

MASTR II[®] MAINTENANCE MANUAL

138-174 MHz, 110-WATT TRANSMITTER – MOBILE AND STATION

Maintenance Manual LBI 4593E
(DF3156, THIS SHEET ONLY)
(Supersedes LBI4737)

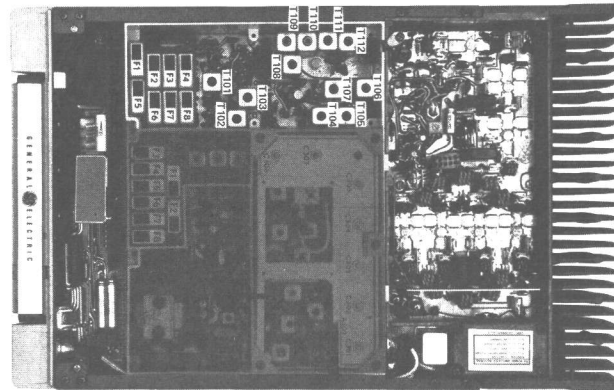


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DESCRIPTION AND MAINTENANCE	LBI30433 (DF3156)
EXCITER	LBI30422 (DF3165)
POWER AMPLIFIER	LBI30282 (DF3166)

138-174 MHz EXCITER 19D416859G1-4
INTERMITTENT DUTY 110-WATT PA ASSEMBLY 19C320414G3
CONTINUOUS DUTY 110-WATT PA ASSEMBLY 19D417524G2

SPECIFICATIONS*

Power Output	110 Watts (Adjustable from 35 to 110 Watts)	
Crystal Multiplication Factor	12	
Frequency Stability		
5C-ICOM with EC-ICOM	$\pm 0.0005\%$ (-40°C to $+70^{\circ}\text{C}$)	
5C-ICOM or EC-ICOM	$\pm 0.0002\%$ (0°C to $+55^{\circ}\text{C}$)	
2C-ICOMS	$\pm 0.0002\%$ (-40°C to $+70^{\circ}\text{C}$)	
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 dB 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:		
138-155 MHz	Full Specifications	1 dB Degradation
150.8-174 MHz	1.8 MHz	2.75 MHz
	2.0 MHz	3.0 MHz
Duty Cycle	EIA 20% Intermittent (Mobile & Station) Continuous (Station)	
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 supplied to the MASTR II transmitter is 12 Volts DC, high currents 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!