AIPHONE

INSTRUCTIONS

TW-TA-ARM-SP & TW-TE-ARM-SP
Installation Guide

The TW-TA-ARM-SP and TW-TE-ARM-SP are tall, lightweight aluminum towers with an included high power speaker, camera arm with universal NTP pipe threading, and either ASSISTANCE or EMERGENCY lettering. They are designed to house IX|IXG Series emergency call stations. A strobe light and panel lighting are also included for visibility. The towers require a TW-MKL L-bracket mounting kit to secure to the ground, which is sold separately. This guide shows installation and wiring procedures, as well as programming steps for the emergency station.

Specifications and Package Contents

Box 1 Contents

- One volume control module (taped to the inside the tower)

Box 2 Contents

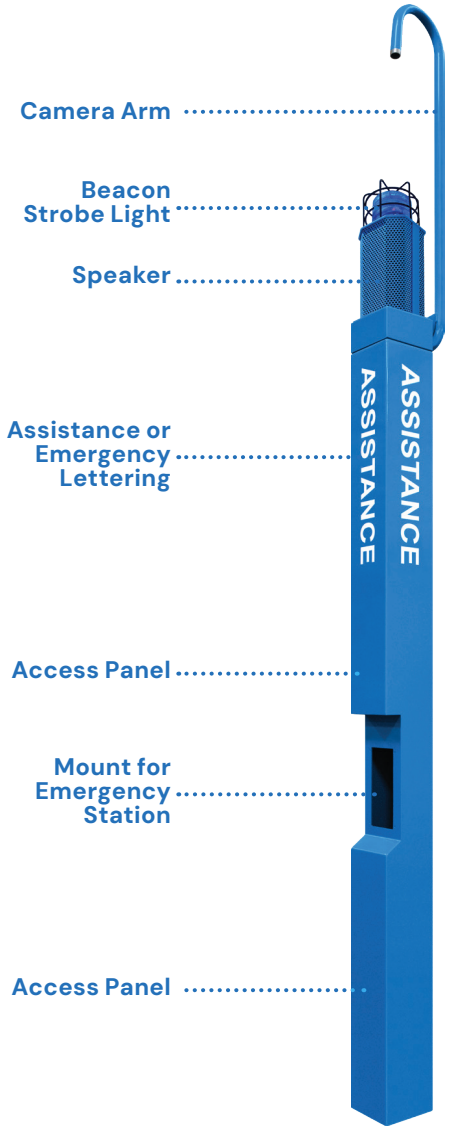
- One speaker and beacon strobe light (pre-assembled)
- 4 5/16-18" x 1-1/4" large button head tamper resistant screws
- One T40 Torx hex bit for 5/16 screws
- One T25 Torx hex bit for access panel screws
- One container of anti-seize lubrication

Box 3 Contents

- One camera arm
- 4 5/16-18" x 1-1/4" large button head tamper resistant screws
- One T40 Torx hex bit for 5/16 screws

TW-MKL Package Contents (sold separately)

- Four L-bolts
- Eight 3/4" hex nuts
- Eight 3/4" washers
- One printed installation template
- Assembly Instructions



Specifications	
Material	Aluminum 6061-T6
Dimensions	172" H x 8" W x 8" D
Weight	99 lbs

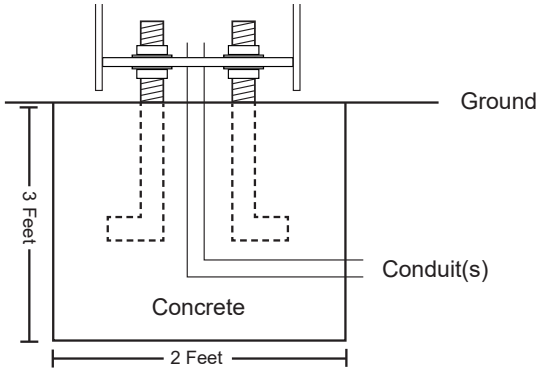
TW-MKL Installation

Intercom and electrical wire conduits should be run through the foundation and into the center 4" diameter hole of the tower. These cable runs must be run in separate conduits. It is the responsibility of the installer to ensure that all applicable electrical codes are met.

