

## MFJ-1040B INSTRUCTIONS

The MFJ-1040B Deluxe RF Preselector II is a high gain RF amplifier which covers 1 to 54 MHz in 4 bands. The unit has switching capability to select one of two receivers and one of two antennas for added versatility. There is also a relay which automatically bypasses the amplifier for use with transceivers up to 350 watts PEP input and has an added SWR of less than 1.2:1 maximum. The amplifier is bypassed when transmitting or when the relay line is grounded.

### INSTALLATION

1. Connect the antenna(s) to the antenna terminals. For each of the antenna inputs there is a phono connector and a SO-239 coax connector in parallel.
2. Connect the radio(s) to the receiver terminals. Each receiver output has a phono connector and a SO-239 connector in parallel.
3. Connect the MFJ AC adapter or a 9 to 18V DC <sub>supply</sub> to the power jack. The tip of the 2.5mm subminiature jack is positive.
4. If the MFJ-1040B is to be used with a transceiver, the MFJ 10480 may be operated one of two ways:
  - A. If automatic bypass (VOX <sub>type</sub> operation) is desired no additional connections are needed.
  - B. If push-to-talk operation is desired connect the relay phono jack to an auxiliary relay contact on the transceiver (such as a relay line for a linear amplifier). The auxiliary contact must ground the relay contact on the MFJ-1040B.

### OPERATION

1. Select the proper antenna and receiver with the appropriate switches.

Turn the bandswitch to the proper frequency range, turn the gain to maximum.

2. Turn on the MFJ-1040B. NOTE: The MFJ-1040B is bypassed when it is turned off.

3. Turn the TUNE knob for maximum signal. NOTE: The tuning dial and receiver should read close to the same frequency. If the dial is much different, you may be tuned to a receiver image. Tune the preselector tuning dial to where the receiver dial's frequency is close to the same frequency when tuned for maximum gain. NOTE: The scale on the TUNE control is an

approximated marking. It may not indicate the exact frequency shown on the receiver, however it should be relatively close.

5. If the unit is used with a transceiver in the RF sense *automatic bypass mode (push to talk relay connection in not used)*, set the delay control so the relay operates to receive in a convenient time after the transmission (this is a VOX type of operation). If the MFJ-1040B is used with an AM or FM rig the delay may be set very short (0) because a carrier will be present throughout the transmission. For SSB or CW, the delay should be set so that the relay is energized between syllables or CW characters. When power is disconnected or turned off, the MFJ-1040B is automatically bypassed. If the relay line is used, there is no delay of the amplifier when you go to receive.
6. If the preamplifier has problems with very strong signals interfering, decrease the gain or push the 20 db attenuator to reduce the interference.

### **MFJ-1040B SCHEMATIC DIAGRAM**

