RigPi Station Server Intro and Quick Start Guide

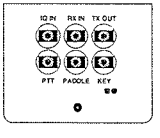
The RigPi Station Server (RSS) is a Raspberry Pi 3B+(WM) computer system making a very small but powerful Amateur Radio Station controller. The RSS can control many different ham radios and rotors using the Hamlib program, send the radio audio through the internet via the Mumble VoIP server program, and interface everything through a web browser on the internet via the programs specifically written for the RigPi.

Basic setup and operation does not require an in depth knowledge of Raspbian Linux or programming in the languages used. For some of the more advanced features and functions some knowledge will be needed or be learned. There is a wealth of information available on the internet to assist in making the RSS work to it's fullest. With the open source programs incorporated users with advanced knowledge can also expand the system capabilities.

Some knowledge of the home router in connecting to the router, obtaining IP address information, and changing port settings is required as setting up for external remote operation will require opening some ports so the RSS can respond. That information is available from your router vendor or ISP.

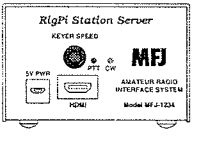
This guide is for basic setup to get you going. Additional setup will be needed depending on the functions you want to use and which radio you plan to use. The Help files at https://rigpi.net/help or on the help tab will walk you through the remainder of the setup for the functions you may want to implement.

RigPi Station Server Layout



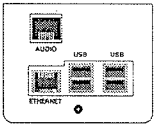
Left Side

1. IQ IN
2. RX IN
3. TX and PTT OUT
4. Keyer PTT OUT
5. Keyer Paddle IN
6. Keyer KEY OUT
7. Green Pi ACTIVITY LED (left)
8. Red Pi POWER LED (right)



Front

1. HDMI Video
2. 5V Mini USB POWER IN
3. Manual Keyer Speed Control
4. Keyer PTT LED (left)
5. Keyer CW LED (right)



Right Side

1. Audio Cable Port
2. Ethernet Port
3. 4 USB Ports

What is Needed

1. RigPi Station Server (RSS)
2. 5-volt, 2.5 to 3-amp Power Supply with a micro USB connector.
3. An Ethernet cable or Wi-Fi connection to your router.
4. Another computer or mobile device on the same network, ***or***
5. A monitor with HDMI input, USB keyboard, and USB mouse.
6. Optional audio cables for VoIP or digital mode software, CW and PTT keying cables.
7. For remote operations, Mumble VoIP client on your mobile device or remote computer.

Connecting RSS Using an Ethernet Connection

1. Connect an Ethernet cable from your router to RigPi Station Server.
2. Plug in the RSS 5-volt power supply.
3. The two lights below the RSS KEY jack indicate power (red) and activity (green). The green light blinks as RigPi boots.
4. On another computer or mobile device connected to the same network, open a browser window. Navigate to http://rigpi.local. Some mobile devices might require the use of the RigPi IP address (see#6).
5. Apple Bonjour is required on Windows computers to find http://rigpi.local. See the Technical topic in Help for more information on Bonjour.
6. Without Bonjour, you can use the RigPi IP address instead. Log in to your router and look at connected devices. You will see the Raspberry Pi listed there along with its IP address.
7. The RSS Login screen appears after RSS has completed the boot process. (See below.)

Connecting RSS Using a Wi-Fi Connection and Connecting a Display and Keyboard

1. RSS has built-in Wi-Fi if an Ethernet cable isn't convenient. If you need to connect using Wi-Fi rather than using an Ethernet connection, a monitor/keyboard/mouse must be connected to RSS to allow setup.
2. Connect a computer monitor or TV having an HDMI input, USB keyboard, and USB mouse to RSS.
1. Plug in the RSS 5-volt power supply.
2. The two lights below the RSS KEY jack indicate power (red) and activity (green). The green light blinks as RigPi boots.
3. The Raspbian PIXEL Desktop appears after RSS has completed the boot process.
4. In the upper-right corner of the Desktop click the Network icon (Up/Down arrow).
5. Left click and select "Turn on Wi-Fi", then left click the Network button again.
6. Select the network you wish to join from the list.
7. In the "Pre Shared Key" box enter your Wi-Fi password, then click OK.
8. While the Desktop is open, click the Raspberry Menu icon and navigate to Preferences>Raspberry Pi Configuration>Localisation.
9. Enter the Locale, Timezone, Keyboard and WiFi Country for your location.
10. Click the RSS icon (a Pi symbol) to start RSS. The RSS Login screen appears.

Exploring RSS

1. RSS is shipped with Username 'admin' and no Password.
2. Launch the Rigpi program by opening the browser either on the RSS or on a remote computer.
3. Enter admin in the Username box.
4. Press Enter (no Password has been assigned).
5. The RigPi Express Setup window appears the first time you launch the program.
6. In the Express User section change the Call Sign from ADMIN to your call sign. You may update the other blocks at this time or at a later time. When finished click NEXT at the top of the page.
7. Express Radio Settings, which comes configured with the Hamlib simulated radio Dummy, lets you set up your own radio. You can continue to use Dummy by skipping the Express Radio Settings or you can set up your radio at this time. Click NEXT at the top of the page to continue to the main page.
8. Once the Express Setup is completed the RigPi will go to the main page from the login screen.

Shutting Down

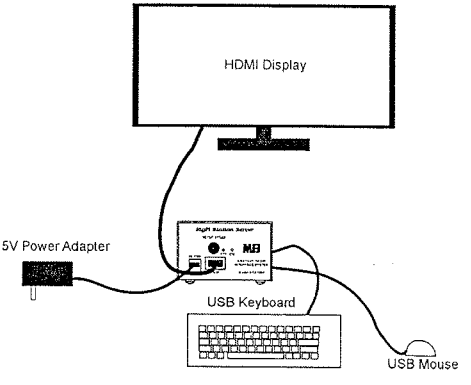
Never disconnect the RigPi Station Server power supply without properly shutting down first. Disrupting the power before shutting down can corrupt the memory card.

1. Go to SETTINGS>System.
2. Click the Shutdown button.
3. Wait for the green activity light to stop blinking.
4. Disconnect the power.

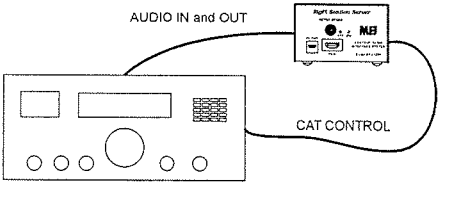
Basic Wiring Setup

Each station will be a little different but all follow similar setup. Some of this will depend on if the RSS will
be used for remote control or local control. Read the help files for more details.

Computer Setup



Radio Setup



Enjoy the RigPi! Additional Help is available:

- RSS Toolbar Help
- Online forum: https://groups.io/g/RigPi
- RigPi online help: https://rigpi.net/help/
- PDF Help file: https://rigpi.net/help/RigPi.pdf
- MFJ Online technical support: https://www.mfjenterprises.com/
- MFJ telephone support: 1-662-323-0549

FULL 12-MONTH WARRANTY

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4. This warranty is **NOT** void for owners who attempt to repair defective units. Technical consultation is available by calling (662) 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 un-repaired.

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 Rd, 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 and a telephone number.

12. This warranty gives you specific rights, and you may also have other rights, which vary from state to state.

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