Pour the foundation at least 2 feet in diameter and 3 feet deep, while staying in accordance with local building codes and the frost line.

Install the four L-bolts below the grade with 5" projecting above the grade (see drawing below). Use the provided installation template to properly position the L-bolts within the concrete foundation.

Once the foundation has set, remove the template. Install one 3/4" hex nut and one washer on each L-bolt 2 to 2-1/2" above grade to the top of the washer. This will leave a 1/2" air gap between the foundation and tower base to allow airflow and prevent moisture buildup. Verify that the nuts are level.



It is recommended to transfer the provided installation template to a piece of wood between 1/2"and 1" thick. This will make it easier to position the L-bolts into the poured concrete foundation.

Tower Mounting

Prior to installing the tower onto the mounting bolts, it is recommended to install the camera arm first, then the speaker and beacon strobe light.

Thread the camera through the arm prior to installation. **Apply the anti-seize lubrication to the threading of the 5/16" tamper resistant screws,** then use them to fasten the camera arm's base to the tower. **These screws must be tight to ensure a water tight seal.**

The beacon strobe and speaker come pre-attached to one another, and will attach to the camera arm's base. Feed the wires for the beacon strobe light and speaker through the hole on the top of the tower. As before, **apply the anti-seize lubrication to the threading of the 5/16" tamper resistant screws,** then use them to fasten the beacon strobe light and speaker to the tower. The strobe light will require a dedicated 24V DC power supply or the PS-POE. This will also be used to power the tower's LED illuminator, located above the intercom.

Be sure to apply the provided anti-seize lubrication to the screws' threading before they are installed. Failure to use the anti-seize may cause corrosion and damage to the tower and screws.

The speaker will require a separate, 120V AC power line run, and the camera will require a dedicated network drop. Consult the camera's power and networking requirements prior to installation.

Once all components are installed, the tower is ready to mount. Remove the access panels from the tower. Carefully lift the tower onto the level hex nuts of the L-bolts, ensuring that the tower and emergency station opening are oriented in the desired direction. Check that the tower is level at this point. Install the second set of nuts and washers on the L-bolts and carefully tighten them, securing the tower to the concrete foundation. Adjust as necessary.

For safety, always use two or more people to lift and move the tower.

Installation Instructions

There are two access panels on the tower, one towards the base of the tower and one above the emergency station. The lower panel is used to feed the network and electrical cables up to the rest of the tower, while the upper panel is used to connect the strobe, speaker, and emergency station wires. To simplify the instructions, the light and speaker connections are shown separately.

