

# DATAFILE BULLETIN

FILE UNDER: Receivers

ER-42-A thru H

BULLETIN NO: 1086-12

DATE: August, 1972

EQUIPMENT: 406-470 MHZ MASTR Professional Receiver Types ER-42-A thru H.

SUBJECT:

TWEET FREQUENCIES

A tweet frequency is a receiver operating frequency at which a spurious signal generated by the receiver oscillators falls near or within the passband of the receiver.

All tweet frequencies involve two (or more) oscillators. Some harmonic of one oscillator mixes with some harmonic of the other to produce the spurious signal. It may be on or near the operating frequency, the high intermediate frequency or the low intermediate frequency.

Depending upon the tweet level and where it falls in relation to the passband, its effect can range from saturation of the receiver to giving only the symptoms of desensitization. It may capture the receiver from a weak desired signal or it may heterodyne with the desired signal if they are at approximately the same level. Squelch operation may or may not be affected. Limiter and discriminator readings will be steady.

The solution depends upon the receiver involved. For single frequency receivers operating at a tweet frequency, the second oscillator crystal is changed as indicated on the following page. For tweets in multi-frequency units, consult the factory for the proper solution to the problem.


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The following are known tweet frequencies in MASTR Pro UHF Band Receivers, ER-42-A thru H, which use the Standard Second Oscillator crystal 19A110398P1 (11945 kHz). For operation at any of these frequencies this crystal must be replaced with the Alternate Second Oscillator crystal 19A110398P2 (12855 kHz).

461.650 MHz

469.700 MHz

If the second oscillator crystal is changed to the alternate, fill out the appropriate information on the NP 257777 self adhesive tab shown below and stick this tab on a conspicuous place on the receiver. This NP 257777 self adhesive tab can be ordered from Service Parts.

<b>GENERAL  ELECTRIC</b> SPECIAL CRYSTAL FORMULA	
<input type="checkbox"/> OPERATING FREQUENCY	_____
<input type="checkbox"/> SPECIAL 1st OSC CRYSTAL FREQUENCY	_____
<input type="checkbox"/> SPECIAL HIGH IF FREQUENCY	_____
<input type="checkbox"/> SPECIAL 2nd OSC CRYSTAL FREQUENCY	_____
N.P. 257777	

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MOBILE RADIO DEPARTMENT  
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