

**Node Setup Menu** > {8-Interface Tune CLI} is the adjustment for the nodes.

- 1) Select active USB device
- 2) Set Rx Voice Level (using display) currently 650.
- 3) Set Transmit A Level (currently '500')
- 4) Set Transmit B Level (currently '500')
- B) Toggle RX Boost (currently 'enabled') removes 20dB attenuator. Full CW removes attenuate also.
- C) Toggle Pre-emphasis (currently 'disabled')
- D) Toggle De-emphasis (currently 'disabled')
- E) Toggle Echo Mode (currently 'disabled')
- F) Flash (Toggle PTT and Tone output several times)
- G) Toggle PL Filter (currently 'enabled') increases time delay so tones can decode.
- H) Toggle PTT mode (currently 'ground')
- I) Change Carrier From (currently 'usbinvert')
- J) Change CTCSS From (currently 'no')
- K) Change RX On Delay (currently '0') formerly 5
- L) Change TX Off Delay (currently '0')



**Audio adjustments** include a pot on the board and digital software as listed above.

Steps help set-up levels for Rx coming in and Tx going out.

Rx audio to the interface board depends on a hardware pot and software digital volume settings.

Set the Rx pot (R9/R12) CCW to near cut-off. Rotate slightly a few degrees as shown below.

Set the Rx voice level. Adjust for your mic, voice, and where you hold the mic.

**These** are starting points.

Simplex with Baofeng UV:

Rx = 200, Txa = 55, Txb = 0, pot about 9< o'clock.

RF-less with Alinco EMS-57 & Bose amp:

Rx = 500, Txa = 500, Txb = 0, pot about 12> o'clock.

Knock-off EMS-57 type mic & cheap speaker:

Rx = 900, Txa = 500, Txb = 0, pot about 12> o'clock

**Several steps** help set audio levels.

Select P to print current values.

Select E) *Toggle Echo Mode* to hear audio play back. Toggle off when finished.

Select 2) *Set Rx voice level*.

The display has a marker for 3kHz and 5kHz deviation.

Transmit a tone or speak consistently from mic or simplex radio.

The display should show greater than 3, but less than 5 kHz.

**Enter new value.** Several <enter> strokes are required. Continue until sounds about right.

Select 3) *Set Txa voice level*.

Listen on another node or the cellphone app. Adjust Tx as needed.

Select 4) *Set Txb voice level*. Set to 0. This is for stereo.

W) *Write*, 0) *Exit*.

<Tab> <Tab> <Enter> to back up to the previous menus. Repeat as many times as needed.

**Node Setup Main Menu** > {Enter the Asterisk CLI} displays the status of the Asterisk software.

Each tone, hang-up, and command is shown in plain language.

Hold down the PTT key, select the switches, transmit the tones from the mic. They are not audible.

They will display in CLI. If not showing, tweak the levels using the above sections.

If you dial the tones too fast, the tones will not have time to process.

<exit> or <quit> will leave.

**If you get** reports of your mic being too hot, on Simplex turn down the receiver volume knob slightly.

On RF-less mic, you may need to readjust the pot down or go into the menu to reduce digital volume.

If you see COS toggling on and off, but you do not hear a signal, then the Rx settings are also too hot.

**You are** on the air. Check it with another node or phone app.

Phone cannot be on same network, switch it to cell.

Alternately read the article for multiple nodes operating on one LAN.

**Life is good.** Enjoy!

