

Messenger USB Night Answer  
by  
Nel-Tech Labs, Inc.

Installation & User Manual



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## **Introduction:**

The Messenger USB Night Answer is a solid-state digital message repeater that installs easily into any messaging application that requires a continuous MOH message as well as a Night Answer device to play an informative message when closed. All messages are in the MP3 format can be stored on industry standard USB flash drives.

## **Unpacking and Inspection:**

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

- (1) Messenger USB Night Answer
- (1) USB flash drive
- (1) 12VDC @ 500mA power supply
- (1) Instruction manual
- (1) RCA to RCA cable
- (1) 1/8" Adapter
- (1) Telco cable
- (2) Wall mount screws
- (4) Rubber feet

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

## Messenger USB Night Answer Layout Summary:

### Front of Unit

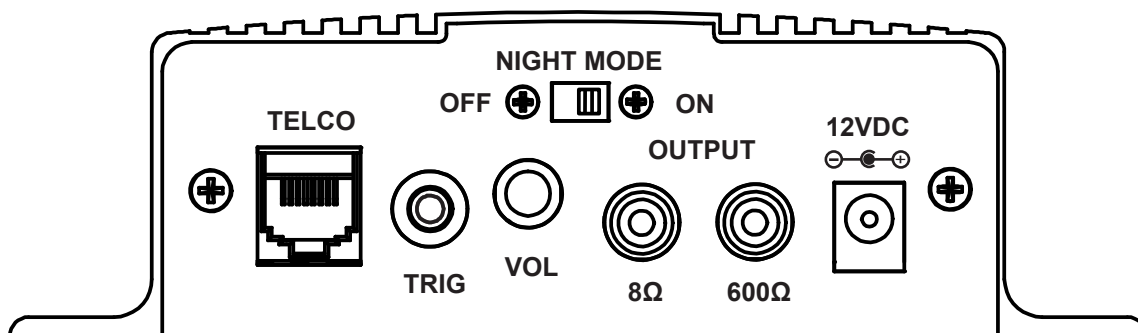


**SPEAKER** - The SPEAKER switch can be turned ON and OFF to monitor MOH and Night Answer audio. The switch has no effect on the audio output connections on the rear of the unit. Switch should normally be kept OFF.

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

**STATUS** - The STATUS indicator is a BLUE LED that during normal operation will be SOLID in MOH Mode and with BLINK TWICE then PAUSE (and repeat) if in Night Answer Mode. If there is a problem with the drive, it is not inserted or is empty, the LED will BLINK.

