICATION	NET PRICE
TCN6035AE	One	"Motrac" $\pm 6/12$ volt 1-freq., carrier squelch, rear-mount radio set	\$58.50
TCN6036AE	Three		68.50
TCN6037AE	One	"Motrac" $\pm 12$ volt 1-freq., carrier squelch, rear-mount radio set	58.50
TCN6038AE	Three		68.50
TCN6038AF	Three	"Motrac" $\pm 12$ volt 2-freq., carrier squelch, rear-mount radio set	69.75
TCN6039AE	One	Tube-Type $\pm 6/12$ volt 1-freq., carrier squelch, rear-mount radio set	58.50
TCN6040AE	Three		68.50
TCN6040AF	One	Tube-Type $\pm 6/12$ volt 2-freq., carrier squelch, rear-mount radio set	69.75



# replacement parts for base station and mobile antennas



TU-311 (Series)

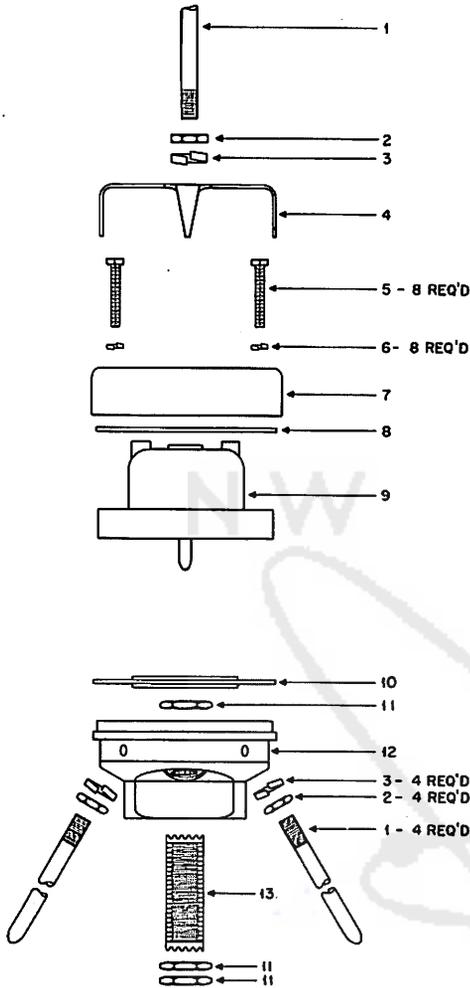


TU-311A (Series)

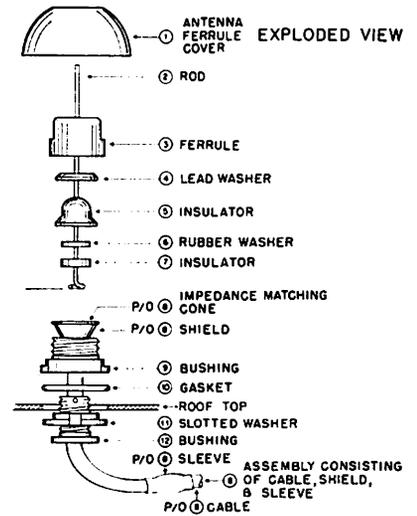
REFERENCE SYMBOL	PART NO.	DESCRIPTION	NET PRICE
1	1B 844660 or 1K 844661 or 1K 844662 or 1K 844663	ROD, radiator 30-34 mc ROD, radiator 34-38 mc ROD, radiator 38-43 mc ROD, radiator 43-54 mc	\$16.77 16.16 15.57 15.57
2	3S 125496	SCREW, machine; 8 req'd	.30/10
3	4S 9746	LOCKWASHER: #8 split; 8 req'd	.50/c
4	3S 3861	SCREW, set: 2 req'd	1.00/10
5	7B 849211	BRACKET, lightning arrestor	.92
6	42A 85717	RING, clamping	1.86
7	42A 85708	RING, compressor	.18
8	14B 85715	INSULATOR	5.41
9	32A 475396	GASKET	.31
10	4S 9748	LOCKWASHER: 3/8" split; 5 req'd	.43/10
11	1B 844656 or 1K 844657 or 1K 844658 or 1K 844659	ROD, Ground Plane: 30-34 mc ROD, Ground Plane: 34-38 mc ROD, Ground Plane: 38-43 mc ROD, Ground Plane: 43-54 mc	11.63 11.00 10.48 9.62
12	43C 844586	HUB	3.40
13	58A 475273	CONNECTOR, feed thru: includes two 5/8-24x3/8" hex nuts	1.84
Not shown	47A 480461	PIPE, antenna, 1 1/4 IPS-36" long	3.38
Not shown	15A 851867	CAP, rod	.17/10
Not shown	65K 106515	WRENCH, allen	.09

REFERENCE SYMBOL	PART NO.	DESCRIPTION	NET PRICE
1	1B 844656	ROD, Antenna/Ground Plane: When ordering rod, operating frequency must be specified; 5 req'd; used only for 30-34 mc appli- cations	\$11.63
	or 1K 844657	For 34-38 mc applications	11.00
	or 1K 844658	For 38-43 mc applications	10.48
	or 1K 844659	For 43-54 mc applications	9.62
2	4S 9748	LOCKWASHER: 3/8" split; 5 req'd	.43/10
3	7B 849211	BRACKET, lightning arrestor	.92
4	3S 125496	SCREW, machine: 8-32 x 1" pln. hex.; 8 req'd.	.30/10
5	4S 9746	LOCKWASHER: #8 split; 8 req'd	.50/c
6	42A 85717	RING, clamping	1.86
7	32A 475396	GASKET	.31
8	14C 858522	INSULATOR, antenna hub	2.40
9	28A 858524	PLUG, contact	.53
10	42A 85708	RING, compressor	.18
11	58A 475273	CONNECTOR, feed-thru: includes two 5/8-24 mounting nuts	1.84
12	43C 858521	HUB, antenna	1.83
13	2S 2888	NUT, machine	.63/10
Not shown	47A 480461	TUBE, antenna mounting	3.38

### TAD 6001A, 2A, 3A Antenna Base Parts



### TU316, TU265, TU308 Antenna Replacement Parts

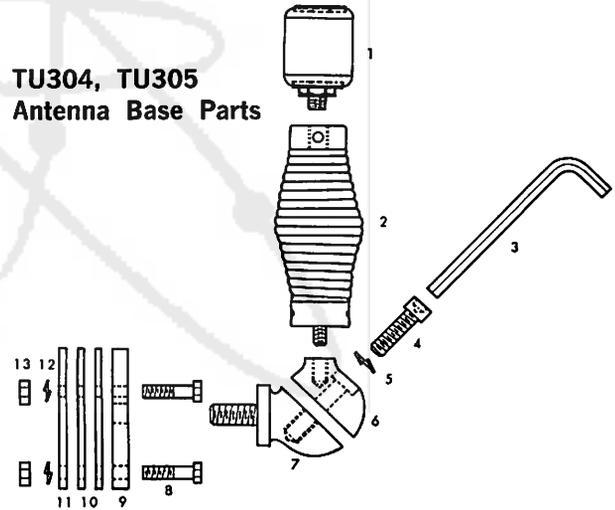


MOTOROLA PART NO.	REFERENCE SYMBOL	DESCRIPTION	NET PRICE
15A 475299	1	Ferrule Cover	\$ .16
47K 844391	2	Rod 144-152 mc	.21*
47K 844392		Rod 152-162 mc	.21*
47K 844393		Rod 162-174 mc	.21*
47K 844266		Rod 450-470 mc	.21*
47K 474915		Rod 406-425 mc	.21*
43A 480576	3	Ferrule	.27
4A 474911	4	Washer, lead	.18/10
14A 867450	5	Insulator	.41/10
4A 822404	6	Washer, rubber	.08
14A 867452	7	Insulator	.37/10
1V 867453	8	Cable & Contact Assembly	1.97
43A 480573	9	Bushing (upper)	.38
32A 474917	10	Gasket, Copper-Asbestos	.41/10
4A 474901	11	Washer, (slotted)	.10
43A 839962	12	Bushing (lower)	.37

\* Includes F.E.T.

REFERENCE SYMBOL	PART NO.	DESCRIPTION	NET PRICE
1	47A 865836	ROD, antenna for 144-150 mc; 9 req'd	\$ .99
	or 47A 865837	ROD, antenna for 150-162 mc; 9 req'd	.99
	or 47A 865838	ROD, antenna for 162-174 mc; 9 req'd	.99
2	2S 865797	NUT, machine: 3/8-24 x .218" hex; 9 req'd	.12
3	4S 9748	LOCKWASHER: 3/4" split; 9 req'd	.43/10
4	7B 849211	BRACKET, lightning arrester	.92
5	3S 125496	SCREW, machine: 8-32 x 1" plain hex; 8 req'd.	.30/10
6	4S 9746	LOCKWASHER: #8 split	.08/10
7	42A 85717	RING, clamping	1.86
8	32A 475396	GASKET	.31
9	1V 865853	INSULATOR, antenna hub and coil; assembly	4.66
10	42A 85708	RING, compressor	.18
11	58A 475273	CONNECTOR, feed thru: includes two 5/8-24 x 3/8" hex nuts	1.84
12	43C 858521	HUB, antenna	1.83
13	2S 2888	NUT, machine: 5/8-24 x 3/8": hex	.63/10
Not shown	47A 480461	TUBE, antenna	3.33
Not shown	3S 129870	SCREW, set: 1/4-20 x 3/8"	.20
Not shown	42A 865839	RING, antenna pipe	1.64

### TU304, TU305 Antenna Base Parts



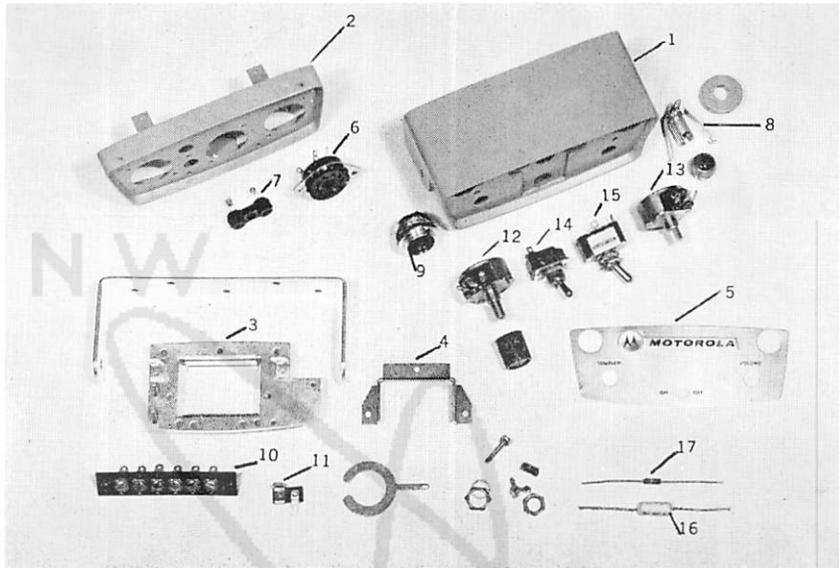
PART NO.	FIG.	DESCRIPTION	NET PRICE
1V 811099	(1)	Loading Coil (25-30MC)	\$ 8.75
51B 85936	(2)	Mounting Spring (cad. plated)	4.74*
51B 834754	(2)	Mounting Spring (stainless steel)	12.96*
66K 85988	(3)	Allen Wrench	.29
3K 838902	(4)	Allen hd. Screw	.25
4S 7685	(5)	Lockwasher	.10/10
58K 838903	(6)	Upper Hemisphere	1.96
58K 838904	(7)	Lower Hemisphere	2.30
3S 7328	(8)	Mtg. Bolt (3-used)	.23/10
14K 838905	(9)	Phenolic Insulators	2.21
4K 838906	(10)	Rubber Washers (2-used)	.20
4K 838907	(11)	Grounding Plate	.30
4S 7693	(12)	Lockwasher	.35/tu 50
2S 2878	(13)	Hex Nut	.35/tu 25
51B 85937	(14)	Complete base (items 4 to 13)	7.17

\* Includes F.E.T.



