

MASTR[®] II MAINTENANCE MANUAL

406-512 MHz, 20-WATT TRANSMITTER MOBILE & STATION

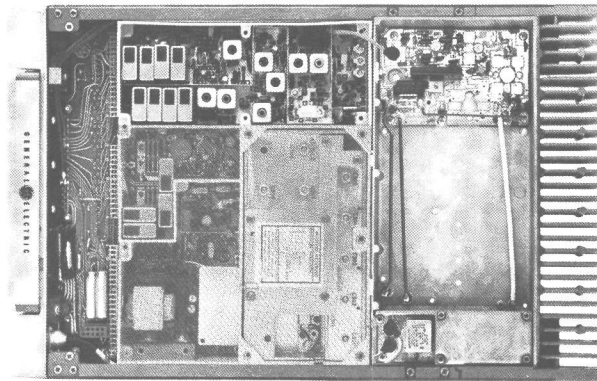


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DESCRIPTION AND MAINTENANCE	LBI30216 (DF3158)
EXCITER	LBI30200 (DF3165)
POWER AMPLIFIER	LBI30217 (DF3174)

SPECIFICATIONS*

Power Output		
406-420 MHz, 450-512 MHz	20 Watts (Adjustable from 5 to 20 Watts)	
420-450 MHz	15 Watts (Adjustable from 5 to 15 Watts)	
Crystal Multiplication Factor	36	
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	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 (Mobile) 10 to 120 Millivolts (Station)	
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% @ 2000 Hz Less than 5% @ 300 Hz Less than 3% @ 3000 Hz	
Deviation Symmetry	0.6 kHz maximum	
Maximum Frequency Spread	Full Specifications	1 dB Degradation
406-470 MHz	5.50 MHz	9.00 MHz
470-494 MHz	5.80 MHz	9.50 MHz
494-512 MHz	6.00 MHz	9.75 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 in the radio is supplied by the vehicle battery, 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. KEEP AWAY FROM THESE CIRCUITS WHEN THE TRANSMITTER IS ENERGIZED!

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