



# MASTR

PROGRESS LINE *Executive Series*





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## Two-way radios with proven

The MASTR Progress Line Executive Series of two-way radios offers you low-cost mobile communications with proven performance. Executive is a mobile radio that's designed to last . . . designed to satisfy your communication requirements economically.

Why does MASTR Executive mean economy and dependability for you? Because General Electric has engineered each component with maximum performance in mind. Like silicon transistors that resist heat problems . . . even above 140°F. Like an electronically-locked squelch control that does away with nuisance adjustments. Like printed circuitry and plug-in modules that increase radio life and simplify maintenance. And, these are just a few examples of the features that are built-in each MASTR Executive to give you continuous dependability.

The following pages tell the MASTR Executive story. A story that tells how the MASTR Executive can satisfy your mobile communication requirements—economically.



# dependability



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## For performance-proved, economical communications

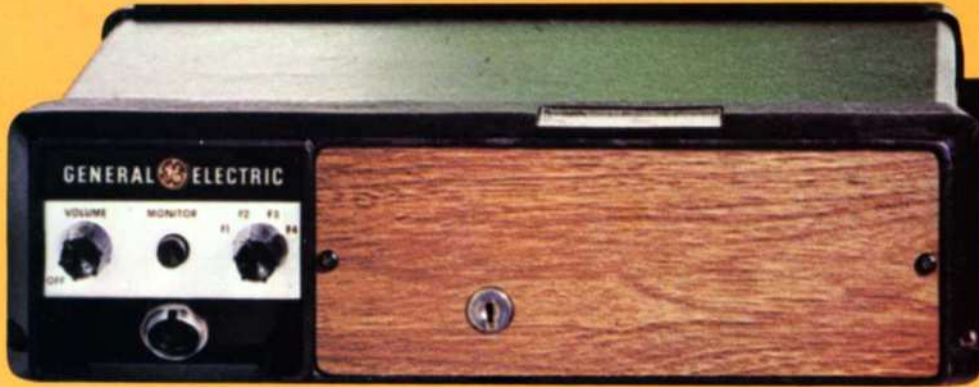
The MASTR Executive Series of two-way radios is engineered to provide you with value-performance. What does this mean for you? More performance and reliability features for the money than any other FM two-way radio on the market.

MASTR Executive mobiles are compact and rugged in design, and can be mounted under your dash, in your trunk, or externally in a weatherproof case. And although the MASTR Executive is compact . . . 4" x 13½" x 12¼" . . . its performance is unsurpassed by any comparable two-way radio.

A result of extensive design and development work, the MASTR Executive Series offers exclusive GE features that have been performance-proved by thousands of users. Features that offer you benefits such as:

- Consistent performance at all times with GE's electronic voltage regulating circuitry. For you, this means that regardless of the condition of your battery—whether you are parked at a stop light or accelerating up a steep hill—your reception range remains the same.
- No bothersome warm-up time even in the dead of winter. Ovenless crystal circuit design puts you on-frequency the instant you turn your unit on.
- Freedom to drive off highways, run over railroad tracks, and bounce over curbs without fear of jarring connections loose. MASTR Executive mobiles are constructed for rugged use . . . each unit withstands 5G shake testing, twice the industry standard.
- Consistent transmitting and receiving performance with transistorized construction. You operate with constant quality, even at extreme temperatures.

These features and many others mean reliability plus value-performance to make the MASTR Executive your best buy.





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## Easy to operate... just turn it on and talk

A number of unique features combine to make the MASTR Executive the easiest to operate two-way radio available. First, an electronically-locked squelch control eliminates the need for squelch adjustment and avoids potential operator misuse. In its place a convenient monitor button lets you by-pass the locked squelch control circuit to check receiver operation. Your only adjustment is volume.

