



Please login with your Username and Password.

admin

Login

Powered by SviLink. For more information on this project visit OpenRepeater.com

OpenRepeater ver. 2.1.3

Once the IP address of your hotspot has been identified, enter admin and openrepeater as the password

Step 1 of 5

Setup Wizard

Welcome to OpenRepeater

Welcome to the OpenRepeater setup wizard. This wizard will guide you through the essential settings to get your OpenRepeater controller up and running. It will not set all of the settings and it will set many to defaults. Note that none of your entries will be applied until you have completed the wizard, applied your changes, and rebuilt and restart the controller. Any other setting you will be able to modify after the controller is setup.

Thanks again for your support of the OpenRepeater Project!

~The OpenRepeater Team~

Before You Get Started

There are a couple things you will need to do before you are able to setup your OpenRepeater controller:

Required Hardware

First you will need interface hardware. If you are not using interface hardware that is already supported by OpenRepeater, then you will need to know the following before you can proceed:

- **SOUND (required):** You will need to have a connected sound device to handle the incoming and outgoing audio for the "port". The wizard will use some magic to try to detect this device. The line input or mic channel will be used to process audio from the receiver (RX). The line out or headphone jack will be used to send audio from the OpenRepeater controller to the transmitter (TX).
- **PTT GPIO (required):** You will need to know the GPIO pin number that you will be using with your single-board computer

I have read the requirements for hardware and I understand about setting up a repeater and the potential to cause interference.

Then click on Continue

Continue

Here you have to click

Step 2 of 5

Setup Wizard

Basic Identification Settings

Please enter the callsign that will be used to identify this repeater.

Note: Only enter the call sign like X0XXX. Do not add any suffixes like "/R" to the end. There are other identification options you can choose later to set suffixes for Morse Code IDs.

Call Sign This call sign will be used for identification.

Entrez ensuite votre CALLSIGN

Ensuite cliquez sur Continue

Step 3 of 5

Setup Wizard

Setup Supported Interface Board or Manual Configuration

If you have a supported interface board and have it connected to your single board computer you can choose it from the list. Otherwise, if you have a board that is not supported or you have built your own interface hardware, then choose *Manual Configuration*.

Select Interface:

Click on Select One ... Then click on Continue

Step 3 of 5

Setup Wizard

Setup Supported Interface Board or Manual Configuration

If you have a supported interface board and have it connected to your single board computer you can choose it from the list. Otherwise, if you have a board that is not supported or you have built your own interface hardware, then choose *Manual Configuration*.

Select Interface:

Choose Manual Configuration Then click on Continue

Step 3 of 5

Setup Wizard

Setup Supported Interface Board or Manual Configuration

If you have a supported interface board and have it connected to your single board computer you can choose it from the list. Otherwise, if you have a board that is not supported or you have built your own interface hardware, then choose *Manual Configuration*.

Select Interface:

Manual Configuration

Manually Setup the 1st Port

Ports are the audio and logic I/Os that interface the OpenRepeater controller with the transmitter and receiver to make the repeater function. This is done through other external circuitry. Since you have chosen to set this up manually, you must specify the settings for this hardware. It utilizes both a sound card and the GPIO pins to make up the port, usually a paired receiver and transmitter hence a repeater. Here you will setup the first port required to make the controller initially function. You will be able to add other ports later if you require them and your hardware supports them.

Receiver Settings (RX)

The receiver settings are what interface the OpenRepeater controller with your receive radio, or the input of the repeater. The most common and most reliable receive mode would be COS (Carrier Operated Switch). When the repeater's squelch opens (or tone squelch if you have a receive tone set in the radio) an electronic trigger from the radio interfaces with some basic circuitry to trigger an input GPIO pin on the OpenRepeater Controller to go low to ground (active state) and pull high when the squelch is closed. Audio from the output of the receiver is routed into the selected audio input for the port. Together these will make up the input side of the port and be repeated to the transmit side of the port and other ports or Echolink if enabled.

Receive Mode

COS (Carrier Operated Switch)

This will determine how the repeater is activated. The COS Mode is recommended.

Receive GPIO Pin

23 Active High

Enter 23 for input

The GPIO input pin that will trigger the COS and whether it should be active high or low. See online documentation for wiring.