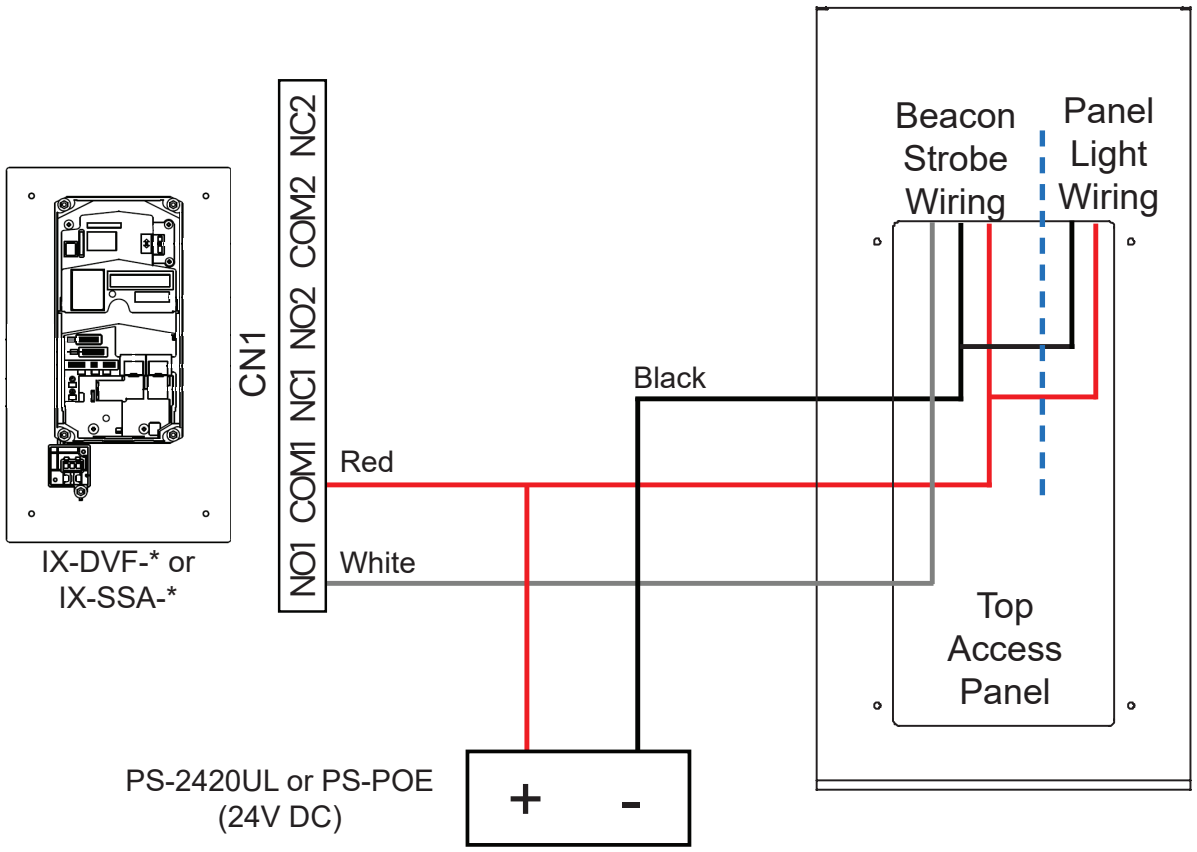
It is best practice to complete the connections between the strobe, speaker, and emergency station before the tower is installed.

Strobe and Panel Light Wiring

Locate the beacon strobe wires and connect them to the 24V DC power source. Whether it is a dedicated power supply or a PS-POE adapter, mount the power source inside the tower.

For the beacon strobe wiring, White is the trigger wire, which connects to the NO1 wire on the emergency station. Black on the beacon strobe wiring will connect back to negative on the power source. Red connects to the positive on the power source and COM1 on the emergency station.

Use wire nuts or another connector to join the black and red wires from the panel lights to the matching colors coming from the power source.

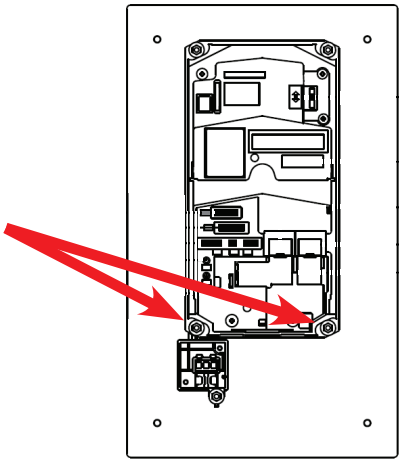


Speaker Wiring

The speaker's amplifier comes pre-installed in the upper section of the tower that houses the strobe and speaker. The screwless terminal strip comes packaged with the main tower in box 1. This strip is installed directly to the emergency station itself.

Remove the black plastic door on the back of the station that covers the ports and wires, then remove the nuts and washers on the bottom two screws. Attach the terminal strip to those screws, then reattach the nuts and washers to secure it in place.

