

# Precision Approach Path Indicator

**Compliances:** FAA AC 150/5345-28: L-880 and L-881  
 Transport Canada Specifications K342  
 ICAO Annex 14  
 USAF Regulation 88-14  
 USN NAVAIR 51-50AAA-2  
 NASAO Guidelines  
 NATO STANAG 3316



**PAPI**

## Applications

The PAPI System provides the pilot a positive visual indication of the aircraft's position relative to the optimal glide slope during final approach to the runway.

The L-880 PAPI system consists of four units in a line or bar, each unit having two or three 200 watt lamps. The PAPI unit produces a beam of light, the upper portion being white, the lower red. As the pilot's vertical position changes, the color of the light as seen by the pilot changes instantaneously.

The Style A PAPI uses a Power and Control Unit (PCU) which has a photocell for automatic day/night intensity control. The PCU can be operated by using an L-854 radio controller signaled by an approaching aircraft. The Style B PAPI is powered by an L-828 constant current regulator.

## Features

### PAPI UNIT

- 1500 Hour Lamps
- FAA Approved
- Meets ICAO Recommendations
- Sharp Signal Transition: 3 Minutes of Arc
- Precise Setting Tool: ± 2 Minutes of Arc
- Lamp Bypass Circuit (Style B)
- Tilt Switch Indicator Lights (Style B)

### POWER AND CONTROL UNIT (PCU) (Style A)

- Power Circuit Breaker
- Adjustable Power Supply - 195 to 265 VAC
- 50 Hz or 60 Hz Operation
- Indicator Lights:
  - Internal D.C. Power Supply Operation
  - Remote Control Status
  - Tilt Switch Status
  - Lamp Circuit Overvoltage
  - Photocell Status
  - Main Contactor Status
  - High Intensity Mode
  - Remote Control Override

## Ordering Information

**How to Order:** Construct the basic catalog number based on the number of units per system and the power available. Add dash numbers for the temperature class and options. Style A includes the PCU. Style B includes the isolation transformers and connector kits. Above ground mounting hardware is included except 2 inch EMT for the legs. Order baseplates, transformer bases, and all other below ground items separately.

**Examples:** 8802A-2 is an FAA L-880 system with 4 units each with 2x200 watt lamps for a very cold location. It includes the PCU and tilt switches for voltage operation.

8802B-2-11 is an ICAO PAPI system with 4 units each with 2x200 watt lamps for 6.6 amp constant current operation. It includes the EMT legs and it does not have tilt switches.



**FAA Type:** \_\_\_\_\_

880 = 4 Units  
881 = 2 Units

**Lamps:** \_\_\_\_\_

2 = 2 Lamps per Unit  
3 = 3 Lamps per Unit

**Style:** \_\_\_\_\_

A = 208V to 240V  
B = 6.6A

**Temperature Class:** \_\_\_\_\_

1 = -35°C  
2 = -55°C

**Options:** \_\_\_\_\_

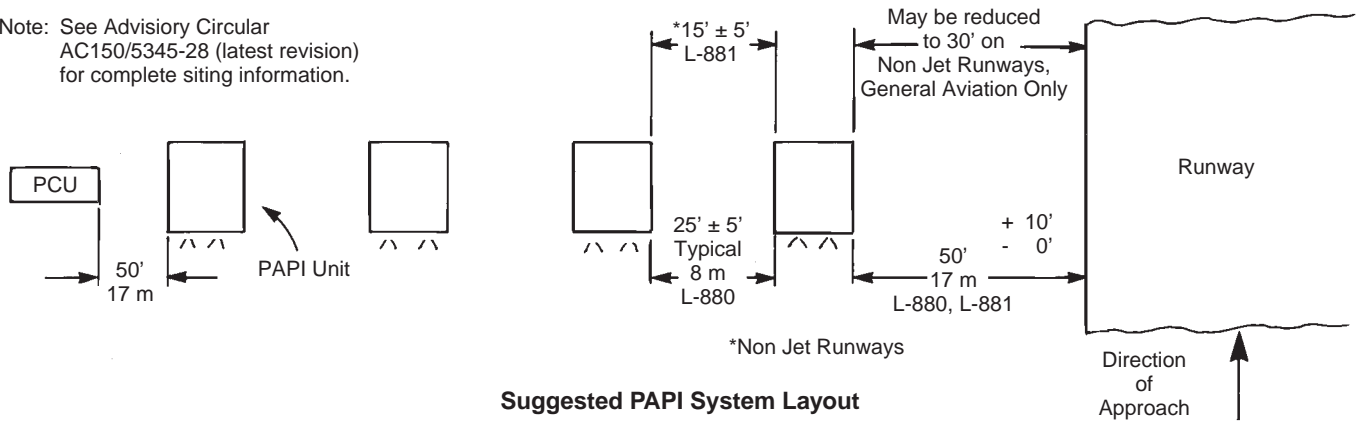
- 10= CHAPI for heliports (8812X only)
- 11= ICAO (temperature class 2 only) (see above example)
- \*12 = Interlock with series circuit (night only)
- \*13 = Interlock with series circuit
- \*14 = Remote Intensity Control (photocell override)
- 16 = Protective lens cover
- 17 = Dust-tight PAPI units