Receive Audio Input

INPUT: wm8960-soundcard (Right)

The audio input that processes receive audio.

Choose the sound card

Transmitter Settings (TX)

The transmitter settings are used to interface the OpenRepeater controller with transmitter to rebroadcast transmissions and identification. The GPIO pin is used to trigger the PTT on the radio with some basic interface circuitry. The audio output of the controller interfaces with the audio/mic input on the transmitter.

Transmit GPIO Pin

17 Active High

Enter 17 for output

The GPIO output pin that controls PTT on the transmitter and whether it should be active high or low. See online documentation for wiring.

Transmit Audio Output

OUTPUT: wm8960-soundcard (Right)

The audio output that sends audio to transmitter.

Choose the sound card

Then click on Continue

Back

Continue

Step 4 of 5

Setup Wizard

Confirm Settings

Here is what you have entered. Please confirm that this is correct, if not use the back navigation at the bottom of each page to go back and make corrections. This will be the minimum requirements to get OpenRepeater up and running. Once you have verified it is working, you can change other settings. Upon continuing, the settings you have chosen below will be applied to the repeater configuration.

Repeater Callsign: F5SWB

Manual Port Settings

Receive Mode: COS (Carrier Operated Switch)

Receive GPIO Pin: 23 (high)

Receive Audio Output: INPUT: wm8960-soundcard (Right)

Transmit GPIO Pin: 17 (high)

Transmit Audio Output: OUTPUT: wm8960-soundcard (Right)

Check your configuration

Then click on Save Configuration

Back

Save Configuration

Step 5 of 5

Setup Wizard

Build Configuration Files

Almost Finished...Upon clicking the button below, the repeater configuration files will be generated and you will be logged out of the wizard. Upon logging in again, you will be presented with the full control panel. Check to make sure that the OpenRepeater controller is working in the basic setup before configuring other options. If the repeater is not working, then a system restart might be required in some cases. If you need further help, please visit [OpenRepeater.com](#) for more support.

Then click on Finish & Logout

Finish & Logout



Please login with your Username and Password.

admin

.....

Login

You will be redirected to the login page

The screenshot shows the openRepeater web interface. On the left, a sidebar menu has 'Interface' selected, indicated by a red arrow. The main panel displays 'Port Settings' for a single port. Port 1 is configured with INPUT 0: wm8960-soundc and OUTPUT 0: wm8960-soundc. A green button labeled 'Update Ports' is at the bottom.

Click on Interface

The screenshot shows the openRepeater interface with 'Simplex Node' selected from the logic mode dropdown, indicated by a red arrow. The port configuration remains the same as the previous screen. A green button labeled 'Update Ports' is at the bottom.

Choose Simplex Node

The screenshot shows a warning message: 'Repeater Configuration Files Rebuild & Restart Required'. A red button labeled 'Rebuild & Restart Repeater' is highlighted with a red arrow. The interface structure is identical to the previous screens, with the 'Simplex Node' logic mode selected.

Then click on Rebuild & Restart Repeater

A confirmation dialog box titled 'Rebuild & Restart Repeater' is shown. It contains the question 'Are You Sure You Want to Do This?' and a detailed explanation of what will happen. At the bottom, there are 'Cancel' and 'Restart' buttons, with 'Restart' highlighted by a red arrow.

Then click on Restart

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Simplex Node Logic Mode for Port(s)

Port Settings

Port 1	23	INPUT 0: wm8960-soundc;▼	17	OUTPUT 0: wm8960-soun▼	<input type="button" value="Add"/>
--------	----	--------------------------	----	------------------------	------------------------------------

1 Port

Back on this page click on Update Ports

! Repeater Configuration Files Rebuild & Restart Required:

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Simplex Node Logic Mode for Port(s)

Port Settings

Port 1	23	INPUT 0: wm8960-soundc;▼	17	OUTPUT 0: wm8960-soun▼	<input type="button" value="Add"/>
--------	----	--------------------------	----	------------------------	------------------------------------

