

 **MOBILE RADIO**

**MASTR** *Personal Series*  
**TWO-WAY RADIO**  
(PE MODELS)



**GENERAL**  **ELECTRIC**



# **MASTR** *Personal Series*

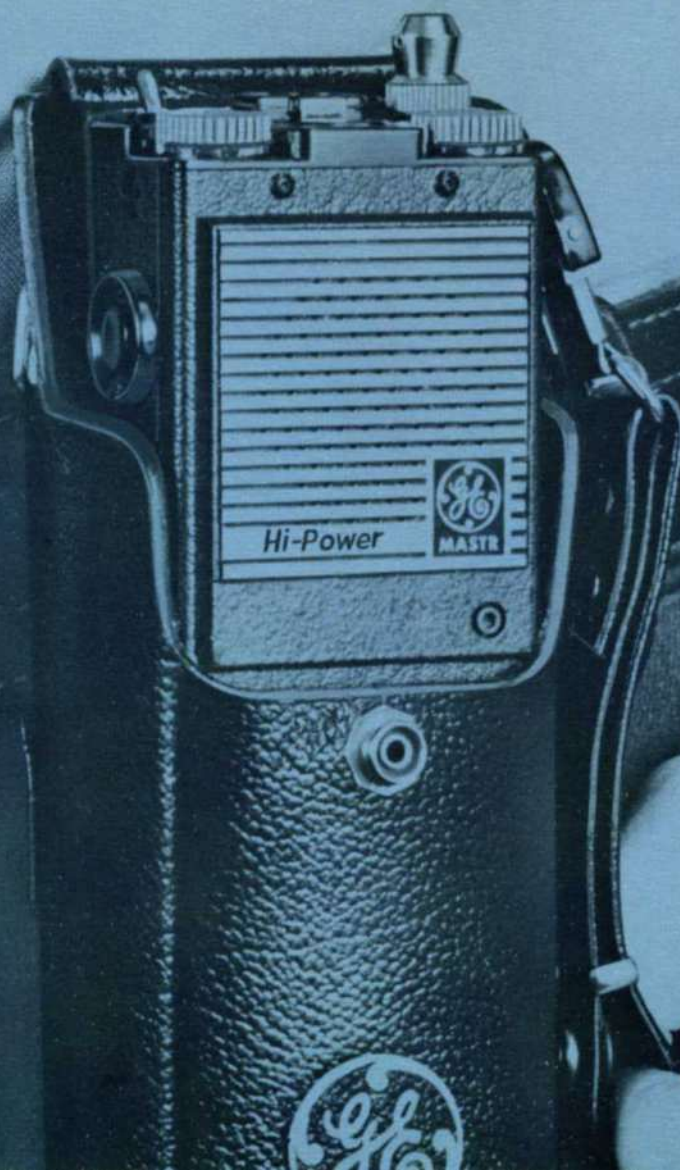
The MASTR Personal Series PE Radios are extremely compact, high performance two-way FM radios with models to satisfy a wide variety of operating requirements in Low Band, High Band and UHF frequency ranges.

Such features as RF power outputs up to five watts, a state-of-the-art 700 mAh battery with 40% more power than any previously offered, up to eight-channel operation, dual front end capability, and an exceptionally wide array of options and accessories make the PE Series the most versatile personal radios on the market today.

In combination with a vehicular charger package they instantly become sophisticated mobile radios. And, in combination with satellite receivers strategically located throughout the coverage area, they can extend personal communications over extremely large areas.

A PE Personal radio utilizes a unique two-piece mechanical design which houses the complete radio within a high impact Lexan® and steel case. All openings are weather-protected to permit normal operation in an adverse environment. The push-to-talk button is recessed into a guard ring to avoid accidental keying. The built-in microphone/speaker is moisture-sealed for optimum all-weather reliability.

The totally enclosed battery compartment is electrically and mechanically attached to the radio section by a patented "Twist Lock" connector. It is quickly removed without tools to provide fast change over with spare batteries for extended useage.







