

JackTrip boxes - replication guide

- [JackTrip boxes - replication guide](#)
 - [BOM](#)
 - [Hardware assembly](#)
 - [Configuring Jack](#)
 - [Setting the server IP for JackTrip client boxes](#)
 - [current mac addresses](#)

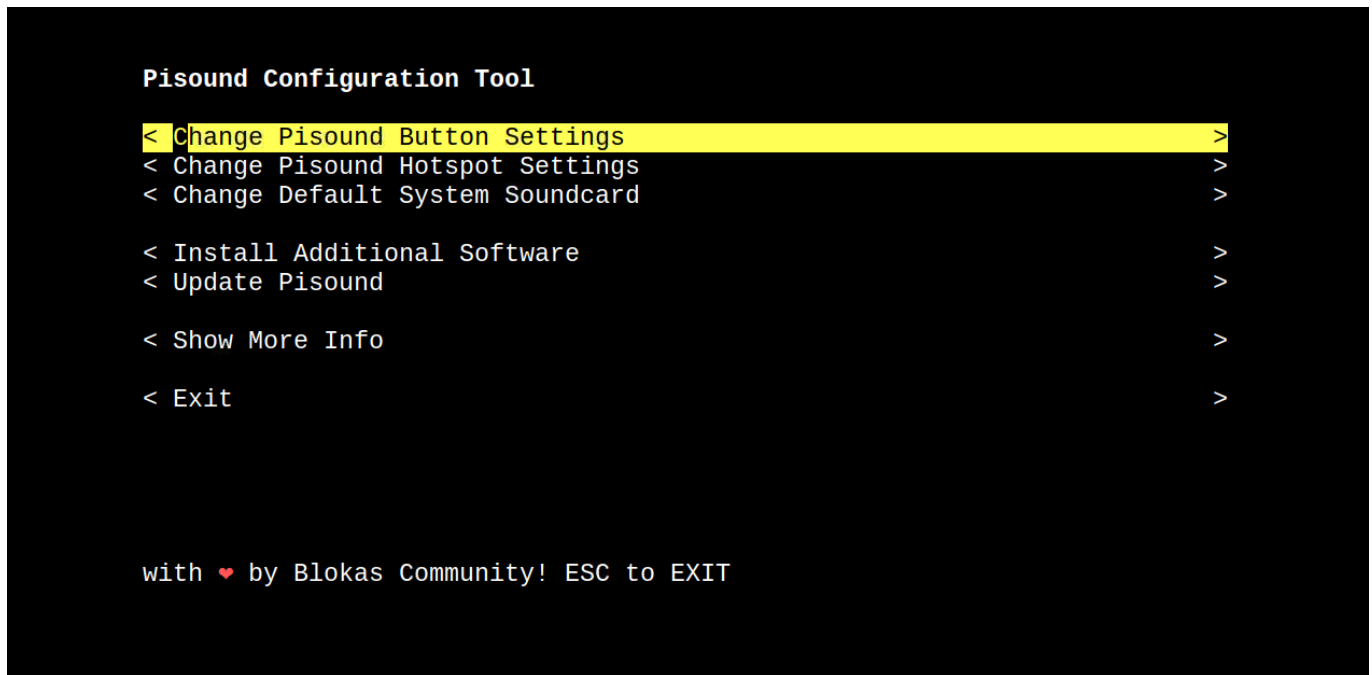
BOM

To replicate the JackTrip boxes, you'll need:

- 1 Raspberry Pi 4 B 4GB with enclosure
- 1 SD card (min 8GB), and an SD card reader if needed
- 1 power supply compatible with the Raspberry Pi
- 1 audio interface
- 1 USB cable to connect the audio interface
- 1 power supply
- 1 ethernet cable