1 Port

Then click on Rebuild & Restart Repeater

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Active Repeater Log

```

Sun Oct 17 13:58:52 2021:
Sun Oct 17 13:58:52 2021: SvxLink comes with ABSOLUTELY NO WARRANTY. This is free software, and you are
Sun Oct 17 13:58:52 2021: welcome to redistribute it in accordance with the terms and conditions in the
Sun Oct 17 13:58:52 2021: GNU GPL (General Public License) version 2 or later.
Sun Oct 17 13:58:52 2021:
Sun Oct 17 13:58:52 2021: Using configuration file: /etc/svxlink/svxlink.conf
Sun Oct 17 13:58:52 2021: --- Using sample rate 48000Hz
Sun Oct 17 13:58:52 2021:
Sun Oct 17 13:58:52 2021: Starting logic: ORP_SimplexLogic_Port1
Sun Oct 17 13:58:52 2021: Loading RX: RX_Port1
Sun Oct 17 13:58:52 2021: Loading TX: TX_Port1
Sun Oct 17 13:58:52 2021: Loading module "ModuleHelp" into logic "ORP_SimplexLogic_Port1"
Sun Oct 17 13:58:52 2021: Found /usr/lib/arm-linux-gnueabihf/svxlink/ModuleHelp.so
Sun Oct 17 13:58:52 2021: Module Help v1.0.0 starting...
Sun Oct 17 13:58:52 2021: Loading module "ModuleParrot" into logic "ORP_SimplexLogic_Port1"
Sun Oct 17 13:58:52 2021: Found /usr/lib/arm-linux-gnueabihf/svxlink/ModuleParrot.so
Sun Oct 17 13:58:52 2021: Module Parrot v1.1.1 starting...
Sun Oct 17 13:58:52 2021: ORP_SimplexLogic_Port1: Event handler script successfully loaded.

```

Click on Repeater Log to control that the sound card is working good

```

Sun Oct 17 14:00:00 2021: TX_Port1: Turning the transmitter ON
Sun Oct 17 14:00:05 2021: TX_Port1: Turning the transmitter OFF
Sun Oct 17 14:00:58 2021: RX_Port1: The squelch is OPEN (5.26685)
Sun Oct 17 14:00:59 2021: RX_Port1: The squelch is CLOSED (6.24366)
Sun Oct 17 14:01:02 2021: RX_Port1: The squelch is OPEN (4.55805)
Sun Oct 17 14:01:03 2021: RX_Port1: The squelch is CLOSED (6.45126)

```

You should see a Tx and Rx when you use your transceiver

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Upload & Install New Module

Modules

Module	Description
Help (0#) <small>Active</small> Deactivate DTMF	A voice based help system that provides DTMF co
Parrot (1#) <small>Active</small> Deactivate DTMF	Play back everything that is received
EchoLink (2#) <small>Inactive</small> Activate	The EchoLink® network allows licensed Amateur F repeaters or to individuals using EchoLink nodes.

Select Modules, then click on Echolink / Activate

Repeater Configuration Files Rebuild & Restart Required:

openRepeater

[Rebuild & Restart Repeater](#)

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The module has been successfully activated.

Upload & Install New Module

Modules

Module	Description
Help (0#) <small>Active</small> Deactivate DTMF	A voice based help system that provides DTMF co
Parrot (1#) <small>Active</small> Deactivate DTMF	Play back everything that is received
EchoLink (2#) <small>Active</small> Deactivate Settings DTMF	The EchoLink® network allows licensed Ama repeaters or to individuals using EchoLink no

Then click on Rebuild & Restart Repeater

Rebuild & Restart Repeater

Are You Sure You Want to Do This?

This will generate new configuration files based on the setting you have updated here. After the files have been created the repeater software will have to be restarted. You should check to make sure that the repeater is currently at idle and that there are no active conversations taking place. Any active Echolink connections will be disconnected. Do you still wish to proceed?

Then click on Restart

[Cancel](#) [Restart](#)

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Then click on settings

The module has been successfully activated.

[Upload & Install New Module](#)

Modules

Module	Description
Help (0#) <small>Active</small> Deactivate DTMF	A voice based help system that provides DTMF
Parrot (1#) <small>Active</small> Deactivate DTMF	Play back everything that is received
EchoLink (2#) <small>Active</small> Deactivate Settings DTMF	The EchoLink® network allows licensed Ama repeaters or to individuals using EchoLink no

Basic Settings

Module Timeout

60 secs This is how many seconds of inactivity to wait for until the module is disabled.

EchoLink Callsign

 The callsign to use to login to the EchoLink directory server.