# control heads

## TCN 6000 SERIES AND TCN 6001 SERIES CONTROL HEAD PARTS REPLACEMENT LISTING



### Housings & Mounting Plates

PART NUMBER	FIG.	DESCRIPTION	MODEL NO.	NET PRICE
15D82513B01	1	Housing	TCN6000 & TCN6001 Series	2.17 <i>1.74</i>
15C 861198	2	Housing Ext.	TCN6001 Series	1.15 <i>.81</i>
64C 855103	3	Plate, Receptacle Mtg.	TCN6000 Series	1.06 <i>.74</i>
7B 855113	4	Bracket, Connector Mtg.	TCN6000 Series	.19 <i>.13</i>

### Controls & Switches

PART NUMBER	FIG.	DESCRIPTION	NET PRICE
18K 855108	12	Potentiometer (Volume)	.93 <i>.74</i>
18D82515B03	13	Potentiometer (Squelch)	1.00 <i>.81</i>
40A 482097	14	Switch, Toggle (TCN6001 Series)	.42 <i>.52</i>
40B 858304	15	Switch, Toggle (TCN6000 Series)	.64 <i>.80</i>

### Escutcheons

PART NUMBER	FIG.	DESCRIPTION	MODEL NO.	NET PRICE
13D 859614	5	Escutcheon—1-Freq.	Standard Squelch (TCN6001AA)	.68 <i>.48</i>
13D 859615		Escutcheon—2-Freq.	Standard Squelch (TCN6001AB)	.68 <i>.48</i>
13D 859616	5	Escutcheon—1-Freq.	Dual Squelch (TCN6001AC)	.65 <i>.46</i>
13K 859617		Escutcheon—2-Freq.	Dual Squelch (TCN6001AD)	.68 <i>.48</i>

### Resistors

PART NUMBER	FIG.	DESCRIPTION	NET PRICE
17K 892469	16	Resistor, W.W. (4-2-1W)	.35
6R 488016	17	Resistor (33-10-2W)	1.90/CD.10
6R 6336		Resistor (270-10-1W)	1.10/CD.10

### Sockets

PART NUMBER	FIG.	DESCRIPTION	NET PRICE
9B 855150	6	Socket, Tube (9 Pin)	.18 <i>.14</i>
9K 82810	7	Socket, Speaker	.16 <i>.13</i>
9A 859619	8	Socket, Pilot Light	.09
9B 16345	9	Receptacle, MIC (4-Prong)	.66

### Jewels, Knobs, Brackets and Hardware

PART NUMBER	DESCRIPTION	NET PRICE
61B 859620	Cap & Jewel (Red)	.25 <i>.36</i>
61K 859621	Cap & Jewel (Green)	.23 <i>.36</i>
7K 858250	Bracket	.13
7B 855239	Bracket (Cont. Head Mtg.)	.44
2S 8382	Nut (2 Req.)	.15/10
4S 7691	Lockwasher (3/8 INT.)	.50/c
5S 7707	Rivets (.122 x 3/8" Stl.)	.25/c
2S 8364	Nut (3/8"-32 x 1/2" Hex.)	.18/10
3S 400356	TPG. Screw (#4 x 1/4" PLN. Hex.)	.35-TU/40
3S 124542	Lock Screw (6-32 x 3/4" PLN. Hex.)	.75/c
3S 122897	Lock Screw (4-40 x 1/4" PLN. Hex.)	.35-TU/35
37K 800655	Sleeve (Neoprene)	.17 <i>.09/10</i>
29R 5279	Lug	.20/10
38A 857093	Button, Plug	.08
36B 855027	Knob, Control	.12 <i>.15</i>

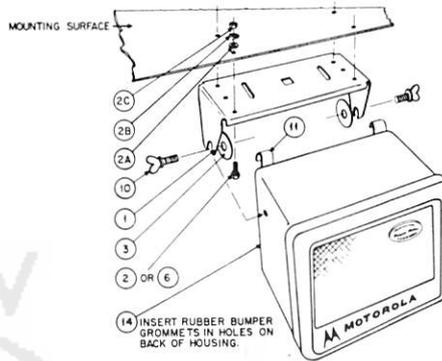
### Terminals

PART NUMBER	FIG.	DESCRIPTION	NET PRICE
31A 890699	10	Board, Term. (6 Screw)	.11
31R 490141	11	Strip, Term. (1 Ins. #2 Mtg.)	.15/10

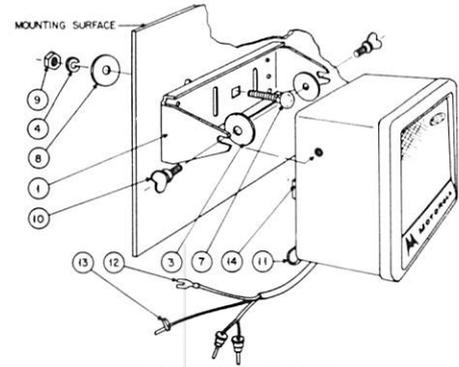


# speakers

## STANDARD AND "POWER VOICE" MOBILE SPEAKER REPLACEMENT PARTS



DASHBOARD TYPE MOUNTING



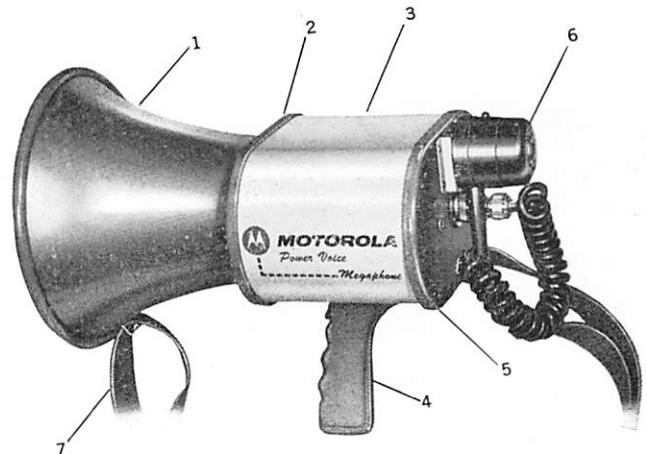
FIREWALL TYPE MOUNTING

REFERENCE SYMBOL	PART NO.	DESCRIPTION	NET PRICE	REFERENCE SYMBOL	PART NO.	DESCRIPTION	NET PRICE	
1	7B 868484	BRACKET, speaker mounting	\$.59	13	29K 890406	PIN, terminal; #6	\$.15/pk	
2	3S 7312	SCREW, machine; 8-32 x 3/4" 4 req'd	.05/10	14	5K 811898	GROMMET, bumper; 2 req'd	.18/10	
2A	4S 7629	WASHER, flat; 1/2 x .188 x .048"; 4 req'd	.05/10	15C 847647	*15 HOUSING, blue grey	1.93	1.35	
2B	4S 7671	LOCKWASHER; #8 split; 4 req'd	.35/tu	*16	15K 857969	HOUSING, dark grey	1.93	1.45
2C	2S 7003	NUT; 8-32 x 5/16"; 4 req'd	.35/tu	13D 844376	BEZEL, light grey	2.07	1.50	
3	4K 847649	WASHER, fibre; 2 req'd	.03/10	13K 857968	BEZEL, driftwood	2.14	1.50	
4	4S 7693	LOCKWASHER; 1/4" split	.35/tu	*17	13B 844380	GRILLE, standard speaker, light grey	.75	.53
6	3S 8153	SCREW, self tapping; #8 x 3/4" 4 req'd	.35/tu	13K 857967	GRILLE, "Motrac", driftwood	.75	.62	
7	3S 124070	BOLT, carriage: 1/4-20 x 2 1/2"	.28/10	13K 850572	GRILLE, "Power Voice"	.89	.14	
8	4S 122238	WASHER, flat; 2 1/8 x .257 x .095"	.07	*18	13A 850632	MEDALLION, "Power Voice"	.20	
9	2S 119495	NUT, 1/4-20 x 7/16" x 9/32"	.35/tu	NON-REFERENCED PARTS				
10	3A 82278A01	SCREW, wing; 1/4-20 x 1/2"; 2 req'd	.12	32B 82123B01	GASKET, speaker	.09	.06	
11	42A 80273	CLAMP, cable; coated; 2 req'd	.32/10	43K 890397	BUSHING, strain relief	.32/10		
12	29R 5238	LUG, soldering	.12/10	43K 890398	RETAINER, cable	.21/10		
				1V 867252	CABLE, speaker; std. 2 conductor	.97		
				1V 854326	CABLE, speaker; "Power Voice" 4 cond. coil cord	4.65		

\*Non-referenced parts

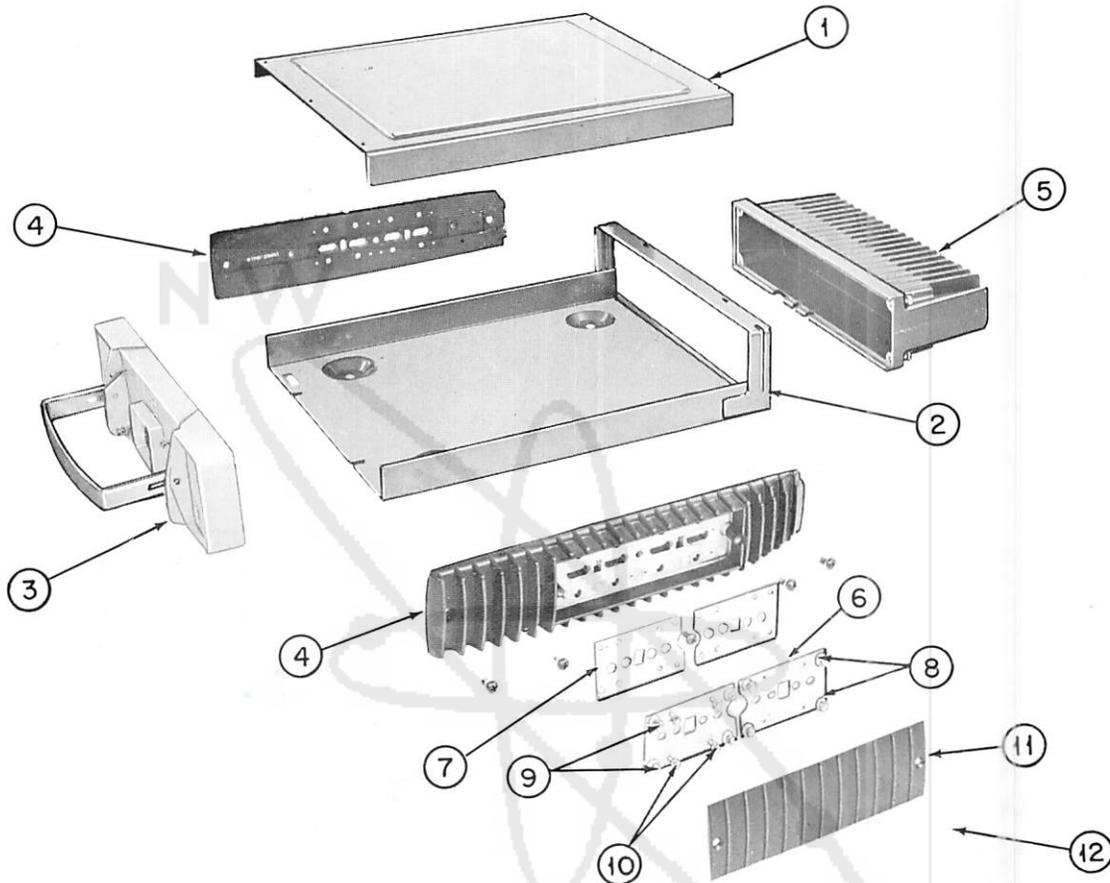
## "POWER VOICE" MEGAPHONE REPLACEMENT PARTS