### Rear of Unit



**NIGHT MODE** - This switch manually selects between Night Answer Mode ON and OFF.

**Important Note** : If using TRIG then the NIGHT MODE switch setting is ignored.

**TELCO** - Attach a RJ-14 plug from a branch off of the phone line to be answered in Night Answer Mode

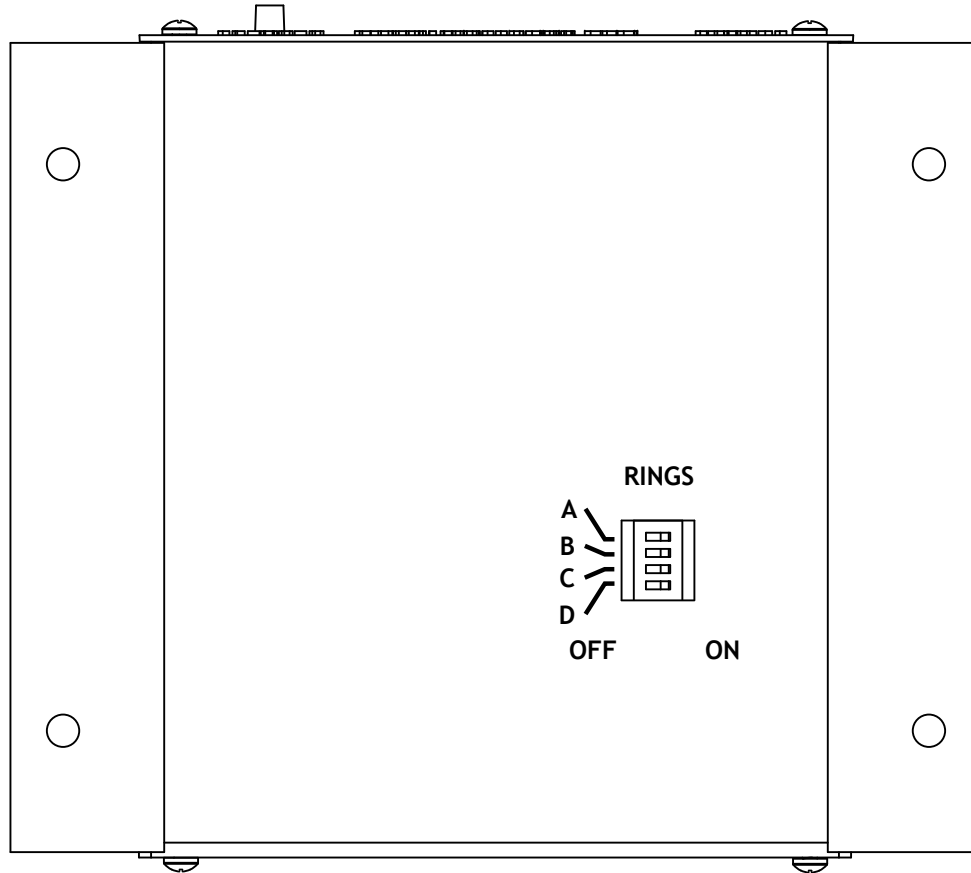
**TRIG** - This jack accepts a 1/8" plug. When plug is shorted it will activate Night Answer Mode.

**VOL** - This pot is used to control the 8Ω and 600Ω output level of the stored messages. Volume up is clockwise, volume down is counter-clockwise.

8 $\Omega$  and 600 $\Omega$  OUTPUT - This jack connects to the INPUT of the phone systems MOH port or PA system. Depending upon the system's impedance use either the 8 $\Omega$  or 600 $\Omega$  jack - DO NOT USE BOTH!

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

### Bottom of unit



RINGS - These multiple DIP switch positions (A through D) are used to configure the amount of rings required to trigger the night message greeting. Default setting is two rings when all switches are OFF.

A full explanation of these settings can be found in the PROGRAMMING section of this manual.

## Installation:

The Messenger USB Night Answer should be installed using the following steps:

**Step 1:** Set the DIP switches on the bottom of the unit to the amount of rings required to trigger the night message greeting. Default setting is two rings when all switches are OFF.

Answer On X Rings	Switch A	Switch B	Switch C	Switch D
2	OFF	OFF	OFF	OFF
3	ON	OFF	OFF	OFF
4	OFF	ON	OFF	OFF
5	ON	ON	OFF	OFF
6	OFF	OFF	ON	OFF
7	ON	OFF	ON	OFF
8	OFF	ON	ON	OFF
9	ON	ON	ON	OFF
10	OFF	OFF	OFF	ON
11	ON	OFF	OFF	ON
12	OFF	ON	OFF	ON
13	ON	ON	OFF	ON
14	OFF	OFF	ON	ON
15	ON	OFF	ON	ON
16	OFF	ON	ON	ON
17	ON	ON	ON	ON

**Step 2:** Wall or shelf mount the unit. Screws and rubber feet are supplied in the accessory kit.

**Step 3:** If connecting to an amplifier make sure it is turned OFF for this part of the installation.

**Step 4:** Connect a RCA cable (supplied in the accessory kit) to the OUTPUT jack on the rear of the unit. Depending upon the required impedance use either the 8 $\Omega$  or 600 $\Omega$  output RCA jack. Connect the other side to the MOH port on the phone system, PA system or speaker.

**Step 5:** Connect to an RJ-14 cord from the TELCO jack on the rear of the unit to the phone line to be monitored by the Messenger USB Night Answer.

**Step 6:** If utilizing a trigger timer or other device to activate the Night Answer Mode then connect the 1/8" plug into the TRIG jack on the rear of the unit.

