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DAV Support Programme - TECHNICAL PUBLICATIONS
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TRANSMITTAL LETTER

The revision No. 9 of the Component Maintenance Manual (CMM) 33-43-03, dated FEB 22/22 is attached and covers all components held by every operator.

1. FILING INSTRUCTIONS

Make sure that the content of the manual is in compliance with the “LIST OF EFFECTIVE PAGES”.
File this “TRANSMITTAL LETTER” separately.

2. ASSISTANCE INFORMATION

All questions or comments concerning this publication can be addressed to:

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3. REASON FOR ISSUE

See preliminary page: HIGHLIGHTS.

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HIGHLIGHTS

REVISION 009 - FEB 22/22

Pages which have been added, revised or deleted are outlined below together with the Highlights of the revision.

LOCATIONS	DESIGNATION	DESCRIPTION OF CHANGE
TRANSMITTAL LETTER	R	
TITLE PAGE	R	
LIST OF EFFECTIVE PAGES	R	
INTRODUCTION		
TASK 33-43-03-990-801-A01		Adresses updated
DESCRIPTION AND OPERATION		
TASK 33-43-03-870-801-A01		PAR 36 LED Lamp added
TESTING AND FAULT ISOLATION		
TASK 33-43-03-700-801-A01		Substitute Halogen Lamp P/N 4394909 test added.
DISASSEMBLY		
TASK 33-43-03-000-801-A01		PAR 36 LED lamp added
ASSEMBLY		
TASK 33-43-03-400-801-A01		PAR 36 LED lamp added
ILLUSTRATED PARTS LIST		
TASK 33-43-03-990-802-A01		Detailed Parts List updated
TASK 33-43-03-990-802-A01		Figure 2 added

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(F0214)

(Replaces F0280)

COMPONENT MAINTENANCE MANUAL WITH ILLUSTRATED PARTS LIST

RUNWAY TURN-OFF LIGHT

PART NUMBERS

4236534

8000306Y00

8000281Y00

NOTICE

Please be informed that Teleflex Syneravia (vendor code F0280) has changed to Zodiac Aero Electric (vendor code F0280) and has changed to Safran Electronics & Defense Cockpit Solutions (vendor code F0214).

All technical documentation has the Safran Electronic & Defense logo in the header line.

RECORD OF REVISIONS

REV No	ISSUE DATE	INSERTED		REV No	ISSUE DATE	INSERTED	
		DATE	BY			DATE	BY
1	JAN 15/99	JAN 15/99	TFX				
2	SEP 15/04	SEP 15/04	INS				
3	JUN 15/06	JUN 15/06	INS				
4	OCT 31/07	OCT 31/07	INS				
5	DEC 01/10	DEC 01/10	ZSE				
6	OCT 19/15	OCT 19/15	ZSE				
7	APR 26/17	APR 26/17	ZSE				
8	NOV 30/18	NOV 30/18	ZSE				
9	FEB 22/22	FEB 22/22	SED				

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RECORD OF TEMPORARY REVISIONS

TEMP REV NO.	ISSUE DATE	INSERTED		REMOVED		PAGE No.
		DATE	BY	DATE	BY	

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SERVICE BULLETIN LIST

SB/SIL No.	REV No.	ISSUE DATE	INCORP. DATE	TITLE
33-163	0	AUG 29/96	AUG 29/96	Assembly of a new seal, Improvement of lifetime
4236534-33-001	0	JUN 19/01	JUN 19/01	Improve the seating of the lamp with gasket
4236534-33-002	0	SEP 06/05	SEP 06/05	Replacement of the autotransformer
8000281-33-001	1	NOV 12/09	JAN 15/08	Replacement of the autotransformer
8000306-33-001	1	NOV 12/09	JAN 15/08	Replacement of the autotransformer
4236534-33-003	0	NOV 12/09	NOV 12/09	Sealing of drain hole to prevent liquid contamination.
8000306-33-002	0	DEC 11/09	DEC 11/09	Sealing of drain hole to prevent liquid contamination.
8000281-33-002	0	DEC 12/09	DEC 12/09	Sealing of drain hole to prevent liquid contamination.
8000281-33-003	0	OCT 02/13	OCT 02/13	Improvement of the autotransformer
8000306-33-003	0	OCT 02/13	OCT 02/13	Improvement of the autotransformer
4236534-33-004	0	OCT 07/13	OCT 07/13	Improvement of the autotransformer
8000281-33-003	1	JAN 23/17	JAN 23/17	Improvement of the autotransformer
8000281-33-004	0	JAN 23/17	JAN 23/17	Improvement of the autotransformer tightening
8000306-33-004	0	FEB 16/17	FEB 16/17	Improvement of the autotransformer tightening
4236534-33-005	0	FEB 16/17	JAN 23/17	Improvement of the autotransformer tightening

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LIST OF EFFECTIVE PAGES

LIST OF EFFECTIVE PAGES (Cont'd)

TABLE OF CONTENTS

TABLE OF CONTENTS (Cont'd)

TABLE OF CONTENTS (Cont'd)

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TABLE OF FIGURES

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INTRODUCTION

TASK 33-43-03-990-801-A01

1. Runway turn-off light - Introduction

A. Information

(1) The Component Maintenance Manual (CMM) is written in accordance with the Air Transport Association of America Specification No. 2200 (ATA2200), Revision 2000-1 and in AECMA Simplified English.

(2) The Component Maintenance Manual gives all the procedures supplied by the manufacturer for use in the workshop, so that all persons can repair and completely overhaul the component.

(3) The manual describes maintenance on the component in a workshop. It does not define or show the level of maintenance for all special units, but gives all the procedures necessary to let the person to do a test, disassemble, clean, check and assemble a unit which has been rejected from serviceable use. The manual does not describe maintenance on the component when it is installed on the aircraft.

(4) Only approved persons are permitted to do the maintenance procedures given in this manual.

(5) Maintenance Task Oriented Support System (MTOSS) task and subtask identification is used in this manual. The maintenance tasks and other data have special MTOSS numbers for use of Electronic Data Processing (EDP). The user of manual can ignore the MTOSS numbers.

(6) Where the data or procedures specified in this manual are different from those specified by the regulatory agency which controls operation of your aircraft, obey the data and procedures of the regulatory authority.

(7) This manual contains:

– Technical data for the component,
– Maintenance and repair procedures for the component,
– Illustrated Parts List (IPL) or Illustrated Parts Catalogue (IPC) with data for the component parts. The IPL Figure and item number identifies parts in all sections of the manual.

B. How to Use the Manual

(1) Make sure the manual contains the information applicable to your component. Look on the Title Page for the part number.

(2) If it is necessary to identify a part or find a part number, refer to the IPL (or IPC), which has an introduction to show the procedure.

(3) The instructions in this manual must be used for all component maintenance. Read all the applicable WARNINGS and CAUTIONS before you do the work on the component.

C. Process Verification

(1) The manufacturer has validated the "Disassembly, Testing and Fault Isolation and Assembly" procedures in this manual.

- Disassembly: verified by performance or simulation of the specified procedures.
- Testing and Fault Isolation: verified by performance or simulation of the specified procedures.
- Assembly: verified by performance or simulation of the specified procedures.

D. Modification

(1) All result data and illustrations in this manual are the last revision available at the time of printing. SAFRAN ELECTRONICS & DEFENSE COCKPIT SOLUTIONS supplies updates to this manual when necessary. When SAFRAN ELECTRONICS & DEFENSE COCKPIT SOLUTIONS issues a modification to units included in this manual, SAFRAN ELECTRONICS & DEFENSE COCKPIT SOLUTIONS will revise the manual to include the information.

(2) When there is a change, each updating gives the full instructions about the page number of the pages, which must be replaced, added or removed. Revised test or new texts are located with a vertical black line in the margin.

E. Measurements

(1) The measurements given in this manual are taken from the original reference document of the manufacturer.

(2) All values given in this manual are in System International (SI) units or sub-divisions of these units. Imperial units or US are given in parenthesis immediately after the metric unit. The decimal point in the SI is shown by a comma and in the Imperial system by a full stop, e.g. 25,4 mm (1.00 in).

F. Abbreviations

(1) The abbreviations used in this manual are given below:

- A = Ampere
- °C = degree Celsius
- Nm = Newton meter
- °F = Fahrenheit degree
- ft.lb = feet-pound
- in = inch
- In.lb = Inch pound
- kg = kilogramme
- kPa = kiloPascal
- hPa = hectoPascal
- lb = pound
- mbar = millibar
- mm = millimeter
- mV = millivolt
- Ω = ohm
- mΩ = milliohm
- MΩ = megohm
- psi = pound per square inch
- rpm = revolution per minute
- SH or CW = clockwise
- SIH or CCW = counterclockwise
- VDC = volt direct current

G. Manufacturing and product support

(1) The Equipment is manufactured and product supported by:

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(2) The unit is supported by:

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H. Repair facilities

(1) Approved repair stations details are available on the SAFRAN ELECTRONICS & DEFENSE COCKPIT SOLUTIONS website: https://avionics-support.sagem.com/

DESCRIPTION AND OPERATION

TASK 33-43-03-870-801-A01

1. RUNWAY TURN-OFF LIGHT - DESCRIPTION AND OPERATION

A. General

(1) The runway turn-off light is used for lighting the runway laterally and in front of the aircraft. It permits identification of turn-off beacons, taxiways and runway edges in the aircraft taxiing area. (Refer to Fig. 1)

B. Description

(1) Data

(a) Dimensions and weight

Width:	104 mm (4.094 in)
Body diameter:	117 mm (4.606 in)
Height:	145 mm (5.708 in)
Full dimensions	(Refer to Fig. 3)
Weight:	0,8 kg (1.763 lb) MAXIMUM

Table 1 / Dimensions and weight

(b) Optical system

	Sealed Beam 4626	Substitute Halogen Lamp (SHL) 4394909	PAR 36 LED Lamp 252PF01AAY00
Power:	150 W	150 W	50 W
Voltage:	28 V	28 V	28 V
Life:	300 h	300 h	30000 h

Table 2 / Optical system

(c) Lighting beam

	Sealed Beam 4626	Substitute Halogen Lamp (SHL) 4394909	PAR 36 LED Lamp 252PF01AAY00
Maximum lighting intensity:	25 000 cd	30 000 cd	25 000 cd
Total spread to:	10% max	10% max	10% max
Horizontal lighting angle:	40°	34°	40°
Vertical lighting angle:	9°	10°	9°

Table 3 / Lighting beam

(d) Electrical Properties

Voltage:	115 VAC/400 Hz
Amperage:	2 A max.

Table 4 / Electrical Properties

(e) Protection

15 microns dichromated cadmium plating.

C. Detailed description

(1) General

(a) The runway turn-off light with the sealed beam lamp has:
(Refer to Fig. 2 SHEET 1)

- a light alloy optic support (1) with two self-locking nuts (2) on its top for optic support attachment to the aircraft,
- a lamp assembly which has an autotransformer (3) bonded to its support (6), attached to the inner side of optic support (1) with the two screws (4), and a lamp (8) hold in position against the gasket (12) by the equipped clamp (7),
- a receptacle connector (5), for connection to the aircraft electrical circuit,
- an amendment plate (9), an instruction plate (10) and a bar code plate (11), bonded to the outer side of the optic support.