## Modes of Operation

Three of the most popular operating modes of the PE units when being carried in the hand or worn on the body are illustrated.

(1) The simplest operating mode is using the PE as a hand-held, locally-controlled unit employing the built-in speaker/microphone.

(2) A remote microphone or a speaker/microphone may be used with either the standard or remote PE for the convenience of the operator.

(3) Or, a speaker/microphone/antenna may be used with either a standard or remote PE. All remote microphones may be carried by either a hang-up button or a Velcro patch arrangement.







 **MASTR** *Personal Series*

AND LOCK PAPER CO.

FOOD SHOW

GRAND  
MOUNT ASIE



# High Power PE

Five watts of RF transmitter output power in High Band frequencies and up to four watts in UHF frequencies provide outstanding range in the High Power version of the PE personal radio.

It is available in a Basic Package with two-frequency capability, or in an Extended Package with eight-frequency capability.

Dependable operation is assured by its rugged interior and exterior construction, and components are securely mounted on military grade printed wiring boards. The case is made of durable Lexan® and steel to provide maximum impact and mar resistance. All openings are weather protected to keep out moisture, dust and other foreign matter.

The bottom section of the PE unit is a molded case containing a new 700 milliampere-hour rechargeable battery. This powerful battery will operate the High Power radio for a full 8-hour shift between charges, at a 5-5-90% duty cycle.

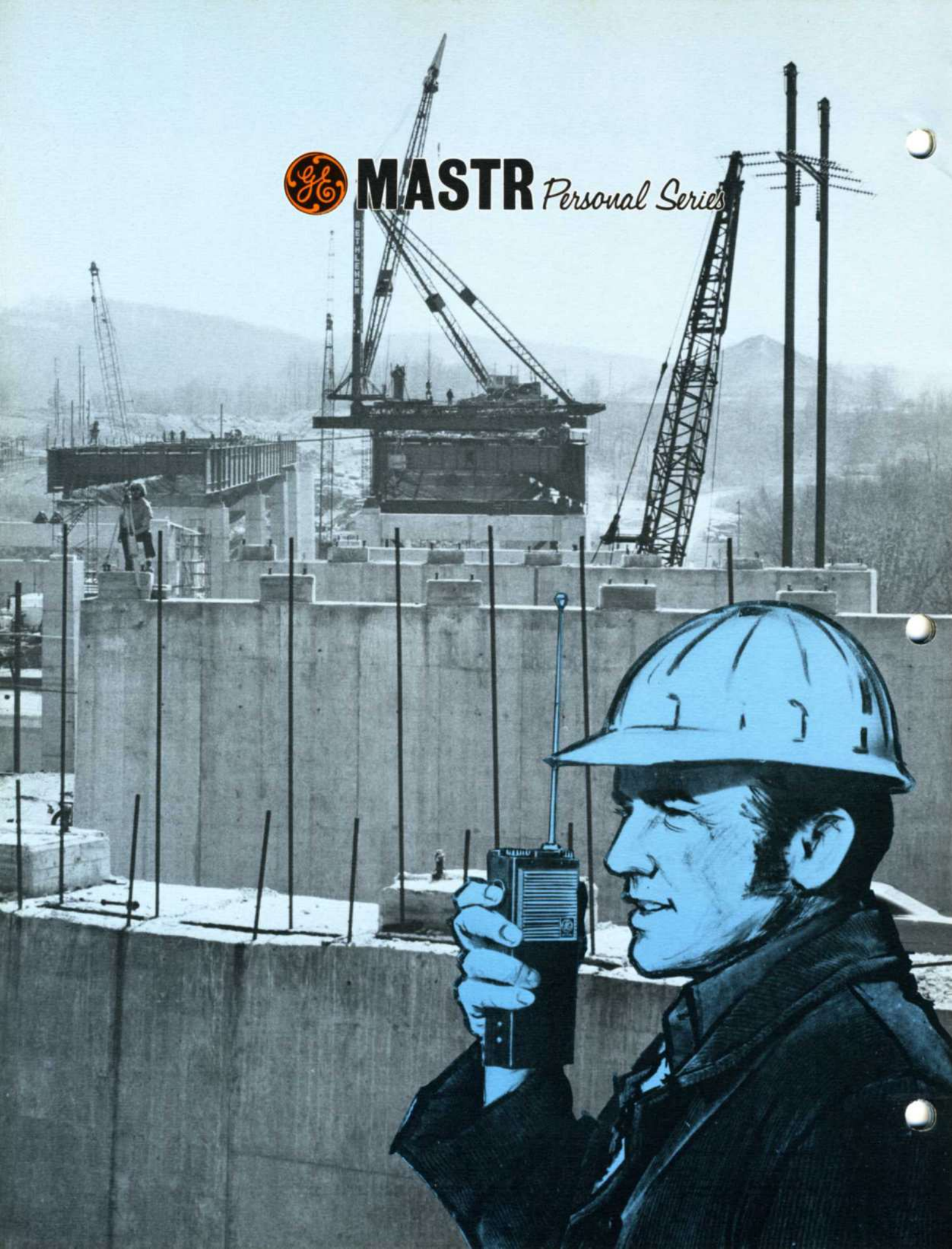
This new super power battery pack is protected from accidental destructive charging when used in new General Electric chargers employing a unique temperature-sensing system.







