LED PAPI
PRECISION APPROACH PATH INDICATOR L-880 (L), L-881 (L)

24 VDC | SOLAR ENGINE

The S4GA LED PAPI provides visual glide slope guidance for pilots during approach and landing. Available in full (PAPI) or abbreviated (APAPI) configuration, it ensures precise alignment with the runway in all lighting conditions.

POWERED BY S4GA SOLAR ENGINE

KEY FEATURES

- NVG Compatible
- Radio-Controlled
- Solar-Powered
- Individual Light Monitoring

TECHNICAL SPECIFICATIONS

Optics
• One-projector PAPI unit (optional: double projector)
• LED type
• NVG capable (optional)
• Vertical adjustment 0-10
• Transition: better than 3 minutes of arc on beam axis
• Maximum power consumption: 80W per unit
• Adjustable intensity level in five steps
• LED lifespan: 50.000 hrs
• Azimuth range: +/- 8 (ICAO) or +/- 10 (FAA)
• LED module replacement does not require re-alignment
• PAPI projector is removable from the mounting frame

Power Supply
• 24 VDC
• S4GA Solar Engine

Power Control Unit
• Single Power Supply (Single Circuit)
• Double Power Supply (Dual Circuit) (optional)

Manual Control (Via Board Control Box)
• System manual ON/OFF control
• Switch to radio remote or local operation
• Five intensity levels: 1%, 3%, 10%, 30%, 100% (or customizable per request)
• Photosensor activation and deactivation
• Night level setting on two intensity steps (5% and 20% as per FAA requirements)
• Angle Vertical + Horizontal on digital display
• Tilt sensor activation and deactivation
• Lens heater activation and deactivation

Wireless Control	
Communication	Wireless mesh type network
Frequency	868 MHz (optional 915 MHz, 2.4 GHz)
Wireless range	>10 km (relayed)
Activation options	Via ALCMS Computer Interface (requires UR-201) Via UR-201 Control & Monitoring Unit Via UR-101 Handheld Controller

Environmental Conditions
• Temperature range: -35 to 55°C (-31 to 131 °F) • Optional: -55 to 55°C (-67 to 131 °F)
• Ingress protection: IP-65
• Resistant to accumulation of rain and snow on lens surface
• Internal temperature, external temperature and humidity sensors

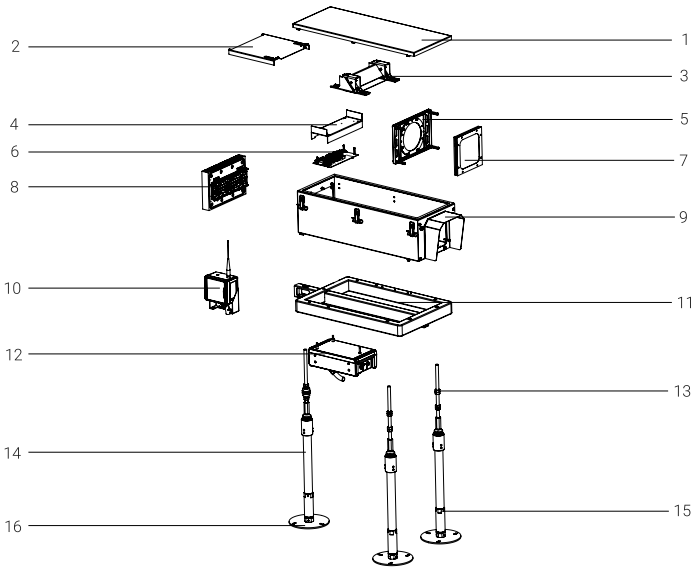
Safety & Reliability
• 4x types of critical fault detection
• 16x types of non-critical fault detection
• Excessive tilt deviation sensor
• Individual PCU per PAPI unit (optionally equipped with double power supply)

Monitoring
• Via status LED / status digital display on CTRL BOX
• Advanced Fault Detection via radio communication
• Advanced Fault Detection via a separate communication cable, ie Modbus

Casing & Components
• Cabinet and body material: stainless steel
• Base frame: stainless steel, breakable coupling: aluminum
• Set of 3 anchor bolts for PAPI: stainless steel
• Lens heater (optional)
• PCU included
• Dimensions (LxW): 1055 x 980 mm
• Height: 680 - 1000 mm (adjustable)
• Weight: 47 kg