(b) The runway turn-off light with the SHL has: (Refer to Fig. 2 SHEET 2)

- a light alloy optic support (1) with two self-locking nuts (2) on its top for optic support attachment to the aircraft,
- a lamp assembly which has an autotransformer (3) bonded to its support (6), attached to the inner side of optic support (1) with the two screws (4), and a lamp unit hold in position against the gasket (14) by the equipped clamp (7). The lamp unit consists of an equipped lens (8) and an equipped bulb (10) attached to the inner side of the equipped mirror (9) with two screws,
- a receptacle connector (5), for connection to the aircraft electrical circuit,
- an amendment plate (11), an instruction plate (13) and a bar code plate (12), bonded to the outer side of the optic support.

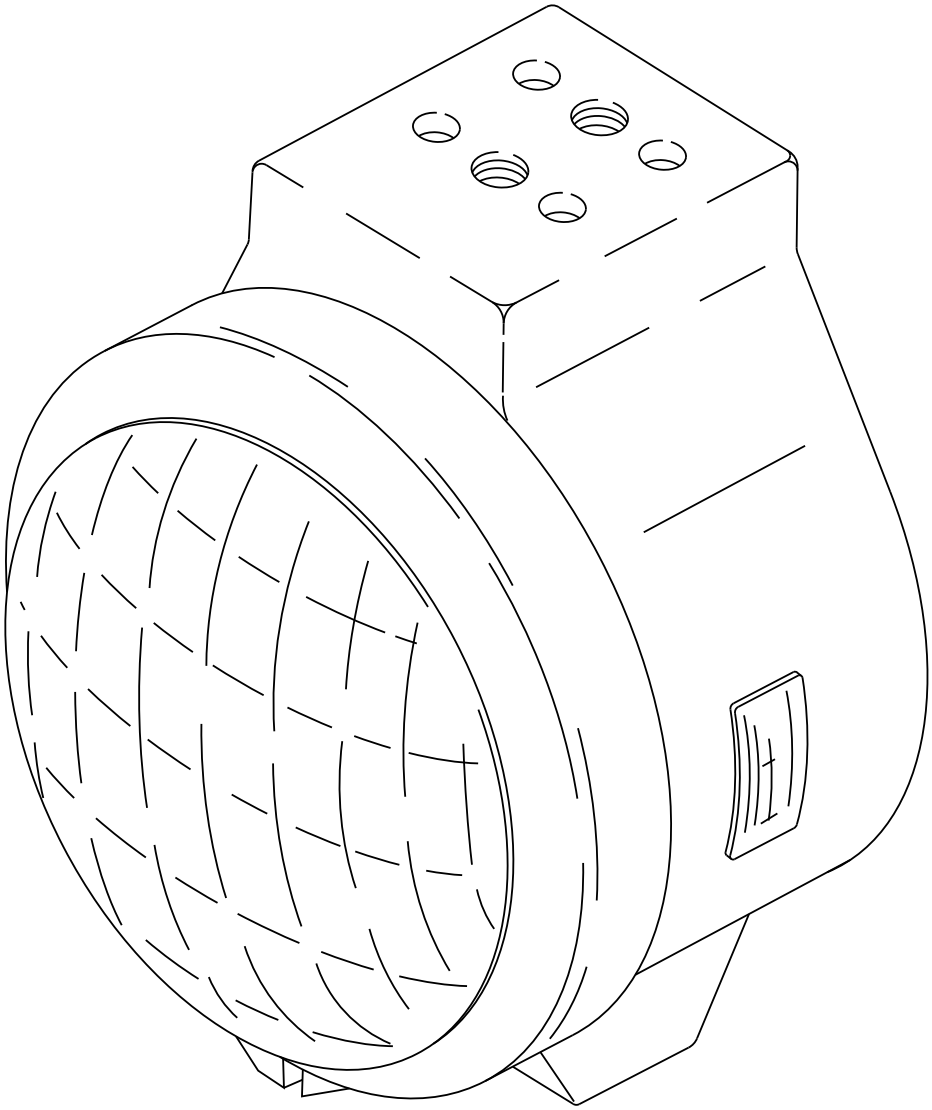
D. Operation

(1) General operation

(a) The runway turn-off light is supplied by the aircraft 115 V/400 Hz power supply network, through an autotransformer that decreases the lamp unit supply voltage to 28 V/400 Hz. (Refer to Fig. 2001)

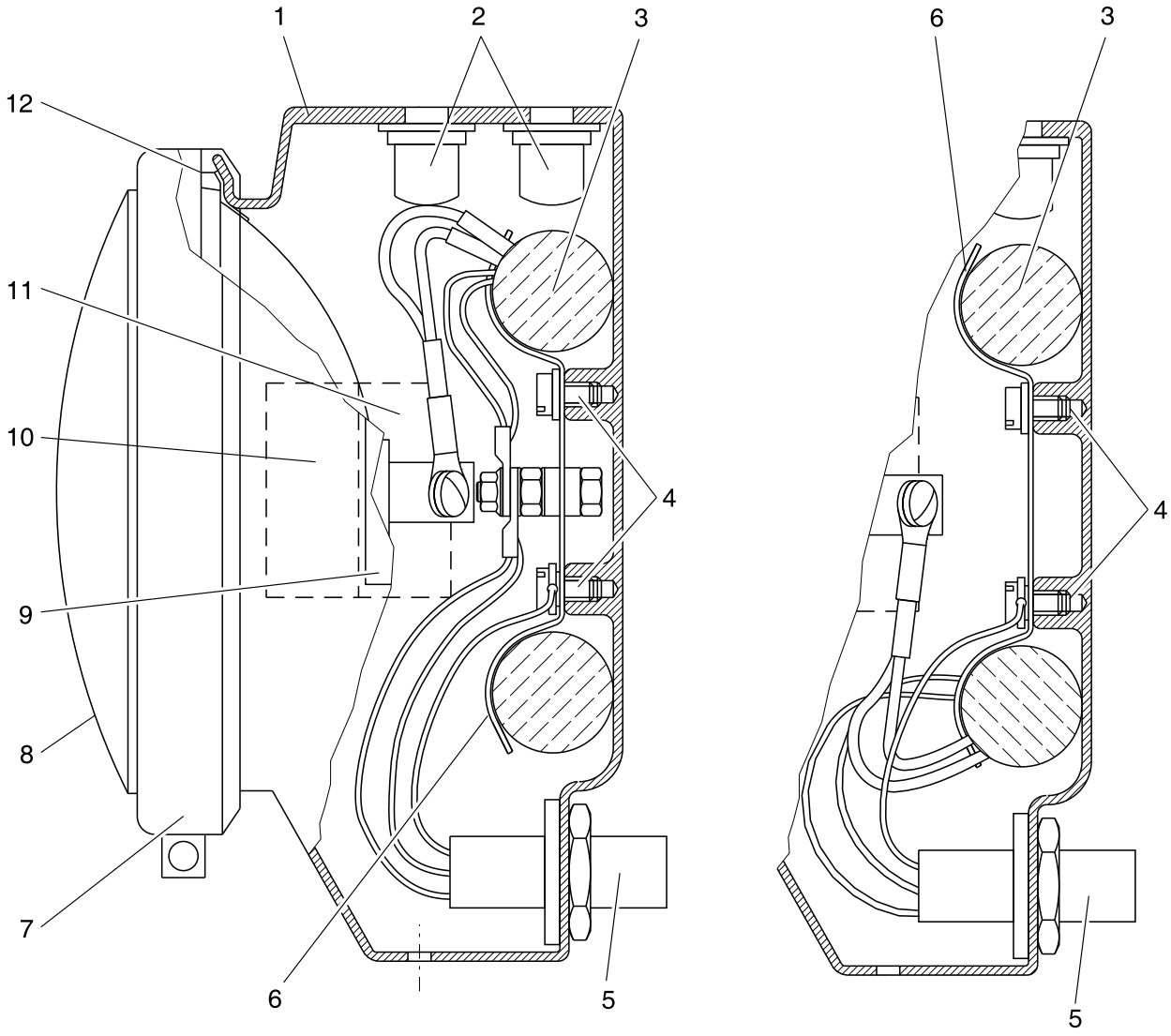
(b) The lamp is a sealed beam single filament type or a SHL type.

(c) The light beam goes through the deflection glass and increases width to 40° in the horizontal plane and 9° in the vertical plane for the sealed beam, and 34° in the horizontal plane and 10° in the vertical plane for the SHL.



33-43-03-991-001-a01

Runway turn-off light - General View
Figure 1/GRAPHIC-33-43-03-991-001-A01



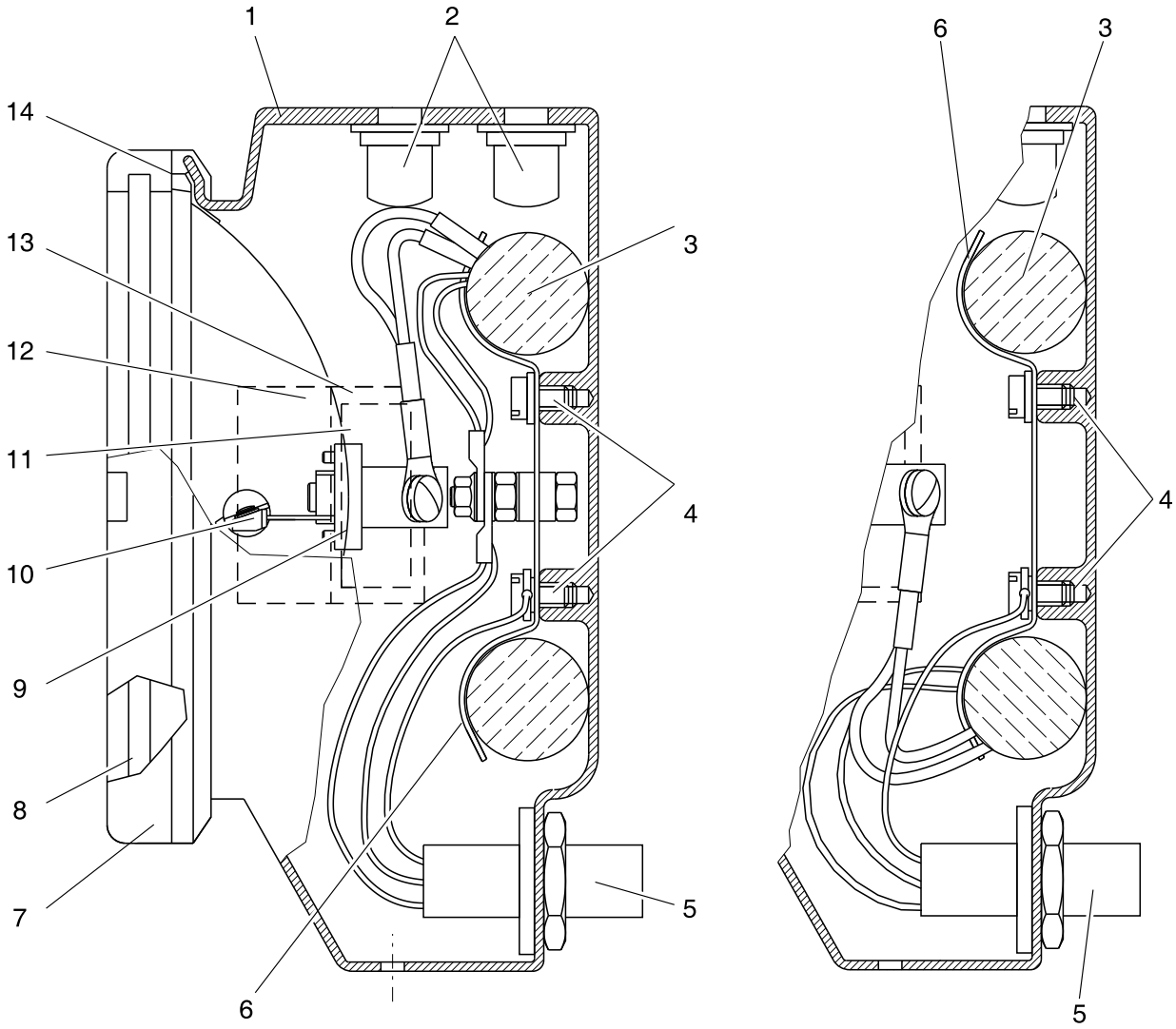
PRE SB 8000281Y00-33-001
and SB 8000306Y00-33-001

