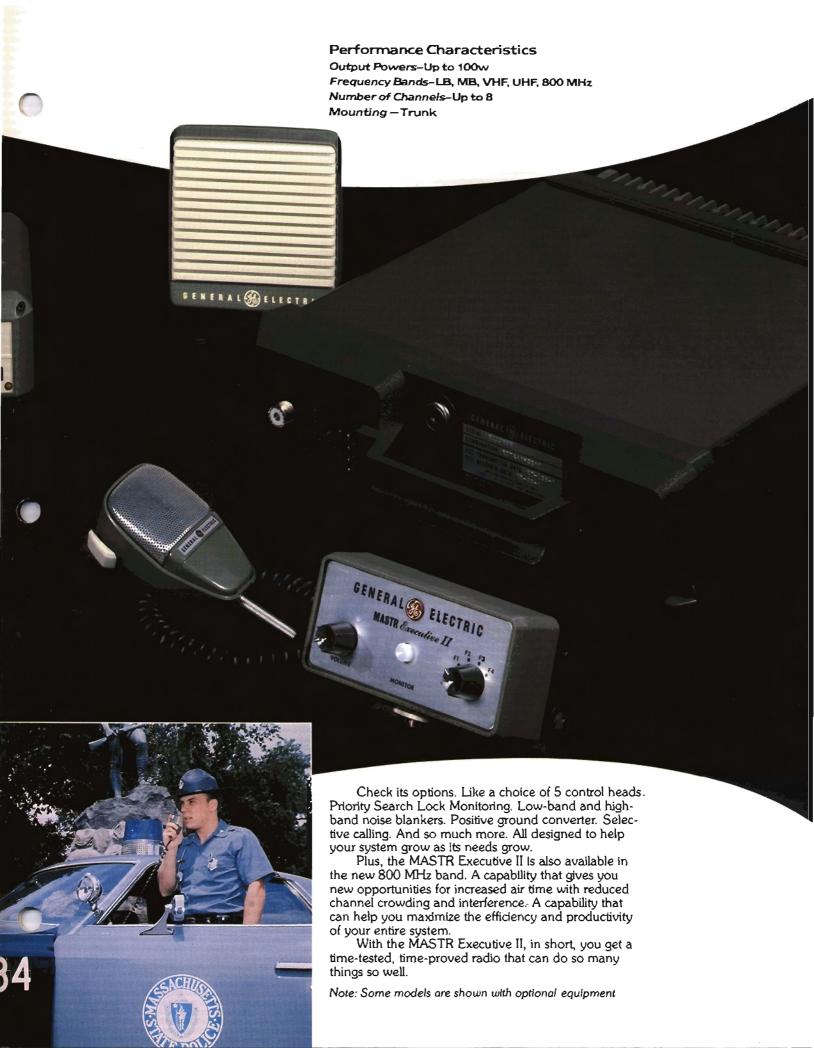




GENERAL 🍪 ELECTRIC

# The exceptional performance you expect from the MASTR tradition







General Electric Company • Mobile Communications Division World Headquarters • Lynchburg, Virginia 24502 US





# MASTR Executive II

35, 60 & 100 WATTS

138 TO 174 MHz





"R" Series Radio with 3.2 Ohm Speaker, Controlled Magnetic Microphone and C-300 Control Unit.

## PRODUCT FEATURES **MAJOR BENEFITS** Top Quality Specifications ...... For Optimum Performance ★ Modular Construction ..... For Increased Reliability \* All Solid State ..... Long Life Expectancy & Instant Operation 🜟 Silicon Transistors &ICs ...... Dependable High Temperature Service \* Adjustable Power Output ..... Match Levels to System Needs 🜟 Broad Band Power Amplifier ..... No Tuning Controls 🜟 Single Conversion Receiver ................. Minimizes Spurious Responses Tixed Squelch ...... Rids Operator of Needless Control Meets USFS Vibration Spec's ..... Built to Withstand Rough Use 🜟 "Snap-Lock" Crystal Modules ..... Solid Retention/Easy Removal 🜟 Top Tuning & Metering ,..... Simplifies Routine Maintenance \* Available without Accessories as an "RX" Combination. **OPTIONS AND ACCESSORIES** ☐ Channel Guard ☐ Power Call/Siren ☐ Up to 8 Channels ☐ Handset ☐ Noise Blanker ☐ External Tone Devices ☐ UHS (Preamp) Receiver ☐ External Weatherproof Speaker ☐ Carrier Control Timer ☐ Weatherproof Box ☐ Positive Ground Converter