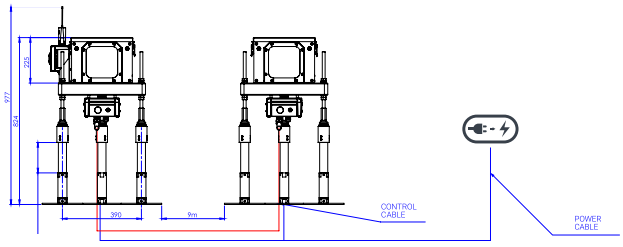
Compliance	
Photometric & Chromaticity	ICAO, Annex 14th, Volume I, 9th Edition dated July 2022, Figure A2-23
	EASA CS ADR-DSN, Figure U-26
	FAA AC 150/5345-28H, Figure 3-1
	STAC SPE-STAC-SE-E-VIS-6008, Arrêté du 28 août 2003 (modifié)
	TP312, 5th Edition dated 2015, clause 5.2.16.12, Figure B-19
	CASA Part 139 (Aerodromes) Manual of Standards 2019
Chromaticity	ICAO, Annex 14th, Volume I, 9th Edition dated July 2022, clause 5.3.5.30, Figure A1-1b
	EASA CS ADR-DSN.M.645.c.2.i, Figure U-1B
	FAA AC 150/5345-28H, clauses 3.2.1 & 4.9.1
	TP312, 5th Edition dated 2015, clause 5.3.16.13
Multi-lamp PAPI projector	EASA CS ADR-DSN.M.645
Infrared	FAA «Infrared Specifications for Aviation Obstruction Light Compatibility with Night Vision Googles (NVGs)» Engineering Brief No. 98, dated December 2017, clause 8.3

PARTS DESCRIPTION



1. Top cover
2. Divider metal sheet
3. Metal holder for divider glass
4. Circuit board cover
5. Glass lens
6. Circuit board
7. Front glass
8. LED panel with radiator
9. Charging port
10. Projector body
11. Control panel
12. Base frame
13. Power supply unit
14. Stainless steel mandrel
15. Aluminium leg
16. Frangible coupling
17. Round base plate

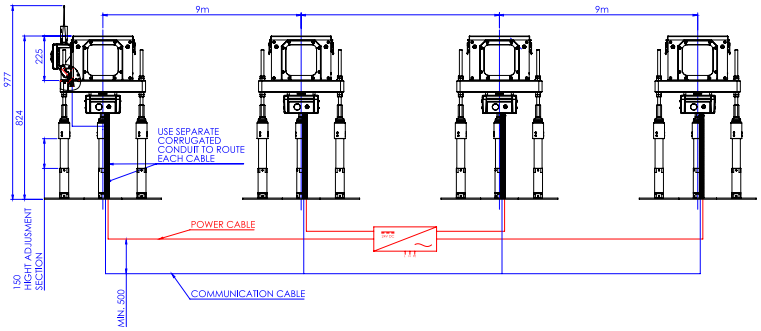
A-PAPI SYSTEM CONFIGURATION



Items included in A-PAPI System

- 2x LED PAPI projectors
- 1x Manual control box
- 2x Power Control Units (PCU)
- 1x Signal cable
- 2x Mounting frames
- 6x Adjustable mounting legs
- 6x Frangible connectors
- 6x Mounting bases

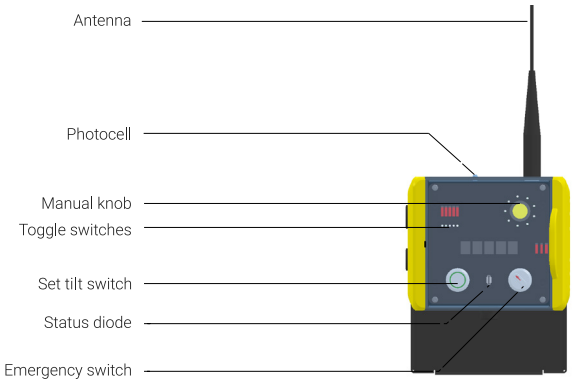
PAPI SYSTEM CONFIGURATION



Items included in PAPI System

- 4x LED PAPI projectors
- 1x Manual control box
- 4x Power Control Units (PCU)
- 3x Signal cable
- 4x Mounting frames
- 12x Adjustable mounting legs
- 12x Frangible connectors
- 12x Mounting bases

MANUAL CONTROL BOX DESCRIPTION



Night Vision Mode

Light is visible only through NVG (Night Vision Goggles)

Photo Sensor Activation

PAPI system activates automatically after sunset and deactivates after sunrise with use of photocell

Tilt Sensor

TILT mode alerts the user about the tilt angle of the PAPI unit changes and deactivates the system in case of excessive tilt change