**MASTR** *Personal Series*





# Medium Power PE

Medium power units of two watts in High Band and one watt in UHF frequencies give an additional choice of transmitter power ranges to serve varying customer requirements.

In addition to the basic local control two-frequency and extended eight-frequency packages, Medium Power PE radios may be ordered in Remote configurations of the two package sizes.

The new 700 mAh rechargeable battery is standard and permits use of up to 16 hours between charges. Optional mercury or alkaline battery packs are also available for the medium power models.

All PE "Twist Lock" battery packs may be changed without the use of tools, coins or gaining access to the radio compartment. The rechargeable battery may be charged while attached to the radio or separately. Sub-surface contact strips on each side of the case provide automatic connection to the optional battery chargers.

BASIC



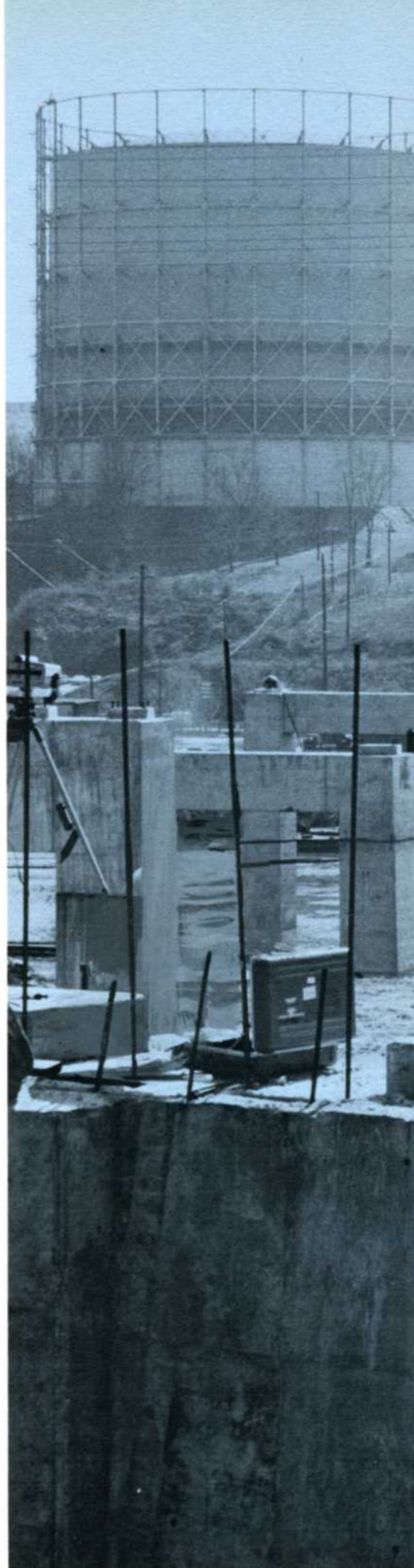
EXTENDED



REMOTE



EXTENDED  
REMOTE







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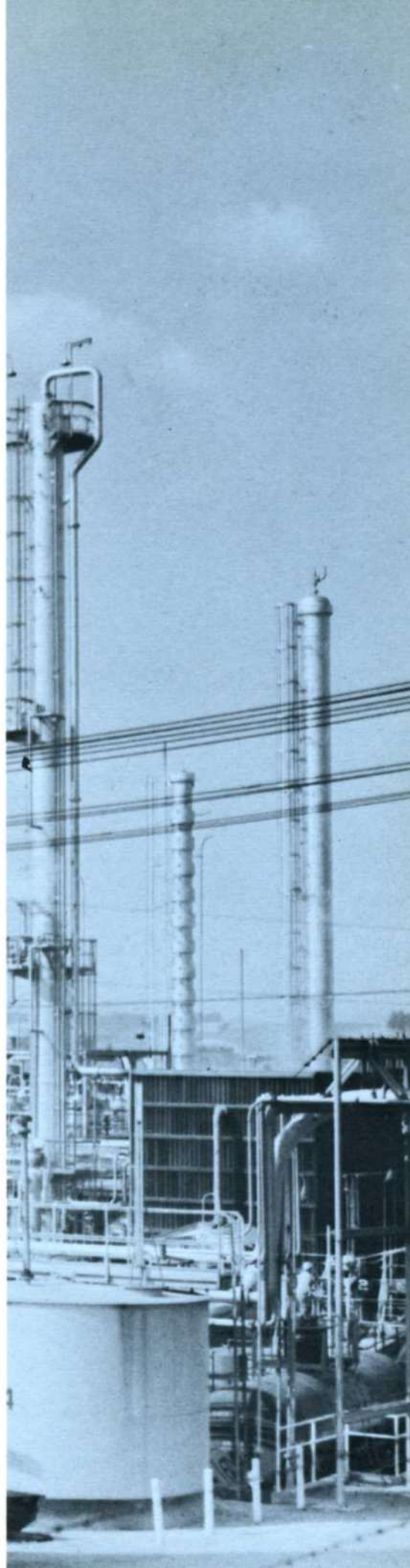
# Intrinsically Safe PE

The MASTR Personal PE High Band and UHF medium power radios, with factory installed Option 4670, have been tested and certified by the Factory Mutual Research Corporation for use in Class I, Division 1 hazardous locations in the presence of Group D atmospheres.

The approved PE radio is a weather-resistant, all solid-state FM transmitter and receiver with the convenient GE quick-disconnect rechargeable battery pack. Both the radio and battery pack are distinguishable from regular PE radios and batteries by their green identification labels.

Batteries may be charged while connected to the radio, or separately, only in optional desk top or multi-unit "green label" chargers. However, the battery charging operation itself is **never** approved for use within the hazardous location.

FM approved PE radios offer a wide selection of options including two-way Channel Guard, Selective Call (Individual and Group), built-in belt clip or swivel mount, microphones, antennas, etc.







# Chargers



## VEHICULAR CHARGERS

With a vehicular charger and available accessories your PE radio automatically becomes the equivalent of a highly sophisticated mobile or industrial radio unit. When the radio is inserted into the charger's receptacle, automatic connections are made to the external microphone, speaker, antenna and charging circuit.

Charging rate is an incredible less than three hours to 100% of battery capacity.

The charger package may be specified with a standard Low Band, High Band or UHF mobile antenna. Choices include a standard 2.5 watt or optional 15 watt audio amplifier built into the charger and an external speaker.

A new spring-loaded latching mechanism holds the PE Personal firmly in place until released by a push-button. A key locks the radio into the charger to reduce theft.

