Autoryzowany Przedstawiciel MFJ w Polsce:

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MFJ-731 Analyzer Filter

INTRODUCTION

The MFJ-731 Analyzer Filter is designed to null AM broadcast stations, and attenuate all other types of out-of-band interference to Antenna Analyzers. This unit works with all brands of analyzers.

The MFJ-731 Analyzer Filter is also ideal for any application requiring a low power band-pass band-reject filter that provides a single adjustable deep notch between 550 and 1800 kHz, while passing an adjustable range of frequencies 1.8-2.0, 3.5-4.0, and 7-30 MHz.

OPERATION

Some models of the MFJ-259, and all models of the MFJ-259B, disable the internal oscillator when in the frequency counter mode. Use the following procedure with these instruments. **Be sure to follow the steps in exact order as described below.**

1. Connect the "SWR ANALYZER" port of the MFJ-731 Analyzer Filter to the "ANTENNA" port of the analyzer.

2. Be sure the red "oprerate-tune" switch is placed in the "tune" (in) position.

3. Connect the antenna to the "ANTENNA" port, set the "BAND" switch to the desired frequency range, set the "TRAP" control to the 0 (full counter-clockwise) position.

4. Turn the analyzer power on, and adjust its frequency to the desired frequency.

5. Adjust the "PASS" control for a 1:1 SWR reading, with an indicated "X" of zero ohms. If necessary, move the "BAND" switch to another range that allows nulling reactance and SWR readings.

6. Switch to the "operate" mode, and place the antenna analyzer in the Frequency Counter mode (MFJ-259B and some models of MFJ-259 only).

7. If you see any reading on the "SWR" meter of the 259 or 259B analyzer, adjust the "TRAP" control for a null.

8. If you adjusted the "TRAP" in step 7, place the MFJ-731 Analyzer Filter back in the "tune" mode, measure SWR with the analyzer, and repeat steps 4 and 5 before continuing.

9. With the MFJ-731 Analyzer Filter's "operate-tune" switch in the "operate" position, you can now measure SWR and impedance of the antenna system.

NOTES:

A.) On frequencies above 14 Mhz, accuracy is improved if you touch up the "PASS" control with an accurate and reliable external dummy load as a final adjustment step.

B.) Because of internal losses, this unit adds a slight amount of parallel resistance to the load. Expect the resistance readings to be reduced a very small amount from the actual values. Normal reduction is about two ohms with a fifty ohm load.

C.) Once the correct setting is obtained, it is not necessary to readjust the "TRAP" control if the measurement frequency is changed. It is necessary to check, and perhaps readjust the "PASS" setting, if measurement frequency is changed.

USE WITH OTHER ANALYZERS

Unfortunately, other analyzers might not allow you to measure return RF with the internal oscillator disabled. The MFJ-731 Analyzer Filter can still be used with these instruments, but you will have to adjust the analyzer filter's trap while measuring the offending signal's level at the "SWR ANALYZER" port with a receiver, oscilloscope, or a by a trial and error method.

The trial and error method requires adjusting the "TRAP" control for lowest SWR reading, switching to "tune", and adjusting the "PASS" control for lowest SWR after the trap is adjusted. This loop should be repeated a few times, until the lowest SWR reading is obtained.

TECHNICAL ASSISTANCE

If you have any problem with this unit first check the appropriate section of this manual. If the manual does not reference your problem or your problem is not solved by reading the manual you may call *MFJ Technical Service* at **601-323-0549** or the *MFJ Factory* at **601-323-5869**. You will be best helped if you have your unit, manual and all information on your station handy so you can answer any questions the technicians may ask.

You can also send questions by mail to MFJ Enterprises, Inc., 300 Industrial Park Road, Starkville, MS 39759; by Facsimile to 601-323-6551; or by email to techinfo@mfjenterprises.com. Send a complete description of your problem, an explanation of exactly how you are using your unit, and a complete description of your station.

YOUR NOTES

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