

# TLO-A

## ACTIVE OUTDOOR SPEAKER/MICROPHONE

### INSTALLATION AND OPERATING INSTRUCTIONS

#### DESCRIPTION

The TLO-A is a two-way speaker with an in-built microphone and audio amplified horn loud speaker for high volume penetration. Weatherized for outdoor use, it is a microphone and speaker within one housing. When connected to a compatible system such as an IP camera, NVR, DVR etc. the TLO-A provides both listen and talk back capabilities eliminating the need to a mid-span amplification unit.



MODEL TLO-A

#### CONNECTION OF TLO-A TO COMPATIBLE DEVICES

The Louroe TLO-A comes pre-assembled with a 5-Conductor 10' cable assembly with stripped and tinned wire conductors. The cable assembly consists of the following conductors;

RED	- +24VDC
BLACK	- GND
GREEN	- MIC Out
WHITE	- LINE (SPEAKER) In
BLACK	- SIGNAL GND (SHARED - MIC OUT AND SPKR IN)

If a longer length cable run to the receiving device is needed, a 4-Conductor PLUS shield cable must be used such as **West Penn 356** or equivalent. The TLO-A can be placed up to **700 feet (200 meters)** from the receiving device/s such as an IP camera, DVR, NVR etc. The interconnection between the two cables assemblies can be made by:

- Soldering
- Inline crimp connectors
- 20 gauge wire nuts

If the interconnection of the two cable assemblies is exposed to outdoor elements, precautions must be taken to ensure that the interconnection point be enclosed in a weather proof NEMA enclosure or conduit.

For connection to a DVR, IP Network Camera, etc., solder the appropriate plug (RCA, 3.5mm mono or 3.5mm stereo) to match the audio inputs of the receiving device as shown on page 3 of this document. Refer to IP Camera's instruction to determine if 3.5mm audio is mono or stereo.

#### WIRING REQUIREMENTS

- 4 Conductor consisting of:
- + 2 Conductor **shielded**, 20 gauge with 22 gauge drain (microphone connection)
  - + 2 Conductor **unshielded**, 18 gauge (speaker connection)
- All in the same jacket