REFERENCE SYMBOL	PART NO.	DESCRIPTION	NET PRICE
1	1V 852485	SPEAKER BELL, riveted	\$ 6.14
2	15C 851898	COVER, front	3.67
3	15B 852459	HOUSING	7.89
4	1V 852486	ASSEMBLY, handle & switch	17.03
5	15C 851892	COVER only	3.74
5A	1V 852487	COVER, riveted complete w/battery contacts	10.61
6	50C 851924	MICROPHONE w/coil cord	30.18
7	42A 855312	STRAP	.92
	1V 855937	BUCKLE for strap; 2 req'd	1.02
NON-REFERENCED PARTS			
	50D 858825	DRIVER unit	47.08
	36K 844351	KNOB, control	.29
	1V 852483	BOARD & CONTACTS (front) for batteries	4.02
	1V 861672	BOARD & CONTACTS (rear) for batteries. Part of item 5A above	2.56
	1V 852484	ASSEMBLY, battery separator w/spade bolts	6.42



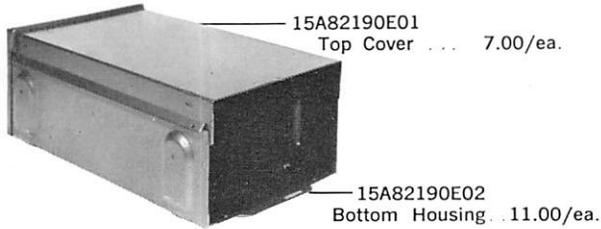


# mobile housing replacement parts

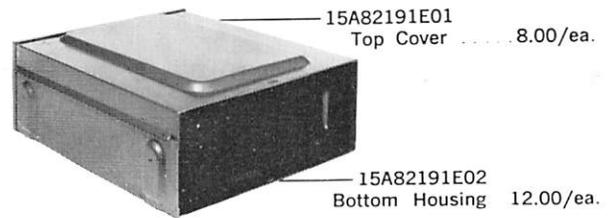


CODE	DESCRIPTION	MOTRAC RADIO	PART NO.	NET PRICE
1	Top cover (housing)	All models	15C852668	\$ 7.00
2	(Bottom cover (housing)	All models	15D852664	11.00
3	Front panel	All Models except 6/12 "Extender" models	TGN6002A	6.50
		For 6/12 volt "Extender" models	or TGN6034A	7.25
4	Power supply radiator	For 25 w, 30 w, and 50 w models	15D82215A01	2.48
		For 60 w, 80 w, and 100 w models	or 15D82215A03	2.97
5	Transmitter radiator	For 30 w, and 50 w models	15B867111	4.81
		For 25 w models	or 15B865665	4.81
		For 100 w models	or 15K868761	3.25
		For 60 w and 80 w models	or 15K868702	3.25
6	Transistor mounting plate	All models	64A82344A01	.43
7	Mica insulator	All models	14A82343A01	.64/10
8	Plastic shoulder washer	All models	4A82345A01	.13/10
9	Lockscrew: 6-32 x 3/8"	All models	3S131281	.10/10
10	Lockscrew: 6-32 x 5/16"	All models	3S122318	.75/c
11	Heat sink cover	All models	15D82215A05	1.06
12	Screw: 6-32 x 3/8" "Phillips"	All models	3S131440	.08/10

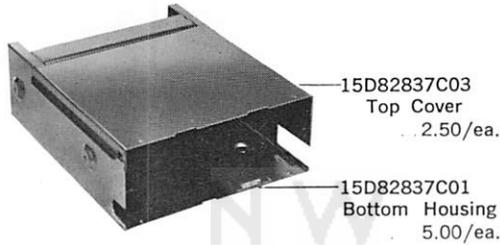
### K9045 10" Mobile Housing



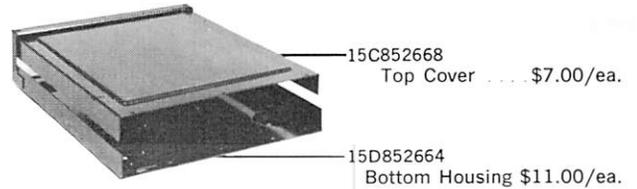
### TK424 15" Mobile Housing



### THN 6028A Business "Dispatcher" Housing

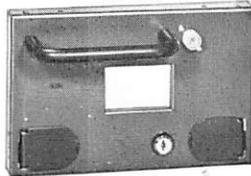


### THN 6002A "MOTRAC" Housing



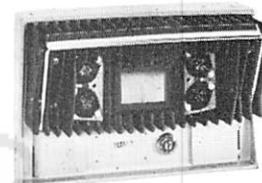
## 10" AND 15" FRONT PANEL KIT REPLACEMENT PARTS

### TK 364 10" Panel



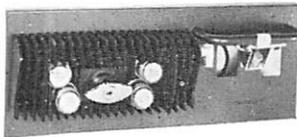
PART NO.	DESCRIPTION	NET PRICE
15A 893867	Cover, metering	\$ .30
10A 893869	Wire, cover hold-down	.80/10
55B 850819	Handle, front panel	.66
3S 122923	Lockscrew, 1/4-20 x 3/8 pln. hex (Handle mtg.)	.18/10
55A 893871	Lock & keys	.86
33C 845015	Nameplate (Model)	.42
3A 892219	Screw, one-way slot	.08/10

### TK 661 10" Panel



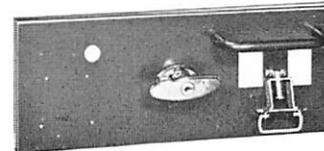
PART NO.	DESCRIPTION	NET PRICE
15B 854385	Cover, metering	\$ .38
10A 855026	Wire, meter cover hold-down	.03
55B 861039	Handle	.59
1V 80702A88	Assembly, radiator & socket riveted	4.18
1V 855053	Assembly, Antenna cable (complete)	2.15
1V 855054	Cable & plug (w/phono plug)	.48
1V 855055	Cable & plug & brkt. (w/chassis receptacle)	1.23
22K 861038	Pin, roll	.20/10
55A 855056	Catch, bullet	.06
55A 893871	Lock & key	.86
33C 834826	Nameplate	.15
3A 892219	Screw, one-way slot	.08/10

### TGN 6015A 15" Panel



PART NO.	DESCRIPTION	NET PRICE
55B 850819	Handle, front panel	\$ .66
55K 861050	Handle w/lock & key	2.09
1V 858994	Assembly, latch bar plate & stud	.87
1V 858997	Assembly, antenna cable (complete)	3.10
1V 858998	Assembly, cable & piug (w/antenna male connector)	2.20
1V 858999	Assembly, cable & plug (w/chassis receptacle)	.92
33C 834824	Nameplate	.18
3A 892219	Screw, one-way slot	.08/10

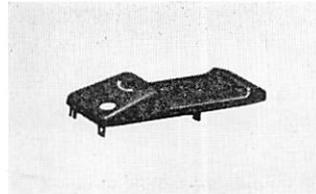
### TK 365 15" Panel



PART NO.	DESCRIPTION	NET PRICE
55B 850819	Handle, front panel	\$ .66
55B 857664	Handle, w/lock & key	1.71
3K 861339	Bolt, (lock mtg.)	.15
2K 834715	Nut, (lock mtg.)	.50/10
1A 892536	Assembly, latch bar, plate & stud	.40
33C 845015	Nameplate (Model)	.42
3A 892219	Screw, one-way slot	.08/10
K9019	Plug hold down kit	1.25



# "handie-talkie" radio replacement parts

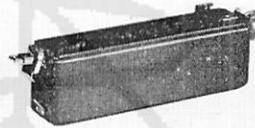


## "Handie-Talkie" Radio and Packset Top Covers

PART NUMBER	DESCRIPTION	NET PRICE
15C 82636A01	Top cover (1 freq. dark grey)	\$5.00
15C 847623	for (2 freq. dark grey)	6.00
15C 82636A10	handset (1 freq. blue grey)	5.00
15C 82636A11	models (2 freq. blue grey)	6.00

PART NUMBER	DESCRIPTION	NET PRICE
15D 82636A03	Top cover (1 freq. dark grey)	\$5.00
15K 82636A04	for (2 freq. dark grey)	5.00
15C 82636A12	speaker & microphone (1 freq. blue grey)	5.00
15C 82636A13	models (2 freq. blue grey)	5.00

## Housings and Sleeves



### "Handie-Talkie" Radio

PART NUMBER	DESCRIPTION	NET PRICE
1V 847660	Sleeve (lt. grey)	\$ 9.82
1V 80711A45	Sleeve (driftwood)	9.82
1V 847707	Housing, Power supply (standard) dry battery (dk. grey)	7.89
1V 80713A35	Housing, same as above except blue grey	7.89
1V 847762	Housing, Power supply (extra duty) dry battery (dk. grey)	12.61
1V 80713A42	Housing, same as above except blue grey	12.61
1V 848649	Housing, Power supply, single Ni-cad battery (dk. grey)	17.00
1V 80713A87	Housing, same as above except blue grey	17.00

### Packset

PART NUMBER	DESCRIPTION	NET PRICE
1V 847714	Sleeve (light grey)	\$11.95
1V 80711A46	Sleeve (driftwood)	11.95
1V 848286	Housing, Power supply, dry battery (dk. grey)	23.29
1V 80713A45	Housing, same as above except blue grey	23.29
1V 849154	Housing, Power supply, dual Ni-cad battery (dk. grey)	25.78
1V 80713A75	Housing, same as above except blue grey	25.78

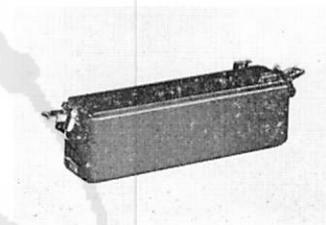
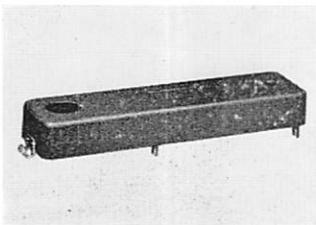
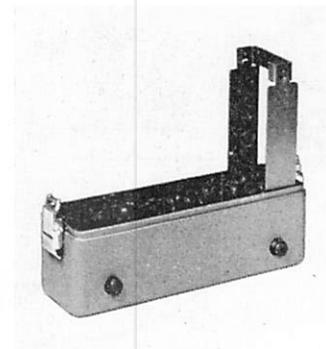
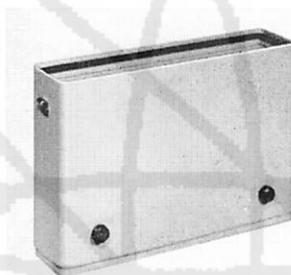
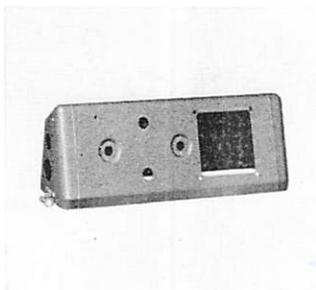
## Miscellaneous Parts

PART NO.	DESCRIPTION	NET PRICE
1V 854327	Switch assembly, On-Off complete w/knob	\$9.18
36A 851214	Knob, switch On-Off	.40
36B 82288B01	Knob, Volume & Squelch	.20
13A 847553	Grille, speaker (lt. grey)	.58
13B 82068C01	Grille, speaker (driftwood)	.62
42B 847537	Clip, mike	.60
55B 847559	Handle, carrying	1.09

