

Service Bulletin No: 33-012

Ref No: 317

Modification No: EC-14-0072

ATA Chapter: 33

LIGHTS - EXTERNAL LIGHTS - REPLACE INCANDESCENT LANDING AND TAXI LIGHTS WITH LED LIGHTS**1. Planning Information****A. Effectivity**

All PC-12 Series aircraft with external landing and taxi lights illuminated by sealed beam light units.

Effectivity: MSN 101 thru 1450 (excludes MSN 545 and 1300).

MSN 1451 and up will have this modification embodied during production.

B. Concurrent Requirements

None.

C. Reason**(1) Problem**

The existing landing and taxi lights are illuminated by sealed beam light units. The light units have a limited life span and require frequent replacement.

(2) Cause

Limited life span of sealed beam units.

(3) Solution

Replace the landing and taxi lights with a type which uses Light Emitting Diodes (LED) as the light source. The LED lights have a longer life span, better reliability and illumination.

D. Description

This Service Bulletin gives the data and instructions to replace the landing and taxi lights with LED lights.

Revision 1 to this Service Bulletin replaces landing and taxi light circuit breakers with 3A circuit breakers.

Revision 2 to this Service Bulletin corrects Figure 2 title and Figure 5 illustration and updates the part numbers of the LED light units. No further work is required if this Service Bulletin has been incorporated at an earlier revision.

Revision 3 to this Service Bulletin clarifies some procedural steps, updates part numbers for the LED lights and adds sealant and heatshrink sleeve to the Operator supplied parts. If this Service Bulletin has been incorporated at an earlier revision, operators may opt to make sure that new and existing wires at the NLG are sealed properly.

E. Compliance

Optional.

F. Approval

The technical content of this Service Bulletin is approved under the authority of DOA No. EASA. 21J. 357.

PILATUS advises Operators/Owners to check with their designated Airworthiness Authority for any changes, local regulations or sanctions that may affect the embodiment of this Service Bulletin.

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H. Manpower

Description	Manhours
Preparation	0.5
Modification	4.5
Test	1.0
Close up	0.5
TOTAL MAN-HOURS	6.5

I. Weight and Balance**(1) Weight Change**

Landing light (LH):	+0.29kg (0.6lbs)
Landing light (RH):	+0.29kg (0.6lbs)
Taxi light:	+0.29kg (0.6lbs)
Total	+0.87kg (1.9lbs)

(2) Moment Change

Landing light (LH):	+1.723 mkg (149.5 in.lbs)
Landing light (RH):	+1.723 mkg (149.5 in.lbs)
Taxi light:	+0.808 mkg (70.13 in.lbs)
Total	+4.253 mkg (369.1 in.lbs)

J. Electrical Load Change Data**(1) Aircraft MSN 101 thru 888**

Taxi light:	- 3.36 Amps, Continuous (GENERATOR 2 BUS)
LH Landing light:	- 6.06 Amps, Continuous (BATTERY BUS)
RH Landing light:	- 6.06 Amps, Continuous

(NON ESSENTIAL BUS) Pre SB 24-020 MSN 101 thru 320, 322 thru 400.

(GENERATOR 2 BUS) Post SB 24-020 MSN 101 thru 120

(GENERATOR 1 BUS) Post SB 24-020 MSN 121 thru 320 and 322 thru 400

(NON ESSENTIAL BUS) Pre SB 24-020 MSN 321, 401 thru 888

(GENERATOR 1 BUS) Post SB 24-020 MSN 321, 401 thru 888

(2) Aircraft MSN 1001 thru 1299 and 1301 thru 1450

Taxi light:	- 3.36 Amps, Continuous (GENERATOR 2 BUS)
LH Landing light:	- 6.06 Amps, Continuous (ESSENTIAL BUS)
RH Landing light:	- 6.06 Amps, Continuous (ESSENTIAL BUS)

K. Software

Not changed.

L. References

Aircraft Maintenance Manual (AMM)

(1) MSN 101 thru 544, 546 thru 888

12-A-20-31-00-00A-071A-A

12-A-24-00-00-00A-901A-A

12-A-33-40-00-00A-903A-A

12-A-33-40-00-00A-903B-A

12-A-33-41-01-00A-920A-A

12-A-33-42-01-00A-920A-A

(2) MSN 1001 thru 1299, 1301 thru 1450

12-B-20-31-00-00A-071A-A

12-B-24-00-00-00A-901A-A

12-B-33-40-00-00A-903A-A

12-B-33-41-01-00A-920A-A

12-B-33-42-01-00A-920A-A

M. Publications Affected

Aircraft Maintenance Manual.

Illustrated Parts Catalog.

Aircraft Flight Manual.

Wiring Diagram Manual.

N. Interchangeability of Parts

The filament lamps and LED lights are not interchangeable.

2. Material Information**A. Material - Price and Availability**

Operators should send orders for Service Bulletin Modification Kits, to their Authorized Pilatus Service Center.

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B. Material Necessary for Each Aircraft

NOTE: Part Numbers given in this Service Bulletin are correct at the time of approval. Pilatus Aircraft Ltd. reserves the right to change the part numbers as necessary. Part numbers of items delivered with the Modification Kit are correct when the kit is dispatched. This could lead to differences between those part numbers quoted in this Service Bulletin and the Modification Kit if parts are superseded. Operators are requested to check the IPC for delivered parts which differ from those listed in the Service Bulletin Materials Kit List.