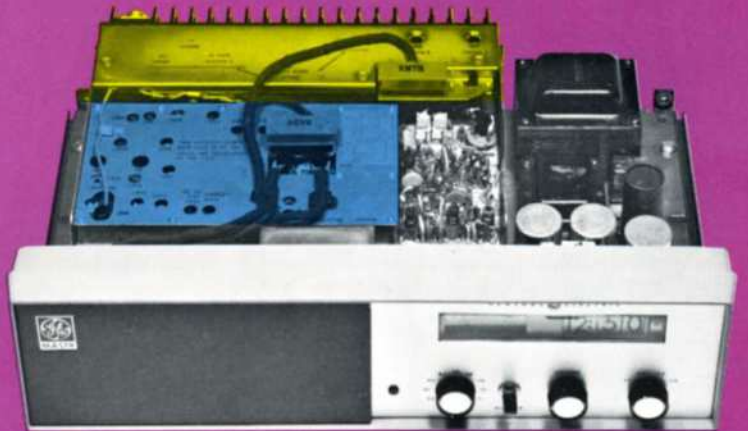
Go ahead and leave your two-way radio on . . . even with your engine off, with no worry about battery drain. "Ignition switch stand-by" eliminates unneeded drain. Park your car near the job and continue to receive messages.

Since you can safely leave your two-way radio on at all times, the pilot light is eliminated (it would use more power than the receiver). Incidentally, the light behind the GE monogram serves as your "transmitter-on" indicator.

## Interchangeability keeps you on-the-air

If your base station becomes inoperative due to transmitter or receiver failure, you lose communication contact with all the mobiles in your fleet. But not for long! The interchangeable nature of MASTR Executive transmitters and receivers means you can replace the inoperative base station module in minutes with an identical module from any Executive Series mobile in your fleet.

How? Each transmitter and receiver module has been designed to be physically and electrically interchangeable—mobile to mobile, mobile to station, and station to station. A single receiver module and transmitter modules (exciter and amplifier) are a complete set of spares for your mobile and base station system.





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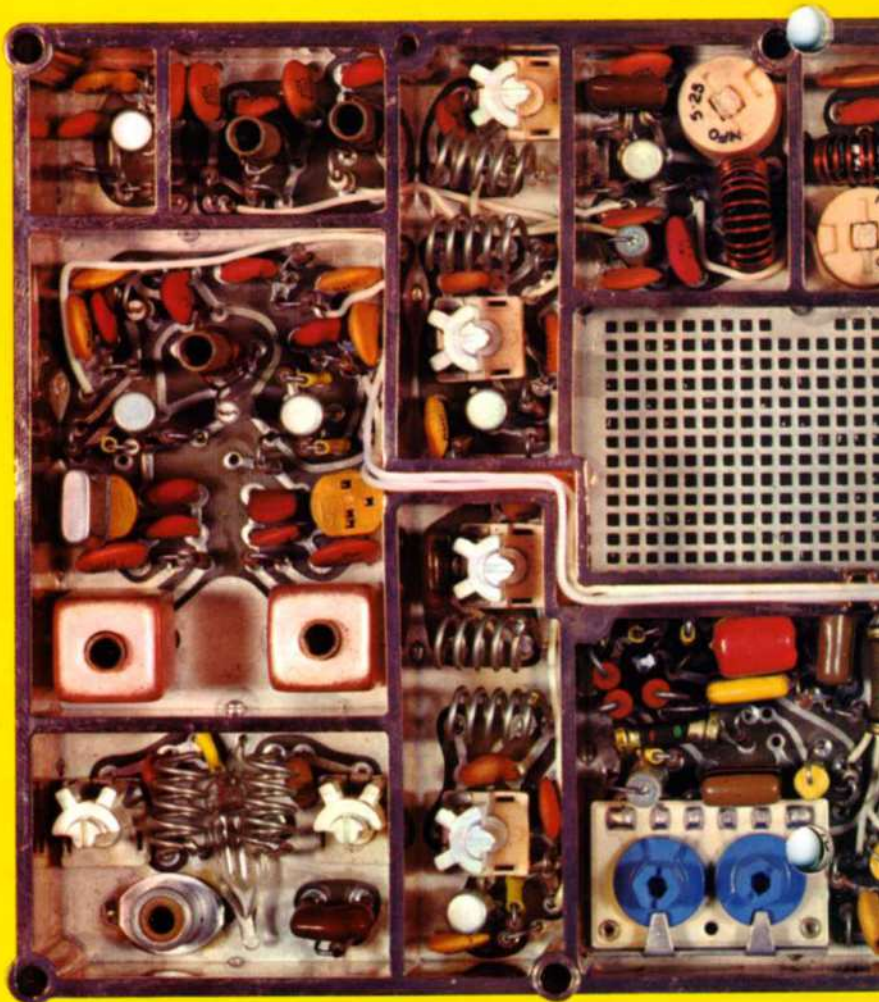
## You benefit from MASTR Executive reliability