PART NO.	DESCRIPTION	NET PRICE
1V 848554	Handset cradle	\$2.15
7B 847008	Cradle Brkt. (for above)	.88
32A 848074	Gasket, antenna receptacle	.31/10
32A 864813	Gasket, mike receptacle	.09
32A 847519	Gasket, speaker	.40/10
32A 82177C01	Gasket, speaker diaphragm	.29
2K 850796	Nut, seal type (for On-Off switch)	.49
2A 847628	Nut, seal type (for Vol. & Squelch)	.53
2A 82262B01	Nut, seal type (for F1-F2 switch)	.92



# industrial "dispatcher" radio replacement parts



Light Grey and Dark Grey  
Early D & T33 Models  
With Partial Transistorized Receiver

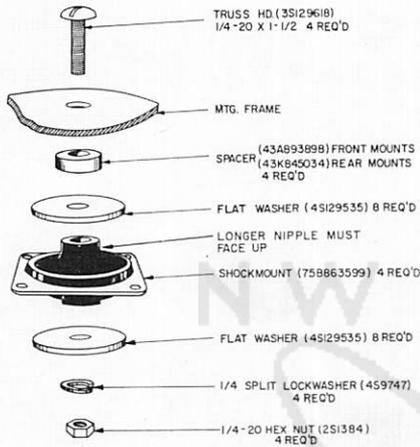
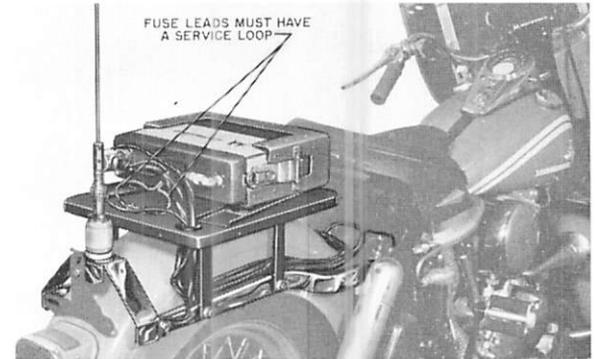
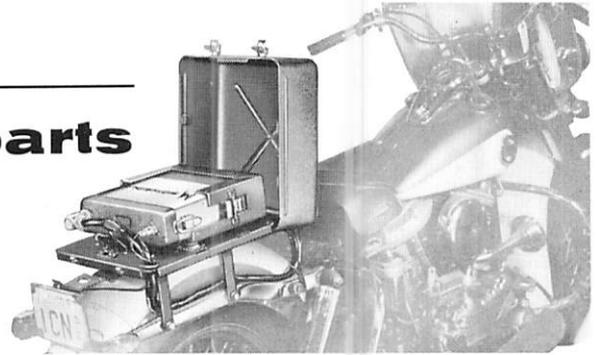
Driftwood and Blue Grey  
Late D & T33 Models  
With Fully Transistorized Receiver

PART NUMBER	DESCRIPTION	NET PRICE
1V 855651	Top panel "D" units Standard Squelch	\$ 8.00
1V 859515	Top panel "D" units "Private Line"	8.00
1V 855650	Top panel "T" units	8.00
1V 852301	Sleeve for DC high power (4 $\frac{7}{8}$ " high)	10.00
1V 851562	Sleeve for DC low power (3 $\frac{5}{16}$ " high)	10.00
1V 855959	Sleeve for AC high power (7 $\frac{1}{16}$ " high)	17.50
1V 855957	Sleeve for AC low power (7 $\frac{1}{16}$ " high)	17.50
1V 80709A62	Housing, Power supply, DC, low power	14.25
1V 80709A63	Housing, Power supply, DC, high power	14.25
1V 855931	Housing, Power supply, AC, low power	21.75
1V 855710	Housing, Power supply, AC, high power	21.75

PART NUMBER	DESCRIPTION	NET PRICE
1V 80712A62	Top panel "D" units, Standard Squelch	\$ 8.00
1V 80712A68	Top panel "D" units, "Private Line"	8.00
1V 80712A73	Top panel "T" units	8.00
1V 80711A50	Sleeve for DC high power (4 $\frac{7}{8}$ " high)	10.00
1V 80711A48	Sleeve for DC low power (3 $\frac{5}{16}$ " high)	10.00
1V 80711A51	Sleeve for AC high power (7 $\frac{1}{16}$ " high)	17.50
1V 80711A49	Sleeve for AC low power (7 $\frac{1}{16}$ " high)	17.50
1V 80712A45	Housing, Power supply, DC, low power	14.25
1V 80713A34	Housing, Power supply, DC, high power	14.25
1V 80712A46	Housing, Power supply, AC, low power	21.75
1V 80712A47	Housing, Power supply, AC, high power	21.75

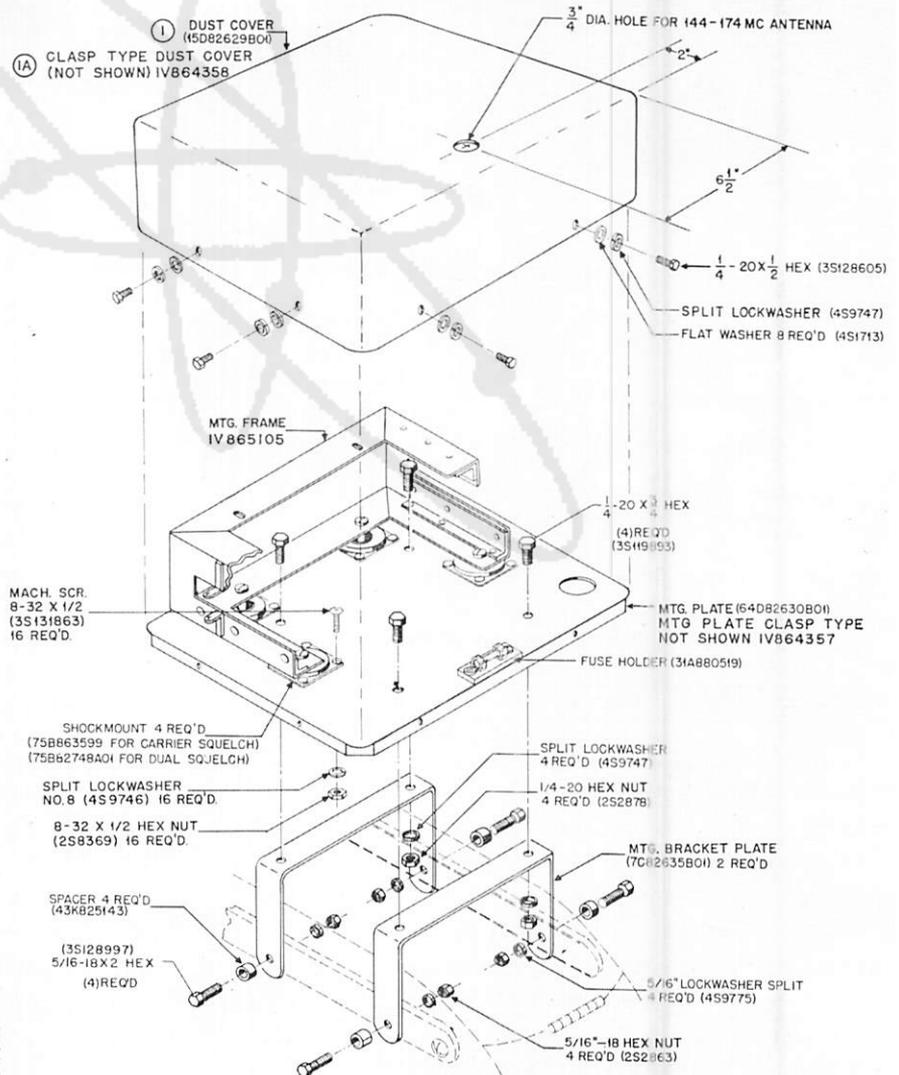


# motorcycle housing parts



PART NUMBER	DESCRIPTION	NET PRICE
2S 1384	Nut	.60/10
4S 9747	Lockwasher	.13/10
4S 129535	Washer	.28/10
3S 129618	Screw	.13
43K 845034	Spacer	.11
75B 863599	Shockmount	.63
43A 893898	Spacer,	.05

PART NUMBER	DESCRIPTION	NET PRICE
4S 1713	Washer	.18/10
2S 2863	Nut	.18/10
2S 2878	Nut	.35/TU
2S 8369	Nut	.23/10
4S 9746	Lockwasher	.50/C
4S 9747	Lockwasher	.13/10
4S 9775	Lockwasher	.23/10
3S 119893	Screw	.63/10
3S 128605	Screw	.60/10
3S 128997	Screw	.19
3S 131863	Screw, Machine	.45/10
43K 825143	Spacer	.13
75B 863599	Shockmount	.63
1V 864357	Mtg. plate	11.99
1V 864358	Dust Cover	29.51
1V 865105	Mounting frame	24.52
31A 880519	Fuse holder	.26
15D 82629B01	Dust Cover	22.52
64D 82630B01	Mounting plate	9.15
7C 82635B01	Mounting bracket	2.78
75B 82748A01	Shockmount	10.63



# MOTORCYCLE ANTENNAS

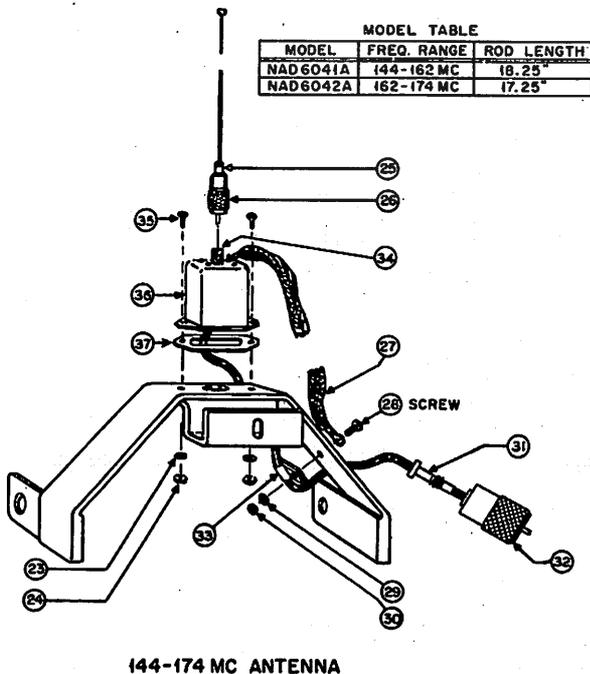
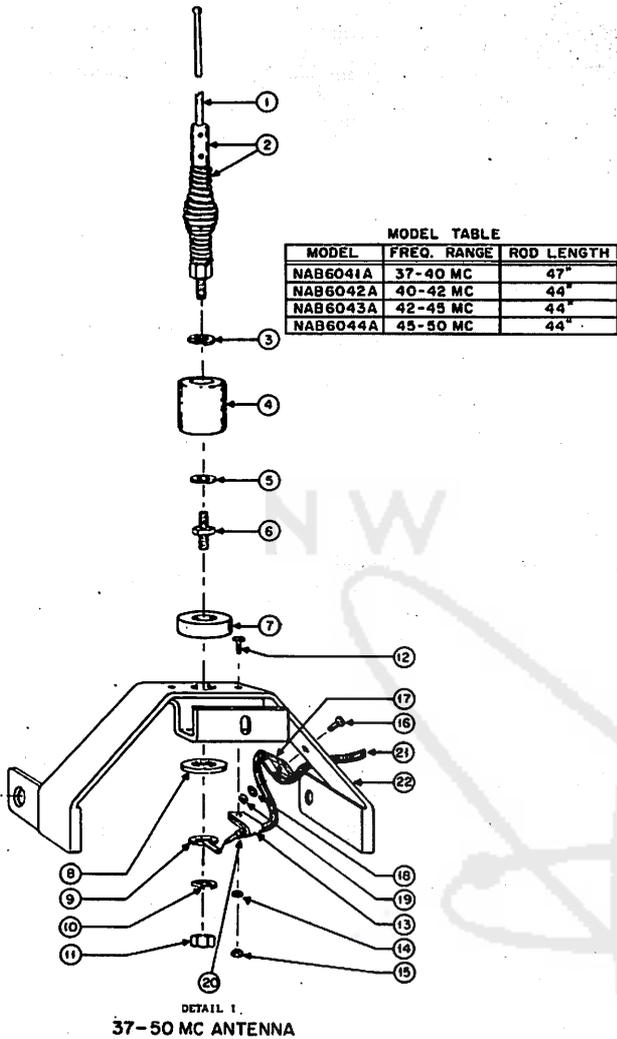


