

## MFJ-704 Instruction Manual

Thank you for purchasing the MFJ-704 HF Low Pass Filter. This low pass filter is designed to accept up to 1.5 K W of power at a frequency of 1.8 to 30 MHz (with 52 ohm input and looking into 52 ohms non-reactive impedance).

The purpose of the Low Pass Filter is to reduce possible interference from your transmitter to television or other services above 30 MHz. This 9-pole Chebyshev filter has a low insertion loss (not more than .5 dB from 1.8 to 30 Mhz.) and has high attenuation above 30 Mhz.

## INSTALLATION

1. Connect the output of your transmitter to the input of the MFJ-704 Filter. Use as short a cable as possible between the transmitter and filter. Use 52 ohm coax such as RG-8 or RG-58 depending on the power level being transmitted. **DO NOT USE ANYTHING BUT 50 or 52 OHM COAX.**
2. Connect the output of the MFJ-704 Low Pass Filter to a 52 ohm load. This can be a linear amplifier, an antenna tuner, or a well matched antenna (52 ohms with no reactance via coax). See Figures 1, 2, and 3 on the following page for various hook-up diagrams.

NOTE: The input and output impedances should be 50 or 52 ohms with no reactance. If the output of the filter is looking into any reactance, the power handling capability of the filter is reduced. This is due to the high reactive voltages which can develop.

NOTE: Care should be taken when constructing RF cables.

CAUTION: Do not operate the filter with a high SWR.

Cold solder joints can actually cause rectification harmonics which will defeat the purpose of the filter. Take steps to insure good solder connections at all RF connectors.

The filter should be well grounded. If you have a good RF connection to the transmitter, and the transmitter is well grounded, that is sufficient.

3. Mount the filter in a convenient location. There are four mounting holes provided for mounting if desired or the MFJ-704 can be placed on a desk behind the equipment.

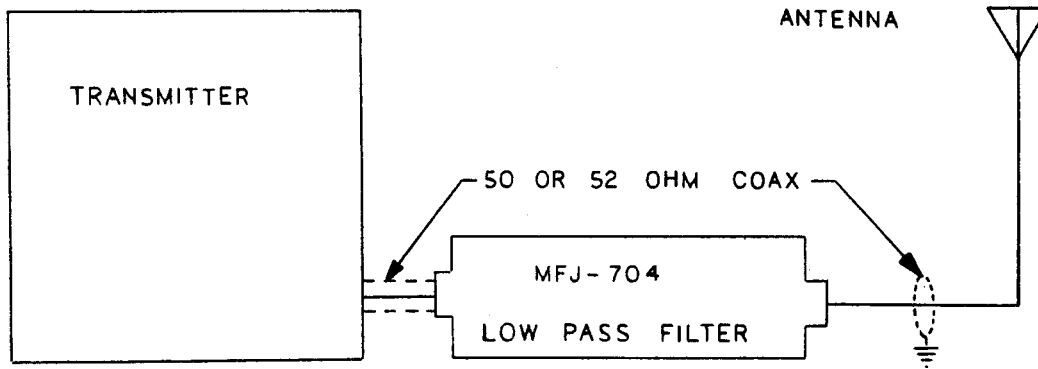


Figure 1 - MFJ-704 with XMTR and Antenna only.

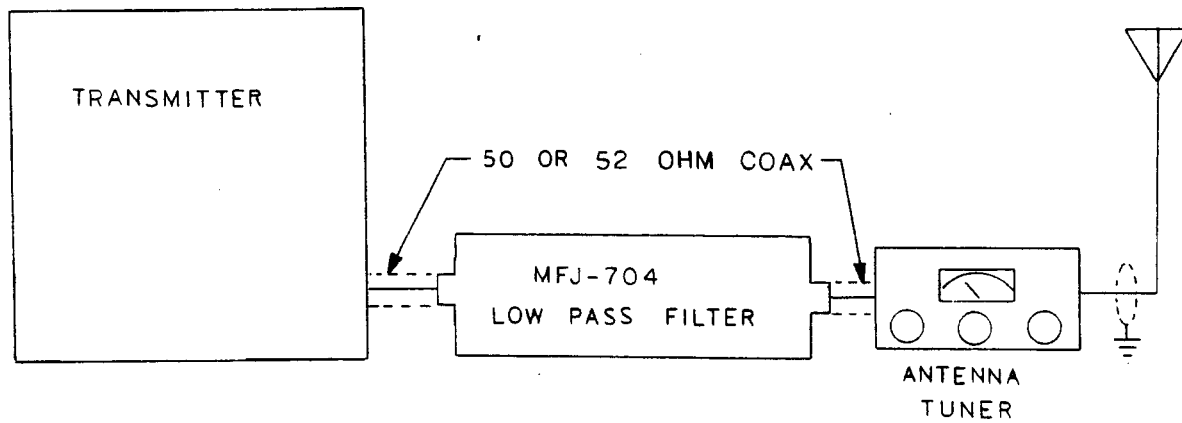


Figure 2 - MFJ-704 with XMTR and Antenna Tuner

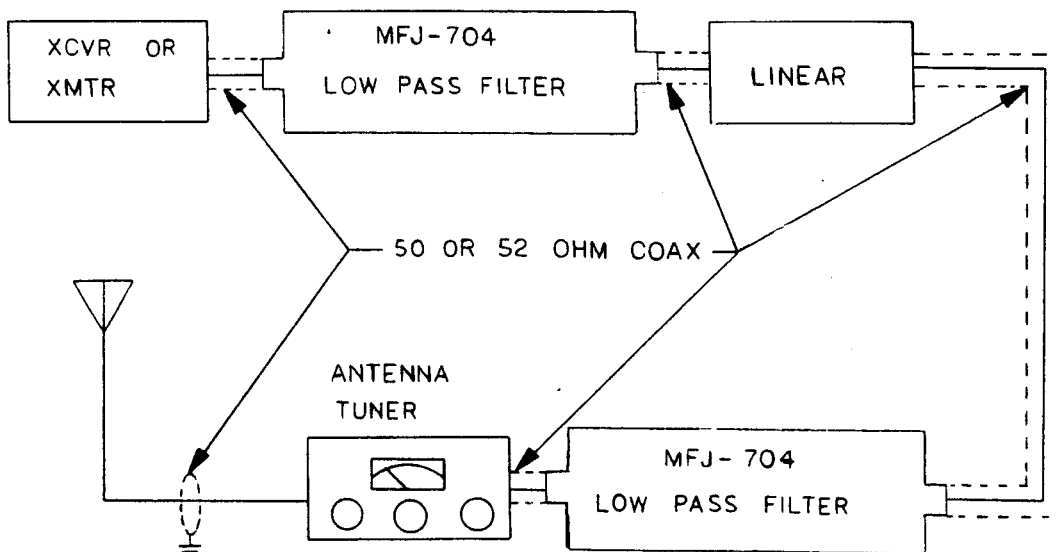


Figure 3 - MFJ-704 with XMTR, Linear, and Antenna Tuner Page 2