Two of the greatest enemies of two-way radio reliability and performance are vibration and heat. Vibration, long a companion of rough roads, construction sites, constant loading and unloading, can shake components loose, cause shorts and broken circuits, and jar wiring connections loose.

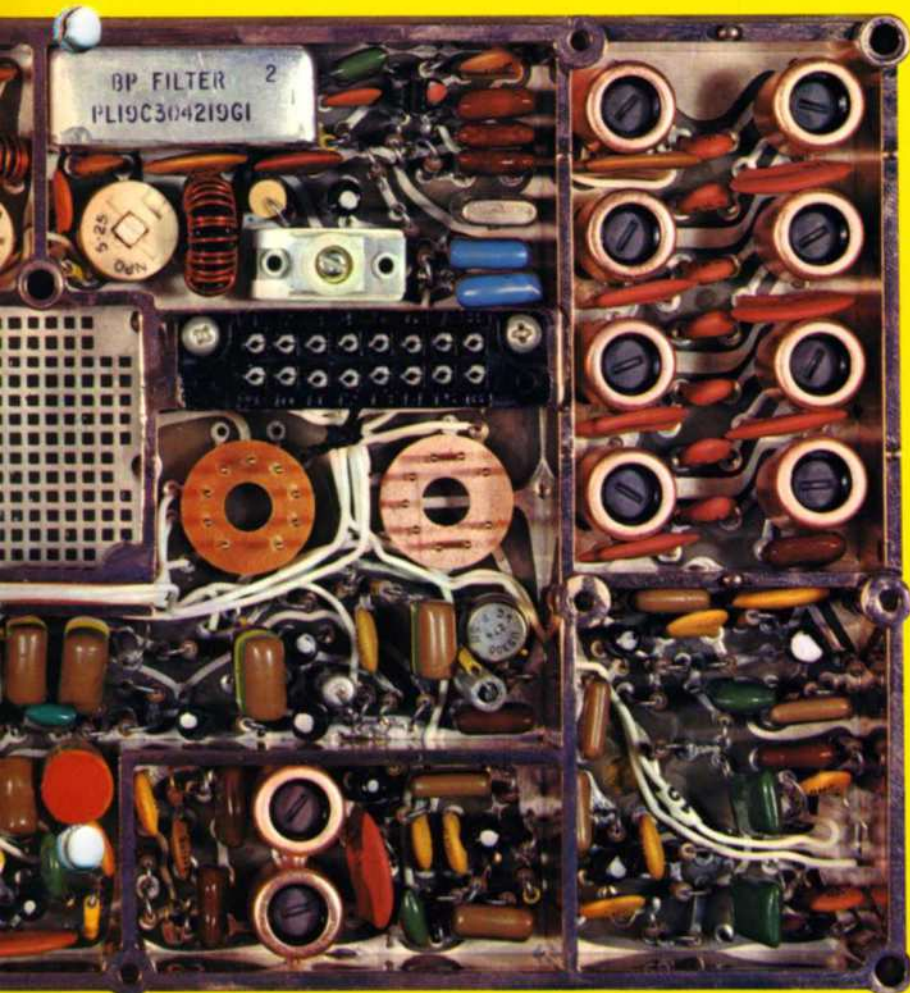
Here are the design features in the MASTR Executive Series that will virtually eliminate your vibration problems:

- The control head and speaker are positioned with shake-proof mounting hardware.
- Power and control cables screw-lock to the mobile unit to maintain constant electrical contact.
- All circuits are printed on tough epoxy-glass wiring boards using plated-through hole construction rather than troublesome eyelets.
- Special receiver chassis is of injection-molded, copper-plated construction for strength, solderability and electrical conductivity.
- The entire mobile is enclosed in a rugged frame which holds the units in rattle-free, front to back compression.