\* Style A only

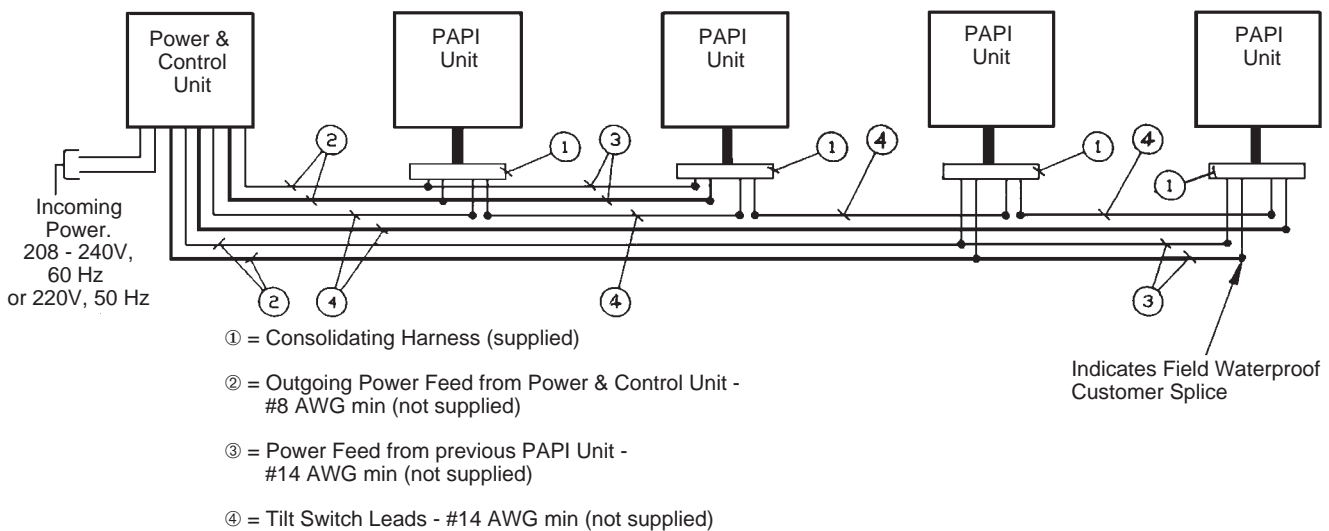
Note: Order one clinometer (aiming device) 25220 separately.

