

# Technical Services Memo

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Product Code: B3, S3  
Subject Code: EX, TX  
Part Number:  
LBI: 31209, 38430

**CATEGORY:** Station

**SUBJECT:** MASTR-II & MASTR-Ile UHF FM Exciter Spurs

## **MASTR-II**

If the UHF FM exciter 19D9432679 has indications of being spurious, the following changes may prove useful. Refer to Figure 1.

Cut the compensation pattern run near the ICOM sockets to prevent it from acting as an antenna feeding RF back into the ICOM. (This can only be done on stations where the 2PPM internally compensated ICOMS are used.)

By-pass the F1 freq select and keyed 10V leads with a 4.7 mfd tantalum capacitor.

FIGURE 1 (see printed TSM for drawing)

## **MASTR-Ile**

A small quantity of control shelf mini backplanes were shipped with a missing C8, 330 mfd. TX 10 V filter capacitor. If C8 is missing it may contribute to transmitter spurs originating in the exciter.

Note: A printing of LBI-38430 had shown the RX 10V and TX 10V reversed as well as three legged regulators were shown with their input and outputs reversed -See Figure 2.

FIGURE 2 (see printed TSM for drawing)

To better prevent spurious problems, revision "A" was made to the FM exciter board. See Figures 3 and 4 for the addition of a series choke and shunt resistor and capacitor.

All new FM Exciter boards are being manufactured with revision changes. If this exciter board is to be retrofitted into a MASTR-II mobile or station prior to the MASTR-Ile control shelf, then the shunt resistor R143, 270 ohms, must be clipped out. If left in the circuit, it will require additional keying current not available from the earlier 10 volt regulators or controlling circuitry.

FIGURE 3 and FIGURE 4 (see printed TSM for drawing)