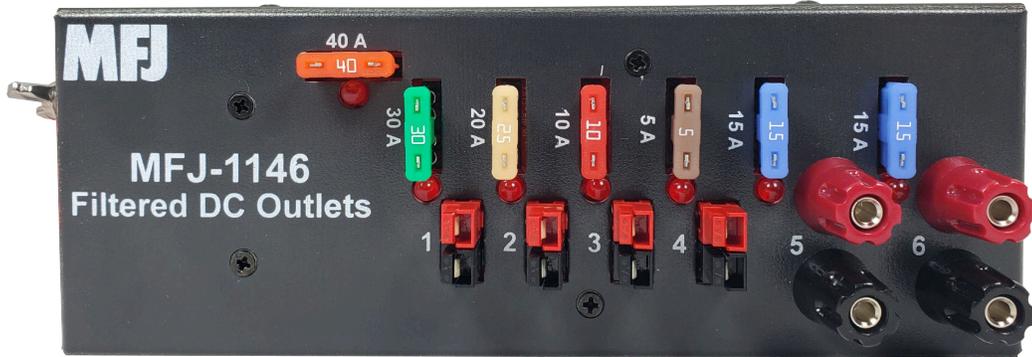


MFJ

RF Filtered DC Outlets MFJ-1146



INSTRUCTION MANUAL

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DISCLAIMER

The information in this manual is for user purposes only and is not intended to supersede information contained in customer regulations, technical manuals or documents, positional handbooks, or other official publications. The copy of this manual provided to the customer will not be updated to reflect current data. Customers using this manual should report errors or omissions, recommendations for improvements, or other comments to MFJ Enterprises, 300 Industrial Park Road, Starkville, MS 39759.

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Contents

1	THE MFJ-1146	1
1.1	INTRODUCTION	1
1.2	FEATURES	1
1.3	CONNECTIONS	3
1.4	INSTALLATION	3
2	TECHNICAL ASSISTANCE	4

List of Figures

1	The MFJ-1146 <i>RF Filtered DC Outlets</i> TM	1
2	RFI Suppression	2
3	MFJ-1146 Connections	3
4	Station setup using the MFJ-1146	3

1 THE MFJ-1146

1.1 INTRODUCTION

Wipe out power-line RFI with the MFJ-1146! Whether its a noisy switcher, power line, or engine, up to -60 dBm of suppression keeps the hash out of your rig and away from your ears. Bring out that weak low-band signal! This isnt a dainty filter either. The MFJ-1146 is rated for a total load of 40 A at 13.8 VDC, but even if you blow a fuse, a series of LED indicators tells you instantly which one is out. Worried about RFI getting in after the filters? The MFJ-1146 has you covered! Properly grounded, the aluminum case will help keep RFI out. With four sets of Anderson powerpoles and two sets of high-current binding posts, the MFJ-1146 is versatile enough for all of your power needs.

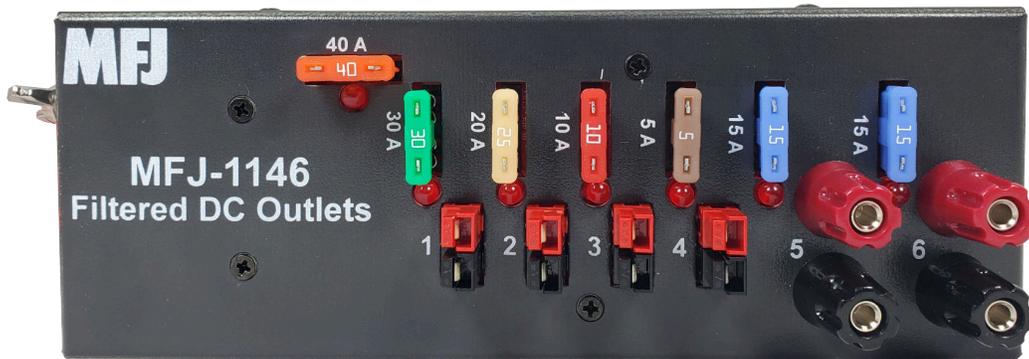


Figure 1: The MFJ-1146 *RF Filtered DC Outlets*TM

1.2 FEATURES

The primary feature of the MFJ-1146 is the RF filter. Figure 2 shows the results of measurements made using an MFJ-5014 *White Noise Generator* and a spectrum analyzer. The purple trace with + symbols represents the unfiltered (direct) output of the MFJ-5014 and serves as the baseline for everything else. The green × symbols represent the filtered output of the MFJ-1146. Finally, the blue * symbols are the difference between the two, demonstrating the RFI suppression of the MFJ-1146.

Table 1 shows the maximum RFI suppression by band. The RFI suppression is maximized on the lowest bands where most RFI is encountered.