## Installation Information

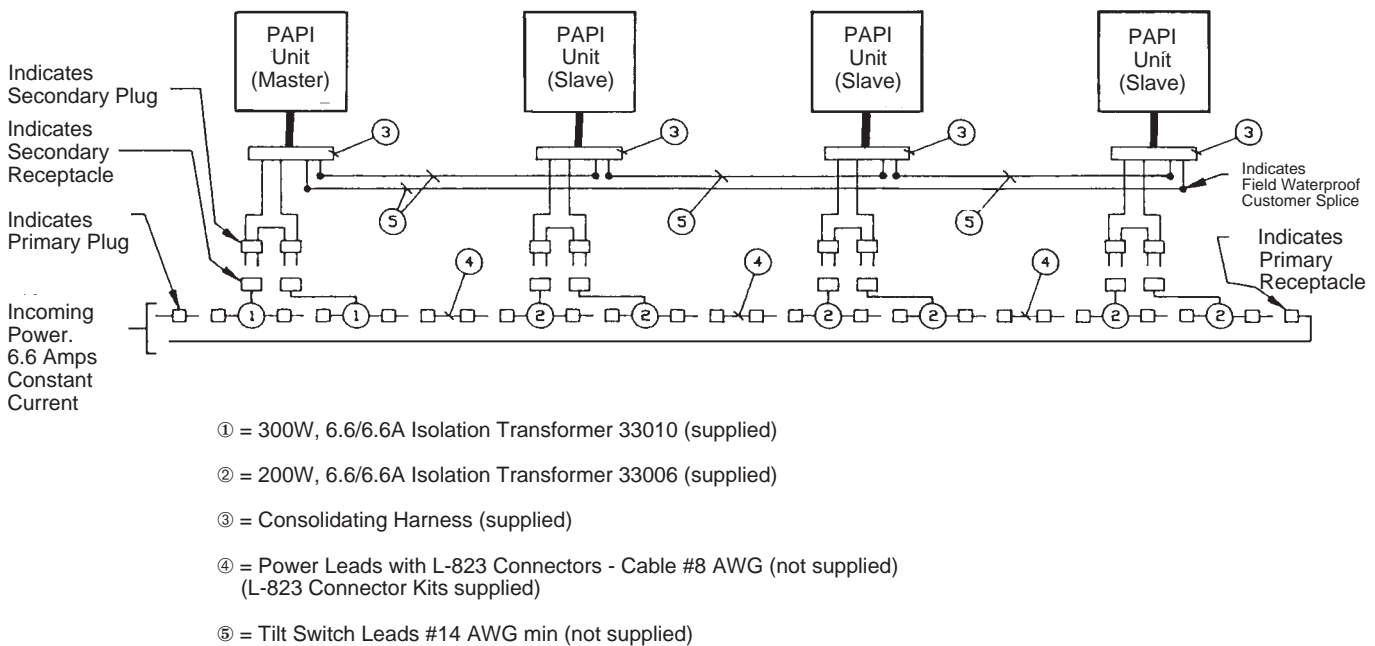
Note: See Advisory Circular AC150/5345-28 (latest revision) for complete siting information.



### Typical Wiring Diagram: FAA Style A



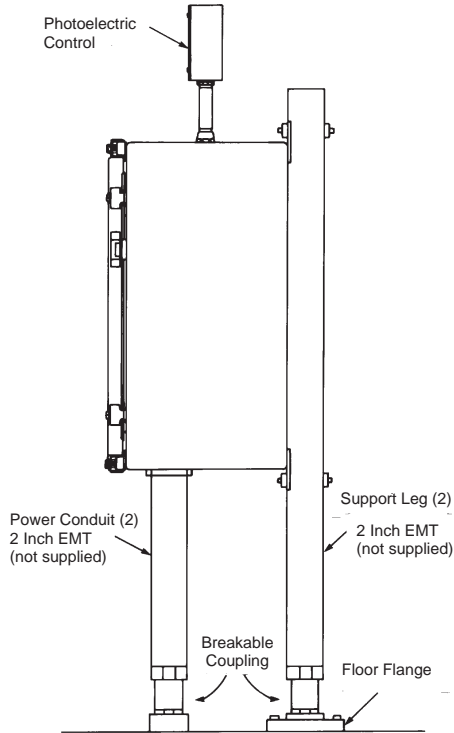
### Typical Wiring Diagram: FAA Style B (2-Lamps)