POST SB 8000281Y00-33-001
and SB 8000306Y00-33-001

1 Optic support
2 Self-locking nut
3 Equipped autotransformer
4 Screw
5 Receptacle connector
6 Autotransformer support
7 Equipped clamp
8 Incandescent lamp
9 Amendment plate
10 Instruction plate
11 Bar code identification label
12 Gasket

33-43-03-991-002-a01-01

Runway turn-off light - Description (Sheet 1 of 2)
Figure 2/GRAPHIC-33-43-03-991-002-A01



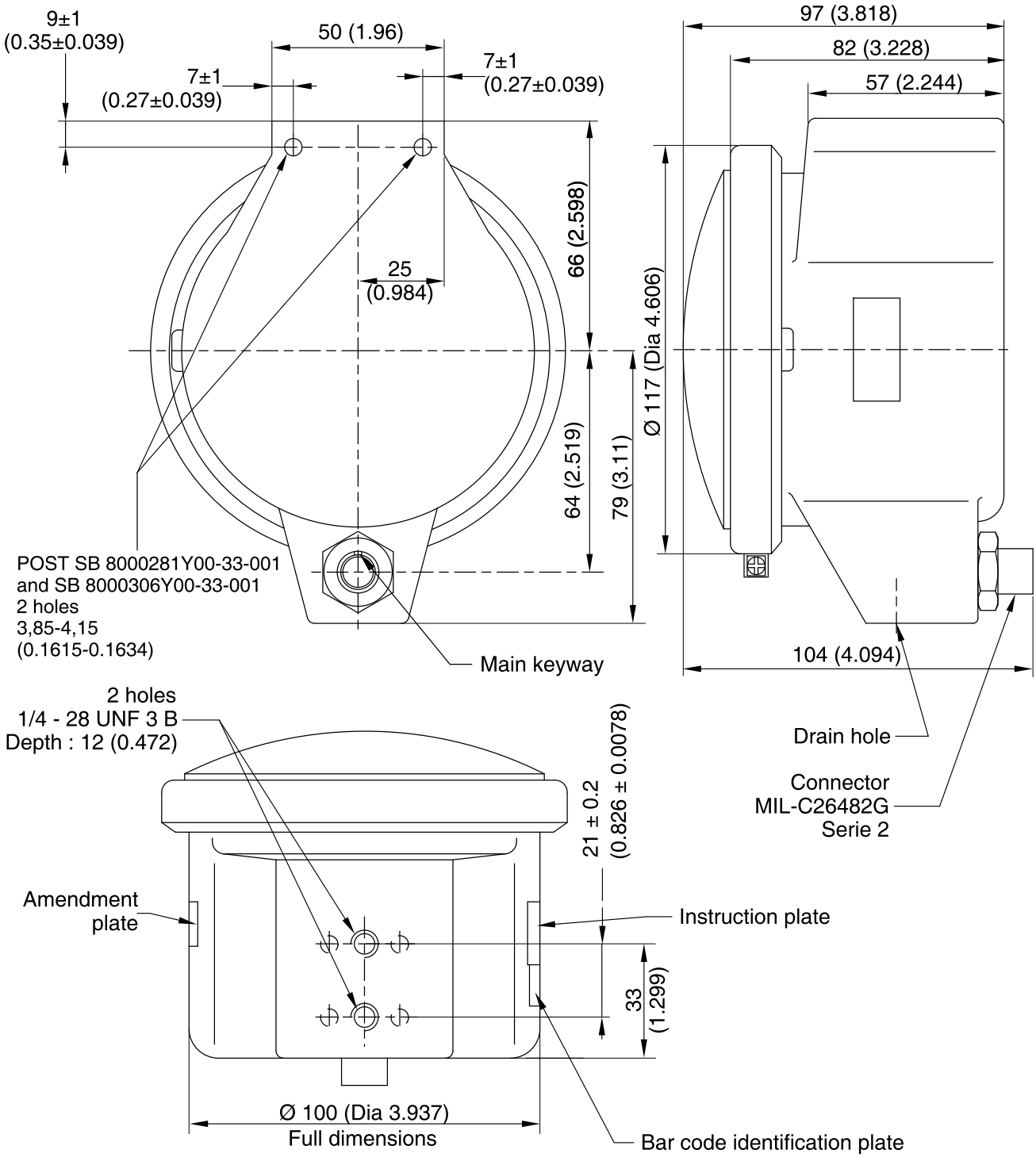
PRE SB 8000281Y00-33-001
and SB 8000306Y00-33-001

POST SB 8000281Y00-33-001
and SB 8000306Y00-33-001

1 Optic support
2 Self-locking nut
3 Equipped autotransformer
4 Screw
5 Receptacle connector
6 Autotransformer support
7 Equipped clamp
8 Equipped lens
9 Equipped mirror
10 Equipped bulb
11 Amendment plate
12 Instruction plate
13 Bar code identification label
14 Gasket

33-43-03-991-002-a01-02

Runway turn-off light - Description (Sheet 2 of 2)
Figure 2/GRAPHIC-33-43-03-991-002-A01



33-43-03-991-003-a01-01

NOTE: All dimensions are given in mm (inches)

Runway turn-off light - Overall Dimensions
Figure 3/GRAPHIC-33-43-03-991-003-A01

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TESTING AND FAULT ISOLATION

TASK 33-43-03-700-801-A01

1. RUNWAY TURN-OFF LIGHT - TESTING

A. General

WARNING : OBEY ALL THE ELECTRICAL SAFETY PRECAUTIONS WHEN YOU DO WORK ON THE ELECTRICAL SYSTEM COMPONENT. IF YOU DO NOT THIS, YOU CAN CAUSE INJURIES TO PERSONS AND/OR DAMAGE TO EQUIPMENT.

(1) This Page Block deals with the tests and checks required to define the condition of the unit withdrawn from service. The general test procedure is defined in the FAULT ISOLATION Table, which for each test refers to a specific method specifying all parameters to be applied and those to be checked.

(2) All measurements are made with instruments of laboratory precision, the accuracy of which has been certified and is traceable to the french bureau of standards. The instruments used have the calibration date clearly displayed. Instrument error is accounted for in determining allowable limits of instrument reading.

(3) Alternative test equipment shall not be used unless it can be proven to be the equal or superior to that specified.

B. Reason for the job

(1) The test makes sure that the equipment is fully serviceable. Also, do the test if an equipment component or subassembly is replaced.

C. Job Set-Up Information

(1) Tools, fixtures and equipment

(a) The table below gives the tools, fixtures and equipment necessary to do the test of the runway turn-off light.

NOTE : Equivalent alternatives can be used for the listed items.

NOTE : Refer to SPECIAL TOOLS, FIXTURES, EQUIPMENT AND CONSUMABLE MATERIALS for more details.

P/N	QTY	NAME	SOURCE
No specific	1	115 V/400 Hz power supply	Local supply
No specific	1	28 ± 0.5 Vdc power supply	Local supply
No specific	1	150 VAC voltmeter	Local supply
No specific	1	Digital Ammeter (20 000 pts)	Local supply
No specific	1	Dielectric strength meter (for insulation measure)	Local supply
No specific	1	Megohmmeter	Local supply
No specific	1	Milliohmmeter (0-20 mΩ)	Local supply

Table 1001 / Tools, fixtures and equipment

(2) Consumables

– Not applicable.

(3) Test conditions

(a) Do all the tests under normal standard test laboratory ambient conditions:

Ambient temperature ..... 20 ± 5 °C (68 ± 9 °F).
Atmospheric pressure ..... 900 to 1100 mbar (13.05 to 15.95 psi)
Relative humidity ..... ≤ 85 %

D. Operation test

(1) Test set-up data

(a) Do a test set-up as shown in Fig. 1001.

(b) Connect an digital ammeter and a AC power supply between the pins A and B of the receptacle connector.

(2) Procedure

	ACTION	RESULT
1	Apply 115 VAC ± 0,5 V between the two contacts of the receptacle connector.	Make sure the runway turn-off light comes on.
2	Disconnect and re-connect the circuit.	
3	Measure the amperage with the digital ammeter.	Make sure the current value is ≤ 2 A.
4	Switch off the AC power supply.	

E. Insulation resistance test

WARNING : INSULATION TESTS MUST BE PERFORMED EXACTLY AS SPECIFIED. IN PARTICULAR, THE APPLIED INSULATION TEST VOLTAGE MUST NEVER BE MORE THAN THE SPECIFIED VALUE.

NOTE : This test must be done with the lamp removed.

(1) Test set-up data

(a) Do a test set-up as shown in Fig. 1001.

(b) Connect a megohmmeter between the connector contacts and a position on the optic support.

(2) Procedure

	ACTION	RESULT
1	Apply a voltage of 500 VDC between the connector pins connected together and the ground, for a minimum time period of 5 seconds.	Make sure the insulation resistance value is ≥ 100 MΩ.

F. Bonding resistance test

(1) Test set-up data

(a) Do a test set-up as shown in Fig. 1001.

(b) Connect a milliohmmeter 0 to 20 mΩ.

(2) Procedure

	ACTION	RESULT
1	Measure the ground circuit continuity from a position on the optic support and the ground terminal.	The value must be ≤ 20 mΩ.

G. Substitute Halogen Lamp P/N 4394909 test

(1) Test set-up data

(a) Apply a voltage of 28 ± 0.5 Vdc on the terminals of the Lamp .

