

Messenger USB Duo & Duo Wireless Adapter  
by  
Nel-Tech Labs, Inc.

Installation & User Manual



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## **Introduction:**

The Messenger USB Duo is a message-on-hold digital repeater with an integrated 2-line on hold circuit. When paired with the Duo Wireless Adapter it adds a full featured on-hold circuit to virtually any 1 or 2-line telephone.

## **Unpacking and Inspection:**

Before you begin installation, unpack and verify you have all the correct parts.

- (1) Messenger USB Duo & Duo Wireless Adapter
- (1) USB flash drive
- (1) 12VDC @ 500mA power supply
- (1) RJ11 to RJ11 cord
- (1) Line Combine Kit (Splitter/Joiner, In-line Adapter & 6" RJ-11 Cable)
- (2) Wall mount screws
- (4) Rubber feet
- (1) Antenna (If not already attached)
- (1) Instruction manual

If you are missing any of these parts STOP and call your dealer.

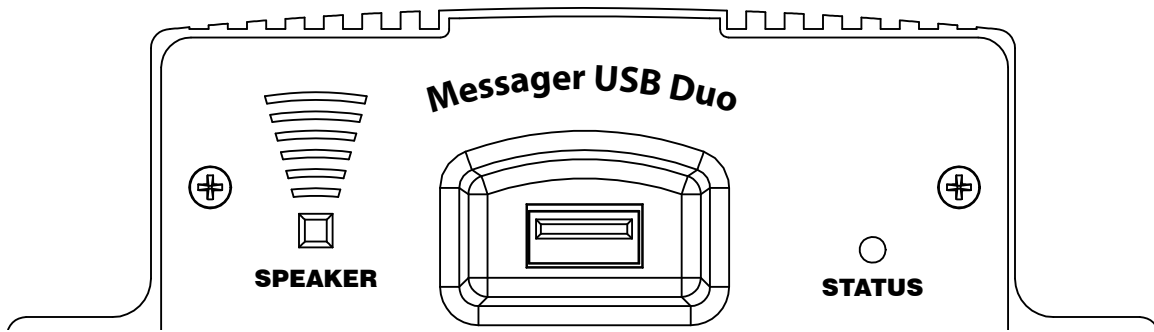
## **Important Notes:**

Some USB drives have an indicator LED - This LED may blink slow, fast or may stay solid during playback. Any description in the manual about the LED is referring to the BLUE STATUS LED on the player.

If unit is equipped with Sonocrypt Level 3 encryption then it will only play encrypted MP3 files. Talk to your dealer or service provider for more information.

## Messenger USB Duo Layout Summary:

### Front of Unit



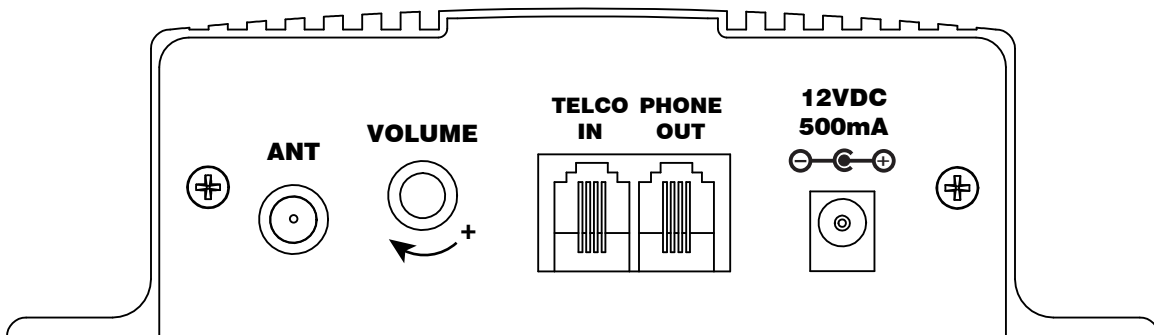
**SPEAKER** - The SPEAKER switch can be turned ON and OFF to monitor audio playback. The switch has no effect on the audio output connections on the rear of the unit. Switch should normally be kept OFF.

**(NOTE: The monitor speaker volume is fixed, and is independent of the Volume control on back of the unit.)**

**USB JACK** - The USB drive is inserted here to play or load audio. If insertion of drive is difficult, turn the drive over and try reinserting. Drive should slide into jack smoothly and be left in the unit.