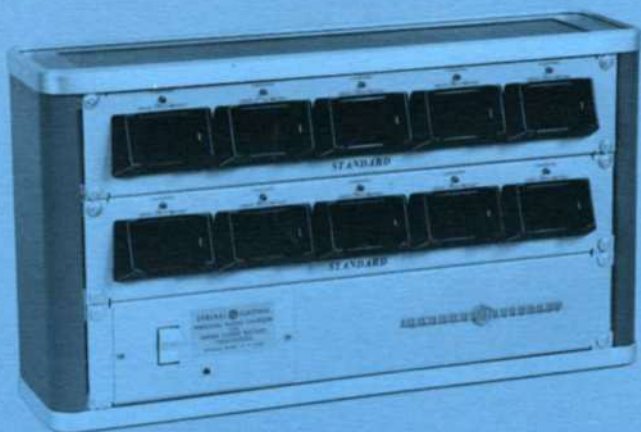
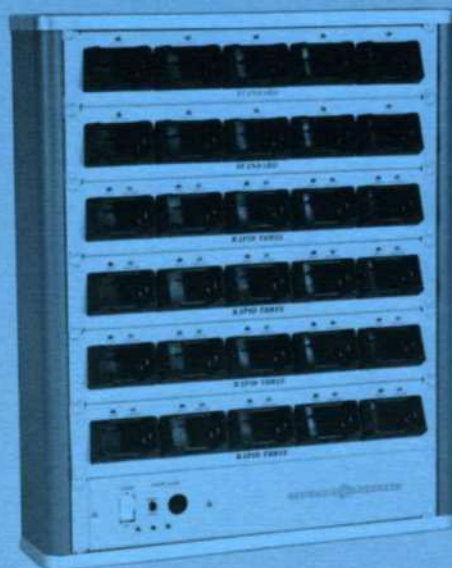


# MASTR *Personal Series*

## DESK-TOP CHARGERS

These chargers are designed to provide years of dependable service and proper maintenance of batteries without danger of overcharging. In fact, a fully charged battery may be left in a GE charger indefinitely without ill effect.

The Standard desk charger will bring the new 700 mAh battery to 100% capacity in 16 hours. The Rapid Three charger will bring the 700 mAh battery to full capacity in three hours or less — well within a single-shift period. All new PE chargers have a linear charging capability, so partially charged batteries require proportionately less time to charge. The battery may be charged while connected to the radio, or independently. Optional external antenna, microphone and connectors may be ordered for the Rapid Three desk charger for use of radio while charging.



## MULTI-UNIT CHARGERS

Multi-unit chargers are offered in two cabinet sizes, with up to 10 and 30 charging positions. Low-cost five-receptacle panels for either standard or Rapid Three charging can be ordered as required and combined in the same cabinet when originally ordered or later.

Installation is flexible since the cabinets may be mounted on a wall or placed free standing on a table top.

Cabinet chargers are normally furnished with a unique battery powered audible alarm function which signals an AC source failure. The Rapid Three chargers further display an amber LED during charging and a green LED indicating "ready-for-use."

Standard 16-hour "green-label" charging panels for Intrinsically Safe batteries are available for both size multi-charger cabinets.



All battery packs connect to the radio with General Electric's innovative "Twist Lock." When the rechargeable batteries are charging, no part of the case is open and no component or circuitry is exposed. Therefore, no dust or other damaging elements can enter the case.

Low-band model shown.



A battery lifting tab is built into the desk charger to aid in removing the battery when it is being charged without the radio.



# Options and Accessories

## Optional Battery Packs



Nickle-cadmium batteries for the PE Personal Series radio are available in the new super-power standard 700 milliampere-hour rechargeable size or in the optional 500 milliampere-hours rechargeable size. Dry battery packs of alkaline and long-life mercury batteries are available for medium power models.

## Interchangeable Antennas

Telescopic antennas are standard on all PE models.



