ALS Bi-Directional Elevated Lights Sighting Device

Part Code ALS-BESIGHT



Operation & Maintenance Manual

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1.0 History of Change

Page	Revision	Description	Checked	Approved	Date
All	A	Manual Released	AK	DJ	06/04/2021
All	B	Bi-directional changes	DJ	AK	11/11/2021
All	C	Photo changes	DJ	AK	24/11/2021
All	D	Telescope focus	DJ	AK	06/06/2023

2.0 WARRANTY

Airfield Lighting Systems UK LTD, (ALS), guarantee their sighting devices for a period of two years against faulty components.

ALS products are constructed using high performance materials. The use of replacement parts or other materials not obtained from or approved by the company, may lead to impaired performance or reduced service life. The warranty given by Airfield Lighting Systems will be invalidated if non-approved replacement parts are used.

The device should be returned to ALS for alignment calibration every 2 years or sooner if any damage has occurred or the unit has been dropped.

The satisfactory operation of the device depends upon the observance of the recommended setup and storage instructions given in this manual. Failure to do so will invalidate this warranty.

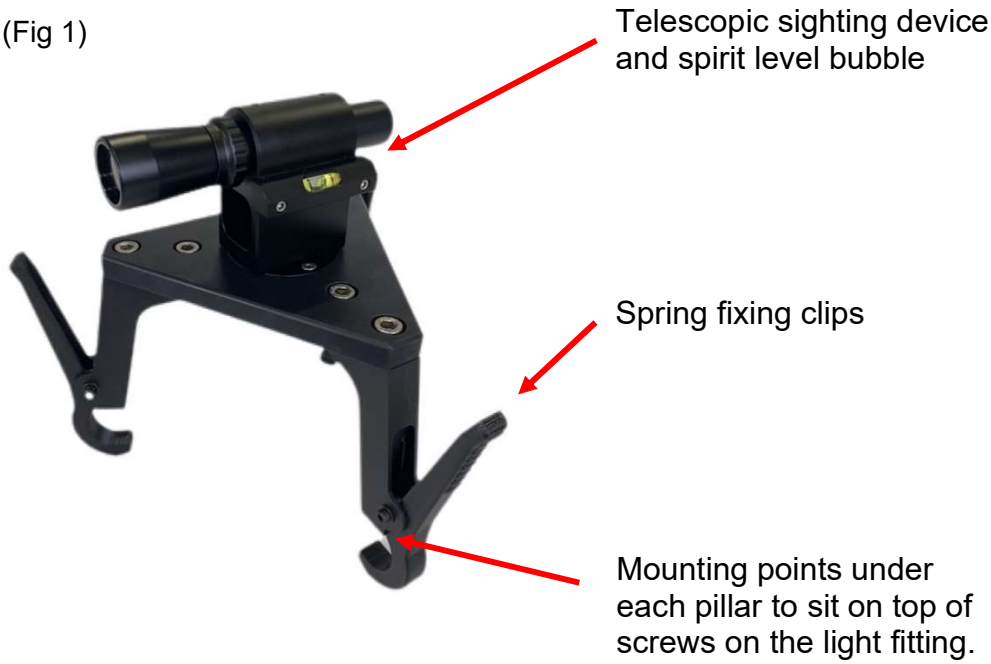
3.0 CONTENTS

Please carefully read and observe all safety related warnings throughout this manual. Failure to do so could result in damage to the device / light fitting and serious injury if the Airfield light is incorrectly installed.

Please observe all local site and regional safety requirements before commencing work on any Airfield. Installation and operation of the sighting device must only be carried out by qualified and competent persons.

The Sighting Device consists of a triangular plate with three mounting legs, each with large spring fixing clips. On top of the base is a telescopic sight on a rotating base, with a spirit level bubble to confirm the fitting is level.

(Fig 1)



4.0 INSTALLATION

First remove all the items from the box and check all the components are present as shown in Figure 1.

The light fitting will sit fairly level, but this should be checked on site. There is no need to adjust the fixing screws on the underside of the fitting until after using the sighting device is fitted. (Fig 3)

a) Commence mounting the device to the light fitting (Fig 2)



Mounted on these screws

(Fig 2) DTS fitting; Top



Adjustment screws

(Fig 3) DTS fitting; Underside

b) The sighting device sits on the 3 screws on the top ring of the fitting. Find the edge of the triangular plate with the arrow label on (with the threaded hole), this side of the plate sits above the arrow on the fitting (to the centre of the runway).

c) Push on the 3 clips and seat the sighting device securely on the 3 screws on the fitting (start with one screw and then drop onto the other two). Gently release the clips and check the sighting device sits flat and securely on top of the fitting.



4.1 SETTING THE SIGHTING DEVICE

a) The ALS light fitting is Bi-directional and must be checked that it is correctly positioned. After its installation on the Airfield, make sure the arrow marker on the fitting is pointing to the center of the runway, the fitting is level and parallel to the runway to complete installation prior to any operation by Aircraft.

b) When the sighting device is fully secured on the light it is ready to be adjusted.

c) The sighting device can be used in four directions (Front/Rear/Left/Right) for alignment with other fittings on the Runway or sighting reference. The telescopic sight rotates 90 degrees at a time on the top of the ALS fitting to allow setting.

d) Good practice is to take another fitting in the same direction of the light (i.e. the previous or next runway edge fitting or aiming point) and use this as a target to aim the sighting device at to check that it is in line.

e) Adjust the wheel on the telescope so it is in focus for you.



f) Check to determine the fitting is sitting flat. Use the bubble on the top of the sighting device to see how much adjustment is needed, in both directions, by turning the telescope by 90^0.

g) If the bubble sits in the middle in both the starting position and at 90^0 then no adjustment is needed.

h) Otherwise loosen the two adjustment screws under the fitting and adjust the fitting so the bubble is centred in both orientaions (Fig 4). Carefully tighten the screws without moving the fitting.

i) Re-check alignment with the adjacent fittings/aiming point and repeat above steps until correct.



(Fig 4)



Spirit bubble shows the fitting to be level in this orientation.

4.2 STORAGE OF THE DEVICE

a) Once the sight has been removed, please return to the protective bag and box for security to store the device before use again.

b) The sighting device should be stored indoors at room temperature.

5.0 SPARES

All individual items shown in Fig 1 are available as serviceable parts and can be ordered from ALS. This includes the clips and springs. The telescope and mount are one complete piece.

6.0 CALIBRATION

Ensure that the unit is returned to ALS for re-calibration every two years. Keep copies of calibration certificates on file for inspection by the local aviation authority as required.