isolite
The Emergency Lighting Experts

AIR SERIES
ARCHITECTURAL INDOOR LED EMERGENCY LIGHT

INSTALLATION AND OPERATING INSTRUCTION

IMPORTANT SAFEGUARDS
When using electrical equipment, basic safety precautions should always be followed including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS
1. Install in accordance with all national and local electrical codes.
2. Disconnect power at circuit breaker or fuse before installing or servicing the unit.
3. DO NOT mount in hazardous locations, near gas or near electric heaters.
4. DO NOT let power cords contact hot surfaces.
5. Equipment should be mounted in locations and at heights where it will not be readily subject to tampering by unauthorized personnel.
6. DO NOT use accessory equipment not recommended by the manufacturer. The use of such equipment may cause unsafe condition and will void the unit's warranty.
7. DO NOT use this equipment for other than it's intended purpose.
8. All servicing should be performed by qualified personnel only.
9. Allow battery to charge for 24 hours before first use.
10. For indoor use only.

SAVE THESE INSTRUCTIONS

MAINTENANCE

REMOVAL OF SPLICE BOX COVER

Splice Box Cover can be removed from backbox by prying forward the top, front flange of the backbox with a flat blade screwdriver.
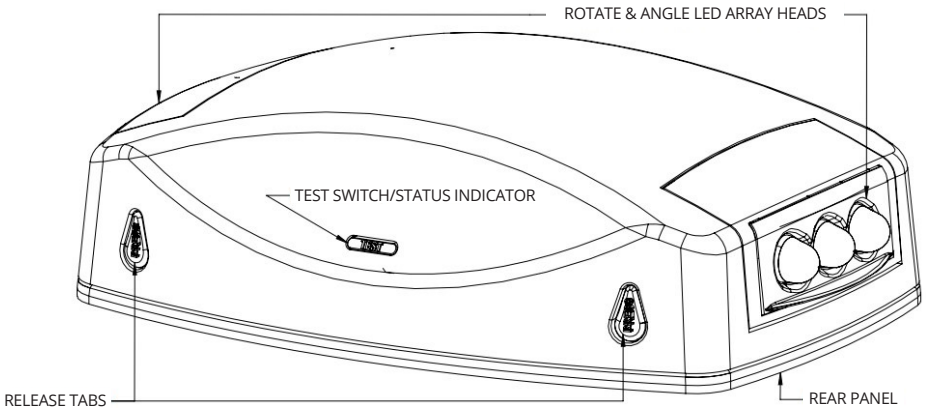
The battery supplied in this unit requires no maintenance. It will be periodically tested by the SELF-TESTING / SELF-DIAGNOSTIC system according to the requirements of NFPA 101. If battery replacement is required, replace using the BATTERY INSTALLATION procedure. For the 9W Air, the unit will be supplied with a Nickel Metal Hydride (Ni-MH) battery, replace with part number B350007 only.

For the 16W Air, the unit will be supplied with a Lithium Iron Phosphate (LiFePO4) battery, replace with part number B410001 only. Do not interchange battery types.

Used batteries may not be disposed of in the municipal solid waste stream. Arrangements for recycling batteries can be made by contacting www.call2recycle.org
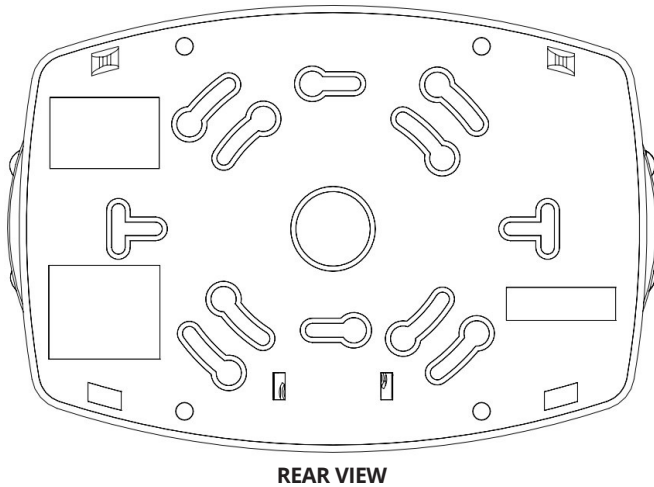
SECTION 1: BASIC FUNCTIONALITY & FEATURES

Open enclosure using flat blade screw driver to access knockouts.

ROTATE & ANGLE LED ARRAY HEADS

TEST SWITCH/STATUS INDICATOR

RELEASE TABS

REAR PANEL

LEDs, Arms, Test Button, Front Housing, Cover, Buttons to Press

Prior to removing knockouts, support rear panel on a base to prevent panel deflection and/or damage to the cover's flatness.