FIG.	PART NO.	DESCRIPTION	NET PRICE
1	47B 82589B02	Rod, 37-40 mc	\$ 4.81
	47B 82589B01	Rod, 40-50 mc	4.81
2	1B 82585B01	Antenna spring & bushing	10.60
3	4S 9785	Lockwasher	.10/10
4	1V 80709A54	Loading coil, 37-42 mc	12.37
	1V 80709A57	Loading coil, 42-45 mc	11.22
	1V 80709A58	Loading coil, 45-50 mc	8.60
5	same as 3		
6	46A 82598B01	Mounting stud	2.33
7	43A 82596B01	Washer, phenolic	1.14
8	4A 82597B01	Washer, phenolic	.27
9	29R 5237	Antenna cable lug	.36/10
10	4S 7685	Lockwasher	.13/10
11	2S 131685	Hex nut	.14
12	3S 1983	Screw	.13/10
13	42B 82594B01	Clamp	.18/10
14	4S 9795	Lockwasher	.08/10
15	2S 1362	Nut	.35/10
16	same as 12		
17	42B 82594B01	Clamp	.18/10
18	same as 14		
19	same as 15		
20	5K 119263	Ferrule	.25/C
21	1V 80709A56	Antenna cable	2.73
22	7C 82595B01	Mounting bracket	8.49
23	same as 14		
24	same as 15		
25	47B 865543	Antenna rod	.43
26	28A 844066	Connector, coax	.74
27	1V 80710A17	Ground strap	.34
28	same as 12		
29	same as 14		
30	same as 15		
31	58K 854020	Adaptor	.14
32	28K 42310	Connector	.73
33	42B 82594B01	Clamp	.18/10
34	9A 85615	Receptacle	.73
35	3S 1977	Screw	.28/10
36	1V 852772	Antenna Base	5.36
37	32A 852346	Gasket	.41/10



# receivers 25-54 mc

Chassis prices shown do not include control or IF crystals. Crystals must be listed separately on order showing operating frequency desired.

If rack mounting brackets are desired, they must be specified and will be included at no additional cost.

(Specify TK 180 mounting bracket kit, no charge.)

Mounting bracket supplied with Sensicon "A" type receivers only.

MODEL NO.	MODEL DESCRIPTION	NET PRICE
TA111-CS	"Uni-Channel" Receiver, ("G" type), 25-54 mc (20 kc Channel Spacing). Order Chassis number: TRB1071AB for 25-30 mc TRB1072AB for 30-40 mc TRB1073AB for 40-50 mc TRB1074AB for 50-54 mc	182.00
TA111-CS-R2	"Uni-Channel" Receiver, ("G" type), 25-54 mc (20 kc Channel Spacing). Order Chassis number: TRB1071AD for 25-30 mc TRB1072AD for 30-40 mc TRB1073AD for 40-50 mc TRB1074AD for 50-54 mc	199.00
TA111-CW	"Uni-Channel" Receiver, ("G" type), 25-54 mc (40 kc Channel Spacing). Order Chassis number: TRB1071AA for 25-30 mc TRB1072AA for 30-40 mc TRB1073AA for 40-50 mc TRB1074AA for 50-54 mc	182.00
TA111-CW-R2	"Uni-Channel" Receiver, ("G" type), 2-freq., 25-54 mc (40 kc Channel Spacing). Order Chassis number: TRB1071AC for 25-30 mc TRB1072AC for 30-40 mc TRB1073AC for 40-50 mc TRB1074AC for 50-54 mc	199.00
TA189-A-SQ	"Sensicon" Receiver, ("A" type), 25-50 mc (20 kc Channel Spacing). Order Chassis number: TRB1051AB for 25-30 mc TRB1052AB for 30-40 mc TRB1053AB for 40-50 mc	233.00
TA189-A-WQ	"Sensicon" Receiver, ("A" type), 25-50 mc (40 kc Channel Spacing). Order Chassis number: TRB1051AA for 25-30 mc TRB1052AA for 30-40 mc TRB1053AA for 40-50 mc	233.00
TA232-S	Receiver, ("G" type), 25-50 mc (20 kc Channel Spacing). Order Chassis number: TRB1071AF for 25-30 mc TRB1072AF for 30-40 mc TRB1073AF for 40-50 mc	212.00
TA232-W	Receiver, ("G" type), 25-50 mc (40 kc Channel Spacing). Order Chassis number: TRB1071AE for 25-30 mc TRB1072AE for 30-40 mc TRB1073AE for 40-50 mc	212.00

MODEL NO.	MODEL DESCRIPTION	NET PRICE
TA233-WQ	Receiver, ("G" type), 25-50 mc (40 kc Channel Spacing). Order Chassis number: TRB1061AA for 25-30 mc TRB1062AA for 30-40 mc TRB1063AA for 40-50 mc	237.00
TA235-S	Receiver, ("G" type), 25-54 mc (20 kc Channel Spacing). Order Chassis number: TRB1081AB for 25-30 mc TRB1082AB for 30-40 mc TRB1083AB for 40-50 mc TRB1084AB for 50-54 mc	182.00
TA235-S-R2	Receiver, ("G" type), 2-frequency, (20 kc Channel Spacing). Order Chassis number: TRB1081AD for 25-30 mc TRB1082AD for 30-40 mc TRB1083AD for 40-50 mc TRB1084AD for 50-54 mc	199.00
TA235-SZ	Receiver, ("G" type), 25-54 mc (20 kc Channel Spacing). Order Chassis number: TRB1081AF for 25-30 mc TRB1082AF for 30-40 mc TRB1083AF for 40-50 mc	212.00
TA235-SZ-R2	Receiver, ("G" type), 2-frequency, (20 kc Channel Spacing—Dual Squelch). Order Chassis number: TRB1081AH for 25-30 mc TRB1082AH for 30-40 mc TRB1083AH for 40-50 mc	229.00
TA235-W	Receiver, ("G" type), 25-54 mc (40 kc Channel Spacing). Order Chassis number: TRB1081AA for 25-30 mc TRB1082AA for 30-40 mc TRB1083AA for 40-50 mc TRB1084AA for 50-54 mc	182.00
TA235-W-R2	Receiver, ("G" type), 25-54 mc 2-frequency, (40 kc Channel Spacing). Order Chassis number: TRB1081AC for 25-30 mc TRB1082AC for 30-40 mc TRB1083AC for 40-50 mc TRB1084AC for 50-54 mc	199.00
TA235-WZ	Receiver, ("G" type), 25-50 mc (40 kc Channel Spacing—Dual Squelch). Order Chassis number: TRB1081AE for 25-30 mc TRB1082AE for 30-40 mc TRB1083AE for 40-50 mc	212.00
TRB 1051AA	"Sensicon" Receiver, 25-30 mc	
TRB 1052AA	("A" type), 30-40 mc	
TRB 1053AA	(40 kc Channel Spacing), 40-50 mc	233.00

MODEL NO.	MODEL DESCRIPTION	NET PRICE
TRB 1051AB	"Sensicon" Receiver, 25-30 mc	
TRB 1052AB	("A" type), 30-40 mc	
TRB 1053AB	(20 kc Channel Spacing), 40-50 mc	233.00
TRB 1061AA	Receiver, 25-30 mc	
TRB 1062AA	("G" type), 30-40 mc	
TRB 1063AA	(40 kc Channel Spacing), 40-50 mc	237.00
TRB 1071AA	"Uni-Channel" Receiver, 25-30 mc	
TRB 1072AA	("G" type), 30-40 mc	
TRB 1073AA	(40 kc Channel Spacing), 40-50 mc	
TRB 1074AA	50-54 mc	182.00
TRB 1071AB	"Uni-Channel" Receiver, 25-30 mc	
TRB 1072AB	("G" type), 30-40 mc	
TRB 1073AB	(20 kc Channel Spacing), 40-50 mc	
TRB 1074AB	50-54 mc	182.00
TRB 1071AC	"Uni-Channel" Receiver, 25-30 mc	
TRB 1072AC	("G" type), 30-40 mc	
TRB 1073AC	(40 kc Channel Spacing), 40-50 mc	
TRB 1074AC	50-54 mc	199.00
TRB 1071AD	"Uni-Channel" Receiver, 25-30 mc	
TRB 1072AD	("G" type), 30-40 mc	
TRB 1073AD	(20 kc Channel Spacing), 40-50 mc	
TRB 1074AD	50-54 mc	199.00
TRB 1071AE	Receiver, 25-30 mc	
TRB 1072AE	("G" type), 30-40 mc	
TRB 1073AE	(40 kc Channel Spacing), 40-50 mc	212.00
TRB 1071AF	Receiver, 25-30 mc	
TRB 1072AF	("G" type), 30-40 mc	
TRB 1073AF	(20 kc Channel Spacing), 40-50 mc	212.00
TRB 1081AA	Receiver, 25-30 mc	
TRB 1082AA	("G" type), 30-40 mc	
TRB 1083AA	(40 kc Channel Spacing), 40-50 mc	
TRB 1084AA	50-54 mc	182.00
TRB 1081AB	Receiver, 25-30 mc	
TRB 1082AB	("G" type), 30-40 mc	
TRB 1083AB	(20 kc Channel Spacing), 40-50 mc	
TRB 1084AB	50-54 mc	182.00
TRB 1081AC	Receiver, 25-30 mc	
TRB 1082AC	("G" type), 30-40 mc	
TRB 1083AC	(40 kc Channel Spacing), 40-50 mc	
TRB 1084AC	50-54 mc	199.00
TRB 1081AD	Receiver, 25-30 mc	
TRB 1082AD	("G" type), 30-40 mc	
TRB 1083AD	(20 kc Channel Spacing), 40-50 mc	
TRB 1084AD	50-54 mc	199.00
TRB 1081AE	Receiver, 25-30 mc	
TRB 1082AE	("G" type), dual squelch, 30-40 mc	
TRB 1083AE	(40 kc Channel Spacing), 40-50 mc	212.00
TRB 1081AF	Receiver, 25-30 mc	
TRB 1082AF	("G" type), 30-40 mc	
TRB 1083AF	(20 kc Channel Spacing), 40-50 mc	212.00
TRB 1081AH	Receiver, ("G" type), 25-30 mc	
TRB 1082AH	2-frequency, (20 kc Channel Spacing), 30-40 mc	
TRB 1083AH	(Channel Spacing—Dual Squelch), 40-50 mc	229.00
TRB 1121AA	Receiver, 12V 25-30 mc	
TRB 1122AA	("H" type), 30-36 mc	
TRB 1123AA	(40 kc Channel Spacing), 36-42 mc	
TRB 1124AA	42-50 mc	
TRB 1125AA	50-54 mc	350.00
TRB 1121AB	Receiver, 12V 25-30 mc	
TRB 1122AB	("H" type), 30-36 mc	
TRB 1123AB	(20 kc Channel Spacing), 36-42 mc	
TRB 1124AB	42-50 mc	
TRB 1125AB	50-54 mc	350.00
TRB 1121AC	Receiver, 12V 25-30 mc	
TRB 1122AC	("H" type), 30-36 mc	
TRB 1123AC	(40 kc Channel Spacing), 36-42 mc	
TRB 1124AC	42-50 mc	
TRB 1125AC	50-54 mc	380.00

