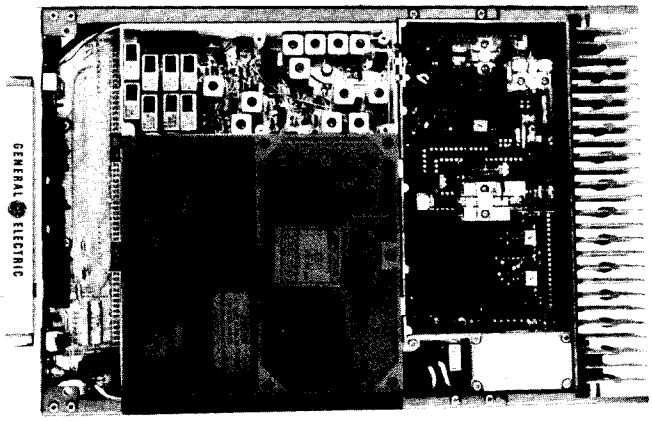
MOBILE RADIO

MASTR® II MAINTENANCE MANUAL

138-174 MHz, 40-WATT TRANSMITTER-MOBILE AND STATION



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Maintenance Manual LBI30750A

(DF3156, THIS SHEET ONLY)

138-174 MHz EXCITERS 19D416859G1-4 OR 19D430230G1-4
INTERMITTENT DUTY 40-WATT PA ASSEMBLY 19D424583G2&G6
CONTINUOUS DUTY 40-WATT PA ASSEMBLY 19D424786G2&G5

GENERAL ELECTRIC

SPECIFICATIONS*

Power Output	40 Watts (Adjustable from 10 to 40 Watts)
Crystal Multiplication Factor	12
Frequency Stability	
5C-ICOM with EC-ICOM	±0.0005% (-40°C to +70°C)
5C-ICOM or EC-ICOM	±0.0002% (0°C to +55°C)
2C-ICOMS	±0.0002% (-40°C to +70°C)
Spurious and Harmonic Emission (Per EIA RS-152-B, Para. 4)	At least 85 dB below full rated power output.
Modulation	Adjustable from 0 to ±5 kHz swing with instantaneous modulation limiting.
Audio Sensitivity	75 to 120 Millivolts (Mobile) 10 to 120 Millivolts (Station)
Audio Frequency Characteristics	Within +1 to -3 dB of a 6-dB/octave pre-emphasis from 300 to 3000 Hz per EIA standards. Post limiter filter per FCC and EIA.
Audio Distortion	Less than 2% (1000 Hz) Less than 3% (300 to 3000 Hz)
Deviation Symmetry	0.5 kHz maximum

Maximum Frequency Spread

	Full Specifications	1 dB Degradation
138-155 MHz	1.8 MHz	2.75 MHz
150.8-174 MHz	2.0 MHz	3.0 MHz

Duty Cycle	EIA 20% Intermittent (Mobile and Stations) Continuous (Stations)
RF Output Impedance	50 ohms
Temperature Range	-40°C to +70°C (Mobile) -30°C to +60°C (Station)

* These specifications are intended primarily for the use of the serviceman. Refer to the appropriate Specification Sheet for the complete specifications.

WARNING

Although the highest DC voltage applied to the MASTR II transmitter is +12 Volts DC, high current may be drawn under short circuit conditions. These currents can possibly heat metal objects such as tools, rings, watchbands, etc., enough to cause burns. Be careful when working near energized circuits!

High-level RF energy in the transmitter Power Amplifier assembly can cause RF burns upon contact. Keep away from these circuits when the transmitter is energized!

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