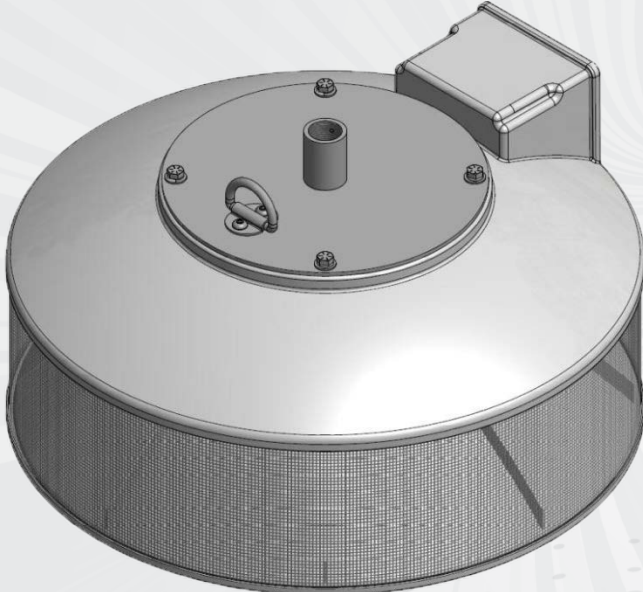


INSTALLATION AND MOUNTING MANUAL

HyperSpike® TCPA-Omni



This manual contains information that is proprietary to Ultra Electronics USSI. It is intended solely for the education and use of parties operating and maintaining the equipment described herein.

1.0 INTRODUCTION

The TCPA–Omni is a speaker designed for indoor or outdoor wet applications. The TCPA-Omni produces 360 degrees of acoustic energy and excels in high ambient noise environments. It has an operation temperature range of -20°C to 60°C.

The TCPA–Omni has three field selectable power taps that run off of a 70VRMS audio system. The taps can easily be changed between the 50W, 100W, and 200W power ratings. The speaker has an integrated blocking capacitor that allows the fire alarm control panel to conduct circuit supervision. Each speaker meets UL Standard 1480 (Speakers for Fire Protective Signaling Systems) and ULC S541 (Speakers for Fire Alarm Systems)

Models:

90185A-801-04- X	Grey UL 1480 & ULC S541 outdoor wet listed TCPA OMNI
90185A-801-05- X	Red UL 1480 & ULC S541 outdoor wet listed TCPA OMNI
90185A-801-06- X	White UL 1480 & ULC S541 outdoor wet listed TCPA OMNI

Specifications:

Table 1: Power Tap Selections and dB Rating		
	UL 1480 (Reverberation)	ULC S541 (Anechoic)
70V Tap Setting	Speaker Output @ 10ft(dB)	Speaker Output @ 3m(dB)
50W	106.3	99.2
100W	108.5	101.7
200W	109.9	103.6

Input voltage: 70 VRMS

Frequency Response: 500Hz – 5000Hz

Directionality: SPL does not change with direction

Max Supervisory Voltage: 50VDC

Weight: 19 lbs.

Dimensions: 18.38" DIA X 10.50" H

Suitable For Outdoor Use (Utilisable à l'extérieur)



CAUTION: EXCEEDING THE MAXIMUM RATINGS OF THE SPEAKER WILL CAUSE EXCESSIVE DISTORTION AND MAY CAUSE PERMANENT DAMAGE TO THE SPEAKER AND ITS INTERNAL COMPONENTS.



ATTENTION: DÉPASSER LES COTES DE MAXIMUM DES ENCEINTES ENTRAINE UNE DISTORSION EXCESSIVES ET PEUVENT CAUSER DES DOMMAGES PERMANENTS AU ORATEUR ET SES COMPOSANTS INTERNES.

2.0 TCPA-OMNI MOUNTING

⚠ WARNING: WHEN MOUNTING OUTSIDE MAKE SURE THAT THE SUPPORT SYSTEM USED HAS THE PROPER WIND LOAD RATING AND COMPLIES WITH LOCAL STANDARDS AND CODES.

⚠ AVERTISSEMENT: LORS DU MONTAGE DEHORS ASSURER QUE LE SYSTÈME DE SUPPORT UTILISE A LA BONNE COTE CHARGE AU VENT ET CONFORME AUX NORMES ET CODES LOCAUX.