**West Penn 356 or equivalent**



# INSTALLATION AND OPERATING INSTRUCTIONS

## MOUNTING AND POSITIONING THE TLO-A

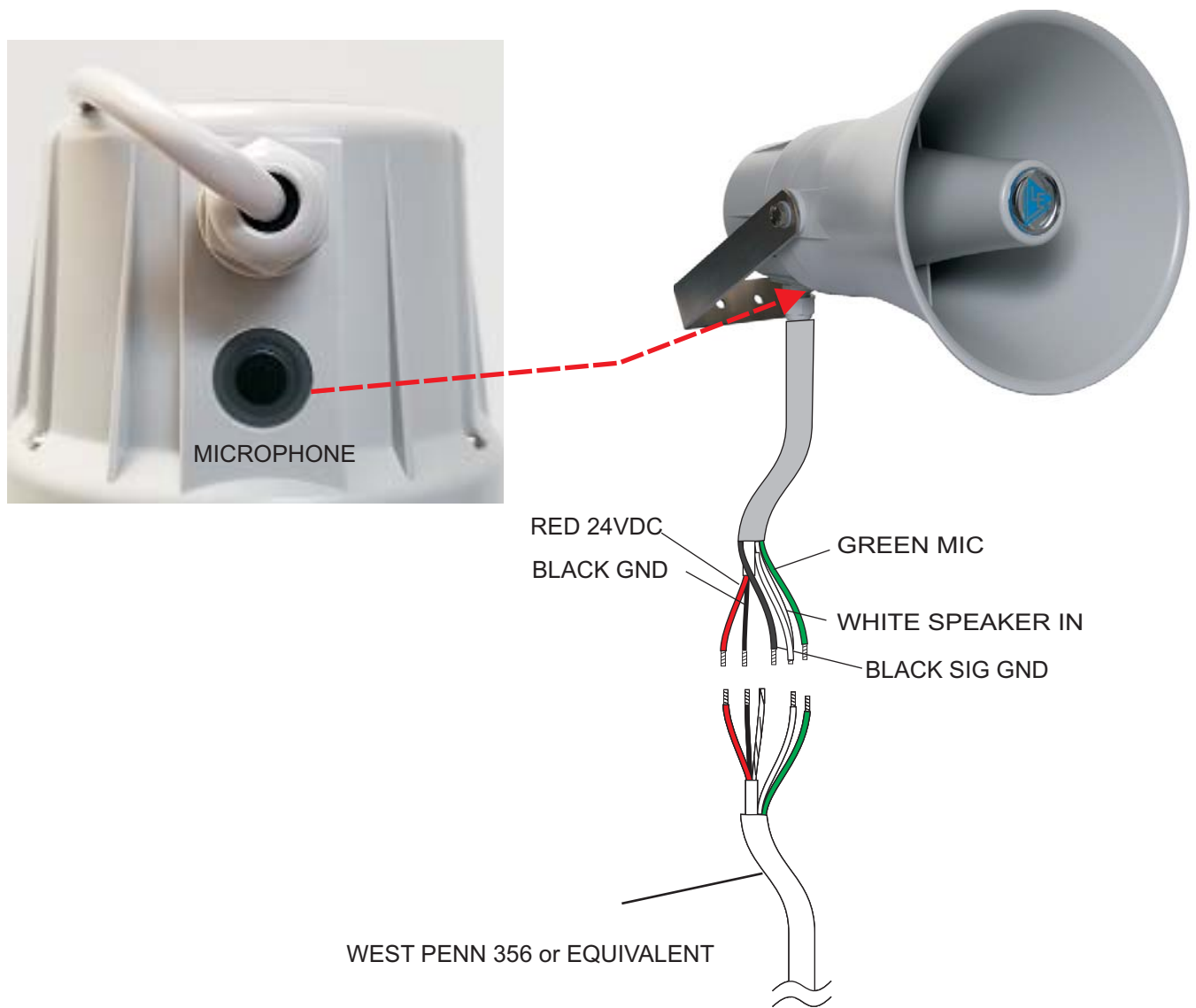
The TLO-A comes with a U type adjustable mounting bracket with x3 mounting holes. The unit can either be surface or top mounted.

The microphone aperture is on the underside of the unit, **care MUST be taken to ensure that the microphone aperture is not obstructed and the area around it is as clear as possible as this will diminish the units ability to pick up sounds clearly.**

## CONNECTING TLO-A TO A RECEIVING DEVICE

Model TLO-A is compatible with most receiving devices that accept LINE LEVEL AUDIO INPUT AND OUTPUT.

**NOTE: The TLO-A is designed to operate in HALF DUPLEX communication mode and hence for optimal operation the receiving unit should be set to half duplex mode.**