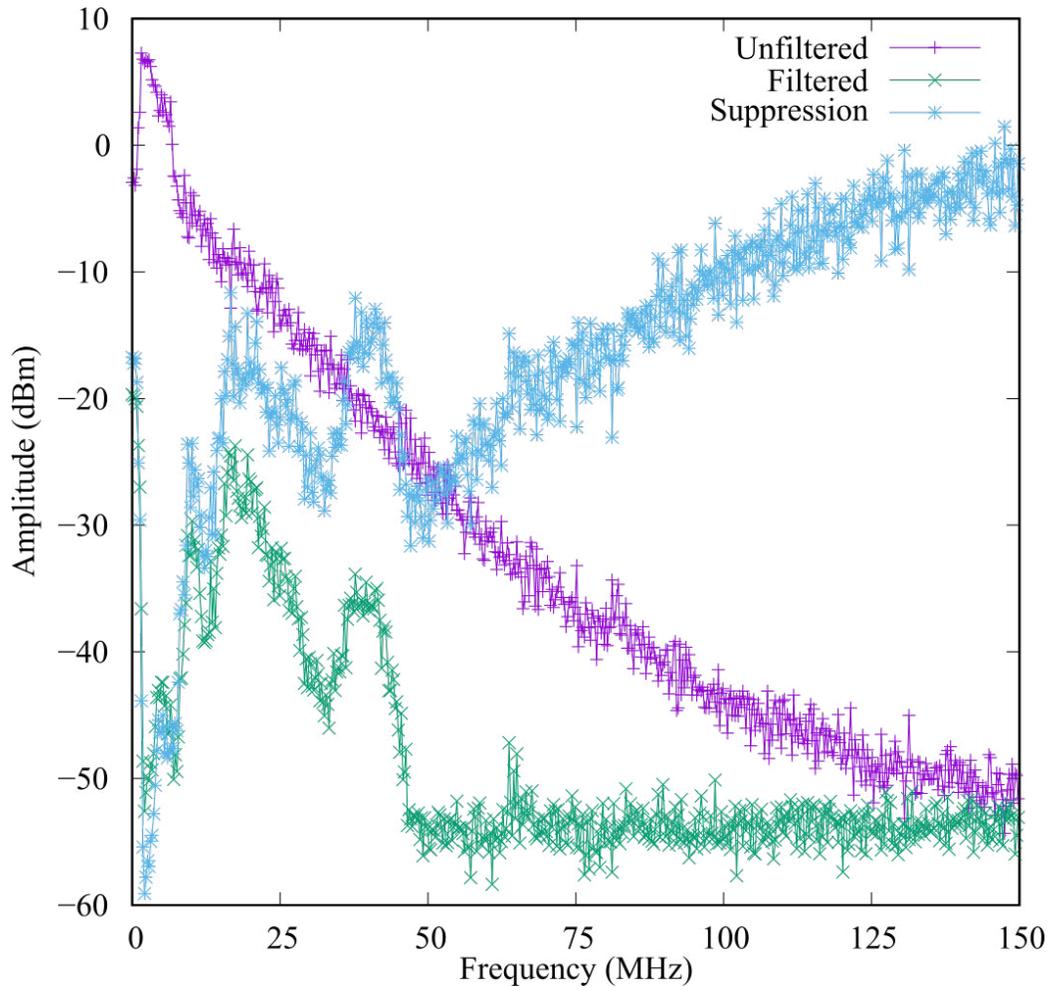


Figure 2: RFI Suppression

Table 1: Suppression by Band

Band	Peak Suppression
160 m	-60 dBm
80 m	-51 dBm
60 m	-46 dBm
40 m	-48 dBm
30 m	-24 dBm
20 m	-30 dBm
17 m	-20 dBm
15 m	-29 dBm
12 m	-15 dBm
10 m	-24 dBm
6 m	-25 dBm

1.3 CONNECTIONS

Figure 3 shows the various connectors on the MFJ-1146. The total rated current across the entire device is 40A.

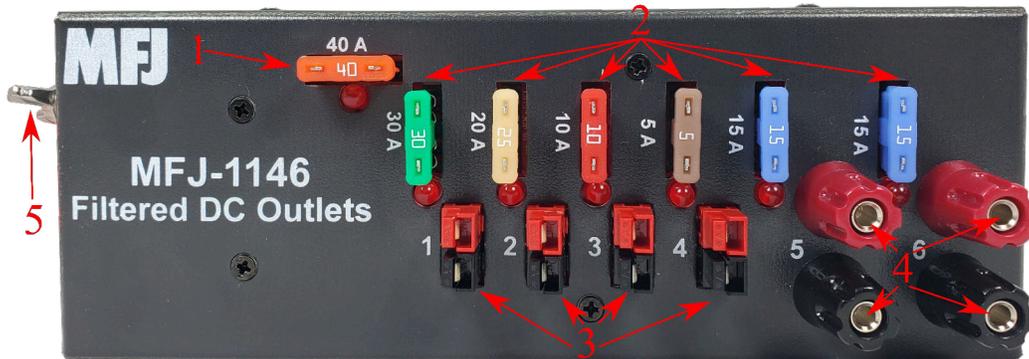


Figure 3: MFJ-1146 Connections: 1.) Master Fuse, 2.) Channel Fuses, 3.) Power Poles, 4.) Binding Posts, 5.) Safety & RFI Ground

- 1.) Master Fuse
- 2.) Channel Fuses
- 3.) 30A Anderson Power Poles
- 4.) Binding Posts
- 5.) Safety & RFI Ground

1.4 INSTALLATION

A simple station setup using the MFJ-1146 is shown in Figure 4. Place the MFJ-1146 between your power supply and your radio while keeping the power leads going to the radio as short as possible. You can attach multiple pieces of equipment to the MFJ-1146, but keep in mind that the maximum current rating is 40A. Drawing more than that, even if the individual channels are not near their limits, will burn out the master fuse and require a replacement.



Figure 4: Station setup using the MFJ-1146

2 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 reading the manual does not solve your problem, you may call MFJ Technical Service at (662) 323-0549 or the MFJ Factory at (662) 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 (FAX) to 662-323-6551; 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.

USER NOTES