(2) Procedure

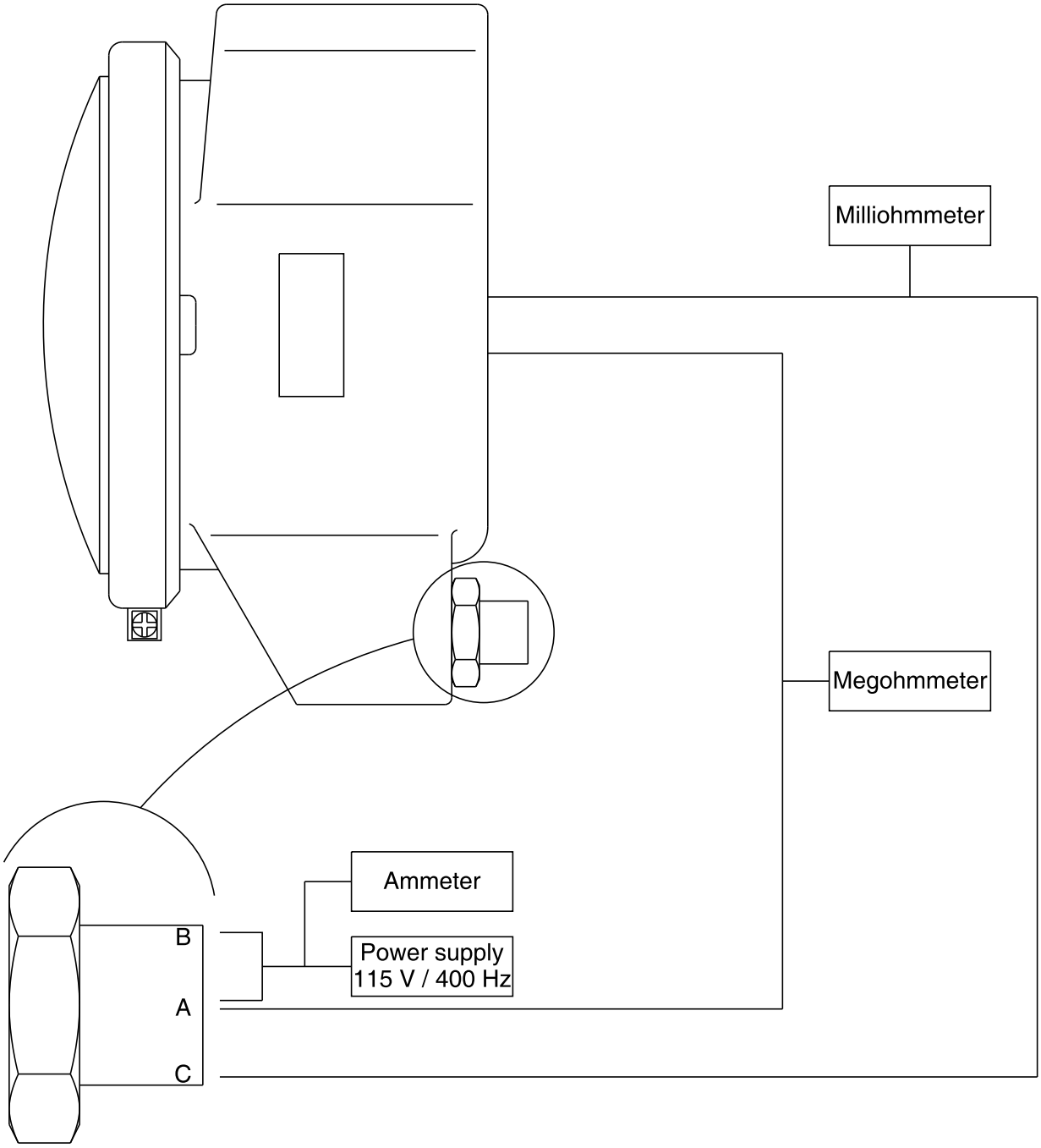
	ACTION	RESULT
1	Measure the amperage with the digital ammeter.	The value must be ≤ 6 A.

TASK 33-43-03-810-801-A01

2. RUNWAY TURN-OFF LIGHT - FAULT ISOLATION

FAULT	PROBABLE CAUSE	CORRECTION
The lamp does not come on	No main supply	Make sure the power supply is available and put it on again
	Transformer blown or broken winding	Replace the defective autotransformer
	Supply wires broken	Make the wires shorter to repair the connection
	Filament of the lamp blown out or cut, or lamp broken	Replace the lamp
The lamp comes on intermittently	Lug attachment screws untightened	Tighten the lug screws
	Lugs oxidized or badly crimped	Clean the lugs with emery cloth or crimp lugs correctly
Defective insulation	Worn, moist parts	Examine the defective parts and replace them

Table 1002 / Fault isolation



33-43-03-991-101-a01

Runway turn-off light - Electrical Tests
Figure 1001/GRAPHIC-33-43-03-991-101-A01

SCHEMATIC AND WIRING DIAGRAMS

TASK 33-43-03-991-801-A01

1. RUNWAY TURN-OFF LIGHT - SCHEMATIC DIAGRAM

(Refer to Fig. 2001)

PIN	NAME
A	115 V/400 Hz (Runway turn-off light) - 2 A maxi
B	Return
C	Case Ground

Table 2001 / Runway turn-off light - Connector Pins Allocation

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TASK 33-43-03-991-802-A01

2. RUNWAY TURN-OFF LIGHT - WIRING DIAGRAM

A. PRE SB 8000281Y00-33-001 and 8000306Y00-33-001.

(Refer to Fig. 2002 SHEET 1)

ITEM	DESCRIPTION – P/N	LENGTH mm (in)	COLOR	CONNECTION	QTY
1	Wire electrical 1900A AWG20-4 (3101196)	120 (4.724)	Yellow-Green	Pin C → Optic Support	1
2	Terminal lug (3040409)	-	Grey	-	5
3	Wire electrical 1900A AWG20-3 (3040037)	100 (3.937)	Orange	Pin B → Equipped autotransformer	1
4	Insulation sleeving (3069384)	10 (0.394)	Transparent	-	4
5	Wire electrical	65 (2.559)	Orange	Equipped autotransformer → Pin B	1
6	Wire electrical	110 (4.330)	Red	Equipped autotransformer → Lamp	1
7	Terminal lug (3040103)	-	White	-	2
8	Wire electrical	110 (4.330)	White	Equipped autotransformer → Lamp unit	1
9	Wire electrical	65 (2.559)	Yellow	Equipped autotransformer → Pin A	1
10	Wire electrical 1900A AWG20-4 (3040037)	100 (3.937)	Yellow	Pin A → Equipped autotransformer	1

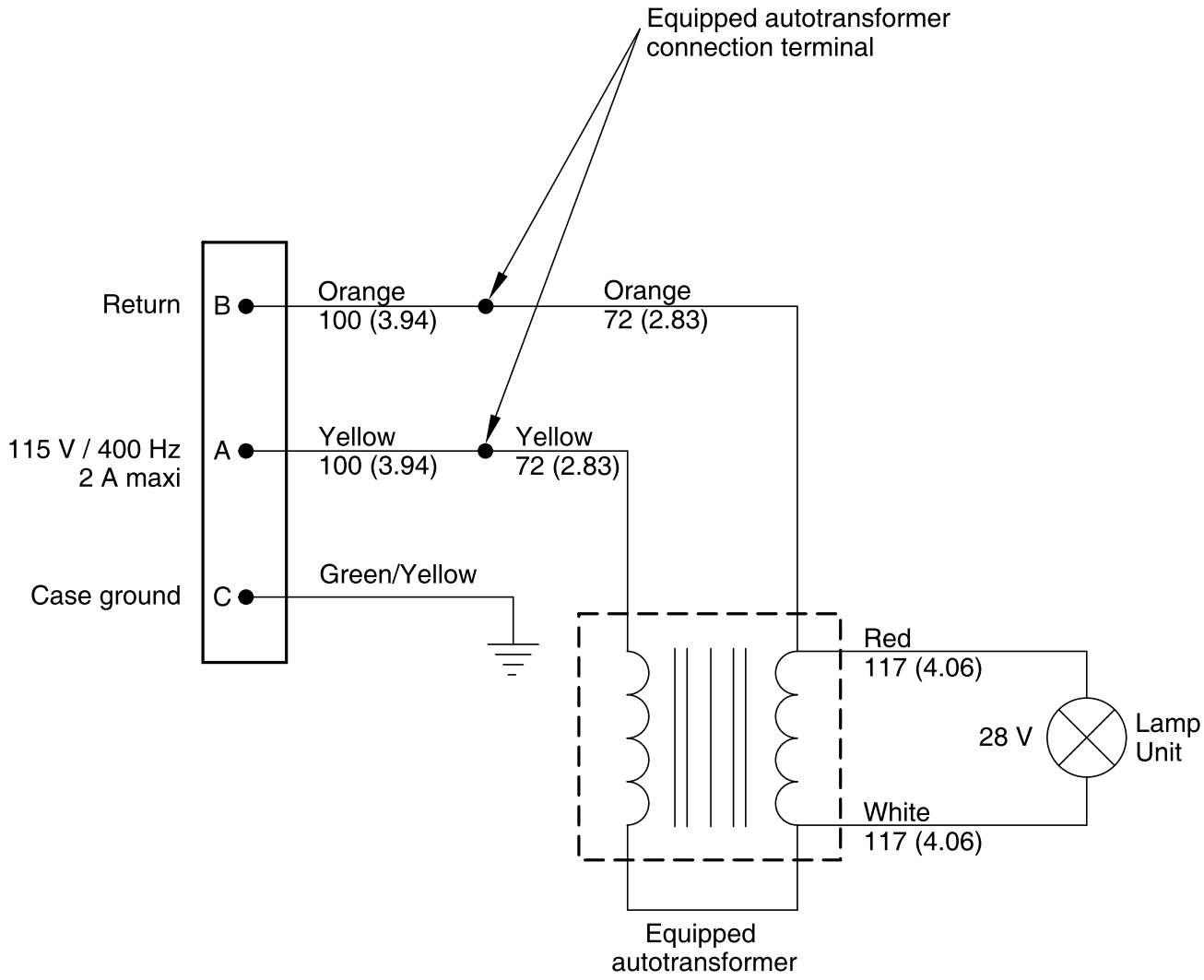
Table 2002 / Wiring diagram

B. POST SB 8000281Y00-33-001 and 8000306Y00-33-001.

(Refer to Fig. 2002 SHEET 2)

ITEM	DESCRIPTION – P/N	LENGTH mm (in)	COLOR	CONNECTION	QTY
11	Wire electrical 1900A AWG20-4 (3101196)	120 (4,724)	Yellow-Green	Pin C → Optic Support	1
12	Terminal lug (3040409)	-	Grey	-	3
13	Insulation sleeving (3069384)	10 (0.394)	Transparent	-	3
14	Wire electrical	82 (3.22)	Orange	Equipped autotransformer → Pin B	1
15	Wire electrical	117 (4.06)	Red	Equipped autotransformer → Lamp	1
16	Wire electrical	117 (4.06)	White	Equipped autotransformer → Lamp unit	1
17	Wire electrical	82 (3.22)	Yellow	Equipped autotransformer → Pin A	1

Table 2003 / Wiring diagram

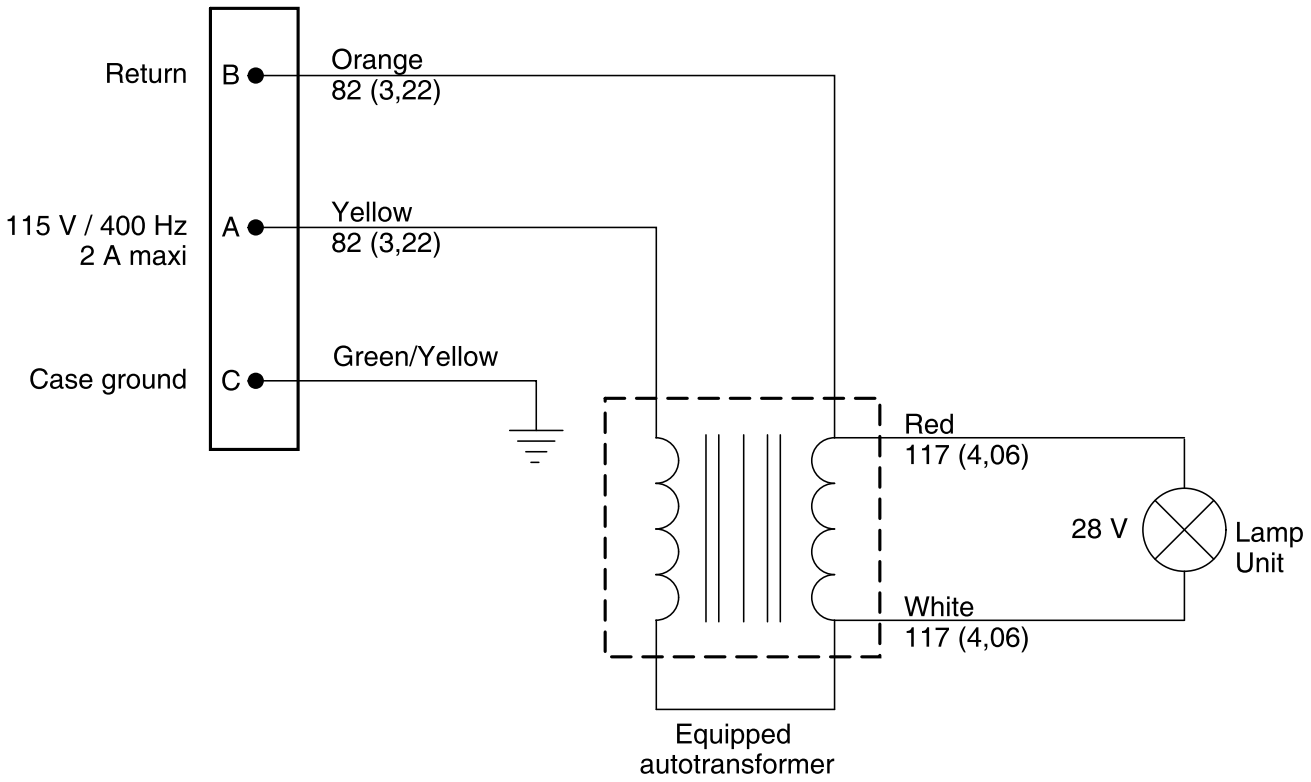


PRE SB 8000281Y00-33-001
and SB 8000306Y00-33-001

33-43-03-991-201-a01-1

NOTE: All dimensions are given in mm (inches)

