

# Quick Start Guide

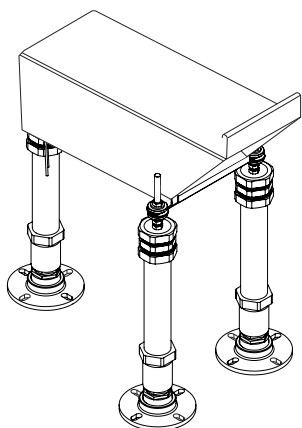
AV-PAPI Series 3

(Voltage Powered Systems - FAA Style A & ICAO)

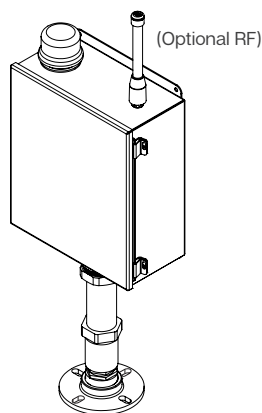
## Introduction

This Quick Start Guide provides a brief summary of steps for installing the AV-PAPI Series 3 Lighting System.

## Installation Parts



AV-PAPI Series 3  
(Amount and Options Selected)



Power Control Unit (PCU)

## Additional AV-PAPI Kit Components

- 3/4" Liquidtight Flexible Conduit
- 10 AWG Machine Tool Wire, Red & Black
- Alpha 1176C 6 Conductor 22 AWG Wire
- Weatherproof Junction Boxes with Lid
- Digital Inclinator with Mounting Screws
- Mounting Bolts
- Radio Remote Control Antennas (if equipped)

## Tools Needed

- Flush Cutter
- Tongue & Groove Pliers
- Silicone Sealant
- Cable Jacket Trimmer (optional)
- Utility Knife
- Electrical Tape
- Insulated Terminal Crimper
- Wire Strippers 10AWG to 18AWG Range
- Hex Key Set
- 2.0mm Flat Blade Precision Screwdriver
- #1 & #2 Phillips Screwdriver

# 1

## Power Control Unit (PCU)

Follow the plans dictated by the airfield design. Locate your PCU at a distance specified to the power supply and where there will be no interference for the operation of the control system and Photocell alignment.

Mount the PCU directly to the concrete pad using the included frangible couplings. Once the PCU is mounted, tighten all hardware and connect cables from a power supply source in reference with below wiring matrix:

AC Wiring Matrix		
Function	Wire Color	Wire Gauge
Line	Black	14
Neutral	White	14
Ground	Green	14

DC Wiring Matrix		
Function	Wire Color	Wire Gauge
24VDC +	Red	12
24VDC COM	Black	12

# 2

## Photocell Alignment

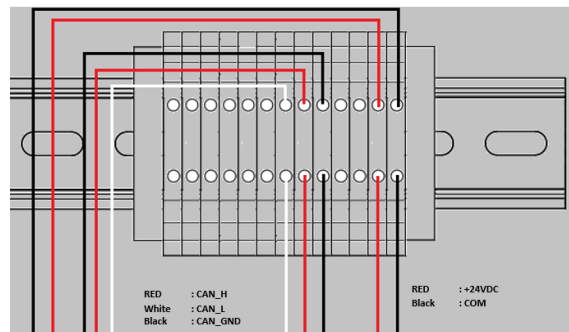
Position the Photocell so the optic window is aligned away from the equator (true north in northern hemisphere or true south in southern hemisphere), with no obstructions depending on your location of installation.

# 3

## Connect the PCU to the Junction Box

Enclose the provided 6 foot input and output cables with supplied Liquidtight flexible conduit.

Make connections in the included weatherproof junction box. Continue cable to first Light Head Assembly (LHA), then repeat process for remaining LHAs.



**CAN Bus**  
 Red : CAN\_H  
 White : CAN\_L  
 Black : CAN\_GND

**Power**  
 Red : +24VDC  
 Black : COM

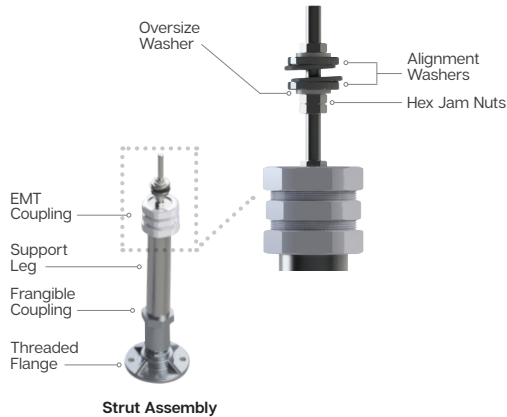
# 4

## Install the Light Head Assembly (LHA)

Mount the included strut assemblies directly to the specified concrete pad, positioning the shorter leg on rear flange and the longer legs on the front flanges.

Orient each LHA so the front faces the approach end of the runway and lower the LHA housing onto the threaded rods of the three strut assemblies.

Secure with three sets of hex jam nuts, oversize and alignment washers onto the threaded rods.



# 7

## Optional Solar Power Supply

If equipped with an optional solar power supply, use the included frangible bolt kit and mount the battery box in proximity (determined by regulatory agency) to the PCU.

Orient the solar panels so they are facing the equator and adjust the angle in accordance with the location of the airport for optimal charging of the battery system.

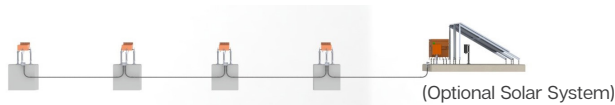


# 5

## Connect the Light Head Assembly (LHA) to Junction Box

Enclose the provided 6 foot input and output cables with Liquidtite flexible conduit.

Feed the cable from the LHA to the junction box that is next in line.



## Need more information?

Please see the AV-PAPI Series 3 Installation and Service Manual at [www.avlite.com](http://www.avlite.com).

## For Your Convenience

Scan the QR code to view the Installation and Service Manual from any mobile device.

# 6

## Aim the Light Head Assembly (LHA)

Refer to the included manual for the digital inclinometer for operation.

Follow regulatory (FAA, ICAO, etc) guidelines for proper alignment.

Repeat steps 4 to 6 for each LHA at a distance specified by regulatory agency.

Typical Inclinometer Incline Angles and Tolerances for 3° Glideslope		
Position	Incline Angle	Tolerance
LHA-1	3° 30 min.	±0.05° (3 arcmin)
LHA-2	3° 10 min.	±0.05° (3 arcmin)
LHA-3	2° 50 min.	±0.05° (3 arcmin)
LHA-4	2° 30 min.	±0.05° (3 arcmin)

