



Located in Van Nuys, California since 1979, Louroe Electronics™ is the World Leader in Audio Monitoring Technology. Louroe products are used in over forty countries and are utilized in both the private sector and government applications. Louroe serves the needs of law enforcement, security, health care, entertainment, hospitality and retail industries and many more. At Louroe Electronics we maintain rigorous standards to ensure our products provide reliability, durability and excellent performance for our customers' needs.

For additional information, contact:

Louroe Electronics  
 6955 Valjean Ave.  
 Van Nuys, CA 91406  
 Phone: (818) 994-6498  
 Fax: 818) 994-6458  
 Web: [www.louroe.com](http://www.louroe.com)  
 E-mail: [sales@louroe.com](mailto:sales@louroe.com)

## OUTDOOR SPEAKER MICROPHONE

### DIVISION 27 – COMMUNICATIONS

**27 50 00 Distributed Communications and Monitoring Systems**

**27 51 00 Distributed Audio-Video Communications Systems**

#### Notes to Specifier:

1. Specifiers may alternately wish to include this specification in the following section:

<b>28 13 26</b>	<b>Access Control Remote Devices</b>
<b>28 47 17</b>	<b>Notification Devices and Methods</b>

2. Where several alternative parameters or specifications exist, or where, the specifier has the option of inserting text, such choices are presented in **<bold text>**.

3. Explanatory notes and comments are presented in **colored** text.

## OUTDOOR SPEAKER MICROPHONE

### PART 1 GENERAL

#### 1.01 SUMMARY

- A. Section includes a weatherized full duplex audio microphone and speaker/amplifier combination, where the microphone produces a line level output and speaker produces 40 Watt sound.
- B. Related Requirements
  - 1. 27 00 00 Communications (Division 27)
    - a. 27 15 00 Communications Horizontal Cabling
    - b. 27 30 00 Voice Communications
  - 2. 28 00 00 Electronic Safety and Security (Division 28)
    - a. 28 47 17 Notification Devices and Methods

#### 1.02 SUBMITTALS

- A. Informational Submittals
  - 1. Product Data - Manufacturer's printed or electronic data sheets
  - 2. Manufacturer's instructions
- B. Closeout Submittals
  - 1. Warranty documentation
  - 2. Manufacturer's installation, configuration, and operation manuals
  - 3. As-built wiring diagrams
  - 4. Recommended spare parts list

#### 1.03 QUALIFICATIONS

- A. Manufacturer shall have a minimum of five years' experience in providing commercial speaker microphone systems.
- B. Manufacturer's products shall be manufactured in the United States of America.
- C. Installers shall meet Manufacturer's requirements for equipment installation.

#### 1.04 WARRANTY

- A. Manufacturer shall provide a limited 24 month warranty for the product to be free of defects in material and workmanship.

END OF SECTION

**PART 2 PRODUCTS****2.01 EQUIPMENT**

- A. Manufacturer: Louroe Electronics  
6955 Valjean Ave.  
Van Nuys, CA 91406  
Phone: (818) 994-6498  
Fax: 818) 994-6458  
Web: www.louroe.com  
E-mail: sales@louroe.com
- B. Model: TLO-A
- C. Alternates: None

**2.02 DESCRIPTION**

- A. The speaker microphone shall be a full duplex audio microphone and speaker/amplifier combination, weatherized for outdoor use.

**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 for a mid-span amplification unit.**

- B. The microphone shall produce a line level output and connect to the audio input of the receiving device.
- C. The speaker shall produce a 40 Watt output.
- D. The speaker microphone shall be provided with a U-shaped mounting bracket, allowing for surface or top mounting.
- E. Specifications
1. Microphone
    - a. Type: Electret condenser
    - b. Output: line level (0 dB, 600 ohms @ 1 KHz)
    - c. Sensitivity: -45 dB/Pa
    - d. Frequency response: 50 Hz to 15 kHz
    - e. Output Impedance: 600  $\Omega$  unbalanced
    - f. Current drain: 1 A
    - g. Gain: adjustable
    - h. Connector: pre-terminated cable
  2. Speaker
    - a. Type: Horn
    - b. Input level: -20 - +4 dB
    - c. Frequency response: 65 Hz to 17 KHz
    - d. Power output: 40 Watts
    - e. Sound pressure level: 108 dB (measured at 1 m, 1W)
    - f. Volume control: Internal
    - g. Dispersion: 105 x 72 degrees
    - h. Connector: pre-terminated cable

- 3. Electrical
  - a. Voltage: 24 VDC, 2A via supplied power supply
- 4. Physical
  - a. Material: Heavy duty ABS Resin
  - b. Dimensions: 8.5" diameter x 11" deep
  - c. Operating temperature: -10 to 55° C (14 – 131° F)

**END OF SECTION**

**PART 3 EXECUTION**

**3.01 INSTALLERS**

- A. Contractor personnel shall comply with all applicable state and local licensing requirements.

**3.02 INSTALLATION**

- A. Contractor shall follow Manufacturer's written installation instructions in their entirety.

**When the speaker microphone is part of an audio monitoring system, it is recommended that Contractor post notice of audio monitoring on the premises in accordance with Federal and State regulations.**

**END OF SECTION**