¼ WAVE WHIP ANTENNA for High Band and UHF use. (Optional)



INSULATED SPRING ANTENNAS in appropriate lengths for all frequency bands. (Optional)



LIMP WIRE ANTENNA for High Band and UHF use. (Optional)

## Carrying Accessories



A wide variety of optional carrying accessories are available to meet individual needs. These include the basic carrying case with cover and retaining strap; a carrying case with swivel mount and belt loop (above); swivel mount radio back and belt loop for the basic package PE (right); shoulder or hand straps which may be attached to the case or directly to the radio; a built-in clip for carrying the PE on a belt; a leather battery holder which attaches to a belt and holds a spare rechargeable battery or a set of six dry batteries; and others.

## Other Options:

- Dual Front End
- Search Lock Monitor
- Selective Calling
- Channel Guard Filter
- Carrier Control Timer
- Compression Amplifier



# AUDIO ACCESSORIES

## STANDARD HEADSET

a medium-weight general purpose headset with a single padded ear-piece, head band, boom microphone and push-to-talk switch.



## HIGH NOISE HEADSET

for up to 120 dB ambient noise levels. It has a noise cancelling microphone and a belt-mounted push-to-talk switch.



## EARMOUNT HEADSET

Ideal when used for a heavy duty cycle. Weighs only 2 ounces. Has adjustable tube to the microphone and various size ear plugs.



## LIGHTWEIGHT HEADSET

Designed to be clipped to wearer's glasses or attached to head band furnished. One-finger push-to-talk operation.



## THE EARPIECE

is worn on the ear for private listening or for better pickup in areas of high ambient noise.



## LAPEL SPEAKER

is approximately 1 1/2" round, 3/4" thick and has a spring clip on the back for fastening to the lapel or other parts of the clothing.



## SURVEILLANCE ACCESSORIES

available for law enforcement agencies or other agencies authorized to use them. One model (illustrated) uses a clip on remote push-to-talk switch. The other is furnished with a ribbon switch which is activated by flexing.



## REMOTE MICROPHONE OR SPEAKER/ MICROPHONES

are available with either the standard microphone spring clip or with fastener-pad backing that can be attached to the clothing. Used as a hand-held microphone and speaker so that the radio does not have to be removed from the belt for operation.



## NOISE CANCELLING MICROPHONE

provides clearer communications in a noisy environment.



## SPEAKER/ MICROPHONE/ ANTENNA

A speaker/ microphone complete with antenna is available with either hang-up button for attaching to the operator's belt or shoulder strap, or a Velcro arrangement for wearing on the operator's shoulder. A "hi-lo" audio switch provides the amount of audio to the speaker as set by the volume control on the radio or reduces it 15 dB by repositioning the switch. For High Band and UHF.







# MASTR

*Personal Series*

## **The All Solid-State Radio Backed by Expert Service**

The PE Models of MASTR Personal Series two-way radios are performance proved. Yet, like all electronic equipment they may need adjustment and service from time to time. In fact, the FCC requires periodic frequency and transmitter deviation measurements.

To provide you with this service, General Electric has hundreds of authorized Service Centers throughout all 50 states and at many off-shore locations. Each center is equipped with the latest electronic test and measurement equipment, and staffed by skilled, factory-trained technicians licensed by the FCC.

