

Neon User Manual

INTRODUCTION

Thank you for choosing the Most Awesome Bluetooth Headphone Adapter Ever Made. Seriously. We appreciate it. And it shows you have impeccable discernment.

And yes, this manual is short. I mean, it's a Bluetooth adapter, not a lunar lander. We've made the UI so simple even our execs could run it (which was no easy feat). We'll cover the basics – what are the controls, how to use it, what are the specifications, and what kind of warranty you get.

Now enough of the fluff, let's get going...

SYSTEM DESCRIPTION

Neon is a Bluetooth receiver. Battery powered, portable. It supports all the normal protocols:

- A2DP (Advanced Audio Distribution Profile) for music and media streaming
- HSP (Head Set Profile) for 2-way audio during phone calls
- HFP (Hands Free Profile) for supporting remote control of a phone call
- AVRCP (Audio Video Remote Control Profile) for play/pause and volume control
- BSP (Battery Status Profile) to report current battery level (10% increments)

Audio is the big focus here, though. Neon supports the following audio CODECs:

- SBC: the default Bluetooth A2DP CODEC all Bluetooth audio devices must support
- AAC: the high-resolution option for Apple devices
- AptX: the high-resolution option for Android devices
- LowLatency: a widely compatible low latency CODEC to keep audio synced with video

Neon has a discrete amplifier inside of it. This amp will do 140 mW continuous per channel into a 32 Ohm load (nearly 5 times our Rhodium DAC). Plenty of power for our IEMs and most headphones. And since it's discrete, it has superior audio performance compared to the built-in amps in Bluetooth chips.

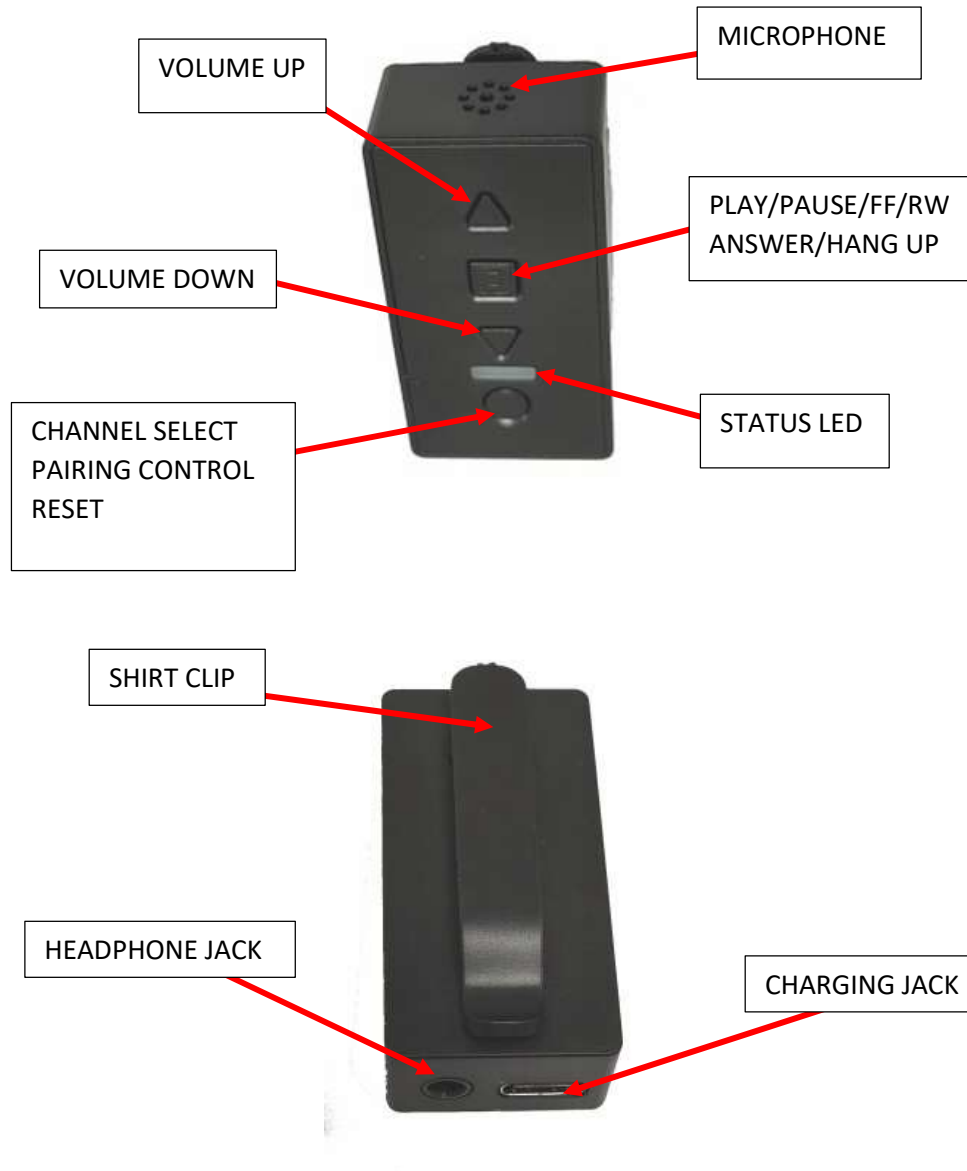
Neon is tiny. See the specs for exactly how small in numbers, but you're probably fondling your Neon right now so you know how small it is. Smaller than a 9 Volt battery. Even though it's tiny, it has about 14 hours of battery life. Why did we target 14 hours? That's enough to watch the entire Lord of The Rings trilogy (extended editions) without charging.