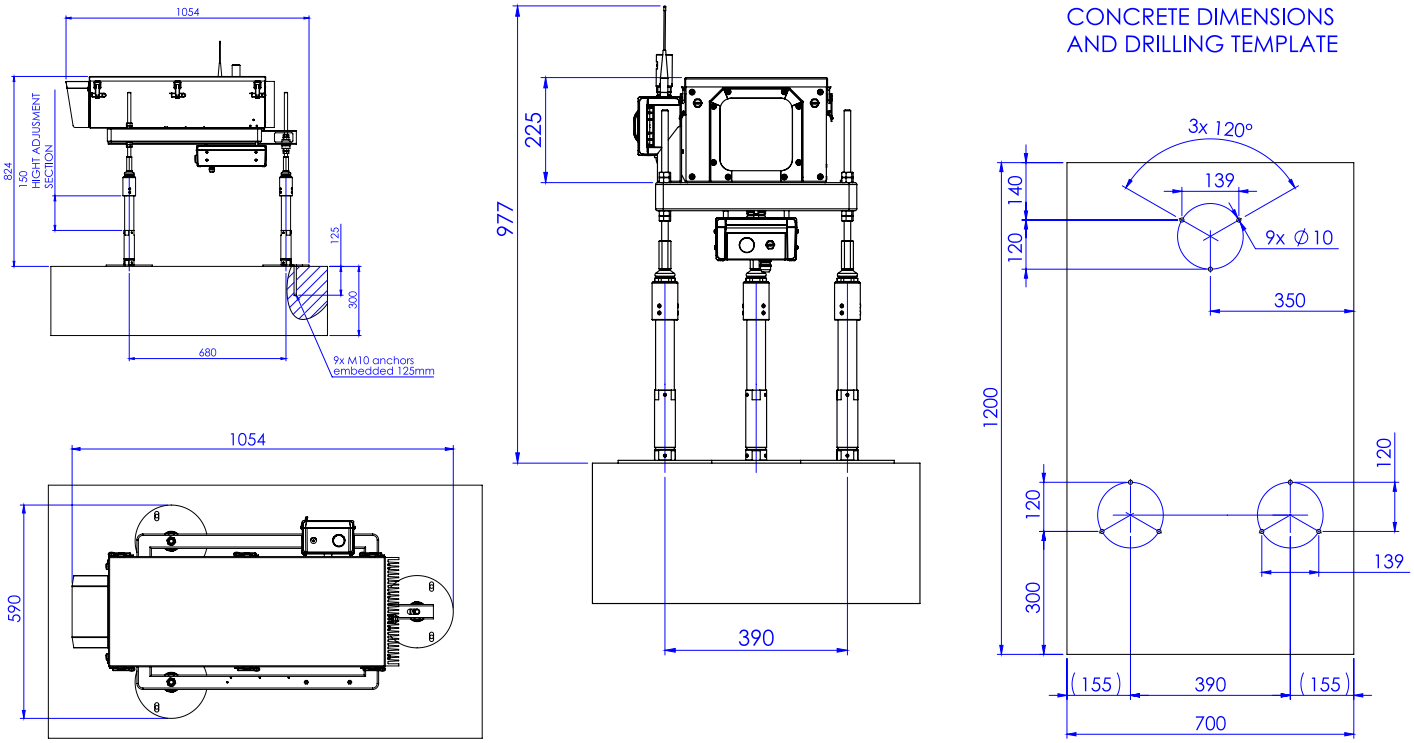
Night Level Setting

Night mode activates PAPI system automatically in 5% or 20% intensity

Lens Heater

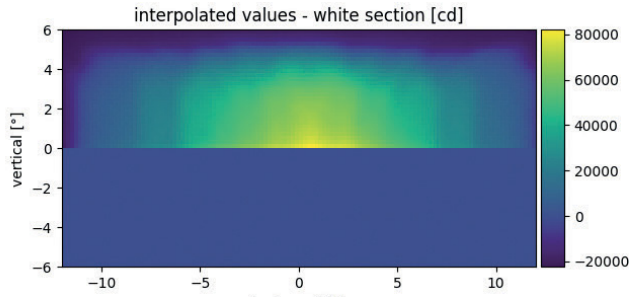
Lens heater prevents PAPI projector from condensation and accumulation of ice and snow

TECHNICAL DRAWING

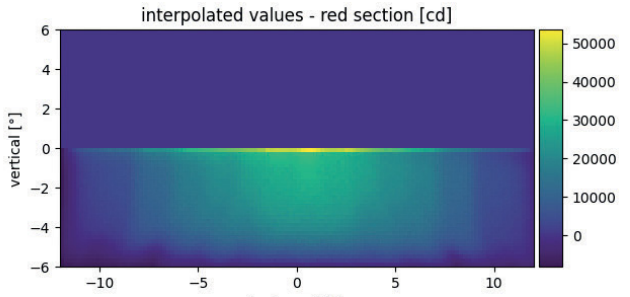


PHOTOMETRIC PERFORMANCE

Measured values - white section



Measured values - red section



SHIPPING DATA

Item	Dimensions of Package (LxWxH)	Gross Weight
A-PAPI System (2 x LHA with all accessories included)	1200 mm x 800 mm x 950 mm	155 kg
Full LED PAPI System (4 x LHA with all accessories included)	1200 mm x 800 mm x 1300 mm	290 kg

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