**STATUS** - The STATUS indicator is a BLUE LED that during normal operation will be SOLID during playback. If there is a problem with the drive, it is not inserted or is empty, the LED will BLINK.

### Rear of Unit



**ANT** - Connect the supplied antenna to this connection.

**VOLUME** - This pot is used to control the output level of the stored messages when a customer is placed on-hold. Volume up is clockwise, volume down is counter-clockwise.

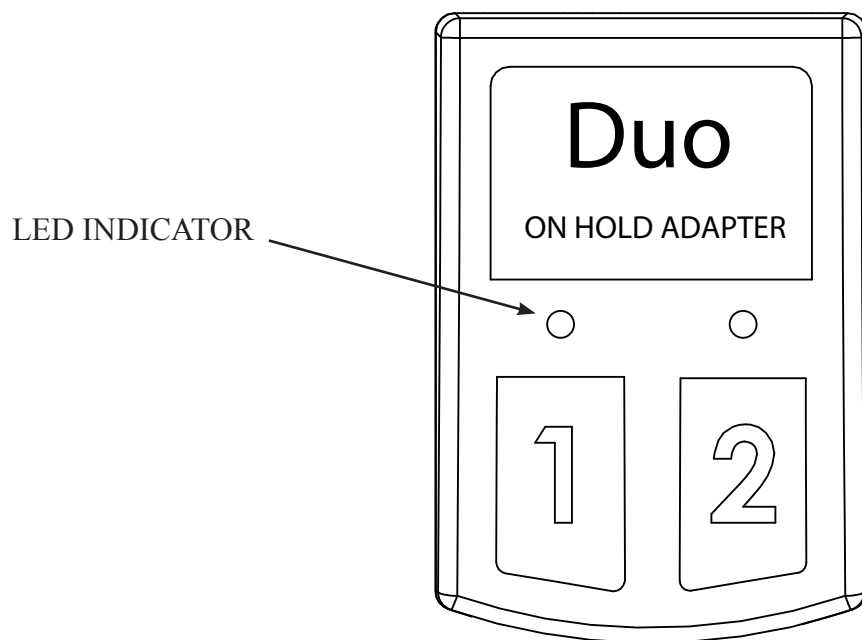
**TELCO IN** - Connection for incoming phone lines. Middle two pins are Line 1. Outside pins are Line 2.

**PHONE OUT** - Connection to telephones. Middle two pins are Line 1. Outside pins are Line 2.

**12VDC** - This is where the supplied 12VDC @ 500mA power pack is connected.

## Duo Wireless On-Hold Adapter Layout Summary:

### Top of Unit



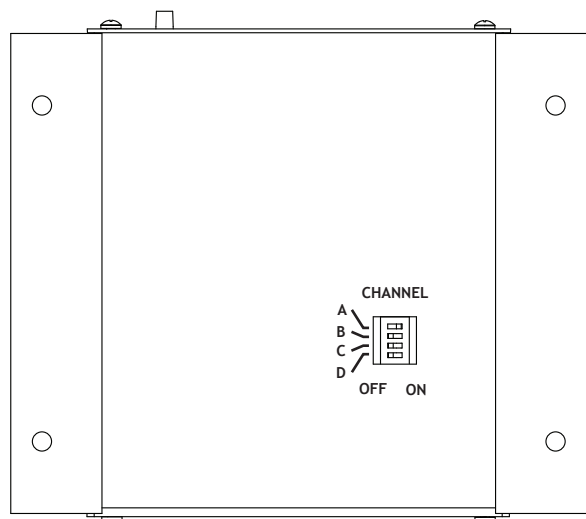
**LED INDICATORS** - The STATUS LED indicators will BLINK BLUE when line is on-hold.

**LINE 1 & LINE 2 BUTTONS** - When pressed, the corresponding line is placed on or off hold.

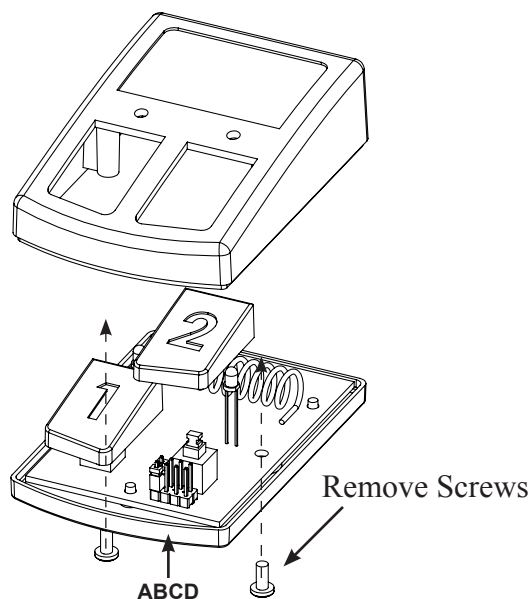
**6VDC** (From rear of unit) - Connect the attached power pack to a wall outlet.

