



MFJ RECEIVER ANTENNA TUNER/PREAMPLIFIER
MODEL MFJ-959B

OWNER'S MANUAL

CAUTION: Read All Instructions Before Operating Equipment.

MFJ ENTERPRISES, INC.

P. O. BOX 494, MISSISSIPPI STATE, MS. 39762, USA

MFJ-959B INSTRUCTIONS

INTRODUCTION

The MFJ-959B RECEIVER ANTENNA TUNER/PREAMPLIFIER is designed to properly match your antenna to your receiver for better performance from 1.8 to 30 MHz with a single antenna.

Maximum signal power transfer occurs when the impedance of the antenna matches the impedance of the receiver. This will happen at specific frequencies as determined by the length of the antenna. At these frequencies a tuner is not needed. If the antenna is used at frequencies other than the resonant frequencies, the signal from the antenna to the receiver may be drastically reduced due to the mismatch of the antenna to the receiver. The receiver antenna tuner can transform the antenna impedance to match the receiver impedance for maximum signal. The MFJ-959B also has a broadband transistor preamplifier to help boost signals to a copyable level which is especially helpful on the older receivers which lack sensitivity. A 20 db attenuator is also built in to help receivers plagued with overload problems from strong signals.

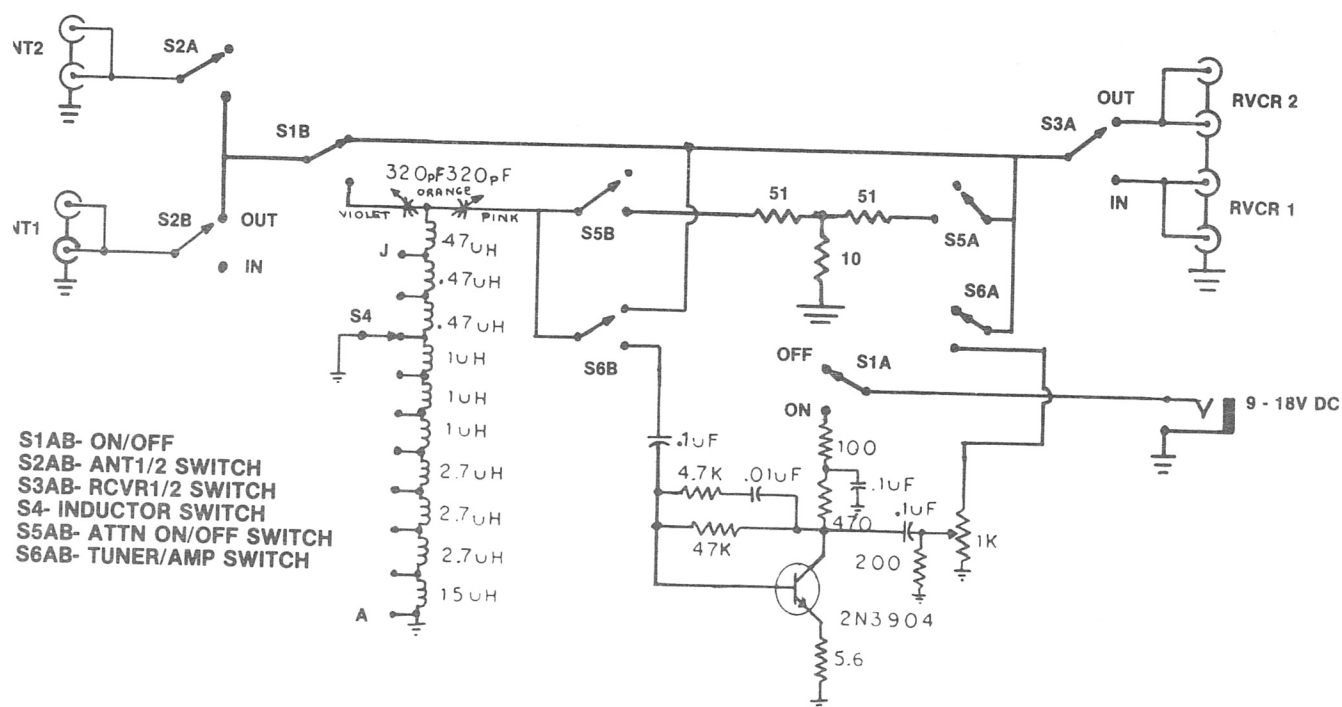
INSTALLATION

1. Plug the 12V AC adapter into the power jack on the MFJ-959B then plug the adapter into the 110V AC wall socket. If 110V AC is not available, plug external power of 9-18V DC into the rear panel power jack. The tip of the subminiature plug is positive and the sleeve is ground.
2. Connect your receiver antenna input to one of the two output connectors on the MFJ-959B marked "RECEIVER". There are 2 sets of outputs for use with 2 radios and each output has both SO-239 connector and a RCA phono jack connected in parallel for added convenience.
3. Connect the antenna to one of the antenna connections on the MFJ-959B. There are 2 sets of inputs. Each input has both SO-239 connector and a RCA phono jack for the antenna connection. For best results when using a random wire antenna with the MFJ-959B, the wire should be 1/4 wave or longer at the lowest receiving frequency.