MODEL NO.	MODEL DESCRIPTION	NET PRICE
TRB 1121AD	Receiver, 12V 25-30 mc	
TRB 1122AD	("H" type), 30-36 mc	
TRB 1123AD	2-frequency 36-42 mc	
TRB 1124AD	(20 kc Channel Spacing) 42-50 mc	
TRB 1125AD	50-54 mc	380.00
TRB 1121AF	Receiver, 12V 25-30 mc	
TRB 1122AF	Private-Line ("H" type), 30-36 mc	
TRB 1123AF	(20 kc Channel Spacing), 36-42 mc	
TRB 1124AF	42-50 mc	390.00
TRB 1121AH	Receiver, 12V 25-30 mc	
TRB 1122AH	Private-Line, 2-frequency, 30-36 mc	
TRB 1123AH	("H" type), 36-42 mc	
TRB 1124AH	(20 kc Channel Spacing) 42-50 mc	420.00
TRB 1131AA	Receiver, 6/12V 25-30 mc	
TRB 1132AA	("H" type), 30-36 mc	
TRB 1133AA	(40 kc Channel Spacing), 36-42 mc	
TRB 1134AA	42-50 mc	
TRB 1135AA	50-54 mc	355.00
TRB 1131AB	Receiver, 6/12V 25-30 mc	
TRB 1132AB	("H" type), 30-36 mc	
TRB 1133AB	(20 kc Channel Spacing), 36-42 mc	
TRB 1134AB	42-50 mc	
TRB 1135AB	50-54 mc	355.00
TRB 1131AC	Receiver, 6/12V 25-30 mc	
TRB 1132AC	("H" type), 30-36 mc	
TRB 1133AC	2-frequency 36-42 mc	
TRB 1134AC	(40 kc Channel Spacing) 42-50 mc	
TRB 1135AC	50-54 mc	385.00
TRB 1131AD	Receiver, 6/12V 25-30 mc	
TRB 1132AD	("H" type), 30-36 mc	
TRB 1133AD	2-frequency 36-42 mc	
TRB 1134AD	(20 kc Channel Spacing) 42-50 mc	
TRB 1135AD	50-54 mc	385.00
TRB 1131AF	Receiver, 6/12V 25-30 mc	
TRB 1132AF	Private-Line 30-36 mc	
TRB 1133AF	("H" type), 36-42 mc	
TRB 1134AF	(20 kc Channel Spacing) 42-50 mc	395.00
TRB 1131AH	Receiver, 6/12V 25-30 mc	
TRB 1132AH	Private-Line, 2-frequency 30-36 mc	
TRB 1133AH	("H" type), 36-42 mc	
TRB 1134AH	(20 kc Channel Spacing) 42-50 mc	425.00
TRB 1141AB	Receiver, 25-30 mc	
TRB 1142AB	("H" type) with Extender, 30-36 mc	
TRB 1143AB	(20 kc Channel Spacing), 36-42 mc	
TRB 1144AB	42-50 mc	440.00
TRB 1141AD	Receiver, 25-30 mc	
TRB 1142AD	2-frequency, ("H" type), 30-36 mc	
TRB 1143AD	with Extender, 36-42 mc	
TRB 1144AD	(20 kc Channel Spacing) 42-50 mc	470.00
TRB 1141AF	Receiver, 25-30 mc	
TRB 1142AF	Private-Line, ("H" type), 30-36 mc	
TRB 1143AF	with Extender, 36-42 mc	
TRB 1144AF	(20 kc Channel Spacing) 42-50 mc	480.00
TRB 1141AH	Receiver, 25-30 mc	
TRB 1142AH	Private-Line, ("H" type), 30-36 mc	
TRB 1143AH	with Extender, 2-frequency 36-42 mc	
TRB 1144AH	(20 kc Channel Spacing) 42-50 mc	510.00
TRB 1151AB	Receiver, 25-30 mc	
TRB 1152AB	("H" type) with Extender, 30-36 mc	
TRB 1153AB	(20 kc Channel Spacing), 36-42 mc	
TRB 1154AB	42-50 mc	445.00
TRB 1151AD	Receiver, 25-30 mc	
TRB 1152AD	("H" type) with Extender, 30-36 mc	
TRB 1153AD	2-frequency, 36-42 mc	
TRB 1154AD	(20 kc Channel Spacing) 42-50 mc	475.00
TRB 1151AF	Receiver, 25-30 mc	
TRB 1152AF	("H" type) with Extender, 30-36 mc	
TRB 1153AF	(20 kc Channel Spacing), 36-42 mc	
TRB 1154AF	42-50 mc	485.00
TRB 1151AH	Receiver, 25-30 mc	
TRB 1152AH	("H" type) with Extender, 30-36 mc	
TRB 1153AH	Private-Line, 2-frequency, 36-42 mc	
TRB 1154AH	(20 kc Channel Spacing) 42-50 mc	515.00



# transmitters 25-54 mc

Chassis prices shown do not include control crystals.

Crystals must be listed separately on order showing operating frequency desired.

If rack mounting brackets are desired, they must be specified and will be included at no additional cost.

(Specify TK 180 mounting bracket kit, no charge.)

Rack Mounting bracket kit not available for "G" type chassis.

Please specify deviation when ordering transmitters (5 KC or 15 KC).

MODEL NO.	MODEL DESCRIPTION	NET PRICE
TA104	1-frequency, 25-54 mc, 6/12V, used with 25 and 50W mobiles. Order Chassis number: TTB1011AA for 25-30 mc TTB1012AA for 30-35 mc TTB1013AA for 35-40 mc TTB1014AA for 40-45 mc TTB1015AA for 45-50 mc TTB1016AA for 50-54 mc	110.00
TA104-C2	2-frequency, 25-54 mc, 6/12V, used with 25 and 50W mobiles. Order Chassis number: TTB1011AB for 25-30 mc TTB1012AB for 30-35 mc TTB1013AB for 35-40 mc TTB1014AB for 40-45 mc TTB1015AB for 45-50 mc TTB1016AB for 50-54 mc	127.00
TA-200-A	1-frequency, 25-54 mc, 6/12V, used with 100W mobiles. Order Chassis number: TTB1021AA for 25-30 mc TTB1022AA for 30-35 mc TTB1023AA for 35-40 mc TTB1024AA for 40-45 mc TTB1025AA for 45-50 mc TTB1026AA for 50-54 mc	177.00
TA200-A-C2	2-frequency, 25-54 mc, 6/12V, used with 100W mobiles. Order Chassis number: TTB1021AB for 25-30 mc TTB1022AB for 30-35 mc TTB1023AB for 35-40 mc TTB1024AB for 40-45 mc TTB1025AB for 45-50 mc TTB1026AB for 50-54 mc	188.00
TA-201-AT	1-frequency, 25-50 mc, 6/12V, used in 25 and 60W "Private-Line" mobiles. Order Chassis number: TTB1011AC for 25-30 mc TTB1012AC for 30-35 mc TTB1013AC for 35-40 mc TTB1014AC for 40-45 mc TTB1015AC for 45-50 mc	110.00
TA-202-AT	1-frequency, 25-50 mc, used in 60W, 117VAC "Private-Line" stations. Order Chassis number: TTB1020AC for 25-30 mc TTB1021AC for 30-35 mc TTB1022AC for 35-40 mc TTB1023AC for 40-45 mc TTB1024AC for 45-50 mc	177.00

MODEL NO.	MODEL DESCRIPTION	NET PRICE
TA234	1-frequency, 25-54 mc, 12V, used in 30W "T-Power" mobiles. Order Chassis number: TTB1031AA for 25-30 mc TTB1032AA for 30-35 mc TTB1033AA for 35-40 mc TTB1034AA for 40-45 mc TTB1035AA for 45-50 mc TTB1036AA for 50-54 mc	110.00
TA234-C2	2-frequency, 25-54 mc, 12V, used in 30W "T-Power" mobiles. Order Chassis number: TTB1031AB for 25-30 mc TTB1032AB for 30-35 mc TTB1033AB for 35-40 mc TTB1034AB for 40-45 mc TTB1035AB for 45-50 mc TTB1036AB for 50-54 mc	127.00
TA234-T	1-frequency, 25-50 mc, 12V, used in 25-50 W, mobile. Order Chassis number: TTB1031AC for 25-30 mc TTB1032AC for 30-35 mc TTB1033AC for 35-40 mc TTB1034AC for 40-45 mc TTB1035AC for 45-50 mc	110.00
TA234-T-C2	2-frequency, 25-50 mc, 12V, used in 25-50W mobiles. Order Chassis number: TTB1031AD for 25-30 mc TTB1032AD for 30-35 mc TTB1033AD for 35-40 mc TTB1034AD for 40-45 mc TTB1035AD for 45-50 mc	127.00
TA241	1-frequency, 25-54 mc, 12V, used in 100W mobiles. Order Chassis number: TTB1041AA for 25-30 mc TTB1042AA for 30-35 mc TTB1043AA for 35-40 mc TTB1044AA for 40-45 mc TTB1045AA for 45-50 mc TTB1046AA for 50-54 mc	177.00
TA241-C2	2-frequency, 25-54 mc, used in 100W mobiles. Order Chassis number: TTB1041AB for 25-30 mc TTB1042AB for 30-35 mc TTB1043AB for 35-40 mc TTB1044AB for 40-45 mc TTB1045AB for 45-50 mc TTB1046AB for 50-54 mc	188.00
TA243	1-frequency, 25-50 mc, 12V, used in 100W mobiles. Order Chassis number: TTB1041AC for 25-30 mc TTB1042AC for 30-35 mc TTB1043AC for 35-40 mc TTB1044AC for 40-45 mc TTB1045AC for 45-50 mc	177.00
TA243-C2	2-frequency, 25-50 mc, 12V, used in 100W mobiles. Order Chassis number: TTB1041AD for 25-30 mc TTB1042AD for 30-35 mc TTB1043AD for 35-40 mc TTB1044AD for 40-45 mc TTB1045AD for 45-50 mc	188.00