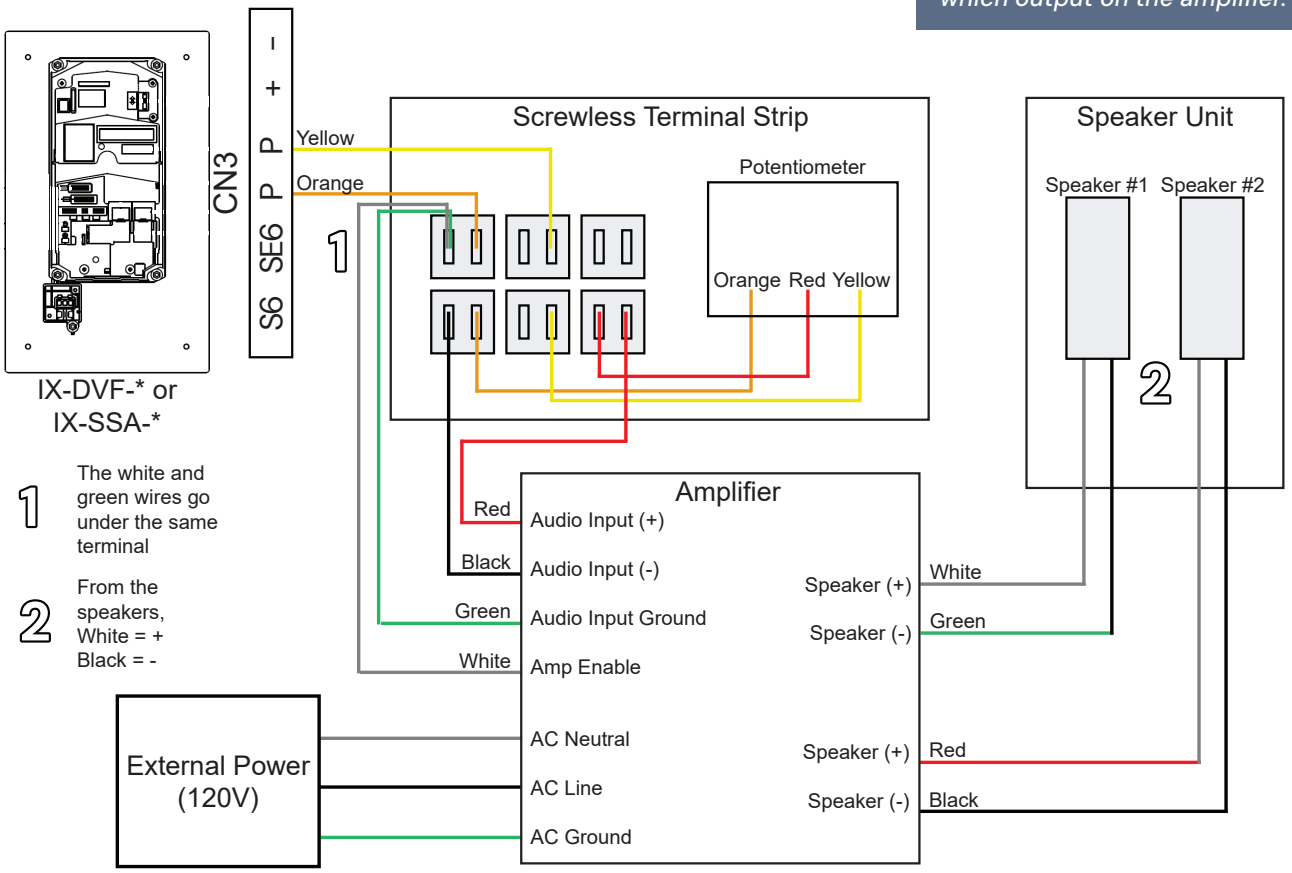
Remove these nuts and washers to install the screwless terminal strip.



IX-DVF-* or IX-SSA-*

For ease of access, connect the wires to the screwless terminal strip before installing it on the emergency station. Connections to the preinstalled wire block will already be made.

It does not matter which speaker is connected to which output on the amplifier.



