

MASTR® II MAINTENANCE MANUAL

406-512 MHz, 40-WATT TRANSMITTER-MOBILE AND STATION

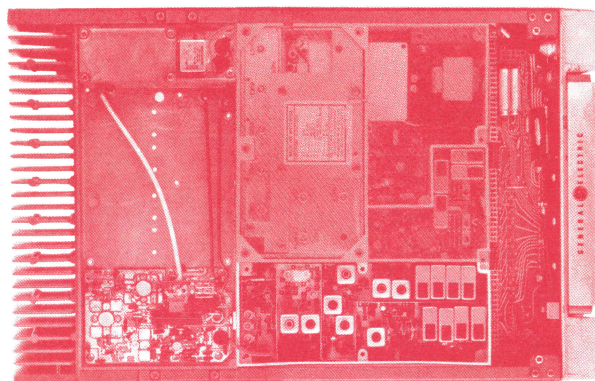


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DESCRIPTION AND MAINTENANCE	LBI-31543
EXCITER	LBI-31209
POWER AMPLIFIER	LBI-30213

SPECIFICATIONS*

Power Output		
406-420 MHz, 450-494 MHz	40 Watts (Adjustable from 12 to 40 Watts)	
440-450 MHz	30 Watts (Adjustable from 12 to 30 Watts)	
420-440 MHz, 494-512 MHz	35 Watts (Adjustable from 12 to 35 Watts)	
Crystal Multiplication Factor	36	
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 (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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