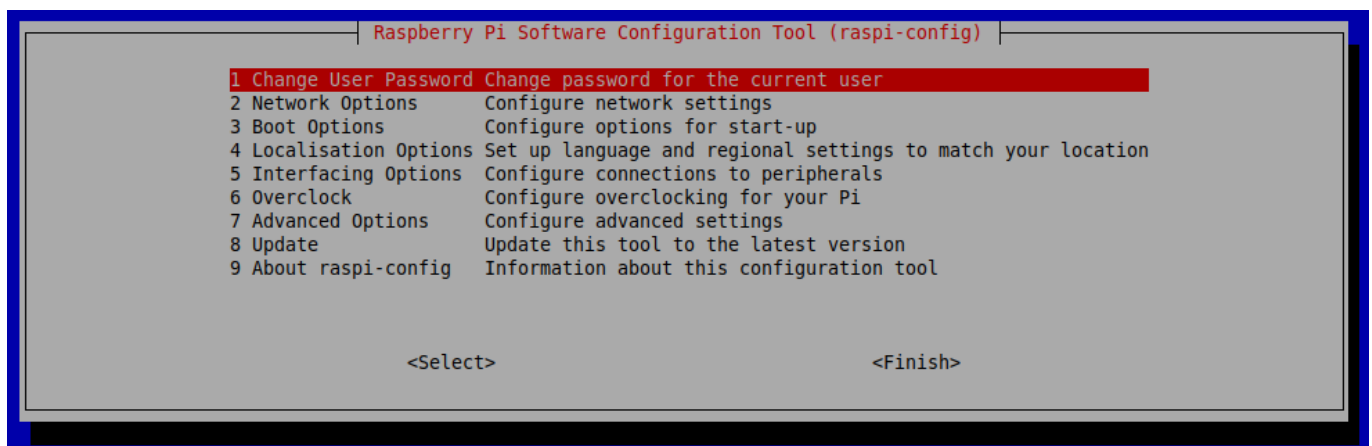
Hardware assembly

- Follow the instructions available for the Raspberry Pi enclosure purchased. For the first 2 boxes, the enclosure instructions are available at <https://www.canakit.com/pi-case>
- Flash the JackTrip box image (**jacktripbox.img.gz**) into the SD card using [ApplePiBaker](#), [balenaEtcher](#), or diskutil (dd).
- Put the SD card on the JackTrip box, connect the audio interface/cables according to the [user guide](#), and turn the Raspberry Pi on. You can use a monitor, keyboard to control the JackTrip box during setup. It is also possible to connect to the JackTrip box using *ssh*.
- Enter PiSound configuration: `sudo pisound-config`
 - Change Pisound HotSpot settings:
 - ssid: **jacktrip00X** (use SPU's ID)



(image source: [PiSound documentation](#))

- Enter Raspi-Config: `sudo raspi-config`
 - System options:
 - Hostname: `jacktrip00X` (use chosen ID)



(image source: [Raspberry Pi documentation](#))

Configuring Jack

If the user wants to replace the audio interface or try different settings, we can run the `patchbox` command and change the Jack audio configuration.

The recommended configuration for the Scarlett Solo is `Sr=48000, bs=128, period=3`. More aggressive configurations can be tested in faster networks, as the Scarlett Solo can use `Sr=96000, bs=128, period=2` locally without any issues.

Setting the server IP for JackTrip client boxes

- Edit the `jacktrip_client.service` file: `nano ~/.config/systemd/user/jacktrip_client.service`

- Replace the IP at the line `ExecStart=/home/patch/sources/jacktrip/builddir/jacktrip -c 132.204.140.247 --clientname jacktrip_client` for the new IP address
- Save the file (Ctrl+O, then hit ENTER in *nano*) and exit (Ctrl+X in *nano*).
- Update the systemctl daemon: `systemctl --user daemon-reload`
- Restart the service: `systemctl --user restart jacktrip_client.service`
- To check connection (if the server is available and accessible through the given IP): `systemctl --user status jacktrip_client.service`

current mac addresses

- JackTrip001
 - ethernet: e4:5f:01:65:ae:dd
 - wireless: e4:5f:01:65:ae:de
- JackTrip002
 - ethernet: e4:5f:01:5d:4a:ae
 - wireless: e4:5f:01:5d:4a:af