These, and other value-performance features give the MASTR Executive mobile units the ability to withstand severe, 5G vibration—twice the industry standard.







Second only to vibration as an enemy of two-way radios is heat. Heat generated during long operating periods, heat from soldering during maintenance, or high ambient heat can cause off-frequency operation, reduced receiver sensitivity, lowered transmitter efficiency and damage to circuit components. A few of the many features the MASTR Executive uses to combat heat are:

- *Silicon transistors* throughout the receiver and transmitter . . . assure safe operation with a high degree of reliability—even beyond the unit's 140°F rating.
- *A drip-proof, sealed-case* . . . acts as a heat sink, allowing operational heat to escape and simultaneously keeping out water, dirt and dust.
- *Elimination of crystal ovens* . . . excludes one of the greatest heat producers.



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## Exclusive features give you top performance

### Electronic voltage regulation

Variations in voltage supply—depending on motor speed, battery charge, generator output and the setting of the voltage regulator on your vehicle—can cause performance changes which may hamper your mobile communications. These changes can throw your unit off frequency, cause your receiver to lose range (sensitivity), and even affect transmitter performance. To solve this problem, the MASTR Executive Series uses *exclusive electronic voltage regulating circuitry*.

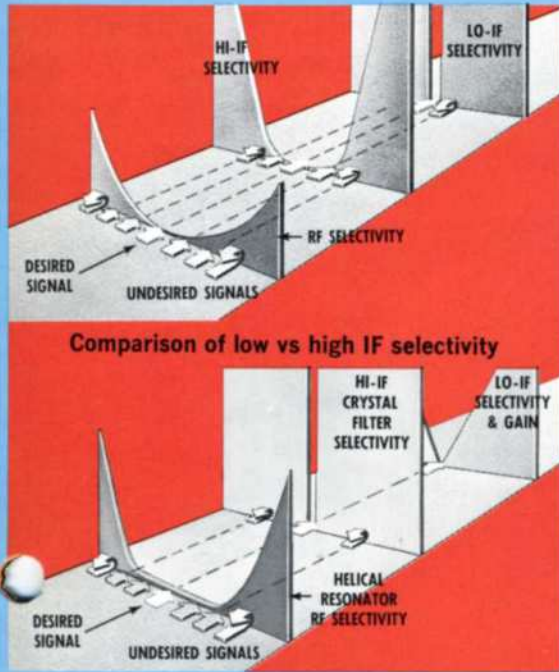
Here's how they work.

First, the circuitry of MASTR Executive was designed to perform best at a single value of voltage supply. Then the regulating circuitry was applied to convert automatically and instantaneously, any variation in voltage to the one value at which the MASTR Executive operates best. Results? MASTR Executive circuits enjoy a constant, steady voltage, assuring on-spec performance despite typical variations in your electrical system performance.

Equally important to performance is the on-frequency operation demanded by the FCC. To meet the precise tolerances imposed by the FCC, the MASTR Executive uses General Electric precision-made quartz crystals. With the combination of GE built crystals and exclusive voltage regulating circuitry, the MASTR Executive Series delivers the high degree of frequency stability required.

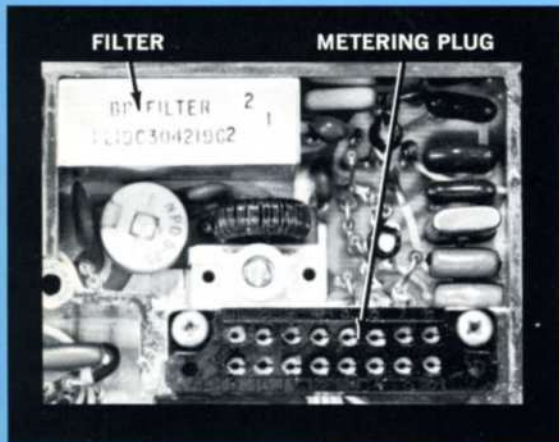
### Flutter-lock squelch circuit

To further improve message "intelligence" in areas of low signal level, a special "flutter-lock" squelch circuit eliminates message chopping during signal flutter or fading. Once opened, the squelch circuit does not close until the signal has dropped to a completely unintelligible level.