# ASTR Executive // MOBILE RADIOS

"R" SERIES

138-174 MHz

### GENERAL

MODEL		PA POWER	BATTERY DRAIN (Amps)			FCC FILING NUMBER		APPLICABLE TO PART NUMBER	RECEIVER FCC MODEL
SERIES		(Watts)	Rx Standby	Unsquelched	Transmit	Up to 4 Freq.	Up to 8 Freq.		NUMBER
RX/RT56	10 to 35	75	0.3 @ 13.8 VDC	1,4 @ 13.8 VDC	10 @ 13.6 VDC	KT-121-A	KT-121-8	21,81,89,91&93	
AX/RT66	20 to 60	120			13.5 @ 13.6 VDC	KT-137-A	KT-137-8	21,89,91&93	ER-89-A
AX/AT76	20 to 100	235*			28 @ 13.4 VDC	KT-139-A	KT-139-B		

29 lbs.; 13.2 kg.

32 lbs.; 14.5 kg.

35 lbs.; 15.8 kg.

38 lbs.; 17.1 kg.

All stainless steel, 1/4 wave whip, Chrome & Lexan® base with 15 ft. (4.57 m) RG 58/U cable

\*@ 180 watts input, power output is 70 watts.

SYSTEM VOLTAGE: 11-16 VDC, negative ground 11-16 VDC, positive ground With optional converter:

DUTY CYCLE (Intermittent): Receiver, 100% - Transmitter, 20% (EIA)

(Continuous): Transmitter, 100% (EIA)

**TEMPERATURE RANGE:** 

-30°C to +60°C (-22°F to +140°F) (for full specified performance per EIA)

3.9 x 13.5 x 13.4 inches; 9.9 x 34.3 x 34 cm.

 $3.1 \times 5.5 \times 3.4$  inches;  $7.8 \times 14 \times 8.5$  cm.

5.1 x 5.5 x 3.5 inches; 13 x 14 x 8.9 cm.

3.9 x 13.5 x 17.8 inches; 9.9 x 34.3 x 45.2 cm.

Hardware and cables supplied for trunk installation.

19C303910G4 for 4 Freq. C-300 Control Unit.

19C311977G1 for 8 Freq. C-300 Control Unit.

DIMENSIONS (HxWxD)

Mobile Unit RT56 & RT66:

RT76: Control Head: Speaker:

WEIGHT (Average): RT56 & RT66

**RT76** 

ANTENNA: MOUNTING:

POWER/CONTROL CABLE: 19C303910G2 for 1 Freq. C-300 Control Unit.

RECEIVER

RF Input Impedance: Channel Spacing:

Receiver Type

Sensitivity EIA 12 dB SINAD: 20 dB Quieting:

Noise Squelch: Channel Guard Squelch:

Selectivity EIA 2-Signal (@ 30 kHz): (@ 25 kHz):

Frequency Stability:

Modulation Acceptance:

Intermodulation:

Spurious and Image Rejection:

Audio Response:

Audio Output:

Frequency Separation (max.) (Optional, 2 to 8 channels) Range (MHz)

Full Specifications (MHz):

138·155 3 dB Sensitivity Degrad. (MHz): 1.6

0.9

150.8-174 1.0 1.8

HUMIDITY:

SPEAKER:

SHOCK & VIBRATION:

Meets EIA & U.S. Forest

MICROPHONE:

3.2 ohms Controlled Magnetic

95% RH @ 50°C (122°F)

Service Specifications

An "RX" combination is the same as an "RT" combination less accessories (control unit, control/power cable, speaker and microphone).

POWER/CONTROL CABLE LENGTHS

Control Cable: 20 ft. ( 6m.) Power Cable (Pos.): 26 ft. (7.8m.) Power Cable (Neg.): 5 ft. (1.5m.)

