

Part No.
7-9040-3

Instruction Manual for 21-Series T-Pass® Filters (except 800 MHz)

Copyright © 1991 TX RX Systems, Inc.

First Printing: May 1989

Version Number	Version Date
1	5/24/89
2	??
3	12/13/91

WARRANTY

This warranty applies for one year from shipping date.

TX RX SYSTEMS INC. warrants its products to be free from defects in material and workmanship at the time of shipment. Our obligation under warranty is limited to replacement or repair at our option, of any such products (with the exception of tubes) which shall have been defective at the time of manufacture. TX RX SYSTEMS INC. reserves the right to replace with merchandise of equal performance although not identical in every way to that originally sold. TX RX SYSTEMS INC. is not liable for damage caused by lightning or other natural disasters. No product will be accepted for repair or replacement without our prior written approval.

All Shipping charges on returned products must be prepaid by the purchaser. TX RX SYSTEMS INC. shall in no event be liable for consequential damages, installation costs or expenses of any nature resulting from the purchase or use of products, whether or not they are used in accordance with instructions. This warranty is in lieu of all other warranties, either expressed or implied, including any implied warranty of merchantability or of fitness. No representative is authorized to assume for TX RX SYSTEMS INC. any other liability or warranty than set forth above in connection with our products or services.

CONVERSION ASSEMBLY NOMENCLATURE AND BASIC TUNING ADJUSTMENTS

6 5/8 AND 10 IN. DIA. FILTERS 66-512 MHZ

GENERAL

BANDPASS **T-PASS™** **VARI-NOTCH®** **SERIES NOTCH™**

The information provided in this Tech-Aid is basic to most filter and Multicoupler systems. Measurement circuits and test equipment for tuning the various filters are provided in Tech-Aid 79002. Specific system tuning instructions will contain the particular electrical and mechanical data applicable to that system, supported by Tech-Aids 79001 and 79002.

DESCRIPTION OF FILTER CONVERTIBILITY

All 6 5/8" and 10" Dia. filters have two 1.5" Dia. openings in the top of the cavity which, with the proper conversion assemblies, will allow the cavity to function as any one of four basic filter types, these being Bandpass, T-Pass™, Vari-Notch® and Series Notch™. All conversion assemblies are interchangeable between 6 5/8" and 10" dia. cavities. Indexing labels are provided for all assemblies to allow logging and field resetability to specific performance levels. This calibration data is provided on individual filter labeling or in specific system instruction manuals. The purpose of this Tech-Aid is to identify the basic tuning adjustments and calibration procedures for ready reference. T-Pass™, and Series Notch™ are trademarks for Patent Pending designs in the United States and Canada. Vari-Notch is the registered trademark of a line of highly efficient pseudo-bandpass filters, constructed under TX RX Systems patent number 4186359.

FUNDAMENTAL CAVITY "RESONANCE" OR FREQUENCY ADJUSTMENT

The adjustment of cavity resonance may control the pass or the reject frequency, depending on the circuit design. The central cavity probe adjusts cavity resonance. On later designs, an inductive fine tuning rod, 1/4" in dia. provides a smooth, sliding vernier control. Earlier designs use a threaded tuning bolt mechanism. Both are detailed below.

FINE TUNING USING DUAL TUNING BOLTS

(lefthand/righthand threads for non-rotating plunger)

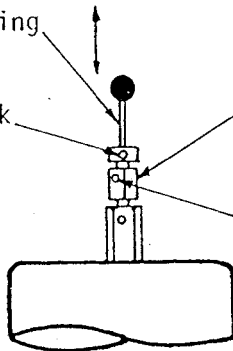
With coarse tuning locked and tension screws loosened, rotate fine tuning bolt for fine longitudinal travel of tuning plunger.

Coarse tuning

Coarse tuning lock

Fine tuning bolt

Tension set screws on nylon buttons. Loosen only slightly to allow fine bolt to rotate

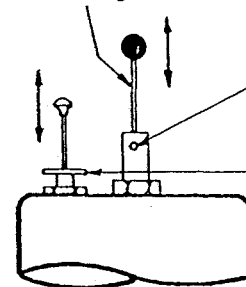


INDUCTIVE FINE TUNING

Fine tuning usually set mid-range of 4" travel at VHF and 3" travel at UHF. Sliding coarse tuning rod.

Coarse tuning lock

Fine tuning lock



J(H)402D1
pg.1

