

MASTR II MAINTENANCE MANUAL

406-512 MHz RECEIVER

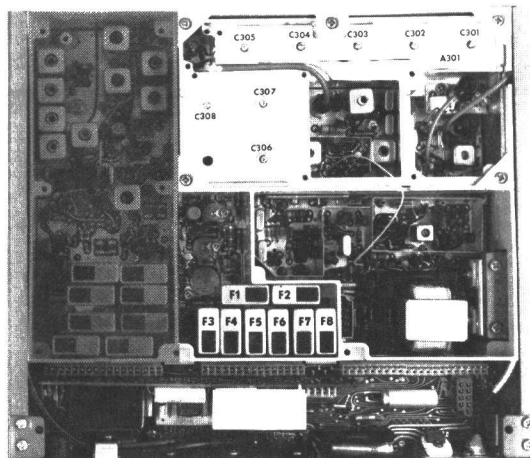


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DESCRIPTION AND MAINTENANCE	LBI30113 (DF1104)
RF ASSEMBLY, MIXER AND RF FILTER BOARD	LBI30032 (DF1107)
OSCILLATOR/MULTIPLIER BOARD	LBI30029 (DF1106)
IF AUDIO AND SQUELCH BOARD	LBI4986 (DF1105)

SPECIFICATIONS*

Audio Output (to 8-ohm Speaker)	12 Watts at less than 3% distortion	
Sensitivity	<u>With Pre-Ampl</u>	<u>Without Pre-Ampl</u>
12-dB SINAD (EIA Method)	0.20 μ V	0.35 μ V
20-dB Quieting Method	0.25 μ V	0.50 μ V
Selectivity		
EIA Two-Signal Method	-90 dB	-90 dB
20-dB Quieting Method		-100 dB
Spurious Response	-90 dB	-100 dB
Intermodulation (EIA)	-75 dB	-80 dB
Squelch Sensitivity		
Critical Squelch	0.2 μ V	0.1 μ V
Maximum Squelch	Greater than 20 dB quieting (less than 1.5 μ V)	
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 $+70^{\circ}\text{C}$)	
Modulation Acceptance	± 7 kHz (narrow-band)	
Maximum Frequency Separation	<u>Full Specifications</u>	<u>3 dB Degradation</u>
406 - 470 MHz	1.60 MHz	2.0 MHz
470 - 494 MHz	1.50 MHz	2.0 MHz
494 - 512 MHz	1.50 MHz	2.0 MHz
Frequency Response	Within ± 1 and -8 dB of a standard 6 dB per octave de-emphasis curve from 300 to 3000 Hz (1000-Hz reference)	
RF Input 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 MASTR II receiver 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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