### Channel Setting (Factory Set to A)

Both the Messenger USB Duo and Duo Wireless Adapter are preset at the factory to CHANNEL A. In the remote occurrence that you are getting interference or false triggering then switch to an alternate channel. All devices **MUST BE** on the same channel.



**Bottom of Messenger USB Duo**



**Inside of Duo Wireless Adapter**

## Messenger USB Duo Installation:

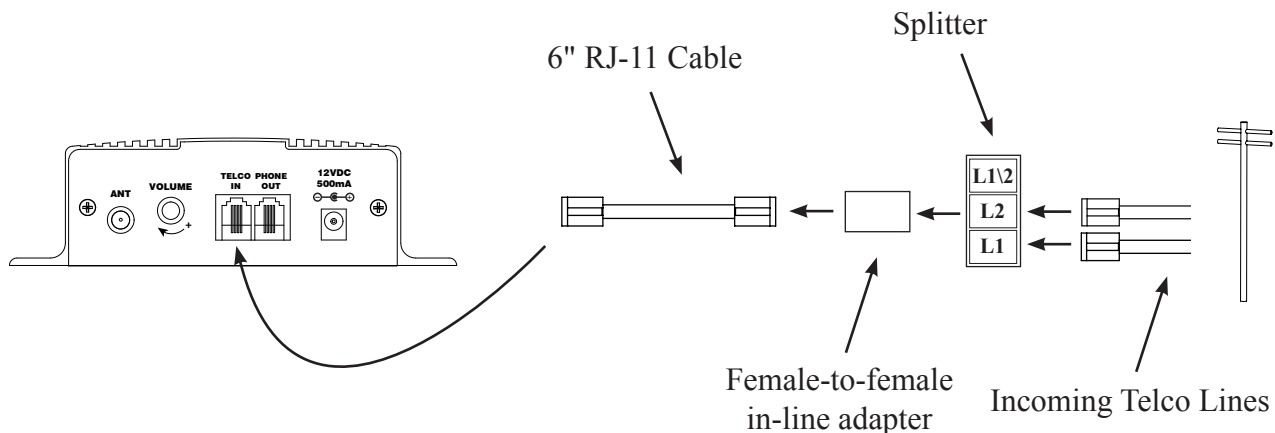
The Messenger USB Duo should be installed using the following steps:

**Step 1:** Wall or shelf mount the Messenger USB Duo near the incoming phone lines. Screws and rubber feet are supplied in the accessory kit.

**Step 2:** Attach the antenna by screwing it onto the ANT jack (If not already attached).

**Step 3:** Connect the incoming phone lines to the TELCO IN jack.

If this is a two-line installation AND both lines are on separate wires then see the diagram below. If both lines are already on one wire then skip this section. The accessory kit includes a splitter, in-line adapter and cable to allow the lines to be combined onto one wire. This step will place Line 1 on the center two pins and Line 2 on the two outside pins of the plug being inserted into the TELCO IN jack.