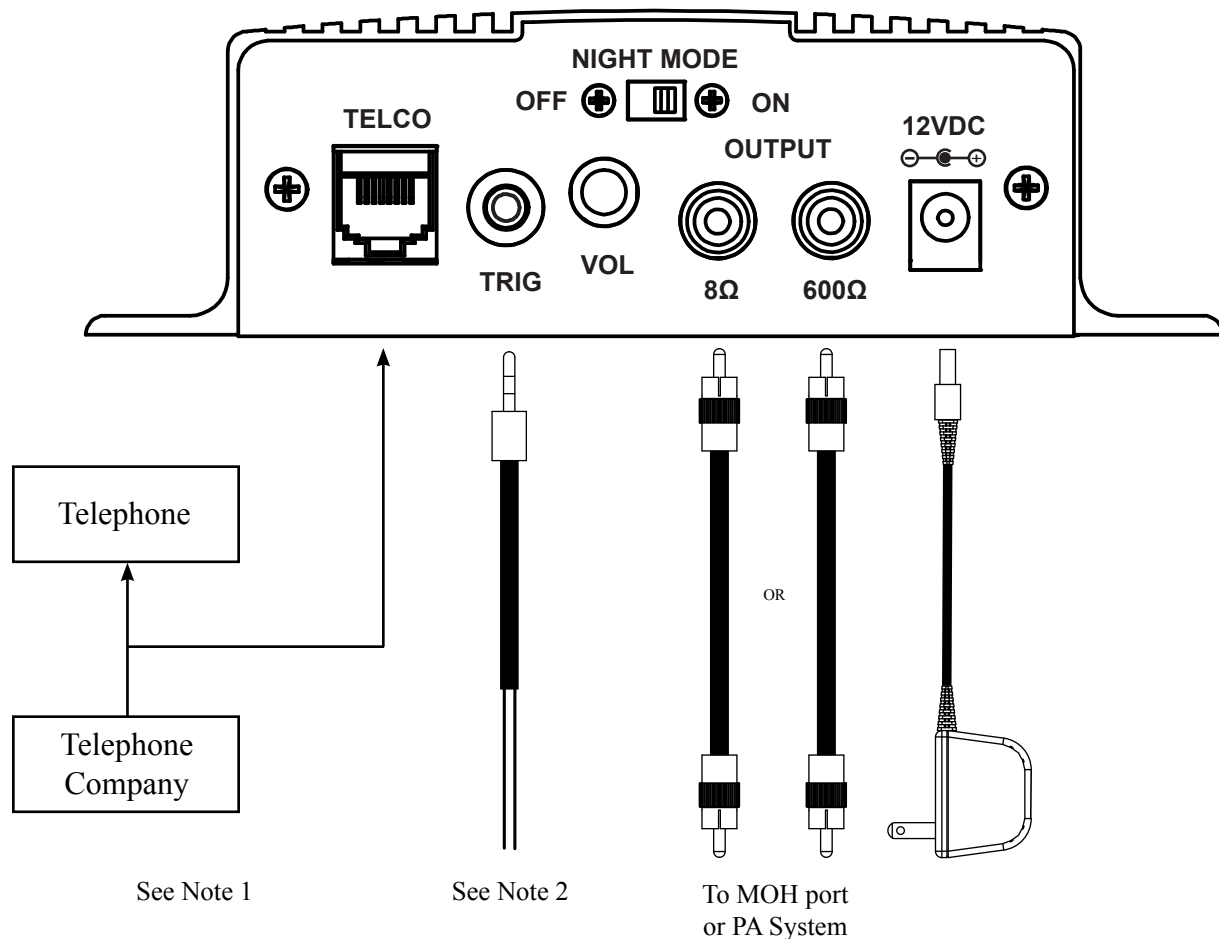
**Step 7:** Insert USB media. If insertion of drive is difficult, turn the drive over and try reinserting. Drive should slide into jack smoothly. See Message Programming & Operation section if USB media is blank.

**Step 8:** Attach the included power pack to a wall or power strip receptacle, then attach the other end to the jack on the rear of the unit labeled 12VDC.

