

EQplus "Quick-Start" with 8 Band EQ

MICROPHONE Note: Results will vary greatly depending on microphone used. It is not necessary to spend a lot of money for a microphone. It is important to insure your microphone is matched to your voice. Full range (20-20khz) dynamic microphones with a cardioid or unidirectional pattern work the best. Microphones designed for Public Address(100-6khz) are a compromise. Most amateur radio microphones are spec'd around 300-3khz. Typical telephone audio is 300-3khz.

HEADPHONE Note: If you can't hear what you are doing, you will not be able to properly set up the equalizer. Frequency response, Impedance matching, feedback isolation are very important issues. Be advised there are many qualities of headphones but very few really good ones.

Step 1: Plug your mic. directly into your rig, Adjust the radio's Mic. Gain to properly drive your rig, with a minimal ALC reading, to get the desired output talk power. Start with too much mic. gain and gradually reduce it until the output R.F. power starts to fall off. **Once adjusted, do not touch the Mic. Gain on the rig again.**

Step 2: Plug stereo headphones into the 8 Band Equalizer (EQ-8). With the EQ-8 Equalizer On/ Bypass (off) switch S3 "ON" setup/adjust the EQ-8 (while talking into the mic.) to equalize "EQ" your voice. While talking into the mic. turn on and bypass the Equalizer using switch (S3). If equalized audio is louder than bypass audio , decrease/cut all slider levels, the same amount in 2-6 dB increments, until bypassed loudness is the same loudness as equalized loudness. If equalized audio is weaker than bypass audio , increase/boost all slider levels, the same amount, in 2-6 dB increments, until bypassed loudness is the same loudness as Equalized loudness.

Step 3: EQ-8 to EQplus Setup:

Attach the EQ-8 (DIN-5 to Rig Input) to your radio. Adjust the EQ-8 Output level, using the EQ-8 Mic. Out potentiometer located on the bottom of the unit, to get the original ALC levels. **Do not to touch your Mic. gain on your rig**



Connect the EQ-8 MIC OUT to the EQplus AUX INPUT using a 5-pin DIN to 5 - Pin DIN cable. (Power to both units should be OFF while connecting cabling.) Be sure to use the proper cable wiring. (Optional from W2IHY)

Step 4: EQplus “INITIAL” Setup:

- Equalizer on/off (S3) = OFF
- Comp/ Downward Expander on/off (S2) = OFF
- Effects Processor (S4) = OFF
- Audio Input Impedance Switch = 600
- Mic Power Switch (S6) on/off= OFF
- Effects Processor (S4) 1/off/2 = OFF

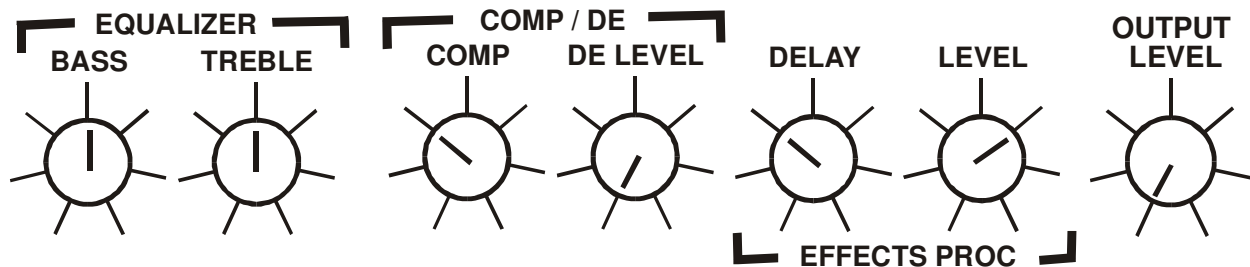
Step 5: EQplus Power-UP:

First, connect power to EQplus POWER INPUT JACK using the supplied power cube/power cables. Next, plug Power Cube into Wall Outlet.

Step 6: **Preliminary Setup:**

Power up your EQ-8/EQplus SYSTEM. Talk into Mic. while adjusting EQplus Audio Input Gain Control (R12). Look for 2 or 3 Green LED's on the bar graph light up.

Adjust the EQplus controls to the "Ball Park" settings shown below:



Step 7: **EQUALIZER Setup:**

EQ-8 is primary audio EQ. Next, plug stereo headsets into the EQplus. Listen to output of EQplus using Monitor Level Control (R22) to adjust the headphone audio level.

COMP/DE is OFF.

Adjust EQplus

EQUALIZER Bass/Treble to suit. Turn controls clockwise to increase/boost. Turn the controls counter-clockwise to decrease/cut. EQplus EQUALIZER should only be a minor adjustment. Switch EQplus EQUALIZER On/Off. Set Audio Input Gain Control (R12) for 3 or 4 Green LED's on the Bar Graph. With COMP/DE OFF the Bar Graph is a Level Indicator. The Bar Graph is strictly a level indication so you might occasionally see Amber LED's but never set it to see RED

Step 8: **COMPRESSOR Setup:**

Turn COMPRESSOR/DOWNWARD EXPANDER "ON" and turn the DE fully counterclockwise(OFF). The EQplus compressor makes transmit audio significantly louder without degrading audio fidelity/clarity. Note compression level(step6) is an effective general setting. Turning the COMPRESSOR CONTROL clockwise increases compression. Turning the COMPRESSION CONTROL counterclockwise reduces compression.

Step 9: **DOWNWARD EXPANDER Setup:**

With the Compressor / Downward Expander On/Off Switch "ON:", while listening in the headsets, turn the Downward Expander (DE) clockwise until the Audio sounds Muted/Scratchy. (Talk into Mic.). Turn the DE Control counterclockwise until audio passes thru with no distortion.

The DE Level is affected by any adjustments to AUDIO INPUT GAIN, AUDIO EQUALIZER or COMPRESSOR Controls.

Step 10: **EFFECTS PROCESSOR Setup:**

The primary use of EFFECTS is to optimize audible top end clarity/articulation not to create " Breaker one nine Good Buddy" audio echos. The goal here is transparency, to brighten the audio not to sound like you are in an echo chamber. Program #1/UP simulates an endless dampening loop/multiple dampening reflections. Program #2/DOWN simulates single audio loop/single reflection. The DELAY CONTROL sets audio time-delay before MIX. The LEVEL CONTROL sets the amplitude of the delayed audio mix. Have fun adjusting the Effects Processor DELAY and LEVEL Controls. **Remember the key here is clarity/articulation, not overdone "echo".**

Step 11: **OUTPUT LEVEL Setup:**

Adjust the EQplus OUTPUT LEVEL CONTROL to properly drive your Rig with minimal ALC reading to get desired output talk power. Start with too much EQplus Output Level gain. Gradually reduce until output R.F. power starts to fall off.