**Step 4:** Connect the wire going to the phones throughout the building to the PHONE OUT jack.

**Step 5:** Attach the included power pack to a wall outlet, then attach the other end to 12VDC jack.

**Step 6:** Plug the USB stick that was included with the unit into the USB jack on the front of the unit.

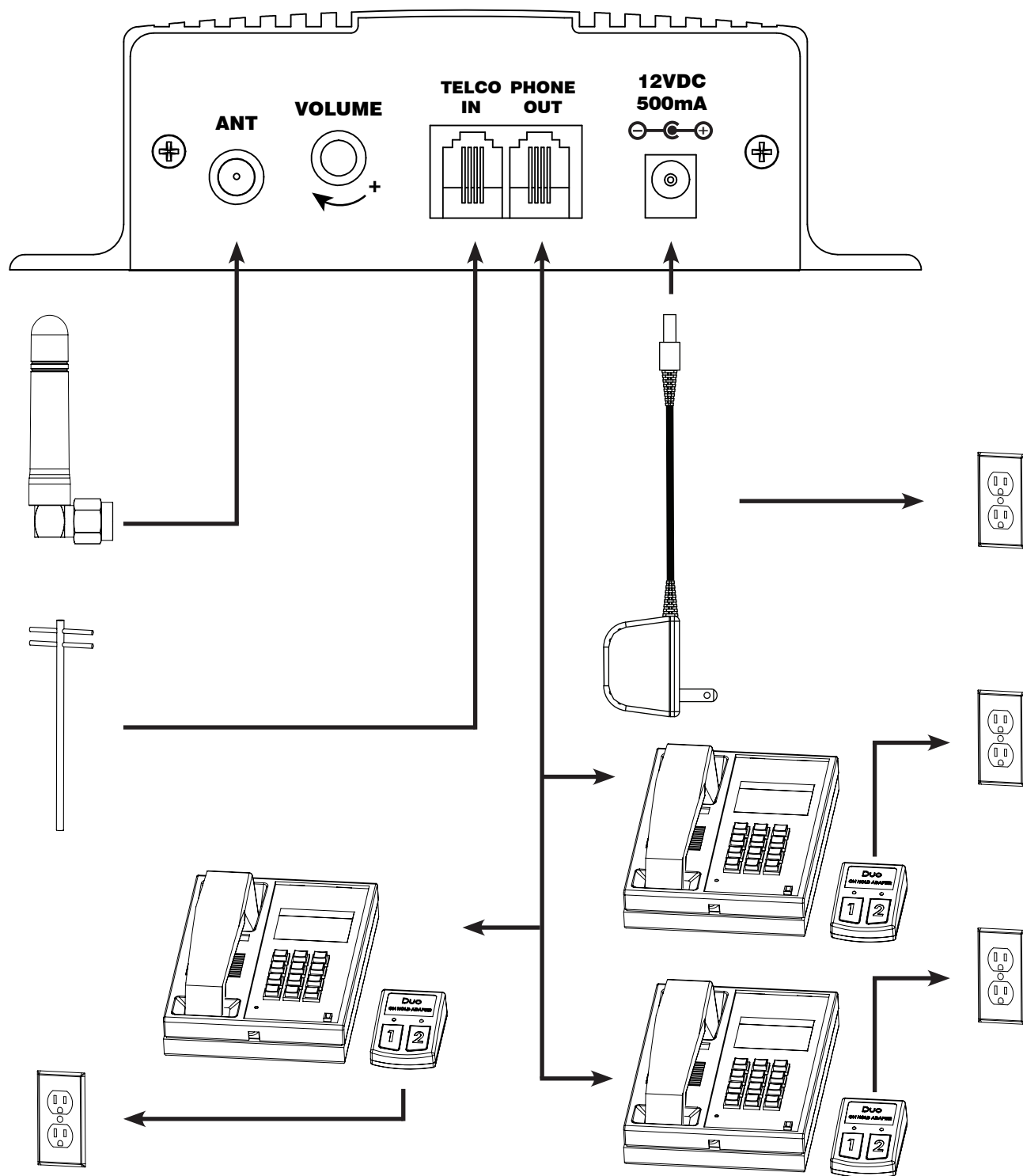
**Step 7:** Adjust the volume level with pot labeled VOLUME on the rear of the unit. Call into the phone system and be placed on hold to fine tune volume. Volume up is clockwise, volume down is counter-clockwise.

## Duo Wireless Adapter Installation:

The Duo Wireless Adapter should be installed using the following steps:

**Step 1:** Place a Duo Wireless Adapter next to each phone.

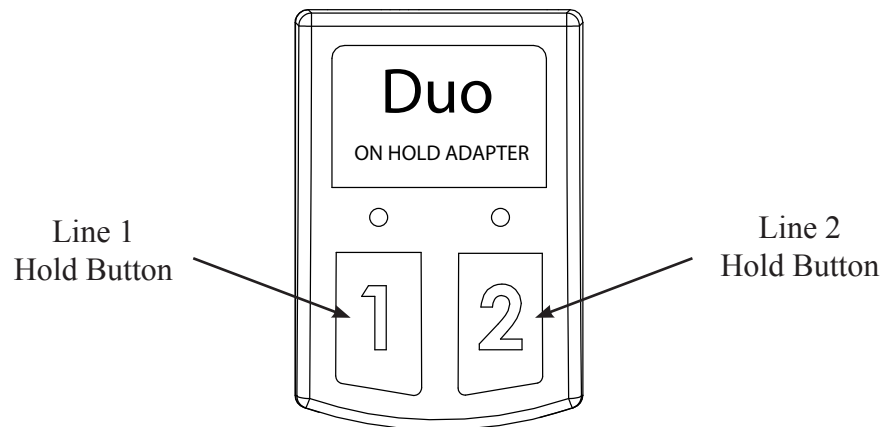
**Step 2:** Plug the attached power pack to a wall outlet.