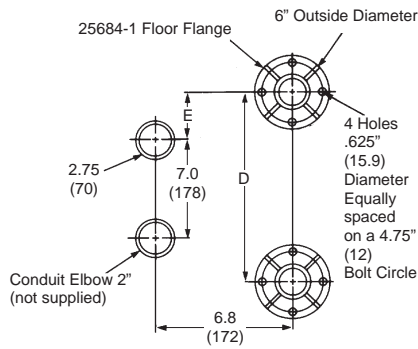
# Outline Drawings

## POWER & CONTROL UNIT (PCU) (Style A System Only)

SIDE VIEW



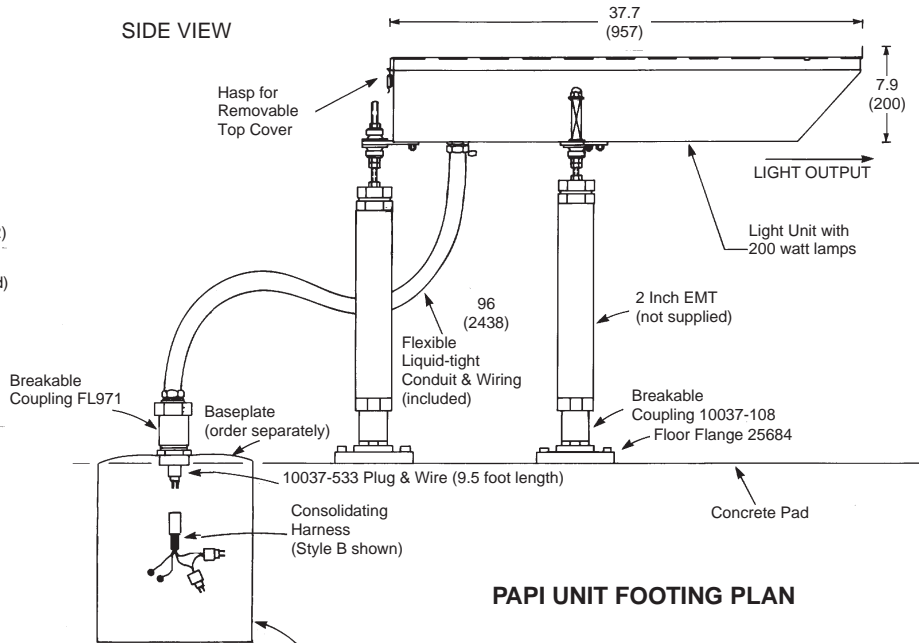
### PCU FOOTING PLAN



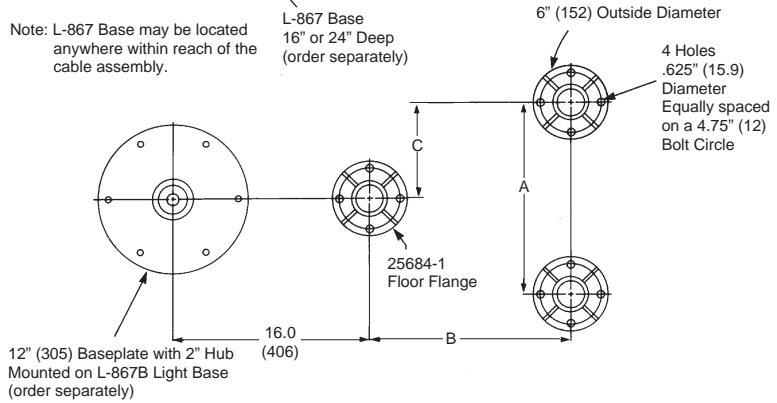
Note: PCU mounting height is not specified. It is recommended to minimize the mounting height. The PCU may be wall mounted.

## PAPI Light Unit

SIDE VIEW



### PAPI UNIT FOOTING PLAN



## Footing Dimensions Chart

Inches (Millimeters)	A	B	C	D	E
PAPI Light Unit 2-Lamp	15.75 (400)	16.3 (414)	7.9 (200)	—	—
PAPI Light Unit 3-Lamp	22.50 (572)	25.75 (654)	11.25 (286)	—	—
PCU for 8803A Systems	—	—	—	18.0 (457)	5.5 (140)
All other PCU's	—	—	—	10.0 (254)	1.5 (38)

Dimensions: Inches  
(Millimeters)

Instruction Manual 8824 (2-Lamp)  
9210 (3-Lamp)

	Light Unit (2)*	Light Unit (3)*	PCU
Shipping Weight:	75 lbs. 34 kg.	100 lbs. 45 kg.	105 lbs. 48 kg.
Shipping Volume:	9.3 cu.ft. 0.26 cu.m.	12 cu.ft. 0.34 cu.m.	3.7 cu.ft. 0.10 cu.m.