Blanker

Noise

8asic Preamp 50 ohms

Unit and Accessories

Unit and Accessories Shipping (Domestic Pack)

Shipping (Domestic Pack)

25/30 kHz

0.35 μν 0.175 μν 0.175 µV 0.50 μv νر 0.25 0.25 uv

4 dB SINAD 6 dB SINAD

> -90 dB -85 dB

±0.0005% from 30°C to +60°C

±7.0 kHz

-85 dB -80 d8-75 dB

-100 d8-95 d8 -95 dB

Within +1 and -8 d8 of 6 dB/octave de-emphasis,

300 to 3000 Hz per EIA. 5 watts at less than 5%

distortion (@ 1000 Hz)

Frequency Separation (max.) (Optional, 2 to 8 channels) Range (MHz) Full Specifications (MHz):

1 d8 Power Output Degradation (MHz):

TRANSMIT

**RT56 RT66 RT76** Rated Power Output: 35 watts 60 watts 100 watts 10 watts 20 watts 20 watts

35 watts 35 watts

55 watts

Intermittent Duty: Adjustable to: (For full performance per EIA) Continuous Duty @ 25°C:

RF Output Impedance:

Conducted Spurious and

Modulation Deviation:

Frequency Stability:

Audio Responsa:

Audio Distortion:

FM Noise:

Model Series:

50 ohms

Harmonic Emission 138-155 (MHz): 75 dB below carrier 150.8-174 MHz: 80 dB below carrier

> 0 to  $\pm 5$  kHz (16F3 & 16F9)

±0.0005% from -30°C to +60°C

-70 dB

Within +1 and -3 dB of 6 dB/octave pre-emphasis, 300 to 3000 Hz per EIA.

Less than 3% (@ 1000 Hz)

138-155 150.8-174 1.8 2.0

2.25 2.5

MOBILE RADIO DEPARTMENT

WORLD HEADQUARTERS • LYNCHBURG, VIRGINIA 24502





35, 60 & 100 WATTS

138 to 174 MHz







**MAJOR BENEFITS** 



"S" Series Radio with 8 Ohm Speaker, Transistorized Microphone & C-400 Control Units

## PRODUCT FEATURES

#### Top Quality Specifications ..... For Optimum Performance Modular Construction For Increased Reliability All Solid State Long Life Expectancy & Instant Operation Silicon Transistors & ICs Dependable High Temperature Service Adjustable Power Output Match Levels to System Needs No Tuning Controls Broad Band Power Amplifier ..... Single Conversion Receiver Minimizes Spurious Responses . . . . . . . . . . . . . . . . . . Meets USFS Vibration Spec's ...... Built to Withstand Rough Use "Snap-Lock" Crystal Modules Solid Retention/Easy Removal

Top Tuning & Metering ........ Simplifies Routine Maintenance Equipped for Alternate Control Units ....... Provides wide selection of functions for basic or sophisticated systems.

Available without Accessories as an "SX" Combination.

# STANDARD OPTIONS AND ACCESSORIES

☐ Channel Guard ☐ Up to 8 Channels □ Noise Blanker

Plug-in Interconnections

- □ Carrier Control Timer
- ☐ Power Call/Siren
- ☐ UHS (Preamp) Receiver ☐ Weatherproof Enclosure
- ☐ Dual Control

- ☐ Handset
- □ External Tone Devices (including GE-STAR)
- ☐ Weatherproof Control Unit, Microphone and/or Speaker
- ☐ Positive Ground Converter

# WITH C-500, 800 or 900 CONTROL UNIT

- ☐ PSLM
- ☐ Multifrequency CG Encoder (C-800 or C-900 only)

Change Modules without Soldering

- ☐ Selective Call
- ☐ T90 Tone Decoders & Encoders
- □ Auxiliary Functions
- Charmel Busy Indicator

GENERAL (%) ELECTRIC

138-174 MHz

# MASTR Executive II MOBILE RADIOS

"S" SERIES

## GENERAL

	FCC FILING DATA (150-174 MHz)						or it erade to	All the second of the second	LOR L
	OUTPUT	INPUT	TYPE ACCEPTANCE NUMBER				BATTERY DRAIN (Amps)		
			Up to 4 Freq.	Up to 8 Freq.	(FCC Rules)		Rx Standby	Unsquelched	Transmit (Max.)
ST/SX56	10 to 35	75	KT-121-A	KT-121-B	21,81,89,91&93	5D 00 4	0.3 @ 13.8 VDC	1.4 @	10 @ 13.6 VDC
ST/SX66	20 to 60	120	KT-137-A	KT-137-B	21,89,91&93				13.5 @ 13.6 VDC
ST/SX76	20 to 100	220*	KT-139-A	KT-139-B					26 @ 13.4 VDC

\*@ 180 watts input, Power Output is 70 watts.