REAR VIEW

INSTALLATION INSTRUCTIONS

1. Remove the cover by pressing the snap tabs marked "Press" [FIGURE]
2. Remove the appropriate knockouts on the mounting plate for the selected junction box.
3. Connect the fixture wires to the power supply wires using the provided wire nuts. The wiring is as follows [FIGURE]:

   9W Unit
   Orange Wire – 277 VAC Input
   Black Wire – 120 VAC Input
   White Wire – Neutral

   16W Unit
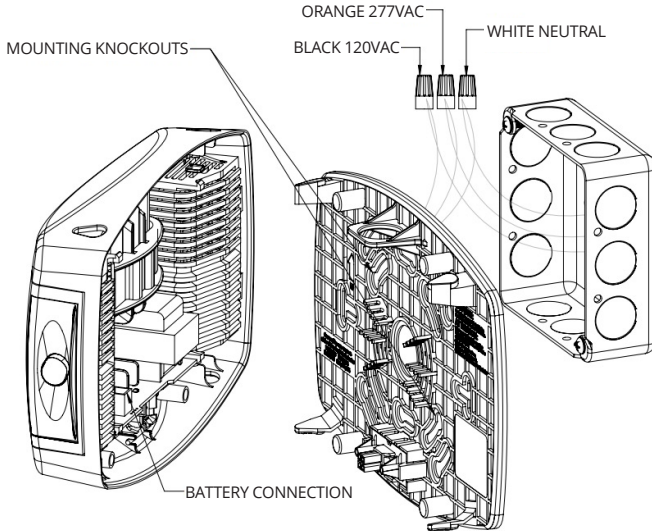   Black Wire – 120-277VAC Universal Input
   White Wire – Neutral
   Blue Wire – Remote Lamp Negative (–)
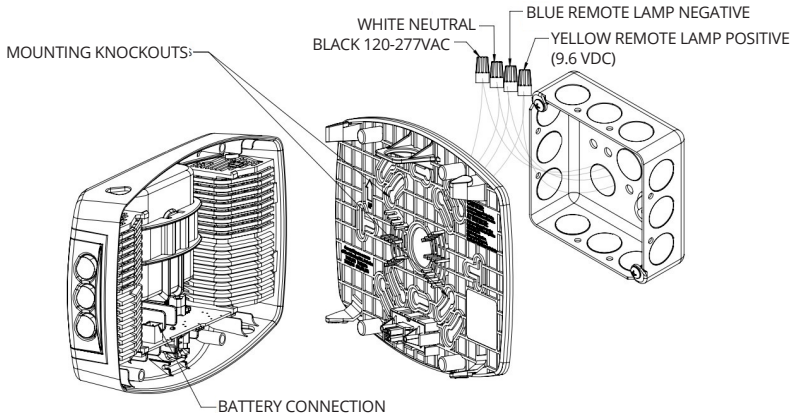   Yellow Wire – Remote Lamp Positive (+) (9.6VDC)

4. Attach the mounting plate to the junction box via the previously established holes.
5. Check the mounting plate for level before moving on.
6. Snap the front housing onto the back housing by laying the housing on the top snaps, then rotating into the bottom snaps. [figure]
   a. When snapping the unit together, ensure that the plug and mating connector are aligned so that the unit receives power.
7. Adjust the lamp heads down and outward for the designed emergency illumination.

WIRING INSTRUCTIONS

AC Only Operation Wiring Instructions (9W Wiring)

ORANGE 277VAC

WHITE NEUTRAL

BLACK 120VAC

MOUNTING KNOCKOUTS

BATTERY CONNECTION

AC Only Operation Wiring Instructions (16W Wiring)

WHITE NEUTRAL

BLACK 120-277VAC

BLUE REMOTE LAMP NEGATIVE

YELLOW REMOTE LAMP POSITIVE
(9.6 VDC)

MOUNTING KNOCKOUTS

BATTERY CONNECTION

REMOTE LAMP HEAD WIRING (16W UNIT ONLY)

NOTE: When remote lamps heads are used, the main housing will reduce light output to 10W to provide power to the remote lamp heads.

NOTE: Only use approved multi-voltage lamp heads with the unit.

Prior to mounting the unit to the junction box as listed in step 4 above, attach the remote lamp wires to the blue and yellow wires via wire nuts.

When installing remote lamps, ensure that adequate space is provided between the line voltage wires and the remote lamp wires [FIGURE]. Always wire the devices in accordance with local and national electrical codes.