**Step 9:** If any amplifiers were turned OFF during installation then turn then back ON now.

**Step 10:** Adjust the volume level pot labeled VOL on the rear of the unit. Depending upon the application either call into the phone system and be placed on hold OR listen to the PA systems speakers to fine tune volume. Volume up is clockwise, volume down is counter-clockwise.

**Step 11:** If utilizing the night answer function call into the phone line connected to the unit and verify line is picked up, plays the night answer greeting and then hangs up automatically.



Wiring Diagram

**Note 1:** Connection to the Messenger USB Night Answer MUST be done as a parallel connection to the phone line being monitored.

**Note 2:** When these two connections are shorted together then the Night Answer Mode is activated. Insertion of this 1/8" plug will cause the NIGHT MODE switch to be ignored.

## Message Programming & Operation:

All messages that are available for the Messenger USB Night Answer to play are stored on an industry standard USB flash drive. Messages must be labeled correctly so they will automatically be placed into virtual message “slots” on the unit. There are two different type of message slots:

1. MOH Message Slots – Drag ‘n’ drop the file(s) to the USB flash drive in the order you want them to be played on the unit. These messages will play one after another and then loop back to the beginning after the last message is played.
2. Night Message Slot – This single message will be played over the telephone line when triggered by the set amount of rings. **This message must be labeled night.mp3.**

Messages are placed onto the USB flash drive using a standard computer and dragging and dropping new audio from the computer to the USB flash drive.

A typical list of messages on the USB flash drive would look like this:

moh1.mp3  
moh2.mp3  
night.mp3

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).



## Troubleshooting:

Problem	Possible Reason
Status LED - OFF	Power pack not plugged in or on a switched outlet
Status LED - BLINKING	No audio on unit or USB media not inserted correctly
Status LED - BLINKING W/PAUSE	Unit in Night Answer Mode
MOH message not playing	Check USB media for other messages not labeled night.mp3 Check volume output level by adjusting the VOL pot Check OUTPUT connection from unit to phone or PA system Try switching between the 8Ω and 600Ω OUTPUT connections
Night message not playing	Check USB media for night.mp3 file Check RINGS setting on bottom of unit Check TELCO connection Check to verify the phone line is a standard line (tip and ring)
Playback in wrong order	Check naming of files
Skipping over files	File not compatible with unit
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 Try switching between the 8Ω and 600Ω OUTPUT connections File was encoded using too high of a bit-rate File was encoded using too low of a bit-rate File incompatible with unit

## **Messenger USB Night Answer Specifications:**

### **Audio Decoding**

MP3 (MPEG-3) audio playback  
8K to 128Kbps bit rate  
16KHz to 48KHz sample rate

### **Memory Type**

USB flash memory

### **Memory Capacity**

32MB minimum

### **File Capacity**

1 - Night Message  
511 - MOH Messages  
(depending on size of files)

### **Audio Output**

RCA jack, 6V p-p @ 8 $\Omega$ , 3v p-p @ 600 $\Omega$

### **Message Loading**

USB flash memory (FAT or FAT32 file systems supported)

### **Message Playback**

MOH - Continuous  
Night - Trigger by rings

### **Power Requirements**

12VDC @ 500mA, typical

### **Environmental**

0°C to 50°C, 5% to 95% relative humidity, non-condensing

### **Size**

6.00" x 6.00" x 1.50" (H x W x D)

### **Shipping Weight**

3 pounds

# 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.

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

**IC ES 003 :** This Class A digital apparatus complies with Canadian ICES-003 C et appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

**CE CONFORMITY :** The Nel-Tech Labs Messenger USB Night Answer conforms with the following standards, in accordance with the EU Safety, EMC Emissions, & EMC Immunities : EN 60950-1:2001, EN 55022:1998 for Class A, EN 55024:1998 + A1:2001 + A2:2003, EN 61000-4-2:1995 + A1:1998, EN 61000-4-3:1995, EN 61000-4-4:1995, EN 61000-4-5:1995, EN 61000-4-6:1996, EN 61000-5-11:1994.





Nel-Tech Labs, Inc.  
4 Ash Street Extension  
Derry, NH 03038

1.603.425.1096  
[www.nel-techlabs.com](http://www.nel-techlabs.com)

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