Neon also has a few more cool features:

- Professional grade 6mm condenser microphone capsule. No cheap, bad-sounding MEMS unit here, we use a high quality discrete, analog 6mm unit usually found in pro recording gear.
- Our legendary Nearly-Idiot-Proof™ User Interface. About as intuitive as you can get.
- SPS™ Single Press Switching. Support for TWO audio sources, with single click instant-switch.
- AO² Auto-On/Auto-Off™ functionality. Plug in headphones to turn on, unplug to turn off.

CONTROL OVERVIEW

It's a simple box with just 4 dedicated buttons, 2 connectors, one LED, one spring clip, and one mic grille.



HOW TO WEAR

Well, the spring clip should be pretty intuitive. Clip it on your shirt/jacket/whatever. If you want to use it for phone calls (meaning use the built-in microphone), make sure the grille is uncovered and aimed towards your mouth. No need to hold it close to your mouth, clipped on a shirt pocket is fine. Qualcomm's legendary cVc processing helps reduce the ambient noise around you.

And note the buttons are flush with the front surface, so you won't accidentally bump something and activate them!

HOW TO USE

This table will teach you how to use your Neon. Most of this will be obvious; the only real “curve ball” is pairing two sources and using the Channel select since we’re the only ones who do it. But we kept it, in Periodic fashion, incredibly intuitive.

Turning It On/Off	Turn it on by plugging a headphone in. That’s it. Turn it off by unplugging the headphone. Simple, eh?
Pairing Channel 1	Press and hold the round button for 1-3 seconds. Release. The LED will then fast flash BLUE when it’s in channel 1 pairing mode. Pair Neon to the host as you would normally pair a Bluetooth audio device (varies based upon the host – iOS, Android, Windows, MacOS, Linux, Symbian, BlackberryOS, RTOS, etc).
Pairing Channel 2	Press and hold the round button for 4-6 seconds. Release. The LED will then fast flash GREEN when it’s in channel 2 pairing mode. Pair Neon to the host as you would normally pair a Bluetooth audio device (varies based upon the host – iOS, Android, Windows, MacOS, Linux, Symbian, BlackberryOS, RTOS, etc).
Switching Channels	Click the round button (press for less than 1 second). The LED will turn BLUE for channel 1, and GREEN for channel 2.
Play/Pause Audio	Click the square logo button. This will play or pause the current audio stream, if you’re streaming audio.
Track Skip/Rewind	Double click the square logo button to skip forward to the next track. Triple click the square logo button to go back a track (or to the beginning of the current track if it’s been playing for more than a few seconds).
Answer/Hang Up a Call	If a call comes in, click the square logo button. You’ll pick up. Click again to hang up.
Increase Volume	Click the up triangle (the one closest to the microphone) to bump the volume up one notch. What’s a notch? Depends upon the source. For most smartphones, this is a 3-5% increase in volume. For laptops it’s often a 1% change.
Decrease Volume	Click the down triangle (the one between the square button and the LED) to bump the volume down one notch. What’s a notch? Depends upon the source. For most smartphones, this is a 3-5% increase in volume. For laptops it’s often a 1% change.
Charge The Unit	Plug in a cable to the USB C port. The LED will show BLUE and GREEN at the same time while it’s charging. When the LED turns off, it’s full.
Reset Both Pairings / Factory Reset	You can redo either channel pairing by following the channel pairing instructions above. But if you want to do a factory reset and wipe both pairings, then long hold the round button (10+ seconds). The LED will show both BLUE and GREEN for a few seconds. Now it’s reset. You will have to pair devices for Channels 1 and 2 – the memory is wiped.

LED STATUS

The LED is dual color – **BLUE** and **GREEN**. Note that the LED will TURN OFF after about 1 minute of stable operation. We don't like walking around like a lit-up Christmas tree, and we think you don't like it either. After a status change, the LED indicates status for about a minute then turns off.

BLUE fast flash	Pairing mode for channel 1
GREEN fast flash	Pairing mode for channel 2
BLUE slow flash	Waiting for channel 1
GREEN slow flash	Waiting for channel 2
Solid BLUE	Playing channel 1
Solid GREEN	Playing channel 2
Solid GREEN and BLUE	Charging (turns off when fully charged)

SPECIFICATIONS

RF Band	2.4 GHz Bluetooth Channels
Battery Size and Type	300 mAh Lithium Polymer Pouch
Run Time	14 Hours streaming either AAC or AptX, 1 mW output per channel
Charge Time	1 Hour
Frequency Response	13 Hz to 20 kHz, +0 / -3 dB relative to 1 kHz
CODECs	SBC, AAC, AptX, Low Latency
Output Power	140 mW @ 32 Ohms (2.2Vrms and 100 mA continuous output capability)
THD / SNR	0.05% THD / 98 dB SNR at 1 mW output
Size	45mm tall, 23mm wide, 13mm thick
Mass	12.5 grams
Certifications	FCC, KC, CE, WEE, RoHS

WARRANTY

Two year warranty against manufacturing defects and parts failure. Wear and tear or misuse is not covered. See our website for more details.