NOMINAL SYSTEM VOLTAGE:

13.8 VDC ±20%, negative ground

DUTY CYCLE (EIA)

Intermittent Continuous:

Transmitter, 100%

DIMENSIONS (HxWxD) Mobile Unit

ST56 & ST66: ST76 Control Head

Speaker

WEIGHT (Average): ST56 & ST66

ST76

ANTENNA:

MOUNTING:

Dimensions

Power Cable: Ground Lead. Receiver, 100% - Transmitter, 20%

 $3.9 \times 13.5 \times 13.4$  inches;  $9.9 \times 34.3 \times 34$  cm. 3.9 x 13.5 x 17.8 inches; 9.9 x 34.3 x 45.2 cm. 3.1 x 5.5 x 4.3 inches: 7.8 x 14 x 10.9 cm. 5.1 x 5.5 x 3.5 inches; 13 x 14 x 8.9 cm.

Unit and Accessories Shipping (Domestic Pack) Unit and Accessories

Shipping (Domestic Pack)

29 lbs.; 13,2 kg. 32 lbs.; 14.5 kg. 35 lbs.; 15.8 kg. 38 lbs.; 17.1 kg. TEMPERATURE RANGE: -30°C to +60°C (-22°F

to +140°F) for full specifications per EIA.

HUMIDITY:

95% RH @ 50°C (122°F)

SHOCK & VIBRATION:

Meets EIA & U.S. Forest Service Specifications

SPEAKER:

MICROPHONE

Transistorized:

0.09 Vrms Output @ 600

Ohms

8 ohms

An "SX" combination is the same as an "ST" combination less accessories (control/power cable, speaker and microphone).

All stainless steel, 1/4 wave whip, Chrome & Lexan ® base with 15 ft, (4.57 m.) RG 58/U cable.

Hardware and cables supplied for trunk installation

19C321890G1 (or C-400, 500, 700, 800 or 900 Control Unit.

POWER/CONTROL CASLE:

Control Cable

20 ft. 16 m.l 26 ft. (7.8 m.) 5 ft. (1.5 m.)

# RECEIVER

Receiver Type	8 asic	Preamp	Noise Blanker
RF Input Impedance:	50 a		
Channel Spacing:	25/3		
Sensitivity EIA 12 dB SINAD: 20 dB Quieting Noise Squelch: Channel Guard Squelch:		0,175 μν 0,25 μν B SINAD B SINAD	0,175 γυ 0.25 μν
Selectivity ETA 2-Signal (@ 30 kHz) (@ 25 kHz).		-90 dB -85 dB	

Frequency Stability: ±0.0005% from -30°C to +60°C Modulation Acceptance: ±7.0 kHz

Intermodulation: -85 d8

-80 dB -75 dB Spurious and Image -100 dB -95 dB -95 d8

Audio Response: Within +I and -8 dB of 6 dB/octave de-emphasis, 300 to 3000 Hz per EIA.

Audio Output: 5 watts at less than 5% distortion (@ 1000 Hz)

Frequency Separation (max.) (Optional, 2 to 8 channels)

Rejection:

Range (MHz) Full Specifications (MHz) 3 dB Sensitivity Degradation (MHz).

138-155 150.8-174 0.9 1.0 1.6 1.8

# TRANSMITTER

Model Series:	ST56	ST66	ST76
Rated Power Output Intermittent Duty: Adjustable to (for full	35 watts	60 wates	100 watts
performance per EIA).	12 wat is	20 watts	30 watts
Continuous Duty @ 25°C	35 watts	35 wates	55 watts
RF Output Impedance:	50 ohms		

Conducted Spurious and Harmonic Emission 138-155 (MHz)

150.8-174 (MHz)

Modulation Deviation:

Frequency Stability:

FM Noise:

Audio Response:

Within +1 and -3 d8 of 6 dB/octave pre-emphasis, 300 to 3000 Hz per EIA.

Less than 3% (@ 1000 Hz)

75 dB below carrier

80 d8 below carrier

(16F3, 15F2 & 16F9)

0 to ±5 kHz

-70 dB

±0.0005% from

-30°C to +60°C

Audio Distortion:

Frequency Separation (max.) (Optional, 2 to 8 channels) Range (MHz) Full Specifications (MHz)

1 dB Power Output Degradation (MHz) 138-155 150.8-174 1.8 2.0 2.25 2.5

MOBILE RADIO DEPARTMENT GENERAL ELECTRIC COMPANY . LYNCHBURG, VIRGINIA 24502