MODEL NO.	MODEL DESCRIPTION	NET PRICE	MODEL NO.	MODEL DESCRIPTION	NET PRICE
TTB1001BA	1-frequency,	25-30 mc	TTB1031AB	2-frequency,	25-30 mc
TTB1002BA	("H" type), "Motrac"	30-36 mc	TTB1032AB	12V, 30W,	30-35 mc
TTB1003BA	Radio, 30-50W.	36-42 mc	TTB1033AB	"T-Power" Radio.	35-40 mc
TTB1004BA		42-50 mc	TTB1034AB		40-45 mc
TTB1005BA		50-54 mc	TTB1035AB		45-50 mc
		<b>146.00</b>	TTB1036AB		<b>127.00</b>
TTB1001BB	2-frequency,	25-30 mc	TTB1031AC	1-frequency,	25-30 mc
TTB1002BB	("H" type), "Motrac"	30-36 mc	TTB1032AC	12V, 25-50W.	30-35 mc
TTB1003BB	Radio, 30-50W.	36-42 mc	TTB1033AC		35-40 mc
TTB1004BB		42-50 mc	TTB1034AC		40-45 mc
TTB1005BB		50-54 mc	TTB1035AC		45-50 mc
		<b>166.00</b>			<b>110.00</b>
TTB1011AA	1-frequency,	25-30 mc	TTB1031AD	2-frequency,	25-30 mc
TTB1012AA	6/12V, 25-50W.	30-35 mc	TTB1032AD	12V, 25-50W.	30-35 mc
TTB1013AA		35-40 mc	TTB1033AD		35-40 mc
TTB1014AA		40-45 mc	TTB1034AD		40-45 mc
TTB1015AA		45-50 mc	TTB1035AD		45-50 mc
TTB1016AA		50-54 mc			<b>127.00</b>
		<b>110.00</b>	TTB1041AA	1-frequency,	25-30 mc
TTB1011AB	2-frequency,	25-30 mc	TTB1042AA	12V, 100W.	30-35 mc
TTB1012AB	6/12V, 25, 50W.	30-35 mc	TTB1043AA		35-40 mc
TTB1013AB		35-40 mc	TTB1044AA		40-45 mc
TTB1014AB		40-45 mc	TTB1045AA		45-50 mc
TTB1015AB		45-50 mc	TTB1046AA		50-54 mc
TTB1016AB		50-54 mc			<b>177.00</b>
		<b>127.00</b>	TTB1041AB	2-frequency,	25-30 mc
TTB1011AC	1-frequency,	25-30 mc	TTB1042AB	100W.	30-35 mc
TTB1012AC	6/12V, 25, 60W,	30-35 mc	TTB1043AB		35-40 mc
TTB1013AC	"Private-Line" Radio.	35-40 mc	TTB1044AB		40-45 mc
TTB1014AC		40-45 mc	TTB1045AB		45-50 mc
TTB1015AC		45-50 mc	TTB1046AB		50-54 mc
		<b>110.00</b>			<b>188.00</b>
TTB1011AD	2-frequency,	25-30 mc	TTB1041AC	1-frequency,	25-30 mc
TTB1012AD	("G" type), 25, 50W,	30-35 mc	TTB1042AC	12V, 100W.	30-35 mc
TTB1013AD	"Private-Line" Radio.	35-40 mc	TTB1043AC		35-40 mc
TTB1014AD		40-45 mc	TTB1044AC		40-45 mc
TTB1015AD		45-50 mc	TTB1045AC		45-50 mc
		<b>166.00</b>			<b>177.00</b>
TTB1021AA	1-frequency,	25-30 mc	TTB1041AD	2-frequency,	25-30 mc
TTB1022AA	6/12V, 100W.	30-35 mc	TTB1042AD	12V, 100W.	30-35 mc
TTB1023AA		35-40 mc	TTB1043AD		35-40 mc
TTB1024AA		40-45 mc	TTB1044AD		40-45 mc
TTB1025AA		45-50 mc	TTB1045AD		45-50 mc
TTB1026AA		50-54 mc			<b>188.00</b>
		<b>177.00</b>	TTB1061AA	1-frequency,	25-30 mc
TTB1021AB	2-frequency,	25-30 mc	TTB1062AA	("H" type),	30-36 mc
TTB1022AB	6/12V, 100W.	30-35 mc	TTB1063AA	"Motrac" Radio, 100W.	36-42 mc
TTB1023AB		35-40 mc	TTB1064AA		42-50 mc
TTB1024AB		40-45 mc	TTB1065AA		50-54 mc
TTB1025AB		45-50 mc			<b>196.00</b>
TTB1026AB		50-54 mc	TTB1061AB	2-frequency,	25-30 mc
		<b>188.00</b>	TTB1062AB	("H" type),	30-36 mc
TTB1021AC	1-frequency,	25-30 mc	TTB1063AB	"Motrac" Radio, 100W.	36-42 mc
TTB1022AC	60W, 117VAC	30-35 mc	TTB1064AB		42-50 mc
TTB1023AC	"Private-Line" stations.	35-40 mc	TTB1065AB		50-54 mc
TTB1024AC		40-45 mc			<b>216.00</b>
TTB1025AC		45-50 mc	TTB1071AA*	1-frequency,	25-30 mc
		<b>177.00</b>	TTB1072AA*	("H" type),	30-36 mc
TTB1031AA	1-frequency,	25-30 mc	TTB1073AA*	"Motrac" Radio,	36-42 mc
TTB1032AA	12V, 30W,	30-35 mc	TTB1074AA*	30-50W.	42-50 mc
TTB1033AA	"T-Power" Radio.	35-40 mc	TTB1075AA*		50-54 mc
TTB1034AA		40-45 mc			<b>146.00</b>
TTB1035AA		45-50 mc	TTB1071AB*	2-frequency,	25-30 mc
TTB1036AA		50-54 mc	TTB1072AB*	("H" type),	30-36 mc
		<b>110.00</b>	TTB1073AB*	"Motrac" Radio,	36-42 mc
			TTB1074AB*	30-50W.	42-50 mc
			TTB1075AB*		50-54 mc
					<b>166.00</b>

\* Used when factory installed in weatherproof housing.



# receivers 136-174 mc

Chassis prices shown do not include control or IF crystals.

Crystals must be listed separately on order showing operating frequency desired.

If rack mounting brackets are desired, they must be specified and will be included at no additional cost.

(Specify TK 180 mounting bracket kit, no charge.)

Mounting bracket supplied with Sensicon "A" type receivers only.

MODEL NO.	MODEL DESCRIPTION	NET PRICE
TA140-BS	"Uni-Channel" Receiver, ("G" type), 144-174 mc, (20 kc Channel Spacing). Order Chassis number: TRD1151AB for 144-152 mc TRD1152AB for 152-174 mc	182.00
TA140-BSQ	"Uni-Channel" Receiver, ("G" type), 144-174 mc, (30 kc Channel Spacing). Order Chassis number: TRD1181AB for 144-152 mc TRD1182AB for 152-174 mc	182.00
TA140-BS-R2	"Uni-Channel" Receiver, ("G" type), 144-174 mc, 2-frequency (30 kc Channel Spacing). Order Chassis number: TRD1151AD for 144-152 mc TRD1152AD for 152-174 mc	199.00
TA140-BW	"Uni-Channel" Receiver, ("G" type), 144-174 mc, (60 kc Channel Spacing). Order Chassis number: TRD1151AA for 144-152 mc TRD1152AA for 152-174 mc	182.00
TA140-BWQ	"Uni-Channel" Receiver, ("G" type), 144-174 mc, (60 kc Channel Spacing). Order Chassis number: TRD1181AA for 144-152 mc TRD1182AA for 152-174 mc	182.00
TA191-S	"Sensicon" Receiver, used with 152-174 mc stations (60 kc Channel Spacing). Order Chassis number: TRD1031AB for 144-152 mc TRD1032AB for 152-174 mc	233.00
TA191-SQ	"Sensicon" Receiver, used with 152-174 mc stations (30 kc Channel Spacing). Order Chassis number: TRD1041AB for 144-152 mc TRD1042AB for 152-174 mc	233.00

MODEL NO.	MODEL DESCRIPTION	NET PRICE
TA191-SQ-R2	"Sensicon" Receiver, 2-frequency, used with 152-174 mc, 6/12V models (30 kc Channel Spacing). Order Chassis number: TRD1041AD for 144-152 mc TRD1042AD for 152-174 mc	250.00
TA191-S-R2	"Sensicon" Receiver, used with 152-174 mc, 6/12V models (30 kc Channel Spacing). Order Chassis number: TRD1031AD for 144-152 mc TRD1032AD for 152-174 mc	250.00
TA191-W	"Sensicon" Receiver, used with 152-174 mc, 6/12V models (60 kc Channel Spacing). Order Chassis number: TRD1031AA for 144-152 mc TRD1032AA for 152-174 mc	233.00
TA191-W-Q	"Sensicon" Receiver, used with 152-174 mc stations (60 kc Channel Spacing). Order Chassis number: TRD1041AA for 144-152 mc TRD1042AA for 152-174 mc	233.00
TA191-WQ-R2	"Sensicon" Receiver, 2-frequency, used with 152-174 mc 6/12V models (60 kc Channel Spacing). Order Chassis number: TRD1041AC for 144-152 mc TRD1042AC for 152-174 mc	250.00
TA191-W-R2	"Sensicon" Receiver, 2-frequency, used with 152-174 mc, 6/12V models (60 kc Channel Spacing). Order Chassis number: TRD1031AC for 144-152 mc TRD1032AC for 152-174 mc	250.00
TA237-S	Receiver, ("G" type), 144-174 mc (30 kc Channel Spacing), 12V. Order Chassis number: TRD1171AB for 144-152 mc TRD1172AB for 152-174 mc	182.00
TA237-S-R2	Receiver, ("G" type), 144-174 mc, 2-frequency, (30 kc Channel Spacing), 12V. Order Chassis number: TRD1171AD for 144-152 mc TRD1172AD for 152-174 mc	199.00

MODEL NO.	MODEL DESCRIPTION	NET PRICE	MODEL NO.	MODEL DESCRIPTION	NET PRICE
TA237-S-Z	Receiver, ("G" type), 144-174 mc (30 kc Channel Spacing). Dual Squelch, 12V. Order Chassis number: TRD1171AF for 144-152 mc TRD1172AF for 152-174 mc	212.00	TRD 1031AA TRD 1032AA	"Sensicon" Receiver, 6/12V. (60 kc Channel Spacing.) 144-152 mc 152-174 mc	233.00
TA237-SZ-R2	Receiver, ("G" type), 144-174 mc, 2-frequency (30 kc Channel Spacing). Dual Squelch, 12V. Order Chassis number: TRD1171AH for 144-152 mc TRD1172AH for 152-174 mc	229.00	TRD 1031AB TRD 1032AB	"Sensicon" Receiver, (30 kc Chan- nel Spacing). 144-152 mc 152-174 mc	233.00
TA237-W	Receiver, ("G" type), 144-174 mc (60 kc Channel Spacing). 12v, used on "T" Power Mobile. Order Chassis number: TRD1171AA for 144-152 mc TRD1172AA for 152-174 mc	182.00	TRD 1031AD TRD 1032AD	"Sensicon" Receiver, 2-frequency, 6/12V. (60 kc Channel Spacing.) 144-152 mc 152-174 mc	250.00
TA237-W-R2	Receiver, ("G" type), 144-174 mc, 2-frequency (60 kc Channel Spacing), 12V. Order Chassis number: TRD1171AC for 144-152 mc TRD1172AC for 152-174 mc	199.00	TRD 1041AA TRD 1042AA	Sensicon" Receiver, 6/12V, (30 kc Channel Spacing). 144-152 mc 152-174 mc	250.00
TA237-WZ	Receiver, ("G" type), 144-174 mc, (60 kc Channel Spacing). Dual Squelch, 12V. Order Chassis number: TRD1171AE for 144-152 mc TRD1172AE for 152-174 mc	212.00	TRD 1041AB TRD 1042AB	"Sensicon" Receiver, (60 kc Chan- nel Spacing). 144-152 mc 152-174 mc	233.00
TA238S	Receiver, ("G" type), 144-174 mc (30 kc Channel Spacing), dual squelch 6/12V. Order Chassis number: TRD1151AF for 144-152 mc TRD1152AF for 152-174 mc	212.00	TRD 1041AC TRD 1042AC	"Sensicon" Receiver, 2-frequency, 6/12V, (60 kc Channel Spacing). 144-152 mc 152-174 mc	250.00
TA238-W	Receiver, ("G" type), 144-174 mc (60 kc Channel Spacing), dual squelch 6/12V. Order Chassis number: TRD1151AE for 144-152 mc TRD1152AE for 152-174 mc	212.00	TRD 1041AD TRD 1042AD	"Sensicon" Receiver, 6/12V, (30 kc Channel Spacing). 144-152 mc 152-174 mc	250.00
TRD 1011AB TRD 1012AB	Receiver, ("G" type), (30 kc Chan- nel Spacing). 144-152 mc 152-174 mc	186.00	TRD 1151AA TRD 1152AA	"Uni-Channel" Receiver, ("G" type), (60 kc Channel Spacing). 144-152 mc 152-174 mc	182.00
TRD 1011AD TRD 1012AD	Receiver, ("G" type), (30 kc Chan- nel Spacing). 144-152 mc 152-174 mc	203.00	TRD 1151AB TRD 1152AB	"Uni-Channel" Receiver, ("G" type), (30 kc Channel Spacing). 144-152 mc 152-174 mc	182.00
TRD 1021AB TRD 1022AB	Receiver, ("G" type), (30 kc Chan- nel Spacing). 144-152 mc 152-174 mc	186.00	TRD 1151AC TRD 1152AC	Receiver, ("G" type), (60 kc Chan- nel Spacing). 144-152 mc 152-174 mc	199.00
TRD 1021AD TRD 1022AD	Receiver, ("G" type), (30 kc Chan- nel Spacing). 144-152 mc 152-174 mc	203.00	TRD 1151AD TRD 1152AD	"Uni-Channel" Receiver, 2-fre- quency, ("G" type), (30 kc Chan- nel Spacing). 144-152 mc 152-174 mc	199.00
			TRD 1151AE TRD 1152AE	Receiver, ("G" type), (60 kc Chan- nel Spacing). 144-152 mc 152-174 mc	212.00
			TRD 1151AF TRD 1152AF	Receiver, ("G" type), (30 kc Chan- nel Spacing). 144-152 mc 152-174 mc	212.00



