Compliance with Standards

FAA:  L-880/1 specification AC 150/5345-28 (current edition)
ICAO:  Annex 14, Volume I, para. 5.3

Uses

PAPI and APAPI systems provide pilot information enabling him to carry out the visual approach procedure with the utmost accuracy and safety.

Features and Customers Benefits

- New genuine PAPI unit utilising modern lamps already used in F-range inset lights,
- Very high wind resistance in the landing direction thanks to its very small shape,
- One optical channel consisting of only 2 lenses and 1 filter providing a very sharp transition from red to white over the full beam width,
- Stable mounting on just 2 mounting legs featuring easy levelling,
- Greatly reduced installation and levelling time with dedicated jig and instruments,
- Hardware used for fine-tuning of the beam elevation is removable and can be stored in a protected place for further use,
- Colorimetric conformity maintained over the whole width of the red beam,
- Lens protected from sandblasting by a hardened front glass, Distortion free, all aluminium construction yet featuring frangible mounting legs,
- Long focal length makes adjustment in elevation easy, accurate and stable,
- Reduced maintenance. The unit is fully gasketed ensuring a clean interior,
- Relamping and replacement of filter does not require any tool,
- Condensation water is drained away,
- No water can accumulate on the cover, so reflections that could constitute a false optical signal are eliminated,
- Fully corrosion proof since only aluminium, stainless steel hardware and optical glass are used,
- Tilt switch and heating option available upon request.
**Construction** (Fig. 4)

1. Cover
2. Front glass
3. Front glass gasket
4. Outer lens + clamping ring
5. Inner lens + clamping ring
6. Red filter
7. Filter retainer
8a. Prefocus cold mirror halogen lamp (3)
8b. Fixing holding spring
9. Terminal block with cut-out
10. Heat resistant wire
11. Cover gasket
12. Lockable latch
13. Aluminium alloy housing
14. Compression bushing (1, 2 or 3) or (optional) nipple for flexible conduit (1, 2 or 3)
15. 2-core cable (1, 2 or 3) with 2-pole plug
16. Upper flange
17. Levelling plate
18. Lower flange
19. Mounting leg with frangible groove
20. Ground mounting flange
21. Anchor bolts (6) (optional)

**Finish**

Phosphate and baked polyester electrostatic powder coating. Colours:
- Cover: aviation yellow
- Other surfaces: black

Stainless steel hardware.

Legs: anodised aluminium alu profiles.

**Electrical Supply**

6.6 A through 1, 2 or 3 series transformers. The unit is supplied with 2 m long cables fitted with L-823 two-pole plug. Circuit selector cabinets allow for the supply of two or more PAPI systems from one common set of regulators. The complete system of eight units can be supplied from 2 circuits. This solution is the only one giving complete reliability, as one full pattern remains fully operational in the event of one circuit failing.

**Protection Degree:** IP43
Installation

It is recommended that each unit is installed on a solid well-levelled concrete foundation. Special care should be taken if the subsoil is known to be unreliable.

The PAPI units are installed on height adjustable frangible mounting legs with bottom flanges secured on the concrete foundation. The removable setting device allows for a secure and easy levelling.

The PAPI shall be installed as close as possible to the ground.

The isolating transformers can be installed in a pit adjacent to or combined with the concrete slab, the pit being either in masonry or a L-867 steel base (Fig. 6).

ADB’s technical department is at the disposal of contractors and users to calculate the correct positioning of the system and to provide guidance and advice for any particular installation problem.

Adjustment of the Beam Elevation

The beam setting is quickly achieved in a most user friendly way by means of an alidade associated with a precision spirit level and two precision levelling jigs, allowing for very precise and stable elevation adjustment. After use, the levelling jigs can be stored in a protected place for further use.

Packing Data

<table>
<thead>
<tr>
<th>PAPI</th>
<th>Weight (kg)</th>
<th>Volume (wooden crate) mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net</td>
<td>Gross</td>
<td></td>
</tr>
<tr>
<td>SPL-1-300</td>
<td>17.5</td>
<td>36.5</td>
</tr>
<tr>
<td>Tool Kit</td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

Photometric Data

Lamps: cold mirror prefocus halogen lamp 105 W – 6.6 A – 1000 hours rated life at full intensity.
Transmission factor of the red filter: 1/5.
The PAPI unit shall meet or exceed the performance specified by ICAO, Annex 14, Vol. I, para. 5.3 and shall (with tilt switch option) be in compliance with FAA L-880/1 specification (Style B class I & II).

The transition sector shall not exceed 3 minutes of arc over the full beam width.

The unit will be made from folded aluminium-sheet fully protected against corrosion. It will be fully weather proof.

The unit will use 3 cold mirror prefocus halogen lamps rated 105 W. The expected life of the lamps will be not less than 1000 hours at full intensity. The optical system shall consist of one optical channel making use of only one red, through-coloured glass filter and one tandem of lenses made of optical glass. The first lens shall be protected from sandblasting by a hardened front glass. This front glass and the filter will be easily replaceable without need of re-calibration. The PAPI unit will be mounted on two central mounting legs. Precision elevation adjustment will be possible in less than 10 minutes per unit, making use of the levelling tools supplied with the units. No adjustment accessories shall be left on the operational unit.

After adjustment the unit will be locked in position without inducing strains by at least 4 screws.

Suggested Specification

The PAPI unit shall meet or exceed the performance specified by ICAO, Annex 14, Vol. I, para. 5.3 and shall (with tilt switch option) be in compliance with FAA L-880/1 specification (Style B class I & II).

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Ordering Code

<table>
<thead>
<tr>
<th>PAPI type: SPL</th>
<th>SPL</th>
<th>S</th>
<th>1</th>
<th>500000</th>
</tr>
</thead>
</table>

Number of cable assemblies

| 1 | 2 | 3 |

Power supply

| Series | = S |
| Parallel* | = P |
| Heating | = 0 |
| With | = 1 |

Special requirements to be specified in full text.

Accessories

- Case with levelling instruments: 1439.06.001
- Adaptation kit for helipad applications: 1434.31.050
- Anchor bolts (per piece): 1424.00.020
- Tilt switch: upon request

Main spares

- Prefocus lamp: 2990.40.900
- Red Filter: 1438.12.220
- Cut-out (sold per 10): 1420.22.410

* Please contact ADB for this execution

SPL 1 S 1 000000

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