Runway turn-off light - Schematic Diagram (Sheet 1 of 2)
Figure 2001/GRAPHIC-33-43-03-991-201-A01

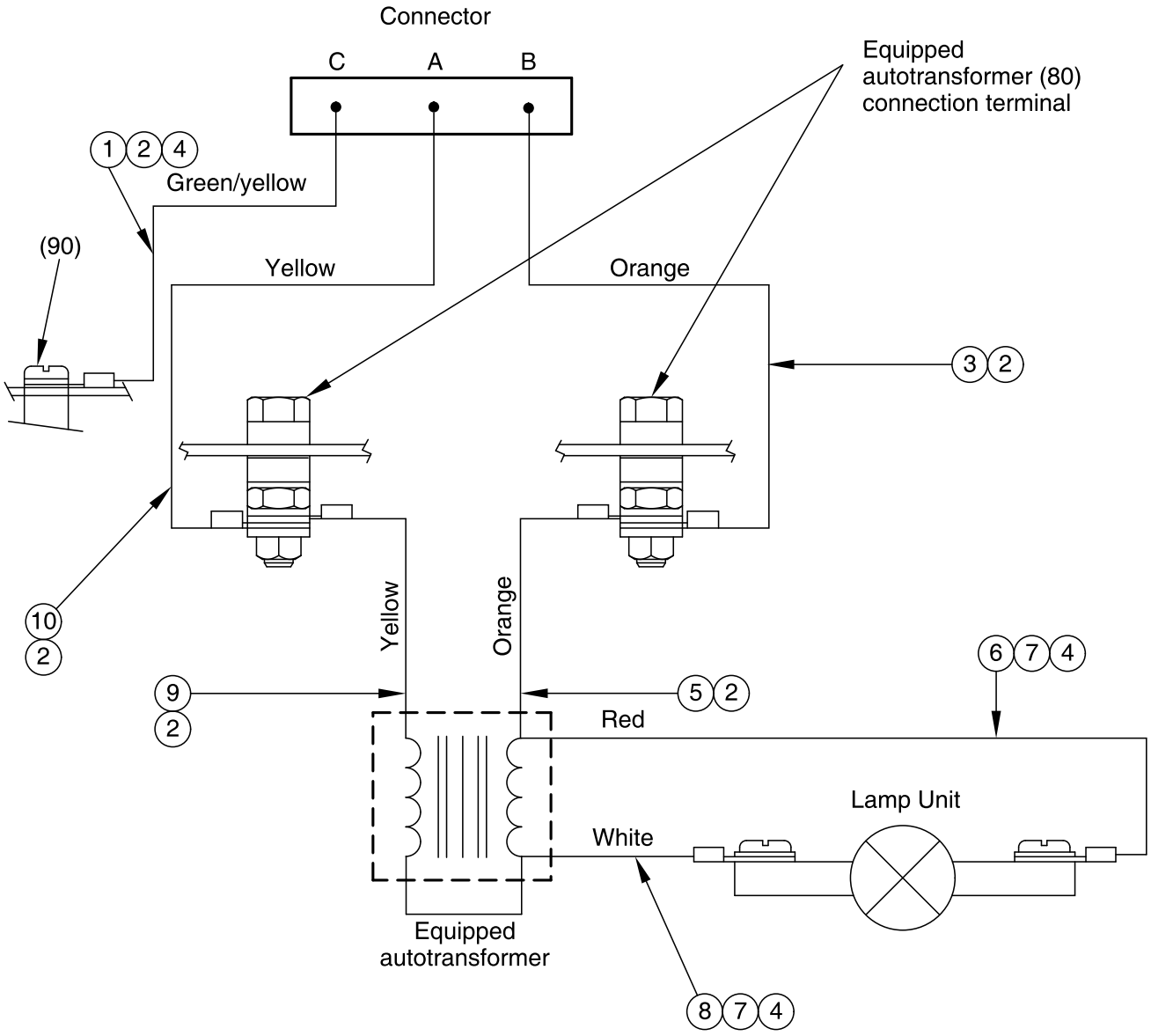


POST SB 8000281Y00-33-001
and SB 8000306Y00-33-001

33-43-03-991-201-a01-2

NOTE: All dimensions are given in mm (inches)

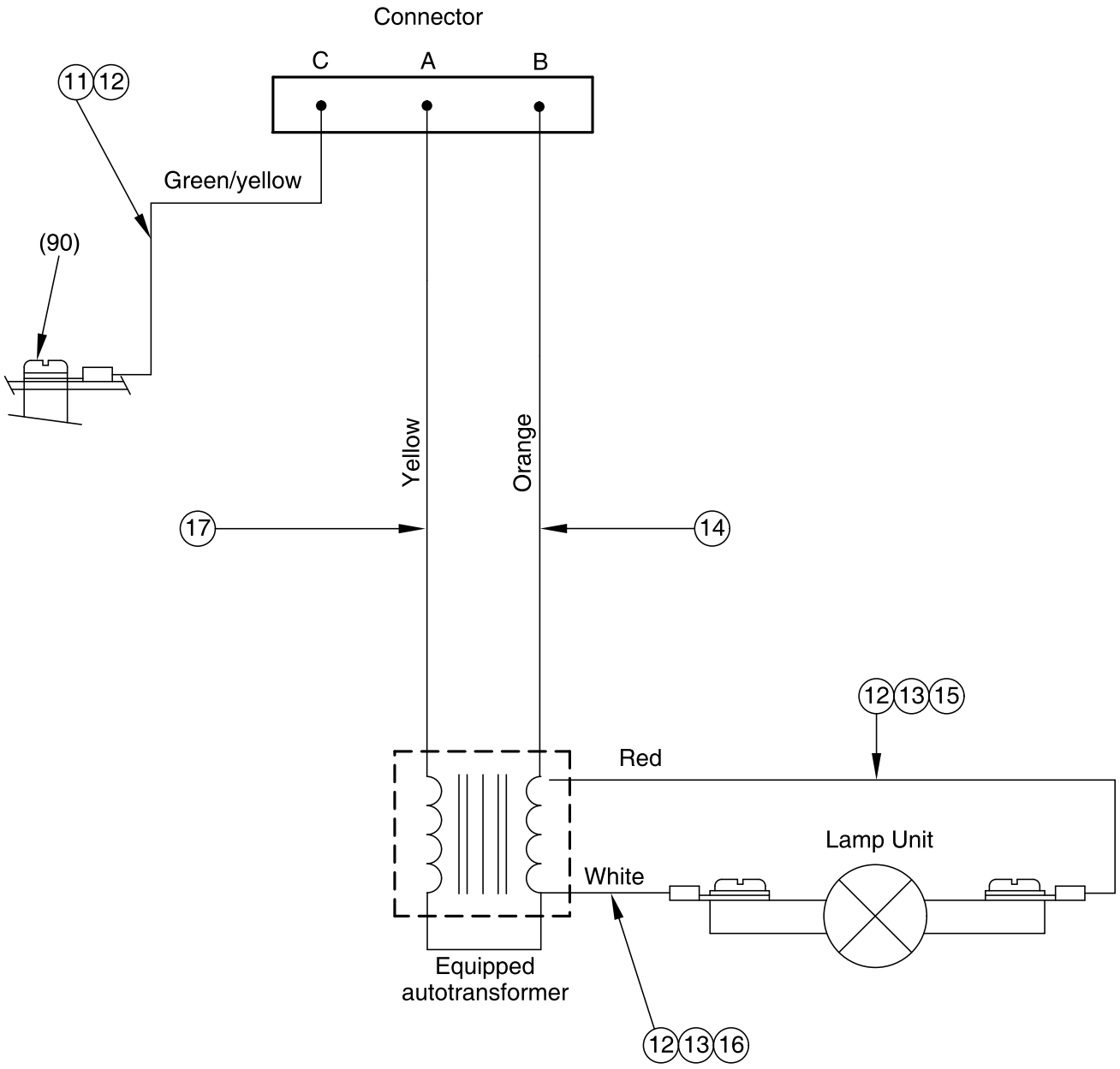
Runway turn-off light - Schematic Diagram (Sheet 2 of 2)
Figure 2001/GRAPHIC-33-43-03-991-201-A01



PRE SB 8000281Y00-33-001
and SB 8000306Y00-33-001

33-43-03-991-202-a01-1

Runway turn-off light - Wiring Diagram (Sheet 1 of 2)
Figure 2002/GRAPHIC-33-43-03-991-202-A01



POST SB 8000281Y00-33-001
and SB 8000306Y00-33-001

33-43-03-991-202-a01-2

Runway turn-off light - Wiring Diagram (Sheet 2 of 2)
Figure 2002/GRAPHIC-33-43-03-991-202-A01

DISASSEMBLY

TASK 33-43-03-000-801-A01

1. RUNWAY TURN-OFF LIGHT - DISASSEMBLY

A. General

NOTE : Refer to TESTING AND FAULT ISOLATION to establish the most probable cause of the malfunction in order to find the extent of disassembly.

NOTE : All items number between parenthesis ( ) are the same item numbers as used in the Illustrated Part List (IPL).

(1) Obey absolute cleanliness of workbench, tools and parts; protect all parts as they are removed and obey usual precautions regarding the correct use of tools.

B. Reason for the job

(1) Disassembly gives step-by-step instructions for a complete disassembly of a component in a logical sequence and to access any faulty sub-assembly and parts.

C. Job Set-Up Information

(1) The table below gives the tools, fixtures and equipment necessary to do the disassembly of the runway turn-off light.

NOTE : Equivalent alternatives can be used for the listed items.

NOTE : Refer to SPECIAL TOOLS, FIXTURES, EQUIPMENT AND CONSUMABLE MATERIALS for more details.

P/N	QTY	NAME	SOURCE
No specific	1	Mechanical standard tool kit	Local supply

Table 3001 / Special tools, fixtures and equipment

D. Procedure

CAUTION : DISCONNECT THE EQUIPMENT FROM POWER SUPPLIES OR TEST EQUIPMENT BEFORE DISASSEMBLY.