⚠ WARNING: THIS IS A FIRE ALARM DEVICE – DO NOT PAINT (NE PAS PEINTURER – DISPOSITIF D’ALARME)

The TCPA-Omni comes standard with a 3/4" NPSM threaded coupler to hang the unit. (Figure 1) It is also provided with 10ft electrical leads that exit the unit through the mounting coupler.

The TCPA-Omni is intended to be mounted /suspended from the coupler on the top plate, i.e., hanging from a ceiling. Although the unit can be hung from a ridged mount, hanging from a high bay hook or a swivel hanger will allow proper leveling

- 1) To mount the TCPA-Omni take the black and red wires coming out of the conduit and feed them through the rigid conduit that is being used to mount the unit (customer supplied).

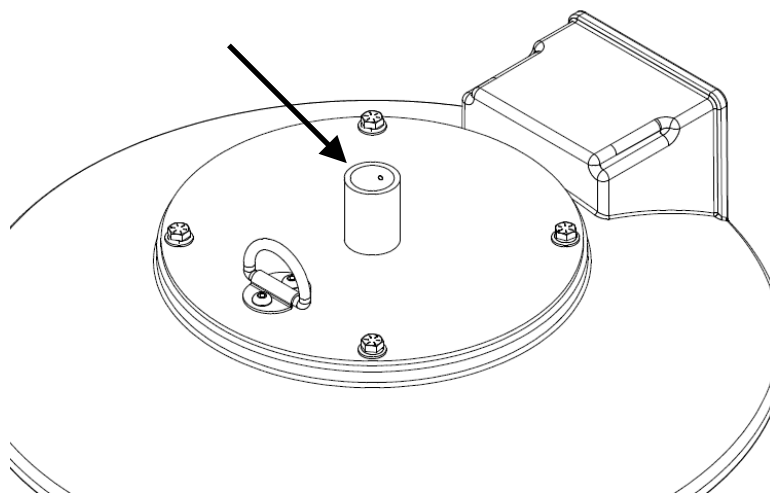


Figure 1: Location of the 3/4" NPSM threaded conduit

- 2) Screw the rigid conduit onto the unit and tighten the top Phillips head screw as shown in Figure 2.

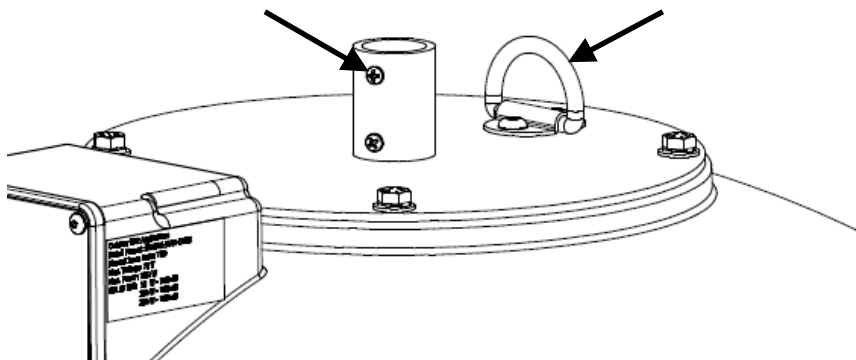


Figure 2: Location of screw to tighten rigid conduit

- 3) A D-ring has been provided to secure a safety cable to the TCPA-Omni. The safety cable is a customer supplied item.

3.0 CHANGING THE POWER LEVEL

- 1) Change the power level by removing the 4 torx head screws (T-20) from the cover plate on the side of the unit as shown in Figure 3.

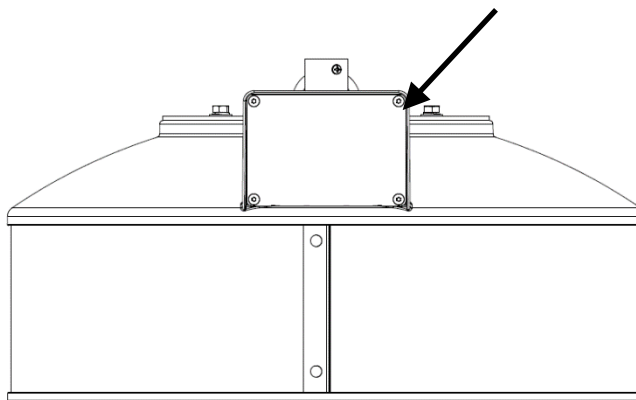


Figure 3: The cover plate for the electronics compartment

- 2) The unit comes preset at 50W as shown in Figure 4. Unscrew the terminal with the red wire. It is marked 50W. Remove the wire from the 50W terminal and insert it into the desired terminal, 100W or 200W. Tighten the terminal. Note: Confirm that all of the non-used screws in the terminal block are tight. Refer to section 4.0 (Wiring) for more detailed wiring diagrams.