# portable receivers and transmitters

MODEL NO.	MODEL DESCRIPTION	NET PRICE	MODEL NO.	MODEL DESCRIPTION	NET PRICE
<b>25-54 mc Portable Receivers</b>					
NRB 1061AA	Receiver unit, 25-54 mc, (40 kc Channel Spacing). 25-30 mc	171.00	NRB 1071AD	Receiver unit, 25-54 mc, 2-frequency, (20 kc Channel Spacing). 25-30 mc	196.00
NRB 1062AA	30-42 mc		NRB 1072AD	30-42 mc	
NRB 1063AA	42-54 mc		NRB 1073AD	42-54 mc	
NRB 1061AB	Receiver unit, 25-54 mc, (20 kc Channel Spacing). 25-30 mc	171.00	NRB 1081AA	Receiver unit, 25-54 mc, (40 kc Channel Spacing). 25-30 mc	171.00
NRB 1062AB	30-42 mc		NRB 1082AA	30-42 mc	
NRB 1063AB	42-54 mc		NRB 1083AA	42-54 mc	
NRB 1061AC	Receiver unit, 25-54 mc, 2-frequency, (40 kc Channel Spacing). 25-30 mc	191.00	NRB 1081AB	Receiver unit, 25-54 mc, (20 kc Channel Spacing). 25-30 mc	171.00
NRB 1062AC	30-42 mc		NRB 1082AB	30-42 mc	
NRB 1063AC	42-54 mc		NRB 1083AB	42-54 mc	
NRB 1061AD	Receiver unit, 25-54 mc, 2-frequency, (20 kc Channel Spacing). 25-30 mc	191.00	NRB 1081AC	Receiver unit, 25-54 mc, 2-frequency, (40 kc Channel Spacing). 25-30 mc	191.00
NRB 1062AD	30-42 mc		NRB 1082AC	30-42 mc	
NRB 1063AD	42-54 mc		NRB 1083AC	42-54 mc	
NRB 1061AF	Receiver unit, 25-54 mc, (20 kc Channel Spacing). 25-30 mc	201.00	NRB 1081AD	Receiver unit, 25-54 mc, (20 kc Channel Spacing). 25-30 mc	191.00
NRB 1062AF	30-42 mc		NRB 1082AD	30-42 mc	
NRB 1063AF	42-54 mc		NRB 1083AD	42-54 mc	
<b>25-54 mc Portable Receivers</b>			<b>25-54 mc Portable Transmitters</b>		
NRB 1071AA	Receiver unit, 25-54 mc, (40 kc Channel Spacing). 25-30 mc	176.00	NTB 6001AC	Transmitter, "Private Line," (20 kc Channel Spacing). 25-30 mc	113.00
NRB 1072AA	30-42 mc		NTB 6002AC	30-42 mc	
NRB 1073AA	42-54 mc		NTB 6003AC	42-50 mc	
NRB 1071AB	Receiver unit, 25-54 mc, (20 kc Channel Spacing). 25-30 mc	176.00	NTB 6021AA	Transmitter, (20 kc Channel Spacing). 25-30 mc (replaces NU 102L)	94.00
NRB 1072AB	30-42 mc		NTB 6022AA	30-42 mc (replaces NU 102M)	
NRB 1073AB	42-54 mc		NTB 6023AA	42-54 mc (replaces NU 102H)	
NRB 1071AC	Receiver unit, 25-54 mc, 2-frequency, (40 kc Channel Spacing). 25-30 mc	196.00	NTB 6021AB	Transmitter, 2-frequency, (20 kc Channel Spacing). 25-30 mc (replaces NU 102L-C2)	113.00
NRB 1072AC	30-42 mc		NTB 6022AB	30-42 mc (replaces NU 102M-C2)	
NRB 1073AC	42-54 mc		NTB 6023AB	42-54 mc (replaces NU 102H-C2)	

MODEL NO.	MODEL DESCRIPTION	NET PRICE
<b>136-174 mc Portable Receivers</b>		
NRD 1081AC NRD 1082AC	Receiver, 2-frequency, (60 kc Channel Spacing). 136-150.8 mc 150.8-174 mc	213.00
NRD 1081AD NRD 1082AD	Receiver, 2-frequency, (30 kc Channel Spacing). 136-150.8 mc 150.8-174 mc	191.00
NRD 1080AF	Receiver, 150-174 mc, (30 kc Channel Spacing).	223.00
NRD 1091AC NRD 1092AC	Receiver, 2-frequency, (60 kc Channel Spacing). 136-150.8 mc 150.8-174 mc	215.00
NRD 1091AD NRD 1092AD	Receiver, 2-frequency, (30 kc Channel Spacing). 136-150.8 mc 150.8-174 mc	215.00
NRD 1101AC NRD 1102AC	Receiver, 2-frequency, (60 kc Channel Spacing). 136-150.8 mc 150.8-174 mc	213.00
NRD 1101AD NRD 1102AD	Receiver, 2-frequency, (30 kc Channel Spacing). 136-150.8 mc 150.8-174 mc	213.00
NRD 1111AA NRD 1112AA	Receiver, (60 kc Channel Spacing) 136-150.8 mc 150.8-174 mc	193.00
NRD 1111AB NRD 1112AB	Receiver, (30 kc Channel Spacing) 136-150.8 mc 150.8-174 mc	193.00
NRD 1111AF NRD 1112AF	Receiver, "Private Line," (30 kc Channel Spacing) 136-150.8 mc 150.8-174 mc	223.00

MODEL NO.	MODEL DESCRIPTION	NET PRICE
<b>144-174 mc Portable Transmitters</b>		
NTD 6000AA	Transmitter, 144-174 mc, (60 kc Channel Spacing)	127.00
NTD 6000AB	Transmitter 144-174 mc, 2-frequency, (60 kc Channel Spacing)	146.00
NTD 6000AC	Transmitter, 150-174 mc, "Private Line," (30 kc Channel Spacing)	146.00
<b>406-470 mc Receivers</b>		
TRE 1000AA	1-frequency, 450-470 mc, ("A" type) Standard Squelch.	274.00
TRE 1000AE	1-frequency, 450-470 mc, ("A" type) "Private Line."	304.00
TRE 1010AA	1-frequency, 406-420 mc, ("A" type) 50 kc Standard Squelch	274.00
TRE 1021AA TRE 1020AA	1-frequency, ("B" type). 406-420 mc 450-470 mc	230.00
TRE 1021AC TRE 1020AC	2-frequency, ("B" type). 406-420 mc 450-470 mc	247.00
TRE 1020AE	1-frequency, 450-470 mc, "Private Line, ("B" type).	260.00
TRE 1020AG	2-frequency, 450-470 mc, "Private Line," ("B" type).	277.00
<b>406-470 mc Transmitters</b>		
TTE 1000AA	1-frequency, 450-470 mc, ("A" type)	336.00
TTE 1000AB	2-frequency, 450-470 mc, ("A" type)	353.00
TTE 1000AC	1-frequency, 450-470 mc, ("A" type) "Private Line."	336.00
TTE 1010AA	1-frequency, 406-420 mc, ("A" type)	274.00

## EXPLANATION OF NEW PART NUMBERING SYSTEM

With the new Motorola part numbering system, it is now possible to identify a "family" of parts by part number.

For example, 48D 82383B series of "top hat rectifiers" are all identical in shape physically, but differ in electrical ratings. The key to the difference will be noted in the suffix. It is extremely important when ordering parts that the complete part number is given (prefix, body and suffix.) A

part number lacking either the prefix or suffix will delay the processing and prompt shipment of your order.

EXAMPLE:

PREFIX	BODY	SUFFIX	SPECIFICATIONS
48D	82383B	01	350MA @ 500V
48D	82383B	02	280MA @ 700V
48D	82383B	03	350MA @ 400V

## NUMERICAL CATEGORY LISTING FOR PARTS

PREFIX	DESCRIPTION
1	Miscellaneous Assemblies (Make or Buy).
2	Nuts—All Types.
3	Screws and Bolts—All Types.
4	Washers—All Types.
5	Rivets, Eyelets and Grommets.
6	Carbon and all other type composition resistors.
7	Brackets, frames, supports, and similar formed parts.
8	Fixed paper capacitors (condensers)—All Types.
9	Sockets and receptacles, all types of female connectors.
10	Wire.
11	Sleeving.
13	Medallions, Escutcheons, Grilles, and Bezels.
14	Insulators, stamped or molded.
15	Housing, Cases and Covers (formed).
16	Cabinets.
17	Resistors, wire wound. (Fixed and adjustable).
18	Resistors, variable (composition or wire wound).
19	Capacitors (variable, adjustable and fixed).
20	Capacitors (variable).
21	Capacitors (fixed).
22	Cotter and groove pins.
23	Capacitors (Electrolytic).
24	Coils, chokes and transformers.
25	Transformers, chokes and coils.
26	Shields, (coil, transformer, and tube).
27	Chassis bases and sub-bases.
28	Plugs (single and multiple), all types of male connectors.
29	Soldering and crimp lugs, single terminals.
30	Wire, Cable, Cords, shield loom and braid.
31	Terminal strips, panels with terminals.
32	Gaskets, shims and sealing parts.
33	Nameplates and Decals.
34	Dial scales.
35	Screens, Grille Cloths, and Baffles.
36	Control knobs, and control levers.
37	Sleeving and loom.
38	Plug buttons and push buttons.
39	Contactors (wiping and finger) electrical.
40	Switches.

PREFIX	DESCRIPTION
41	Springs.
42	Clamps, clips, straps, bands, rings, and retainers.
43	Bushings, sleeves, flanges, hubs, balls, spacers, and inserts.
44	Gears.
45	Cams, actuating levers, links, arms and slides.
46	Studs, stops, blocks and mechanical plugs.
47	Shafts, rods and bars.
48	Vibrators, rectifiers, crystals and transistors.
49	Pulleys, wheels, discs, and drums.
50	Speakers, microphones, earphones, headsets, and handsets.
51	Res. Caps (Res., cap, combined integral units.)
52	Pointers.
54	Paper Labels, tags and instruction cards.
55	Hinges, catches, locks, keys, and handles.
56	Cartons, bags, sacks, envelopes and boxes (paper, plastic, or cloth).
58	Couplings, fittings, adapters, plumbing, and waveguides.
59	Motors, magnets, and cartridges.
60	Batteries, and bias cells.
61	Windows, lenses and transparent crystals.
64	Plates and panels.
65	Fuses, pilot lights, lamps, and special electron tubes.
66	Tools (service and installation).
67	Fuse Blocks.
68	Service Manuals and Operating Instruction Books, Sheets, Cards and Manuals.
69	Service illustrations other than schematic diagrams.
72	Meters, clocks and indicating devices (Electrical and Mechanical).
73	Engineering Schematic Diagrams and Calibration Curves.
74	Coil Forms.
75	Cushions, Shock Mounts, Bumpers, Pads, Plastic and Rubber Feet.
76	Tuning cores and slugs.
77	Tuners (Purchased and make assemblies).
80	Control Devices (Relays, Timers, Thermostats, and Thermocouples).
84	Printed Circuit Panels.
85	Antennas—all types except loops.
95	Tubes, Receiving, Radio, TV, etc.