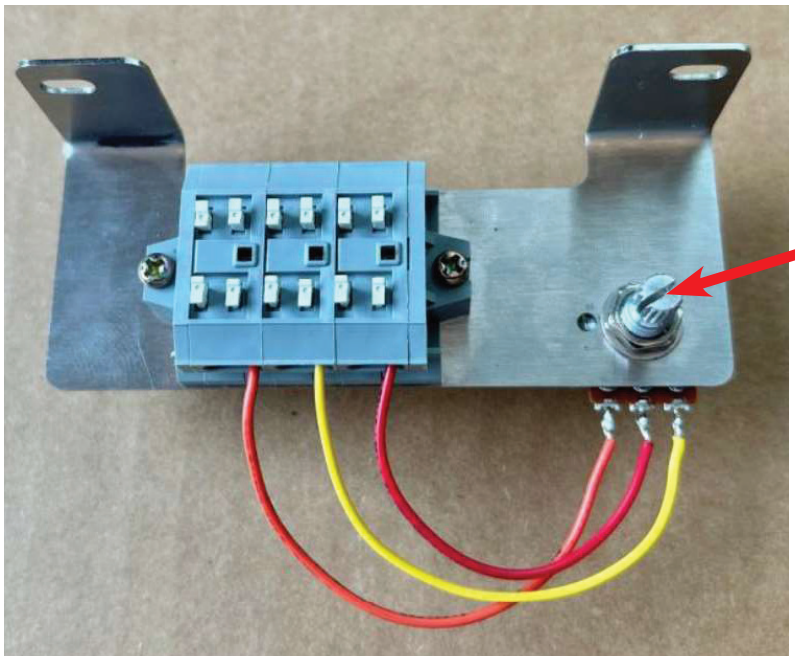
IX-DVF-* or IX-SSA-*

1 The white and green wires go under the same terminal

2 From the speakers, White = + Black = -

Volume Control

The terminal strip installed on the back of the emergency station controls the speaker volume, using the potentiometer on the right side of the unit. This dial can be adjusted manually; turning the volume left lowers the volume and turning it right increases the volume.

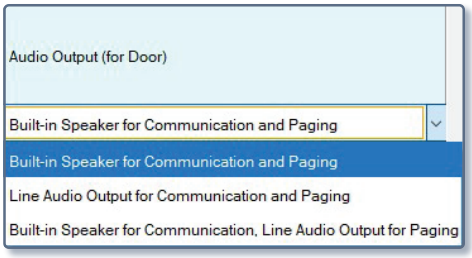


IXG Support Tool Settings

The emergency station's 600 Ω output will need to be configured so that it can feed audio to the tower's speaker. These steps assume that the IX|IXG Series station is otherwise programmed and operational. If that is not the case, see the IX|IXG Series Quick Start Guide for more information.

www.aiphone.com/IXG-Series-Quickstart-Guide

In IXG Support Tool, select **View(V)**, Advanced on the top menu to reveal all settings. Navigate to **Station Settings**, Volume / Tone on the side menu. Scroll all the way to the right to the Audio Output (for Door) column. For each emergency station, use the drop-down menu to set how the audio is played. Audio can be all be played through the emergency station's built-in speaker, through the line audio output to the tower's speaker, or the built-in speaker can be used for regular communication with the line audio output being reserved for paging. This third option is the most common for emergency towers applications.



Emergency stations are always listed as IX-SSA(-) or IX-DV, IX-DVF(-*) in IXG Support Tool.*

Once this has been configured for all emergency stations, click **Save**.

Some emergency stations will have both a standard call button and an emergency button, while others will only have an emergency button. For more information on configuring which stations they will call and configuring paging on the system, refer to the application notes linked below.

www.aiphone.com/IXG-input-programming

www.aiphone.com/ixg-paging-guide

After all settings have been configured, navigate to **Connection(S)**, Upload Settings. Select stations by clicking **Select** or individually click check boxes next to the stations. Click **Settings** to apply the new configuration.