EchoLink Password

 Password The EchoLink directory server password to use.

Sysop Name

OpenRepeater The name of the person or club that is responsible for this system.

Location

The location of the station.

Description

Welcome to an Open Repeater Server A longer description that is sent to remote stations upon connection. This des

Enter the EchoLink Callsign, EchoLink Password and finally Location

Basic Settings

Module Timeout

secs This is how many seconds of inactivity to wait for until the module is disabled.

EchoLink Callsign

 The callsign to use to login to the EchoLink directory server.

EchoLink Password

 The EchoLink directory server password to use.

Sysop Name

The name of the person or club that is responsible for this system.

Location

The location of the station.

Description

A longer description that is sent to remote stations upon connection. This descript

Proxy Settings (Optional)

Please see <http://www.echolink.org/proxy.htm> for details

Proxy Server

If set, connect to the given EchoLink proxy server host. All EchoLink connections, both incomi

Proxy Port

Set the TCP port used for connecting to an EchoLink proxy server. Default is 8100.

Proxy Password

Set the EchoLink proxy password used when connecting to an EchoLink proxy server. Use th

Click on Envoyer



Repeater Configuration Files Rebuild & Restart Required:

Then click on Rebuild & Restart Repeater

Active Repeater Log

```
Sun Oct 17 14:15:22 2021: Loading RX: RX_Port1
Sun Oct 17 14:15:22 2021: Loading TX: TX_Port1
Sun Oct 17 14:15:22 2021: Loading module "ModuleHelp" into logic "ORP_SimplexLogic_Port1"
Sun Oct 17 14:15:22 2021:           Found /usr/lib/arm-linux-gnueabihf/svxlink/ModuleHelp.so
Sun Oct 17 14:15:22 2021:           Module Help v1.0.0 starting...
Sun Oct 17 14:15:22 2021: Loading module "ModuleParrot" into logic "ORP_SimplexLogic_Port1"
Sun Oct 17 14:15:22 2021:           Found /usr/lib/arm-linux-gnueabihf/svxlink/ModuleParrot.so
Sun Oct 17 14:15:22 2021:           Module Parrot v1.1.1 starting...
Sun Oct 17 14:15:22 2021: Loading module "ModuleEchoLink" into logic "ORP_SimplexLogic_Port1"
Sun Oct 17 14:15:22 2021:           Found /usr/lib/arm-linux-gnueabihf/svxlink/ModuleEchoLink.so
Sun Oct 17 14:15:22 2021:           Module EchoLink v1.5.0 starting...
Sun Oct 17 14:15:22 2021: ORP_SimplexLogic_Port1: Event handler script successfully loaded.
Sun Oct 17 14:15:22 2021: EchoLink directory status changed to ON
Sun Oct 17 14:15:23 2021: --- EchoLink directory server message: ---
Sun Oct 17 14:15:23 2021: EchoLink Server v2.6.103
Sun Oct 17 14:15:23 2021:
Sun Oct 17 14:15:23 2021: ECHO4: Frankfurt, Germany
Sun Oct 17 14:15:23 2021:
```

You could then control that your connection to EchoLink is active in the LOG.

```
Sun Oct 17 14:17:18 2021: ORP_SimplexLogic_Port1: Activating module Parrot...
Sun Oct 17 14:17:19 2021: TX_Port1: Turning the transmitter ON
Sun Oct 17 14:17:20 2021: TX_Port1: Turning the transmitter OFF
Sun Oct 17 14:17:24 2021: RX_Port1: The squelch is OPEN (2.31803)
Sun Oct 17 14:17:26 2021: RX_Port1: The squelch is CLOSED (4.74554)
Sun Oct 17 14:17:27 2021: TX_Port1: Turning the transmitter ON
Sun Oct 17 14:17:28 2021: TX_Port1: Turning the transmitter OFF
Sun Oct 17 14:17:29 2021: TX_Port1: Turning the transmitter ON
Sun Oct 17 14:17:31 2021: TX_Port1: Turning the transmitter OFF
```

You could control your modulation with the PARROT module sending the 1 # DTMF sequence

The settings of the sound card can be changed in ssh, Login : root Mdp : OpenRepeater

Launching the command : alsamixer

We advise to do a backup of the settings before doing all the modifications !!!!