SUBTASK 33-43-03-050-001-A01

(1) Removal of the lamp or

(a) For incandescent lamp 4626 and PAR 36 LED lamp 252PF01AAY00

1 Remove the captive screw (1-20) and the washer (1-30).

2 Remove and keep the insulating washer (1-40).

3 Remove the equipped clamp (1-10).

4 Carefully, disengage the lamp (1-50) or (1-50B) from the optic support (1-230).

5 Remove the screws to disconnect the two terminal lugs (1-178) (WHITE and RED electrical power supply wires) from the terminals of the lamp (1-50) or (1-50B) (Refer to Fig. 2002).

6 Remove the lamp (1-50) or (1-50B).

7 Remove and discard the gasket (1-60).

(b) For Substitute Halogen Lamp (SHL) 4394909

1 Remove the captive screw (1-20) and the washer (1-30).

2 Remove the equipped clamp (1-10).

3 Carrefully, disengage the SHL (1-50A) from the optic support (1-230).

4 Remove the two screws (2-70) and two washers (2-60) to disconnect the two terminal lugs (1-178) (WHITE and RED electrical power supply wires) from the terminals of the SHL (1-50A), (Refer to Fig. 2002).

5 Remove the SHL (1-50A)

6 Disassembly of the SHL (1-50A):

CAUTION : DO NOT PULL AWAY THE TWO GASKET COMPONENTS WHICH ARE BONDED ON THE MIRROR (2-50) AND ON THE LENS (2-10).

a If necessary, remove the equipped lens (2-10) from the equipped mirror (2-50).

b If necessary, remove the two screws (2-30) and two washers (2-40).

c If necessary, remove the equipped bulb (2-20) from the equipped mirror (2-50).

7 Remove and discard the gasket (1-60).

SUBTASK 33-43-03-050-002-A01

(2) Removal of the optic support (1-230) assembly

(a) Remove the lamp unit (1-50) .

(b) Remove the attachment nut of the receptacle connector (1-70). Extract the receptacle connector (1-70) to the inner side of optic support (1-230).

(c) Remove the two screws (1-90) and the flat washers (1-100).

(d) Disengage the terminal lugs (1-195).

(e) Remove the autotransformer (1-80) and the receptacle connector (1-70).

(f) If necessary, remove the plates (1-210), (1-220) or (1-225). (Refer to SUBTASK 33-43-03-380-002-A01)

(g) Remove the optic support (1-230).

SUBTASK 33-43-03-050-003-A01

(3) Removal of the equipped autotransformer (1-80)

(a) Remove the optic support (1-230),
(Refer to SUBTASK 33-43-03-050-002-A01).

(b) Disconnect the electrical wires between the autotransformer (1-80) and the receptacle connector (1-70):

(c) Pre amendment A

1 Remove the self-locking nuts (1-110).

2 Remove the nuts (1-120) and the flat washers (1-130).

3 Remove the insulator washers (1-140).

4 Disengage the terminal lugs (1-175) and (1-195).

5 Remove the screws (1-170).

6 Remove the insulator bushings (1-150).

(d) Post amendment A

1 Pre SB 8000281Y00-33-001 and 8000306Y00-33-01.

a Remove the self-locking nuts (1-110).

b Remove the flat washers (1-115).

c Disengage the terminal lugs (1-175) and (1-195).

d Remove the other flat washers (1-115).

e Remove the nuts (1-120) and the flat washers (1-130).

f Remove the insulator washers (1-140).

g Remove the screws (1-170).

h Remove the insulator bushings (1-150).

2 Post SB 8000281Y00-33-001 and 8000306Y00-33-01.

a Unsolder the ORANGE and the YELLOW electrical wires from the receptacle connector (1-70).

(e) Remove the receptacle connector (1-70).

(f) Remove the equipped autotransformer (1-80).

NOTE : The equipped autotransformer (1-80) is bonded into the optic support.

CLEANING

TASK 33-43-03-100-801-A01

1. RUNWAY TURN-OFF LIGHT - CLEANING

A. General

WARNING : DO NOT GET CLEANING AGENTS ON YOUR SKIN, IN YOUR EYES OR NEAR A FLAM. DO NOT BREATHE THE FUMES. USE ONLY CLEANING AGENTS IN AN AREA WITH A GOOD FLOW OF AIR. OBEY LOCAL SAFETY AND HEALTH INSTRUCTION. CLEANING AGENTS ARE POISONOUS AND FLAMMABLE.

CAUTION : USE ONLY SPECIFIED CLEANING MATERIALS AND SOLUTIONS, OR THEIR EQUIVALENTS TO PREVENT DAMAGE TO THE PARTS.

NOTE : All items number between parenthesis ( ) are the item numbers used in the Illustrated Part List (IPL).

(1) After removal or repair, clean all parts of the unit as specified in the subsequent paragraphs.

(2) If necessary, remove and discard all seals.

(3) If you do not examine the cleaned parts immediately, apply a layer of an anti-corrosion material to protect the parts from damage and corrosion.

B. Reason for the job

(1) This section gives the procedure for cleaning the unit externally and internally. Do all the work with clean workbench, tools and parts. After cleaning, put all items in sealed containers to prevent contamination by dust or unwanted materials.

C. Job Set-Up Information

(1) Tools, fixtures and equipment

(a) The table below gives the tools, fixtures and equipment to do the maintenance of the runway turn-off light.

NOTE : Equivalent alternatives can be used for the listed items.

NOTE : Refer to SPECIAL TOOLS, FIXTURES, EQUIPMENT AND CONSUMABLE MATERIALS for more details.

QTY	NAME	SOURCE
1	Dry compressed air supply source	Local supply
No specific	Cloth (lint-free)	Local supply
No specific	Emery cloth (Natural bristal)	Local supply

Table 4001 / Tools, fixtures and equipment

(2) Consumables

(a) The table below gives the consumables to do the maintenance of the runway turn-off light.

NOTE : Equivalent alternatives can be used for the listed items.

NOTE : Refer to SPECIAL TOOLS, FIXTURES, EQUIPMENT AND CONSUMABLE MATERIALS for more details.

P/N	NAME	SOURCE
No specific	Solvent 60 SK FP	Local supply
No specific	White spirit	Local supply
No specific	Vinyl bag	Local supply

Table 4002 / Consumables

D. Procedure

SUBTASK 33-43-03-140-001-A01

(1) External cleaning

(a) Clean all external surfaces of the equipment (except for electrical parts) using a cloth (lint-free) lightly moist with Solvent 60 SK FP.

NOTE : Other cleaning solvents can be used, such as Solvent 60 SK FP except for electrical components.

(b) Clean the instruction plate (1-210), the amendment plate (1-220) and the bar code identification label (1-225) using a clean low-pressure air jet (dry compressed air supply source) or a clean and soft lint-free cloth.

(c) Loosen dust and unwanted material from the electrical parts (connector pins) by using a clean low-pressure air jet (dry compressed air supply source) or a clean and soft lint-free cloth.

(d) Remove all bonding agent material from the optic support (1-230) if the gasket (1-60) has to be replaced.

SUBTASK 33-43-03-140-002-A01

(2) Internal cleaning

(a) Clean the equipped autotransformer (1-80) and the electrical receptacle connector (1-70) with low-pressure air jet only (dry compressed air supply source).

(b) Clean all the threads in which screws were locked using a cloth (lint-free) lightly moist with Solvent 60 SK FP and dry them with a low-pressure air jet (dry compressed air supply source).

(c) Clean all the lamp terminals fully and remove the corrosion from the terminal lugs with emery cloth.

(d) To clean the attaching parts, put them into a White spirit solution and dry them with a low-pressure air jet (dry compressed air supply source).

(e) Put the cleaned parts in a vinyl bag to keep them away from unwanted particles. Keep the parts in a clean area until they are used.

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CHECK

TASK 33-43-03-200-801-A01

1. RUNWAY TURN-OFF LIGHT - CHECK

A. General

CAUTION : THE VISUAL CHECK OF THE COMPONENTS MUST BE DONE BEFORE YOU ASSEMBLE THE UNIT.

NOTE : All items number between parenthesis ( ) are the item numbers used in the Illustrated Part List (IPL).

(1) The Check procedure applies also to new components.

B. Reason for the job

(1) The visual check that follows is to find presence of visible damage or corrosion. It will not check the functionality of the runway turn-off light. To make sure that the runway turn-off light operates correctly, do the tests of Page Block “TESTING AND FAULT ISOLATION“ (Refer to TESTING AND FAULT ISOLATION).

C. Job set-up Information

– Not applicable.

D. Procedure

SUBTASK 33-43-03-220-001-A01

(1) Visual inspection

CAUTION : REPLACE SYSTEMATICALLY ALL DEFECTIVE PARTS.

(a) Examine the aspect and the protection of all the parts. Do a check on the good condition of the anticorrosion protection layers (cadmium plating, dichromating, etc.).

(b) For cadmium dichromate plating, do a check to make sure that the layer is constant, fine grained and does not show cracking.

(c) Examine the general condition of the assembled parts, to find the possible causes of all damage other than usual wear.

(d) Examine the condition of the threads and tapped holes.

(e) Examine the condition of the terminal studs (deformation, oxidation...).

(f) Examine the condition of the optic support (1-230).

1 Make sure that the protection of the two holes is in a good condition.

(g) Examine the condition of the equipped clamp (1-10).

(h) Examine the condition of the lamp (1-50).

(i) Examine the condition of the equipped autotransformer (1-80).

(j) Examine the condition of the receptacle connector (1-70).

(k) Examine the condition of the gasket (1-60).

SUBTASK 33-43-03-220-002-A01

(2) Inspection of the electrical components

(a) Make sure that the lamp glass or the deflector glass has no scratches.

(b) Make sure that there is no unsticking of the reflector of SHL.

(c) Do a check on equipped autotransformer (1-80) as follows:

1 Do the test set-up as shown in figure 1001.

2 Supply the autotransformer with 115 VAC ± 0,5 V / 400 Hz.

3 Make sure that the voltmeter reading is equal to 28 V / 400 Hz.

4 Make sure that the ammeter reading is 2 A maxi.

5 Make sure that the autotransformer not becomes too hot during operation.

SUBTASK 33-43-03-220-003-A01

(3) Dimensional check

(a) Check all parts for correct dimensions (Refer to Fig. 3).

SUBTASK 33-43-03-220-004-A01

(4) weight check

(a) Do a check of the equipment for the correct weight,
Refer to chapter DESCRIPTION AND OPERATION .

REPAIR

TASK 33-43-03-300-801-A01

1. RUNWAY TURN-OFF LIGHT - REPAIR

A. General

WARNING : MAKE SURE THAT YOU OBEY ALL THE HEALTH AND SAFETY PRECAUTIONS OF THE MANUFACTURER'S FOR MATERIALS

NOTE : All items number between parenthesis ( ) are the items numbers used in the Illustrated Part List (IPL).

(1) Discard all defective parts for which no repair directions are given and replace them by new parts.

B. Reason for the Job

(1) Use this procedure to protect the bonding areas or to repair the anodic coating of aluminium alloy components where the surface protection is damaged or removed.

(2) This section gives the full description of the procedures for the repair and overhaul of worn or damaged parts.

C. Job Set-Up Information

(1) Tools, fixtures and equipment

(a) The table below gives the tools, fixtures and equipment to do the maintenance of the runway turn-off light.

NOTE : Equivalent alternatives can be used for the listed items.

NOTE : Refer to SPECIAL TOOLS, FIXTURES, EQUIPMENT AND CONSUMABLE MATERIALS for more details.