OPERATION

1. Set the RCVR & ANT push button switches to the desired position to select the proper receiver and antenna.
2. Set the ON-OFF/BYP push button switch to the OFF/BYP position. (This bypasses the MFJ-959B.)
3. Tune the receiver to the frequency desired.

4. Set the ON-OFF/BYP switch to ON.
5. Set the TUNER/AMP-TUNER switch to TUNER.
6. Turn the antenna and receiver controls (on the MFJ-959B) to about mid scale and rotate the inductor switch for maximum signal. On the higher bands, the antenna and receiver controls may need to be set to 3/4 scale to find the maximum signal of the inductor. Inductor "A" setting is for the lowest frequency and setting "J" is the highest frequency.
7. After finding the maximum signal with the inductor, turn the antenna and receiver controls for maximum signal. If necessary, try one inductor setting either side to see if any greater signal can be obtained. With an antenna close to resonance the increase in signal may be very small but on antennas not near resonance an increase of 2 to 4 "S" units may be achieved.
8. If added signal gain is needed, set the TUNER/AMP-TUNER to TUNER/AMP. This will give an added gain of approximately 20 db to help pull the weak signals out of the noise. Fine tuning of the RECEIVER and ANTENNA controls may be required for maximum gain. Adjust GAIN control for the desired signal level. NOTE: Gain control is usable only when the TUNER/AMP-TUNER switch is in the TUNER/AMP position.
9. If overload problems show up in your receiver due to nearby transmitters (Ham, CB Shortwave, Broadcasting or Others), set the ATTN-ON/OFF switch to ATTN-ON to reduce the interference. The tuner circuit will help reduce the out-of-band interference and the attenuator will reduce the overloading signal as well as the desired signal.



MFJ-959B SCHEMATIC DIAGRAM

FULL 12 MONTH WARRANTY

MFJ Enterprises, Inc., warrants to the original owner of this product, if manufactured by MFJ Enterprises, Inc. and purchased from an authorized dealer or directly from MFJ Enterprises, Inc. to be free from defects in material and workmanship for a period of 12 months from date of purchase provided the following terms of this warranty are satisfied.

1. The purchaser must retain the dated proof-of-purchase (bill of sale, canceled check, credit card or money order receipt, etc.) describing the product to establish the validity of the warranty claim and submit the original or machine reproduction or such proof of purchase to MFJ Enterprises, Inc. at the time of warranty service. MFJ Enterprises, Inc. shall have the discretion to deny warranty without dated proof-of-purchase. Any evidence of alteration, erasure, or forgery shall be cause to void any and all warranty terms immediately.
2. MFJ Enterprises, Inc. reserves the option to repair or replace, at no charge to the original owner, any defective product under warranty, provided the product is returned postage prepaid to MFJ Enterprises, Inc. with a personal check, cashiers check, or money order for \$7.00 to cover postage and handling.
3. MFJ Enterprises, Inc. will supply replacement parts, free of charge, for any MFJ product under warranty. A request for a replacement part must include a dated proof of purchase and a \$5.00 personal check, cashiers check, or money order to cover postage and handling.
4. This warranty is **NOT** void for owners who attempt to repair defective units. Technical consultation is available by calling (601) 323-5869.
5. This warranty does not apply to kits sold by or manufactured by MFJ Enterprises, Inc.
6. Wired and tested PC board products are covered by this warranty provided **only the wired and tested PC board product is returned**. Wired and tested PC boards installed in the owner's cabinet or connected to switches, jacks, or cables, etc. sent to MFJ Enterprises, Inc. will be returned, at the owner's expense, unrepairs.
7. Under no circumstances is MFJ Enterprises, Inc., liable for consequential damages to person or property by the use of any MFJ products.
8. **Out-of-Warranty Service:** MFJ Enterprises, Inc. will repair any out-of-warranty product provided the unit is shipped prepaid. All repaired units will be shipped COD to the owner. Repair charges will be added to the COD fee unless other arrangements are made.
9. This warranty is given in lieu of any other warranty expressed or implied.
10. MFJ Enterprises, Inc. reserves the right to make changes or improvements in design or manufacture without incurring any obligation to install such changes upon any of the products previously manufactured.
11. All MFJ products to be serviced in-warranty or out-of-warranty should be addressed to **MFJ Enterprises, Inc., 300 Industrial Park Road, Starkville, Mississippi 39759, USA** and must be accompanied by a letter describing the problem in detail along with a copy of your dated proof-of-purchase.
12. This warranty gives you specific rights, and you may also have other rights which vary from state to state.