

# Remote Two-Position Antenna Switch

## INTRODUCTION

The **MFJ-4712** is a versatile multiple antenna switch designed to switch two 50-ohm antenna systems. It handles high power, up to 1500 Watts and sealed relays offer excellent life and connection reliability. The unit is operational from 1-60 MHz and useable to 150 MHz. You can run coax to distant devices allowing them to be placed anywhere regardless of power availability. The MFJ-4712 will work well in nearly any system requiring switching of coaxial lines, especially those requiring good quality 50-ohm RF switches.

The MFJ-4712 2-Position Remote Antenna Switch uses a simple slide switch to select one-of-two antennas and connects those ports directly to a single common port for a feedline. All unused inputs are grounded.

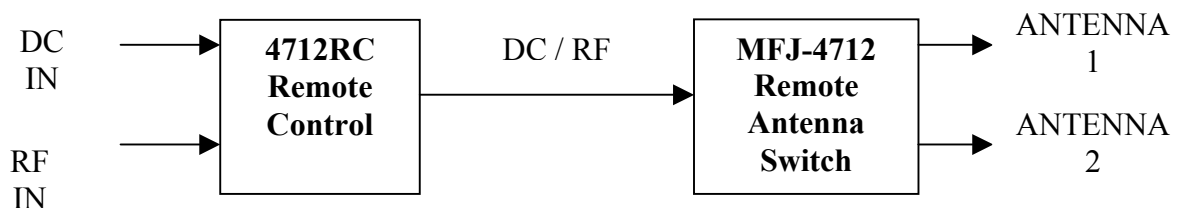
The MFJ-4712RC Remote Control is used to inject DC voltage onto coaxial lines. The DC voltage is separated from the RF signal by the MFJ-4712 external unit on the terminating end (See Figure 1).

## MFJ-4712 Supplied Components

- MFJ-4712 Remote Antenna Switch with U-Bolt bracket
- MFJ-4712RC Remote Control
- U-Bolt Package

## MFJ-4712 2-Position Remote Antenna Switch Features

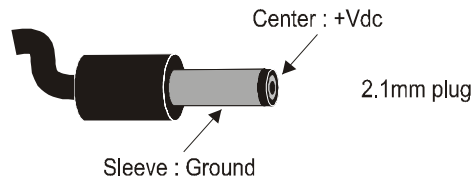
- **High Power Capability:** Handles 1500 Watts/50-75 Ohm load.
- **Wide Frequency Range:** 1-60 MHz. Useable to 150 MHz.
- **Easy-to-Use:** A simple slide switch allows you to select one-of-two antennas.
- **Versatile:** Mount the external box outside and control it from the comfort of your station.
- **Standard Connectors:** Uses SO-239 connectors.



**Figure 1:** MFJ-4712 Remote Antenna Switch Operation Diagram

## INSTALLATION

1. The MFJ-4712 external unit can be located at any convenient location using the U-Bolt package included with the unit. Any mast up to 1 ½ inches in diameter will fit.
2. Connect your Antennas to the SO-239 coax connectors on the MFJ-4712 external unit labeled “**Antenna 1**” and “**Antenna 2**”.
3. Connect your Transmitter to the “**RF IN/OUT**” coaxial connector on the MFJ-4712RC Remote Control using a 50-ohm coaxial cable. This is the RF signal input connector. (See Figure 1)
4. Connect a standard DC 2.1 mm plug to the “**DC IN/OUT**” jack on the MFJ-4712RC Remote Control. This is your DC voltage input connector. The supply must be capable of supplying 300mA continuous at 12-15 volts DC. This unit is polarity sensitive. It requires the following power connection:



The sleeve is negative, and can be grounded or floated at the power supply. The center pin is positive, and **MUST** be ground isolated.

5. Connect the feedline coax that you will be running to your antennas to the “**RF/DC OUT/IN**” coaxial connector on the MFJ-4712RC Remote Control using 50-ohm coaxial cable. This is your RF signal and DC power. The MFJ-4712 external unit will recover the RF and DC signals.
6. Connect the feedline coax connected to the “**RF/DC OUT/IN**” coaxial connector on the MFJ-4712RC Remote Control to the “**Transmitter**” SO-239 coax connector on the MFJ-4712 external unit.

## OPERATION

1. Slide the Selector Switch to choose the desired antenna. The switch positions are numbered on the 4712RC. When the DC is ON, Antenna 2 is selected. When the DC is OFF, Antenna 1 is selected. Unused inputs are grounded.
2. Once the antenna is selected, you may transmit into the selected antenna.

|                   |                                                                                                                                       |
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| <b>IMPORTANT:</b> | NEVER switch antennas with RF power applied to the Master feedline. Damage to the switching contacts may result from "hot-switching". |
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## 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](mailto: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.

## NOTES