

MASTR II[®] MAINTENANCE MANUAL

138-174 MHz, 35-WATT TRANSMITTER - MOBILE AND STATION

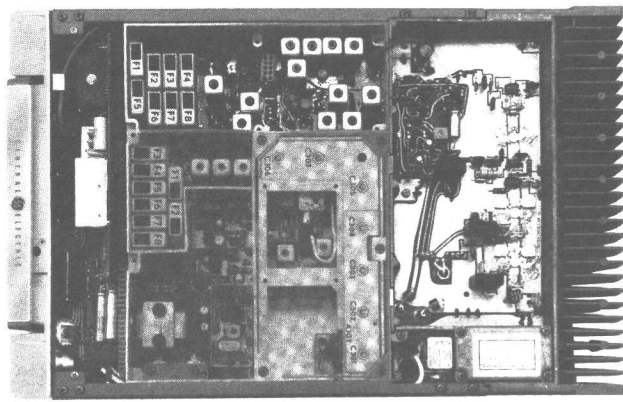


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DESCRIPTION AND MAINTENANCE	LBI30428 (DF3156)
EXCITER	LBI30422 (DF3165)
POWER AMPLIFIER	LBI30423 (DF3166)

138-174 MHz EXCITER 19D416859G1-4
 INTERMITTENT DUTY 35 WATT PA ASSEMBLY 19C320414G1
 CONTINUOUS DUTY 35 WATT PA ASSEMBLY 19D417535G1

SPECIFICATIONS*

Power Output	35 Watts (Adjustable from 10 to 35 Watts)													
Crystal Multiplication Factor	12													
Frequency Stability	$\pm 0.0005\%$ (-40°C to $+70^{\circ}\text{C}$) $\pm 0.0002\%$ (0°C to $+55^{\circ}\text{C}$) $\pm 0.0002\%$ (-40°C to $+70^{\circ}\text{C}$)													
5C-ICOM with EC-ICOM														
5C-ICOM or EC-ICOM														
2C-ICOMS														
Spurious and Harmonic Emission	At least 85 dB below full rated power output.													
Modulation	Adjustable from 0 to ± 5 kHz swing with instantaneous modulation limiting.													
Modulation Sensitivity	75 to 120 Millivolts													
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.													
Distortion	Less than 2% (1000 Hz) Less than 3% (300 to 3000 Hz)													
Deviation Symmetry	0.5 kHz maximum													
Maximum Frequency Spread:	<table> <tr> <td></td><td>Full</td><td>1 dB</td></tr> <tr> <td></td><td>Specifications</td><td>Degradation</td></tr> <tr> <td>138-155 MHz</td><td>1.8 MHz</td><td>2.75 MHz</td></tr> <tr> <td>150.8-174 MHz</td><td>2.0 MHz</td><td>3.0 MHz</td></tr> </table>			Full	1 dB		Specifications	Degradation	138-155 MHz	1.8 MHz	2.75 MHz	150.8-174 MHz	2.0 MHz	3.0 MHz
	Full	1 dB												
	Specifications	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													

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 12 Volt 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!