MOUNTING INSTRUCTIONS

WALL MOUNT BACK POWER FEED
1. Remove front cover by inserting flat blade screwdriver into slots.
2. Remove appropriate knockout in back plate and mount back plate to J-box
3. Knockout in center of back plate and feed wires through the hole.
4. Securely backplate to J-box.
5. Connect the fixture wires to the power supply wires using the wire nuts provided. Connect the white wire to neutral, connect the black wire to the hot lead. Cap the unused lead. Press the wires into the J-box (Refer to Wiring diagram below).
6. Connect remote wires if this item with remote capability. Refer to below instructions for remote wires.
7. Plug battery male connector into battery female connector on PCBA.
8. Snap the front cover on the back plate.
9. Restore power and press test button. LED heads will turn on.
10. Adjust the lamp heads direction as needed.

WALL MOUNT (TOP POWER FEED)
1. Open front cover and remove top knockout on top flange of fixture.
2. Secure conduit (or surface raceway) to knockout and feed wires.
3. Remove appropriate knockout on back plate and mount to wall.
4. Refer to above 5-10 steps in Wall Mount-Back Power Feed.

CONNECTING REMOTE POWER HEAD (OPTION 16W)
Connect extended remote wires to remote wires using wire nuts. Yellow is positive (+), blue is negative(-). Support up to 6 watt of Telesis PRW LED 16-Watt Capacity with 2 x 5-watt lamps and up to 6-watt remote capacity.

OPERATIONS

All units are furnished with self-diagnostics, which will automatically perform a functional test every 28 days. If a manual test is required, the method is as follows:

For a 30 second Functional Test
1. Press and hold the test button for 1 second.
2. The unit will run a 30 second test.
    a. While in test mode the LED indicator will flash green.

For a 90-minute Duration Test
1. Press and hold the test button for 4 seconds.
2. The unit will run a 90-minute duration test.
    a. While in test mode the LED indicator will flash green.
    b. If the battery charge is insufficient, the 30 second functional test will be performed instead.

NOTE: The lamp current will be calculated upon the running of the first self-diagnostic test. Subsequent self-diagnostics checks will verify the lamp current against the initial measurement.

SELF-TESTING / SELF-DIAGNOSTICS

This unit meets the requirements of NFPA 101 for Periodic Testing of Emergency Lighting Equipment. It provides visual indication of unit malfunctions including:

Battery Fault
Charger Fault
Transfer Fault
Lamp Fault
Door Fault

SELF-TEST

An automatic self-test and diagnostic function will be performed every 28 days. A load test will be performed for 30 seconds checking for a lamp, battery or transfer fault. On every fourth test, the load test will follow a door function test, during which the door will open for approximately 1 second and then close, without the lamps turning on. This automatic self-test and diagnostic function will be performed only if the battery is fully charged. If not, the test will automatically reschedule. The charger function is monitored continuously.

DEFEAT MONTHLY DIAGNOSTICS TESTING

To defeat the self-diagnostic feature of the unit, please contact the factory.

USER-TEST

A manual USER-TEST can be performed for 30 seconds or 90 minutes. By pushing the "TEST" Switch for 1 second, the door will open and the lamps will illuminate for 30 seconds. If the "STATUS" indicator shows GREEN indicating a fully charged Battery and the Switch is pushed for 4 seconds, the door will open and the lamps will illuminate for 90 minutes. If the Battery is not fully charged, the 30 second test will run. In either mode, the USER-TEST can be cancelled by pushing and holding the "TEST" Switch for 1 second after the lamps con on.

LAMP LOAD LEARN

The self-diagnostic system "learns" the lamp load during the first test. Subsequent tests compare the measured lamp load during the test to the learned lamp load values.

CLEARING FAILURE INDICATIONS

Failure indications can be cleared by correcting the indicated fault and pushing and holding the "TEST" Switch for 1 second.

STATUS INDICATIONS

Status indications for the self-testing / self-diagnostic system are shown on the following page.

STATUS INDICATORS

STATUS DISPLAY	MEANING	ACTION
Continuous Green	Battery in Float / Trickle Charge	None
Continuous Red	Battery High Charging	Wait for Charge Completion
Flashing Green	In Test Mode	Wait for Test to Complete
Alternate Red & Green	Insufficient Charge for User Test	Wait for Charge Completion
Red Single Blink (ON / Pause)	Transfer System Failure	Factory Service
Red Two Blinks (ON / Pause)	Battery Failure	Check Connections / Replace Battery
Red Three Blinks (ON / Pause)	Charger Failure	Factory Service
Red Five Blinks (ON / Pause)	Lamp Failure	Replace Lamps / Factory Service

For 90-minute User Tests, wait for full charge.
For 30 second User Test, try again after an hour of charging.

TROUBLESHOOTING

PROBLEM
Lamp failure indicated when there's no lamp failure.

SOLUTION
The product may have calculated a larger lamp load when the lamp load calculation was performed at the first self-diagnostic function test. To reset the lamp failure status, remove the unit from the wall, disconnect the battery, wait 30 seconds, reconnect the battery, reinstall the unit onto the mounting plate.

The lamp current calculation will be performed on the next function test.

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