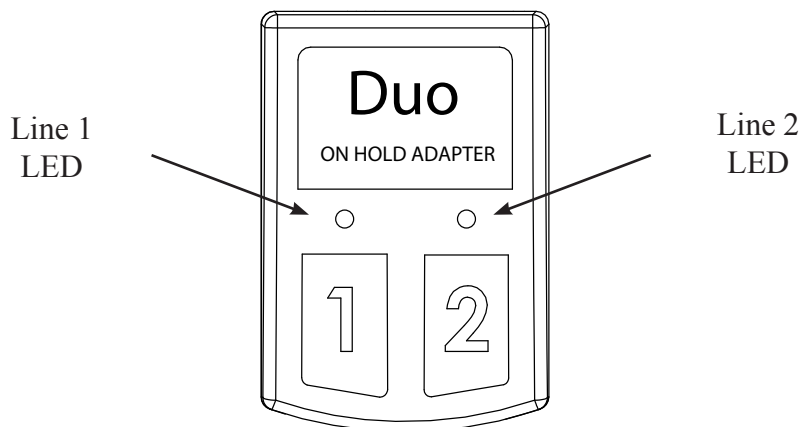
**Installation Diagram**

## Messenger USB Duo & Duo Wireless Adapter Operation:

**Step 1:** To place a caller on-hold, press the corresponding line button on the Duo Wireless Adapter and place the phone handset back in its cradle or set the phone down.



**Step 2:** The LED above the line button will blink about twice a second to signify the line is on hold. If any other Duo Wireless Adapters are used throughout the office then these will blink as well showing the current line status.



**Step 3:** When in the on-hold mode the calling party will hear a message-on-hold audio program that is playing from the USB stick that was inserted into the Messenger USB Duo from the previous installation steps. The receiving party or anyone else in the office that picks up the phone to use the line will hear a beep every few seconds to signify the call is on hold.

**Step 4:** To take the call off-hold, pick up the phone handset then press the corresponding line button on the Duo Wireless Adapter. The LED above the line button will stop blinking on all Duo Wireless Adapters and the caller will be taken off-hold.



## Messenger USB Duo Audio Content Preparation:

All messages that are available for the Messenger USB Duo to play are stored on an industry standard USB flash drive. Messages should be formatted as a mono MP3 file not to exceed 128Kbps @ 48KHz. Follow these steps to add or remove files from a USB flash drive.

**Step 1:** Plug the USB flash drive into an available USB port on a any PC or MAC compatible computer. The flash drive should show up as a “Removable Disk” on the computer.



**Step 2:** Drag ‘n’ drop the file(s) to the USB flash drive in the order you want them to be played on the unit. If removal of files are required then select the files and press the <delete> key on the keyboard.

**Step 3:** Remove the USB flash drive from the computer.

**Step 4:** Plug the USB flash drive into the Messenger USB Duo for playback.

If the USB drive ever needs to be erased completely then it can be formatted using your computer. Drives smaller than 2GB can be formatted using FAT, and drives 2GB or larger can use FAT32.

**Note:** Audio files should be named using alpha-numeric labels (A -Z, 0 -9). Any other characters or symbols, such as +, -, /, (, ), &, etc. should **NOT** be used.