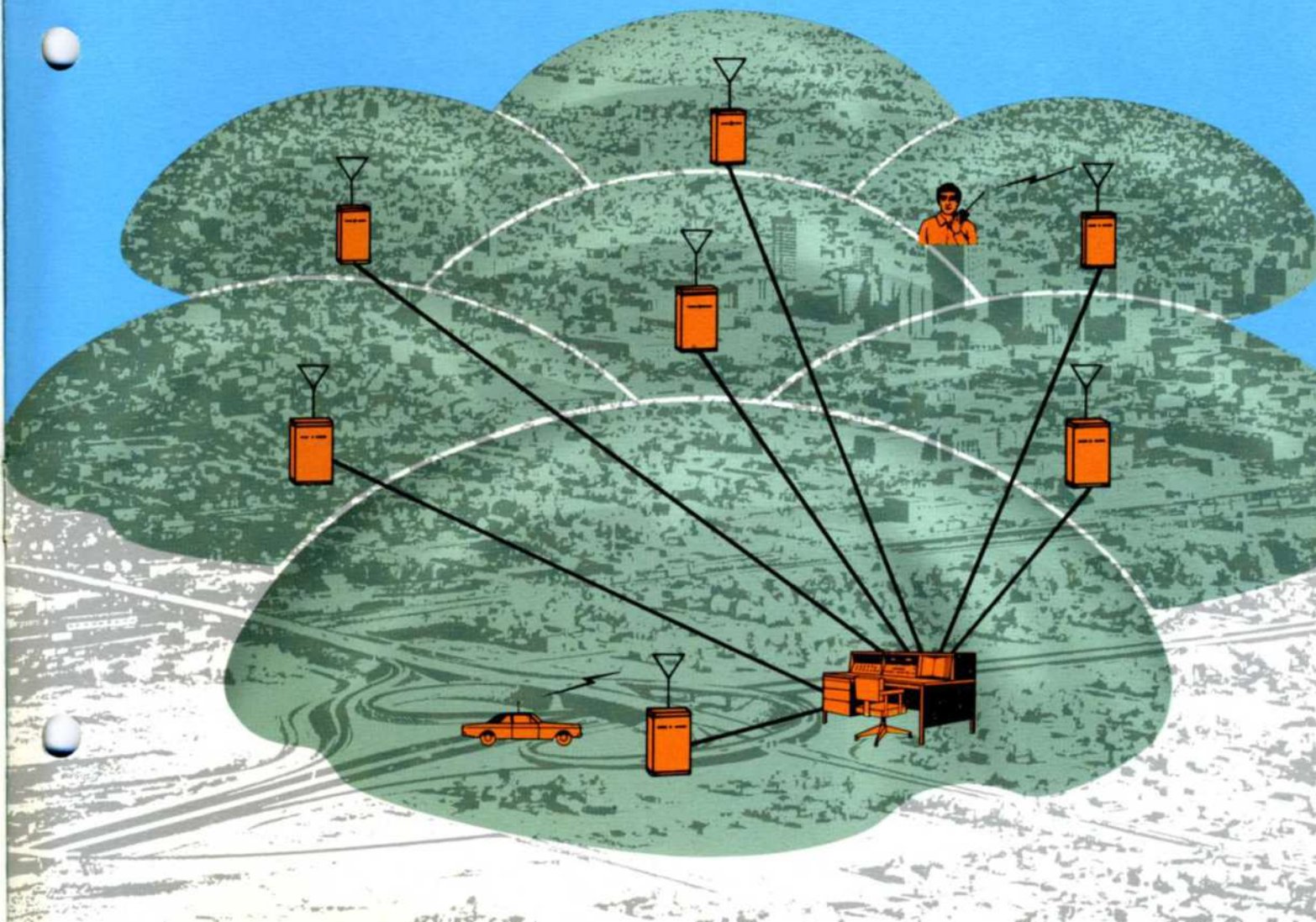
For more information about the MASTR Personal Series and other General Electric communications equipment, call your GE Communications Consultant listed in the Yellow Pages under "Radio Communications," or write: Mobile Radio Department, General Electric Company, Lynchburg, Virginia 24502.





## The General Electric **PAR** System (Personal Areawide Radio)

Dependable and continuous large area personal two-way communications is a reality with General Electric's Personal Areawide Radio System. Satellite receivers strategically located throughout your coverage area vastly extend the range of personal units. When more than one of these receivers pick up a transmission, the PAR System's solid state Voting Comparator instantaneously selects the receiver with the most noise-free signal. Your dispatcher is assured automatically of hearing only the best signal coming through your system. If the originator of the signal moves so that a different satellite receiver picks up the best quality signal, then the system automatically switches to that receiver. As little as a 2 dB improvement can influence the Comparator, and the response is so fast that not even a syllable gets clipped.







MOBILE RADIO DEPARTMENT  
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