## High IF selectivity control reduces adjacent channel interference

The MASTR Executive has a hermetically sealed filter to select the desired channel signals and reject adjacent ones. As shown in the diagram at left, the crucial selectivity circuitry has been moved up front from the low IF to the high IF to give you maximum protection against desensitization by strong adjacent channel signals.



## Simplified metering and tuning

Centralized metering plugs and tuning points are in full view on both MASTR Executive transmitters and receivers the and you lift the covers.

## Characteristics

	Low band	High band
Frequency ranges	25-50 MHz	132-174 MHz
Channel spacing*	20 kHz	30 kHz
Power output	50 w	35 w (30 w 162 to 174 MHz)
Sensitivity		
(EIA 12 dB SINAD)	0.25 $\mu$ v	0.25 $\mu$ v
(20 dB Quieting)	0.35 $\mu$ v	0.35 $\mu$ v
Selectivity		
(EIA 2-channel)	-75dB $\pm$ 20kHz	-90dB $\pm$ 30kHz
Audio output	2 watts (10 watts optional)	
Operating ambient Temperatures	-30°C to +60°C or -22°F to +140°F	
Number of tubes	2	3
Power sources	12V DC negative ground (positive ground adapter optional)	

\* (wideband models also available)

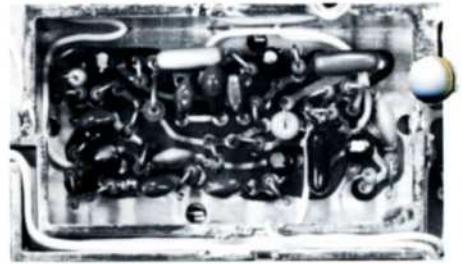


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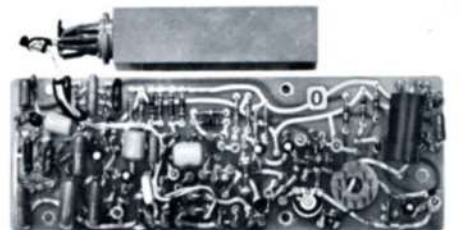
*Executive Series*

## Optional features and accessories to satisfy your mobile communication needs



### Noise Blanker overcomes bothersome ignition noise

The low-band MASTR Executive can be equipped with a Noise Blanker to overcome the nuisance of auto ignition noise while providing added range and signal clarity.



### Channel Guard mutes nuisance chatter

General Electric's solid-state Channel Guard allows you to cut out bothersome conversation from others sharing your channel. For a courteous user of the air ways, a convenient pushbutton, mounted on the control head, allows monitoring of the channel before transmitting.



### High noise areas are no problem with 10-watt audio system

If you work in an area of high-noise level, you can have a 10-watt audio system rather than the standard 2-watt. Also, your mobile unit can be equipped to operate with an external horn-type speaker with an internal/external speaker selector switch.

### Telephone handset permits personal conversations

To make your radio conversations personal, a telephone handset to replace your microphone is available with your mobile unit. The unit's speaker can be turned on or off as desired.



### Selectivity of calls through GE tone equipment

GE Type 90 and 99 pulse tone encoding and decoding equipment enables you to perform such functions as selectively signalling your mobiles, establishing privacy of calls within your system or performing many other types of control functions.



### Power Call and Power Call/Siren

Power Call amplifies messages loud enough to be heard a considerable distance from your vehicle. Also, a simple twist of the selector knob converts your amplifier into a powerful public address system, using the standard mobile microphone.

The Power Call/Siren is also available for those who are authorized to use it. This amplifier offers a choice of six operating modes—two for voice and four for siren signals.