\*Each Unit



3-Lamp Light Unit

## Accessories

Catalog Number	Item Description	Shipping Weight		Shipping Volume	
		lb.	kg.	cu. ft.	cu. m.
1932	Baseplate, 2" Hub	8	3.6	.14	.004
900062-B-24	Base L-867, class II, 24" deep	16	7.3	2.6	.074
900062-B-16	Base L-867, class II, 16" deep	13	5.9	1.8	.051
2124	Base L-867, class I, 24" deep	52	23.6	2.6	.074
25220	Clinometer/Tilt Level				

## Renewal Parts

Part Number	Description	Part Number	Description
<b>PAPI UNIT</b>		<b>PCU</b>	
20531	Lamp 200W	27045	Photocell Assembly
40749	Lamp Socket	27029-1	Power Supply Board
27069	Red Filter	27033-1	Control Board
27073	CHAPI Filter	10047-1935	Relay K1
31329	Transformer T1	10047-1934	Relay K2
FL971	Breakable Coupling (1 per Unit)	27039	Transformer T1, 900VA
10037-108	Breakable Coupling (3 per Unit)	27038	Transformer T1, 1800VA
25684-1	Floor Flange (3 per Unit)	27120	Transformer T1, 2800VA
10037-533	Plug 4-Pin with 4-Conductor wire 9.5'	10047-885	Lightning Arrestor
27017	Lens	10047-1005	Fuse F1
27018	Lens Retainer	10047-1143	Fuse F2
27037-1	Tilt Switch Control Board	25684-1	Floor Flange (2 per PCU)
25225-1	Tilt Switch (Class 1)	10037-108	Breakable Coupling (4 per PCU)
25225-3	Tilt Switch (Class 2, Style B)		
25225-4	Tilt Switch (Class 2, Style A)		
33010	Isolation Transformer 300W (Style B)		
33006	Isolation Transformer 200W (Style A)		
33004	Isolation Transformer 100W (Style B)		
27037-1	Tilt Switch Control Board (2-Lamp)		
27123-2	Tilt Switch Control Board (3-Lamp)		
27123-3	Tilt Switch Control Board (3-Lamp)		
10037-534	Consolidating Harness Style A		
27068-1	Consolidating Harness Style B - FAA (2-Lamp)		
27068-2	Consolidating Harness Style B - ICAO		
27068-3	Consolidating Harness Style B - FAA (3-Lamp)		
823KP-D4-D4	Connector Kit L-823, 8 AWG, .32" to .43" O.D.		
		<b>SPARE PAPI UNITS: (Without Harness &amp; Mounting Hardware)*</b>	
		<b>2-Lamp</b>	<b>3-Lamp</b>
		27080-1	27131-1 Style A, Class 1
		27080-2	27131-2 Style A, Class 2
		27080-3	27131-3 Style B, Class 1 (Master)
		27080-4	27131-4 Style B, Class 2 (Master)
		27080-5	27131-5 Style B, Class 1 (Slave)
		27080-6	27131-6 Style B, Class 2 (Slave)
		27080-7	27131-7 Style A, Option 11
		27080-8	27131-8 Style B, Option 11

\* For complete units, order 27020.

## For more information



**CROUSE-HINDS  
AIRPORT LIGHTING PRODUCTS**  
1200 Kennedy Road  
Windsor, CT 06095 USA  
TEL: (860) 683-4300  
FAX: (860) 683-4354

**CROUSE-HINDS  
AIRPORT LIGHTING PRODUCTS**  
5925 McLaughlin Road  
Mississauga, Ontario  
CANADA L5R 1B8  
TEL: (905) 507-4187  
FAX: (800) 263-9504

**CROUSE-HINDS  
AIRPORT LIGHTING  
PRODUCTS**