

Maintenance Manual

MASTR® II 138-174 MHz, 110-WATT TRANSMITTER-MOBILE AND STATION (with Phase Lock Loop Exciter)

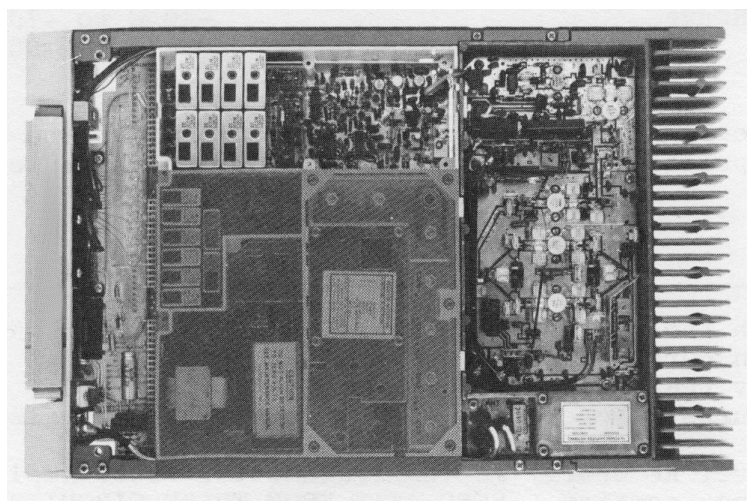


TABLE OF CONTENTS

SPECIFICATIONS	ii
DESCRIPTION AND MAINTENANCE	LBI-30753
EXCITER	LBI-30398
POWER AMPLIFIER	LBI-30739

NOTICE!

The software contained in this device is copyrighted by **Com-Net Ericsson Critical Radio Systems, Inc.** Unpublished rights are reserved under the copyright laws of the United States.

This manual is published by **Com-Net Ericsson Critical Radio Systems, Inc.**, without any warranty. Improvements and changes to this manual necessitated by typographical errors, inaccuracies of current information, or improvements to programs and/or equipment, may be made by **Com-Net Ericsson Critical Radio Systems, Inc.**, at any time and without notice. Such changes will be incorporated into new editions of this manual. No part of this manual may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, for any purpose, without the express written permission of **Com-Net Ericsson Critical Radio Systems, Inc.**

SPECIFICATIONS*

Power Output	110 Watts (Adjustable from 22 to 110 Watts)
Crystal Multiplication Factor	12
Frequency Stability	
5C-ICOM with EC-ICOM	$\pm 0.0005\%$
2C-ICOMS	$\pm 0.0002\%$
Spurious and Harmonic Emission (Per EIA RS-152-B, Para. 4)	At least 85 dB below full-rated power output.
Modulation	Adjustable from 0 to ± 5 kHz swing with instantaneous modulation limiting
Audio Sensitivity	65 to 125 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 3%
Deviation Symmetry	0.5 kHz maximum
Maximum Frequency Spread	
138-155 MHz	17 MHz
148-174 MHz	24 MHz
Duty Cycle	EIA 20% Intermittent (Mobile and Stations) Continuous (Stations)
RF Output Impedance	50 ohms
Temperature Range	-40°C to +70°C (Mobile) -30°C to +60°C (Station)

*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 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!**

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
1-800-528-7711 (Outside U.S.A. 804-592-7711)

Printed in U.S.A.