### Transmit and/or receive on four frequencies

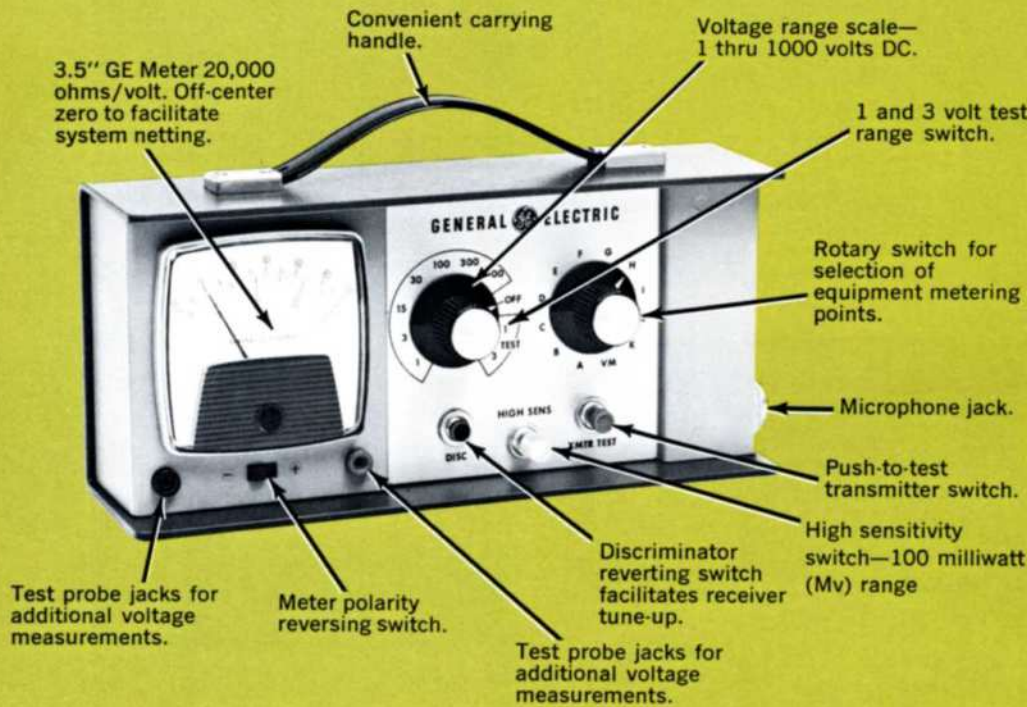
The MASTR Executive offers four-frequency transmit and/or receive. Two, three or four-frequency operation is a standard option not requiring costly modifications—an exclusive GE feature.



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## TM-11 Portable Test Set... Provides fast, easy tuning and trouble shooting



The General Electric TM-11 Portable Test Set is designed to provide an easy, fast method of tuning and trouble shooting for your MASTR Progress Line mobile equipment.

Your TM-11 allows you to perform all routine checks without special meters. You no longer need two meters to speed the job of aligning a receiver. By simply pushing the discriminator revert button, constantly switch your meter back to the discriminator position.

Since this is an off-center zero meter, you have the advantages of a zero-center meter for discriminator measurements while preserving maximum scale lengths, and maximum accuracy for all other measurements. The audio jacks provide a convenient place for you to connect an audio oscillator for setting up transmitter modulation, and to connect an audio voltmeter or distortion analyzer for quieting or SINAD measurements. The range switch and jacks for external probes allow your TM-11 to be used as a multi-range voltmeter for general servicing work.



# Join the thousands who rely on MASTR Progress Line Executive radios



MASTR Executives are serving thousands of users with economical and powerful mobile communications.

These satisfied users know the performance-proved features of MASTR Executive. They know from experience its dependability under the toughest heat, dirt and road conditions.

If your job demands clear, crisp mobile communications, save yourself time and expense by taking a closer look at the GE MASTR Executive. Whatever the size of your business, the MASTR Executive is one dependable way to get more out of every working day.





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## The two-way radio backed by Expert Service

The MASTR Progress line of two-way radios is performance proved. Yet, it is still electronic equipment and will need adjustment and service from time to time. In fact, the FCC insists on periodic frequency and transmitter deviation measurements.

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

For more information about the MASTR Executive, call your GE Communications Consultant listed in the Yellow Pages under "Radio Communications." Or write: General Electric Company, Communication Products Department, Lynchburg, Virginia.

*Progress Is Our Most Important Product*

**GENERAL  ELECTRIC**

COMMUNICATION PRODUCTS DEPT., LYNCHBURG, VA.

(In Canada, Canadian General Electric Company, Ltd.,  
100 Wingold Road., Toronto 19, Ontario)