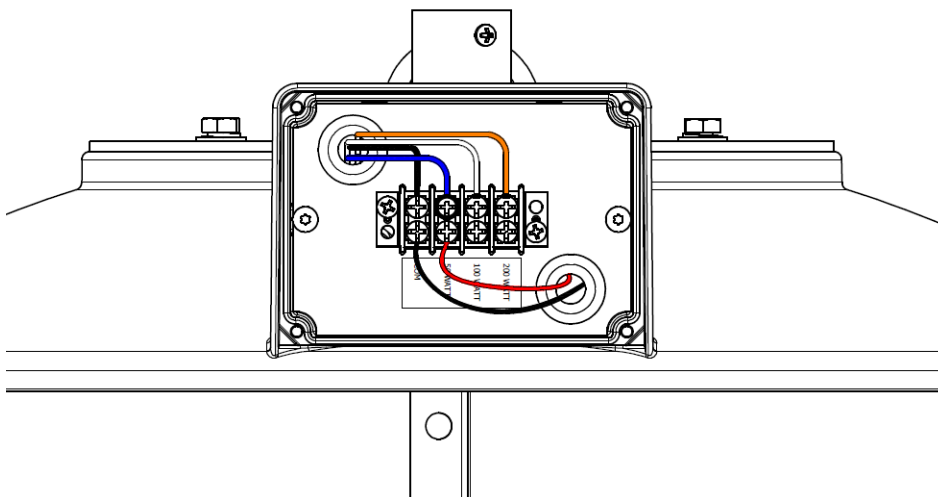


Figure 4: Wiring for 50W system

- 3) Reinstall the cover plate on the electronics compartment and tighten the 4 Torx head screws (T-20).

4.0 WIRING

The TCPA-Omni has an integrated circuit breaker that protects itself from line surges and short circuits. The circuit breaker is located under the cover plate next to the power tap section terminal block. If the breaker would trip follow the steps below:

- 1) Remove the side cover plate
- 2) Push to Reset the breaker (the button on the breaker should push in and stay)
- 3) Install the side cover

The diagrams on the next page show typical wiring installation for the 50, 100, and 200 watt configurations.

Note: When placing multiple wires under a terminal on the terminal block put one wire on each side of the screw.

Note: The terminal block is rated for 22-14 AWG wire.