P/N	QTY	NAME	SOURCE
No specific	1	Crimping tool	Local supply

Table 6001 / Tools, fixtures and equipment

(2) Consumables

(a) The table below gives the consumables to do the maintenance of the runway turn-off light.

NOTE : Equivalent alternatives can be used for the listed items.

NOTE : Refer to SPECIAL TOOLS, FIXTURES, EQUIPMENT AND CONSUMABLE MATERIALS for more details.

D. Procedure

CAUTION : DISCONNECT THE EQUIPMENT FROM POWER SUPPLIES OR TEST EQUIPMENT.

SUBTASK 33-43-03-380-001-A01

(1) Replacement of the terminal lugs

(a) Removal of the terminal lug

1 Cut the wire at the back of the faulty terminal lug.

(b) Installation of the terminal lug

1 Remove the insulation from the end of the electrical wire over 6 mm (0.236 in).

2 Crimp the new terminal lug on the electrical wire with Crimping tool.

SUBTASK 33-43-03-380-002-A01

(2) Replacement of the plates

(a) Removal of the plates

CAUTION : BEFORE REMOVAL OF THE PLATES, MOVE THE APPLICABLE DATA FROM THE REMOVED PLATE TO THE REPLACEMENT PLATE.

1 Remove the instruction plate (1-210), the amendment plate (1-220) or the bar code plate (1-225) from the optic support (1-230).

2 Remove all traces of adhesive that stay on the optic support (1-230).

3 Clean the applicable area..

(b) Installation of the amendment plate

1 Install the self-adhesive amendment plate (1-220) on the optic support (1-230).

(c) Installation of the instruction plate or bar code plate

1 Install the new plate (1-210) or (1-225) on the optic support (1-230).

2 Let air dry.

SUBTASK 33-43-03-380-003-A01

(3) Repair of the receptacle connector

(a) Pre SB 8000281Y00-33-001 and 8000306Y00-33-001.

1 Remove a 6 mm (0.236 in) length of insulation from the end of each wire.

2 Use the applicable tool to crimp connector pins on electrical wires. (Refer to Fig. 2002)

(b) Post SB 8000281Y00-33-001 and 8000306Y00-33-001.

1 Remove a 6 mm (0.236 in) length of insulation from the end of each wire.

2 Crimp the electrical wire to pin C of the receptacle connector (1-70).

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ASSEMBLY

TASK 33-43-03-400-801-A01

1. RUNWAY TURN-OFF LIGHT – ASSEMBLY

A. General

CAUTION : DO THE ASSEMBLY ON A CLEAN WORKBENCH IN A SPACE FREE FROM DUST AND MOISTURE. PARTS SHALL BE PROTECTED FROM IMPACT DAMAGE.

CAUTION : MAKE SURE THAT ALL THE COMPONENTS ARE CLEAN BEFORE ASSEMBLY.

NOTE : All items number between parenthesis ( ) are the same item numbers as used in the Illustrated Part List (IPL).

(1) Examine the parts to make sure they are serviceable and have the correct part number. Make sure the parts are clean and there is no preservation material remaining.

(2) Before starting the assembly procedures, (Refer to CLEANING) and (Refer to INSPECTION/CHECK).

B. Reason for the job

(1) This section gives the procedures for the full assembly of the runway turn-off light.

C. Job Set-Up Information

(1) Tools, fixtures and equipment

(a) The table below gives the tools, fixtures and equipment to do the maintenance of the runway turn-off light.

NOTE : Equivalent alternatives can be used for the listed items.

NOTE : Refer to SPECIAL TOOLS, FIXTURES, EQUIPMENT AND CONSUMABLE MATERIALS for more details.

QTY	NAME	SOURCE
1	Mechanic standard tool kit	Local supply
1	Dry compressed air supply source	Local supply
1	Cloth (lint-free)	Local supply

Table 7001 / Tools, fixtures and equipment

(2) Consumables

(a) The table below gives the consumables to do the maintenance of the runway turn-off light.

NOTE : Equivalent alternatives can be used for the listed items.

NOTE : Refer to SPECIAL TOOLS, FIXTURES, EQUIPMENT AND CONSUMABLE MATERIALS for more details.

CODE	P/N	NAME	SOURCE
C11	3084082	LOCTITE 222	F7121
C19	3068448	SILASTIC RTV 734	71984

Table 7002 / Consumables

D. Procedure

SUBTASK 33-43-03-440-001-A01

(1) Assembly of the optic support (1-230)

(a) If necessary, install the instruction plate (1-210), the amendment plate (1-220) or the bar code plate (1-225). .

SUBTASK 33-43-03-460-002-A01

(2) Installation of equipped autotransformer (1-80) and receptacle connector (1-70)

(a) Connect the electrical wire between the equipped autotransformer (1-80) and the receptacle connector (1-70):

a Pre amendment A

b Install opposite each insulator bushing (1-150).

c Install the screws (1-170).

d Install the insulator washers (1-140).

e Install the flat washers (1-130) and the nuts (1-120).

f Tighten nuts (1-120) and torque to 1,5 N.m (13.393 lbf.in).

g If necessary, replace the terminal lugs (1-175) or (1-195).

h Refer to the wiring diagram to make the electrical connection between equipped autotransformer (1-80) and receptacle connector (1-70) (Refer to Fig. 2002).

i Install the terminal lug (1-195) (orange wire) and the terminal lug (1-175) (orange wire) on one screw (1-170).

j Install the terminal lug (1-195) (yellow wire) and the terminal lug (1-175) (yellow wire) on the other screw (1-170).

k Install the nuts (1-110).

l Torque the nuts (1-110) to 1,5 N.m (13.393 lbf.in).

m Post amendment A.

- Pre SB 8000281Y00-33-001 and 8000306Y00-33-001.

. Install opposite each insulator bushings (1-150).

. Install the screws (1-170).

. Install the insulator washers (1-140).

. Install the flat washers (1-130) and the nuts (1-120).

. Tighten nuts (1-120) and torque to 2,5 N.m (22.13 lbf.in).

. Install two flat washers (1-115) on each screw (1-170).

. Refer to the wiring diagram to make the electrical connection between the equipped autotransformer (1-80) and the receptacle connector (1-70) (Refer to Fig. 2002).

. If necessary, replace the terminal lugs (1-175) or (1-195).

. Install the terminal lug (1-195) (orange wire) and the terminal lug (1-175) (orange wire) on the screw (1-170).

. Install the terminal lug (1-195) (yellow wire) and the terminal lug (1-175) (yellow wire) on the other screw (1-170).

. Install nuts (1-110) on screws (1-170).

. Tighten nuts (1-110).

. Torque the nuts (1-110) to 1,5 N.m (13.393 lbf.in).

- Post SB 8000281Y00-33-001 and 8000306Y00-33-001.

. Crimp the YELLOW electrical wire of the equipped autotransformer (1-80) to the pin A of the receptacle connector (1-70) (Refer to Fig. 2002).

. Crimp the ORANGE electrical wire of the equipped autotransformer (1-80) to the pin B of the receptacle connector (1-70) (Refer to Fig. 2002).

(b) Install the equipped autotransformer (1-80) and the receptacle connector (1-70) assembly in the optic support (1-230), as follows:

1 Install the equipped autotransformer (1-80) and the receptacle connector (1-70) in their locations at the bottom of the optic support (1-230). (Refer to Fig. 2 SHEET 1 and Fig. 2 SHEET 2).

2 Secure the autotransformer (1-80) with the two screws (1-90A) (Post SB 8000281-33-004, 8000306-33-004 and 4236534-33-005) and the two flat washers (1-100).

3 Attach the terminal lug (1-195) (yellow/green electrical wire) to one of the screws (1-90A) (Refer to Fig. 2002).

4 Make sure that the receptacle connector (1-70) is correctly installed in its recess, apply a layer of the compound C11 on its threads, and tighten its attachment nut.

SUBTASK 33-43-03-460-003-A01

(3) Installation of the equipped autotransformer (1-80)/ receptacle connector (1-70) assembly in optic support (1-230).

(a) Install the equipped autotransformer (1-80) and the receptacle connector (1-70) in its location at the bottom of the optic support (1-230).

(b) Secure the autotransformer (1-80) with the two screws (1-90) and the two flat washers (1-100). Attach the terminal lug (1-195) (yellow/green electrical wire) to one of the screws (Refer to Fig. 2002).

(c) Make sure that the receptacle connector (1-70) is correctly installed in its recess, apply a layer of LOCTITE 222 on its threads, and tighten its attachment nut.

SUBTASK 33-43-03-460-004-A01

(4) Installation of the lamp

(a) For incandescent lamp 4626 and PAR 36 LED lamp 252PF01AAY00

1 Apply a layer of the compound C19 to the applicable surfaces to bond a new gasket (1-60) to the optic support (1-230).

2 Put the gasket (1-60) in correct position in the optic support (1-230) (Refer to Fig. 7001).

3 If necessary, replace the terminal lugs (1-178), (Refer to SUBTASK 33-43-03-380-001-A01)

4 Attach the two lugs (1-178) (white and red electrical power supply wires) to the terminals on lamp (1-50) or (1-50B) (Refer to Fig. 2002).

5 Hold the gasket (1-60) in correct position and install the lamp (1-50) or (1-50B) in the optic support (1-230).

6 Install the equipped clamp (1-10), with the chamfer placed on the sealed beam side and the brackets facing down, on the optic support (1-230) to secure sealed beam.

NOTE : If the equipped clamp (1-10) is twisted, replace it with a new one.

7 Compress the equipped clamp (1-10) by hands to move the two brackets closer to each other and install the flat washer (1-30), the insulating washer (1-40) and the screw (1-20) with a cross-tip screwdriver.

8 Tighten the screw (1-20) two turns, without visibly twisting the two brackets.

(b) For Substitute Halogen Lamp (SHL) 4394909

1 Apply a layer of the compound C19 to the applicable surfaces to bond a new gasket (1-60) to the optic support (1-230).

2 Put the gasket (1-60) in correct position in the optic support (1-230) (Refer to Fig. 7001).

CAUTION : INSTALL THE BULB (2-20) ON THE EQUIPPED MIRROR (2-50) WITH THE PINCH SEAL END UPWARDS .

CAUTION : USE GLOVES TO TOUCH THE BULB (2-20).

3 If necessary, install the equipped bulb (2-20) on the equipped mirror (2-50) with two washers (2-40) and two screws (2-30).

4 Tighten the screws (2-30) and apply an additional quarter of turn after contact.

5 If touched with fingers, clean the equipped bulb (2-20) and the equipped mirror (2-50) with a moist lint-free cloth. Dry with low pressure compressed air.

6 Put the equipped lens (2-10) on the equipped mirror (2-50).

7 If necessary, replace the terminal lugs (1-178). (Refer to SUBTASK 33-43-03-380-001-A01)

8 Attach the two lugs (1-178) (white and red electrical power supply wires) to the terminals on SHL (1-50) with two washers (2-60) and two screws (2-70) (Refer to Fig. 2002).

9 Install the screws (2-70).

10 Torque to 1 N.m (8.85 lbf.in).

11 Align the SHL locator with the gasket locator to install the SHL (1-50A) on the optic support (1-230).

12 Install the equipped clamp (1-10), with the chamfer placed behind the SHL (1-50A) and the brackets facing down, on the optic support (1-230) to secure sealed beam.