## Troubleshooting Messenger USB Duo:

Problem	Possible Reason
Status LED - OFF	Power pack not plugged in or on a switched outlet
Status LED - BLINKING FAST	No audio on unit or USB media not inserted correctly Files are encrypted with Sonocrypt, or improperly named
MOH message not playing	Check USB media for missing, improperly named, or encrypted file Check volume output level by adjusting the VOLUME pot Check OUTPUT connection from unit to phone
Skipping over files	File not compatible with unit/encrypted file
Popping audio	File was encoded using too high of a bit-rate File incompatible with unit File audio starting too close to beginning of file
Distorted audio	Check to make sure volume is not too high Check MP3 file quality File was encoded using too high of a bit-rate File was encoded using too low of a bit-rate File incompatible with unit

## Troubleshooting Duo Wireless Adapter:

Problem	Possible Reason
Line LED - OFF	Power pack not plugged in or on a switched outlet Line not currently on hold If hold was activated the Duo Wireless Adapter out of range
Line LED - BLINKING	Line is on hold
Can not put caller on or off-hold	Duo Wireless Adapter out of range Channels do not match (Default is Channel A) Power pack not plugged in or on a switched outlet

### Antenna Range Note:

The wireless transmitter and receiver combination have a range of 100 to 150ft line-of-sight. As with any wireless device building construction and location of devices will effect range.

# Limited Warranty

**TERMS:** Nel-Tech Labs warrants to the original purchaser (“Buyer”) that the Product sold is free from defects in material and workmanship at the time of purchase. The warranty period begins at the time of Product’s original purchase by the first end-user. The warranty applies for five (5) year from the original date of purchase, or as long as the product is owned by the original purchaser, whichever comes first. Included in the warranty are parts and labor. Buyer must provide written notice to Nel-Tech Labs of any defective part or conditions within the warranty period. If the defect is not the result of improper use, service, maintenance or installation, and if the equipment has not been otherwise damaged or modified after shipment, Nel-Tech Labs or its authorized representative shall either replace or repair the defective Product at Nel-Tech Labs’s option. No credit shall be allowed for work performed by Buyer or unauthorized parties. Out-of-warranty repairs are invoiced at the current Nel-Tech Labs hourly rate plus the cost of parts, shipping and handling. In the event that the product serial number is missing or has been tampered with in any way, the foregoing warranty is void and without effect and Nel-Tech Labs shall have no liability whatsoever on account of defects to such product.

**LIMITATIONS:** Except as stated above, there are no warranties, express or implied, that extend beyond the specifications for the product. Nel-Tech Labs expressly disclaims any warranty, express or implied, that equipment sold hereunder is of merchantable quality or that it can be used, or is fit for any particular purpose. Buyer purchases and accepts equipment solely on the basis of the warranty here in above expressed. Under no circumstances shall Nel-Tech Labs be liable by virtue of this warranty or otherwise for any special indirect, secondary or consequential damages to any person or property arising out of the use or inability to use the product.

**REPAIRING OR REPLACING PRODUCT:** Buyer may obtain the repair or replacement of any eligible part or equipment covered under this warranty through a Nel-Tech Labs dealer only. Buyer is responsible for all shipping and handling charges in connection with the performance of this warranty. Products returned to Nel-Tech Labs must be securely packaged to prevent damage in transit, freight prepaid, and insured for replacement value. A return authorization number assigned by Nel-Tech Labs must be clearly marked on the outside of the shipping container. Proof of purchase must accompany shipment. Items delivered to Nel-Tech Labs without a return authorization clearly marked on the outside of the shipping container, and/or without proof of purchase is refused.

**CONTACT:** Please contact Nel-Tech Labs at the address and phone number below to receive a return authorization number and to arrange for the repair or replacement of a flawed part covered by this warranty. Please indicate the Product’s serial number in all correspondence or a RMA authorization number in the absence of a serial number. Nel-Tech Labs, 4 Ash Street Extension, Derry, NH 03038, Phone: 1.603.425.1096.

**COPYRIGHT NOTICE:** Unauthorized or unlicensed use of copyrighted audio content is illegal and Nel-Tech Labs, Inc. takes no responsibility for such action by the user of this equipment.

**FCC Part 15 :** This equipment has been tested and found to comply within the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of the equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct interference at his own expense. In order to maintain compliance with FCC regulations shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio & television reception.

## **FCC Notice (for U.S. Customers):**

This device complies with Part 15 of the FCC Rules:  
Operation is subject to the following conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, Including interference that may cause undesired operation

Changes or modifications not expressly approved by Nel-Tech Labs could void the users’ authority to operate the equipment under Federal Communications Commissions rules.

**Industry Canada:** This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d’Industrie Canada applicables aux appareils radio exempts de licence. L’exploitation est autorisée aux deux conditions suivantes : (1) l’appareil ne doit pas produire de brouillage, et (2) l’utilisateur de l’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.



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