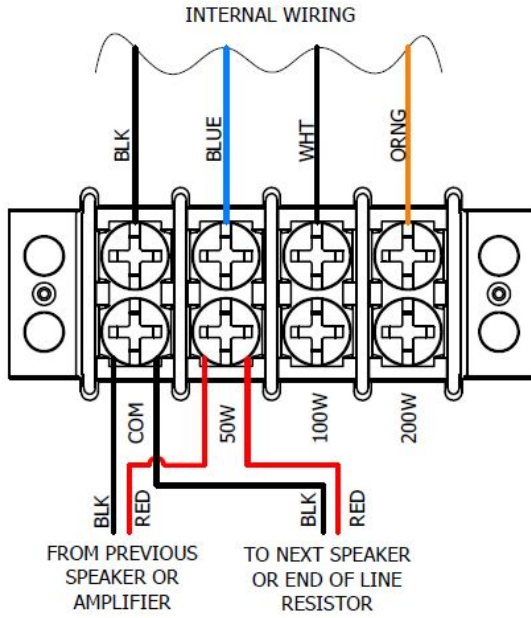


Figure 5: 50 Watt Wiring Diagram

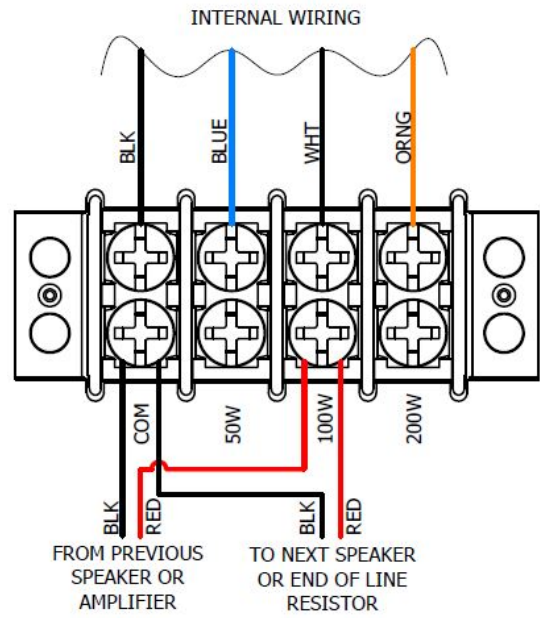


Figure 6: 100 Watt Wiring Diagram

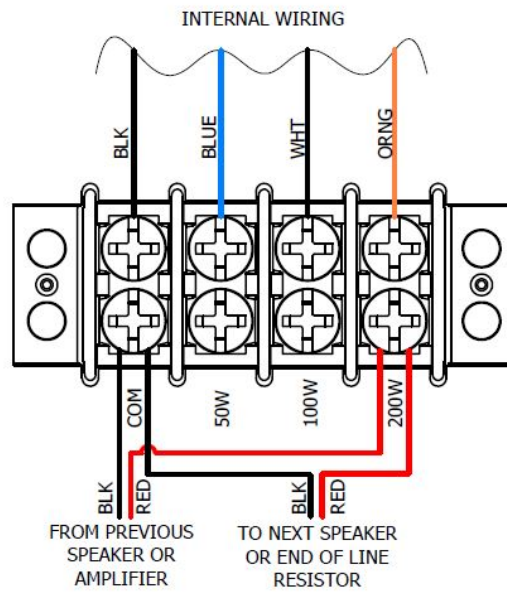


Figure 7: 200 Watt Wiring Diagram

5.0 WARRANTY

Ultra Electronics USSI warrants its products to be free from defects in material and workmanship for a period of one (1) year from the date of shipment from USSI's facility. This warranty is extended to the original purchaser and all subsequent owners, provided a copy of the original dated bill of sale is presented when service is requested under warranty.

If your product should require service, write, phone, fax or e-mail Ultra Electronics USSI at:

Ultra Electronics USSI
4868 E Park 30 Drive
Columbia City, IN 46725
Phone: 260-248-3666
Fax: 260-248-3510
E-mail: APServiceDepartment@ultra-ussi.com
URL: www.ultra-HyperSpike.com

We will either direct you to a local service agency or provide you with a Return Material Authorization (RMA) number so that you can ship the product to our factory. Do not ship the product to us without first obtaining an RMA number. Place the RMA number on all boxes returned to the factory to prevent equipment from being lost or mishandled. Merchandise returned to us for service under warranty must be accompanied by a copy of the original bill of sale, and shipped prepaid. You are responsible for transporting your product to our factory. We will pay the return shipping charges on all products repaired under warranty.

5.1. Failures Not Covered by This Warranty

This warranty covers manufacturing defects. The warranty **DOES NOT** cover:

- 1) Damage caused by accident, misuse, abuse, product modification or neglect.
- 2) Damage incurred during shipment (you must claim these damages from the carrier).
- 3) Damage resulting from failure to operate the product in accordance with the instruction manual.
- 4) Damage resulting from attempted repairs by unauthorized personnel.
- 5) Claims based on any perceived agreement not explicitly stated in this warranty such as conversations with service personnel or sales representatives.

5.2. Limitation of Implied Warranties

All implied warranties, including warranties of merchantability, are limited in duration to a period of one (1) year from the date of shipment from Ultra Electronics USSI.

5.3. Exclusion of Certain Damages

Ultra's liability is limited to the repair or replacement, at our option, of any defective product, and shall in no event include incidental or consequential commercial damages of any kind. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the preceding limitation or exclusion may not apply to you.

For further information regarding this warranty, parts, or service, please contact Ultra Electronics USSI through one of the methods listed at the beginning of this warranty section.



Ultra Electronics USSI
4868 East Park 30 Drive
Columbia City, IN 46725 USA
+1-260-248-3666