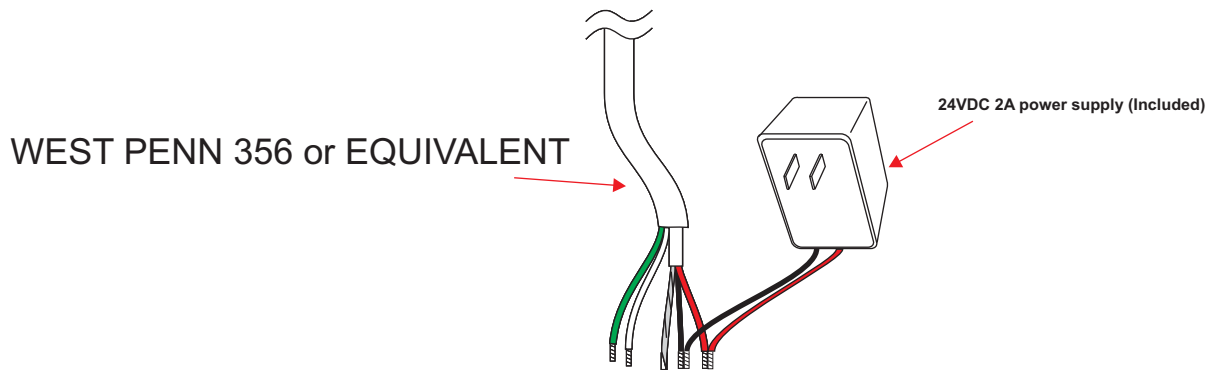


# INSTALLATION AND OPERATING INSTRUCTIONS

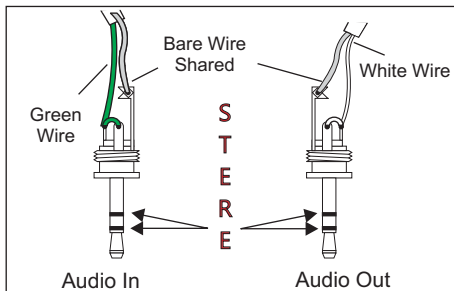
## INTERCONNECTION DIAGRAM

For connection to DVR, IP Network Camera, etc., solder the appropriate plug (RCA, 3.5mm mono or 3.5mm stereo) to match the audio inputs of the receiving device as shown below. Refer to IP Camera's instruction to determine if 3.5mm audio is mono or stereo.

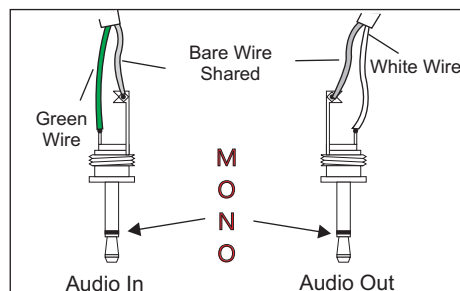
A 24VDC 2A power supply is included with the TLO-A unit, to ensure optimal operation this power supply or an equivalent low noise power supply must be used with the device.



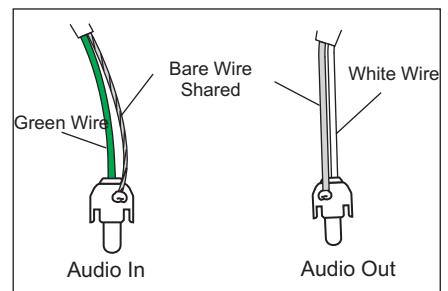
### 3.5mm STEREO CONNECTION



### 3.5mm MONO CONNECTION



### RCA CONNECTION



## MANUFACTURED IN THE



### IMPORTANT NOTICE

When this equipment is used as part of an audio monitoring system, the law requires that the public be given notice of AUDIO MONITORING ON THE PREMISES. A decal notice is included with each microphone shipped.



Federal Law References:  
Federal Regulations, US Code, Title 18,  
Crime and Criminal Procedure, Sec 2510.

### SPECIFICATIONS (MICROPHONE)

■ Sensitivity	-45 dBV/Pa 1 Pa = 94 dB SPL
■ Frequency Response	50 Hz to 15 kHz
■ Output	Line Level (0 dBV, 600 $\Omega$ @ 1kHz)
■ Current Drain	1A
■ Supply Voltage	24 Vdc 2A

### SPECIFICATIONS (SPEAKER)

■ Power rating	40W
■ Input Level	-20dBV ~ +4dBV
■ Frequency response	65 Hz to 17 kHz
■ Sensitivity	128dB (Measured at 1m, 1W @ 1kHz)
■ Material	Heavy Duty ABS Resin
■ Dimensions	8.5" Dia x 11" D
■ Dispersion	105 $^\circ$ x 72 $^\circ$
■ Weight	4 lbs 5 oz
■ Shipping Weight	7 lbs

### WARRANTY

LOUROE ELECTRONICS warrants that at the time of shipment products manufactured by LOUROE ELECTRONICS to be free of defects in material and workmanship. Should a defect appear within two years (24 months) from date of shipment, LOUROE ELECTRONICS will, at its sole discretion, repair or replace the defective equipment. This equipment shall not be accepted for repair or return without prior notification by LOUROE ELECTRONICS.

This warranty does not extend to any Louroe product that has been subjected to improper or incorrect installation, misuse, accident, or in violation of installation instructions provided by LOUROE ELECTRONICS.

Returned shipments to LOUROE ELECTRONICS shall be at customer's expense. LOUROE ELECTRONICS will return the equipment prepaid via best way