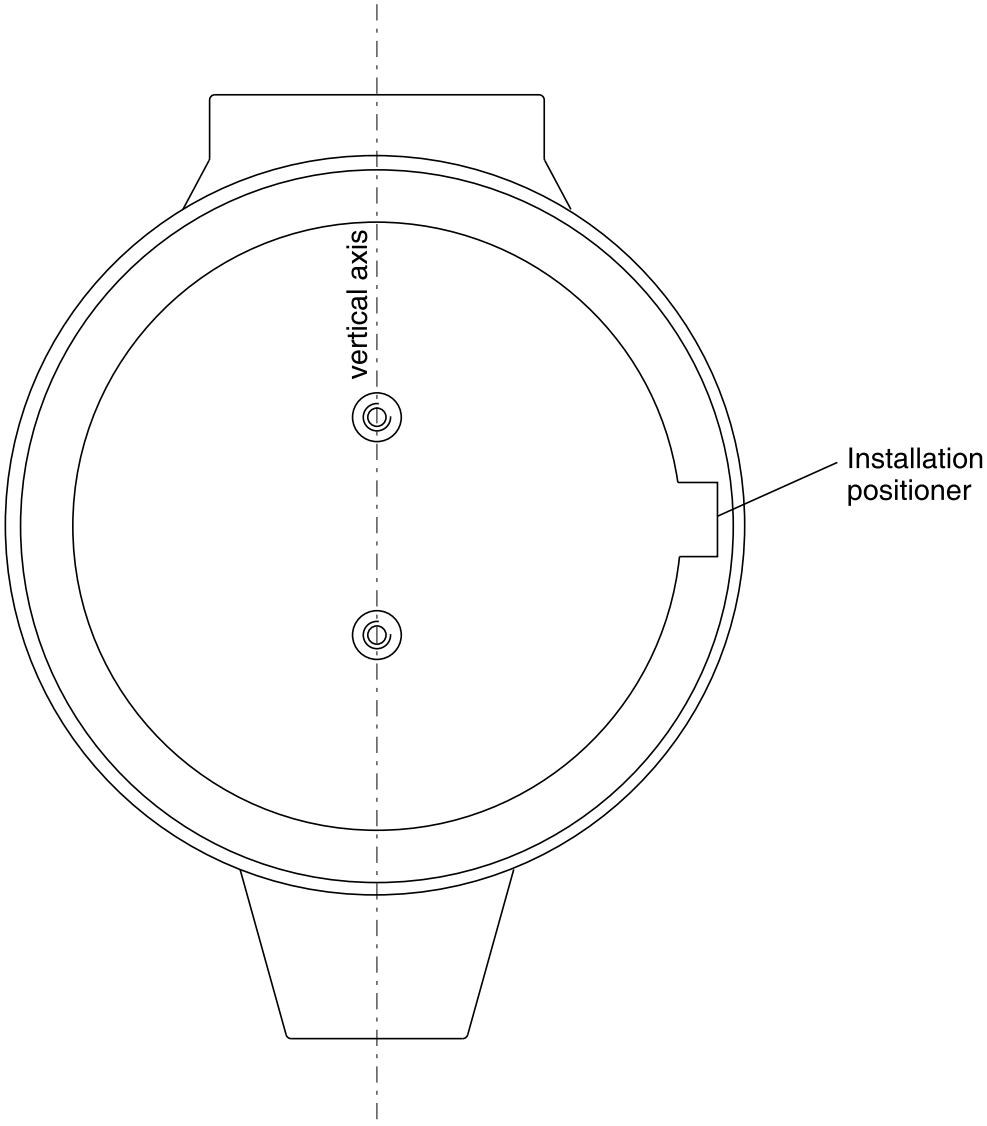
NOTE : If the equipped clamp (1-10) is twisted, replace it with a new one.

13 Compress the equipped clamp (1-10) by hands to move the two brackets closer to each other and install the flat washer (1-30) and the screw (1-20) with a cross-tip screwdriver.

14 Put a gage with a thickness of 8 mm +0/-0,2 (0.31 in 0/-0.008) between the two brackets of the clamp (1-10).

15 Tighten the screw (1-20) until the two brackets touch the gage, without visible distorsion.

16 Remove the gage.



33-43-03-991-701-a01

Installation of the gasket on the housing
Figure 7001/GRAPHIC-33-43-03-991-701-A01

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FITS AND CLEARANCES

TASK 33-43-03-992-801-A01

1. RUNWAY TURN-OFF LIGHT – FITS AND CLEARANCES
   A. Torque Values

      (1) This section gives the fits, clearances and torque values that are mandatory for unit assembly.

      NOTE : All items number between parenthesis ( ) are the item numbers used in the Illustrated Part List (IPL).

      (2) The table below gives the torque values necessary to assemble the components.

IPL FIG.No. AND ITEM	NOMENCLATURE	TORQUE	
(2-70)	SCREW	1 Nm	8.85 lbf.in
Before amendment A			
(1-110)	SELF-LOCKING NUT	1,5 Nm	13.28 lbf.in
(1-120)	NUT	1,5 Nm	13.28 lbf.in
Post amendment A			
(1-110)	SELF-LOCKING NUT	1,5 Nm	13.28 lbf.in
(1-120)	NUT	2,5 Nm	22.13 lbf.in

Table 8001 / TORQUE VALUES

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SPECIAL TOOLS, FIXTURES, EQUIPMENTS AND CONSUMABLE MATERIALS

TASK 33-43-03-940-801-A01

1. RUNWAY TURN-OFF LIGHT – SPECIAL TOOLS, FIXTURES, EQUIPMENTS AND CONSUMABLE MATERIALS

A. Special Tools

(1) The table below gives the special tools used to do the maintenance of the runway turn-off light.

NOTE : Equivalent alternatives can be used for the listed items.

PART NUMBER	DESIGNATION	SUPPLIERS CODE OR NAME AND ADDRESS	PAGE BLOCK WHERE USED
No specific	Mechanic standard tool kit	Local supply	7001
No specific	Dry compressed air supply source	Local supply	4001 / 7001
No specific	Crimping tool	Local supply	6001
No specific	Cloth (lint-free)	Local supply	4001 / 7001
No specific	Emery cloth	Local supply	4001

Table 9001 / Special Tools

B. Special Equipment

(1) The table below gives the special equipment used to do the maintenance of the runway turn-off light.

DESCRIPTION	RANGE	ACCURACY
Power supply	115 V/400 Hz	-
Power supply	28 ±0.5 Vdc	-
Voltmeter	150 VAC	-
Ammeter	5 A	-
Dielectric strength meter	-	-
Megohmmeter	-	-
Milliohmmeter	-	-

Table 9002 / Special Equipment

C. Consumables

(1) The table below gives the consumables used to do the maintenance of the runway turn-off light.

NOTE : Equivalent alternatives can be used for the listed items.

CODE	MATERIAL P/N	DESIGNATION AND SPECIFICATION	SUPPLIER'S CODE OR NAME AND ADDRESS	PAGE BLOCK WHERE USED
S01	-	Solvent 60 SK FP	Local purchase	4001
-	-	White spirit	Local purchase	4001
-	-	Vinyl bag	Local purchase	4001
-	-	Cement (for plates)	Local supply	6001
C11	3084082	LOCTITE 222	F7121	7001
C19	3068448	SILASTIC RTV 734	71984	7001
-	-	Polythene bag	Local supply	15001
-	-	Cardboard box	Local supply	15001
-	-	Cardboard or polystyrene	Local supply	15001
-	-	Adhesive tape	Local supply	15001
-	-	Desiccant	Local supply	15001
-	-	Transparent protection product	Local supply	15001

Table 9003 / Consumables

STORAGE AND TRANSPORTATION

TASK 33-43-03-550-801-A01

1. RUNWAY TURN-OFF LIGHT – STORAGE INSTRUCTIONS

A. General

(1) Reason for the job

(a) Storage Instructions give the procedures to use after assembly or testing, including any special requirements applicable to the component.

B. Job Set-Up Information

(1) Consumables

(a) The table below gives the consumables to do the maintenance of the component.

NOTE : Equivalent alternatives can be used for the listed items.

NOTE : Refer to SPECIAL TOOLS, FIXTURES, EQUIPMENT AND CONSUMABLE MATERIALS for more details.

P/N	NAME	SOURCE
No specific	Polythene bag	Local supply
No specific	Cardboard box	Local supply
No specific	Cardboard or polystyrene	Local supply
No specific	Adhesive tape	Local supply
DES1UNITE	Desiccant	Local supply
No specific	Transparent protection product	Local supply

C. Job Set-up

– Not applicable.

D. Procedure

SUBTASK 33-43-03-620-001-A01

(1) Preservation

(a) At the end of the test, put the unit in a polythene bag of 0,2 mm (0.008 in) minimum thickness. The bag must be large enough to seal correctly.

(b) Remove as much air as possible from the bag and then use heat to seal it.

(c) A bonded label identifies each container by:

- the manufacturer's part number,
- the serial number,
- the quantity,
- the amendments (as applicable),
- the manufacturer's name,
- the date of storage.

SUBTASK 33-43-03-630-001-A01

(2) Packing

(a) Put the component in its initial container. Use the initial material for the protection of the component. Use bags of desiccant as necessary.

(b) If the initial container is not available:

1 Refer to chapter DESCRIPTION AND OPERATION for the weight of the component.

2 Use a different container. Use only approved materials for the protection of the component.

3 Put the unit in a cardboard box with its related documents (check sheet, log. card).

4 Safety the unit and the document in the box (cardboard - polystyrene).

5 Close the packing box and make the seals stronger with adhesive tape.

6 Identify the packing with labels and protect them with a transparent material. Make sure that:

a The identification label has all the related data of the component.

b You can read the labels easily.

SUBTASK 33-43-03-640-001-A01

(3) Storage

CAUTION : MAKE SURE THAT THERE IS NOT TOO MUCH WEIGHT ON THE CONTAINER, IF YOU PUT THEM ON THE OTHERS. TOO MUCH WEIGHT ON THE CONTAINER CAN CAUSE DAMAGE TO THE COMPONENT.

CAUTION : DO NOT KEEP THE CONTAINER NEAR FLUIDS THAT CAN CAUSE CORROSION OR DAMAGE, AND DO NOT KEEP NEAR SOURCES THAT MAKE HEAT OR OZONE.

(a) Keep the container in a clean, clean surface with a good supply of air.

(b) Keep the temperature of the space between:
0 degree C and + 55 degree C (32 degree F to + 135 degree F).
The recommended temperature is at or near 15 degree C (59 degree F).

(c) Keep the relative humidity at between 25 and 65 %.

(d) Put the containers where you can clearly read the identification label.

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ILLUSTRATED PARTS LIST

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INTRODUCTION TO THE ILLUSTRATED PARTS LIST

TASK 33-43-03-990-802-A01

1. Introduction

A. General

(1) The purpose of this Illustrated Parts List is the identification of equipment assemblies, sub-assemblies, and parts.

(2) It is set up in conformance with the rules set forth in ATA 2200, revision 2000-1.

(3) From time to time, the illustrated nomenclature is revised so as to incorporate recent additions, cancellations and modifications in equipment. Revisions are indicated by a vertical bar on the right of each revised line, and apply solely to the date of revision.

B. Use of the IPL

(1) Publication format

(a) The IPL is arranged in the following order:

– Introduction, including the Vendor Code Index (VCI),
– Equipment Designator Index (EDI),
– Numerical Index (NI),
– Detailed Parts List (DPL)

(b) Equipment designator index

This index contains the relevant reference and diagrams for each circuit symbol, as well as the corresponding marker.

The equipment designator index is alphanumerical, and is arranged in the following order:

– dash,
– letters from A through Z,
– numerals from 0 through 9.

(c) Numerical index

This index contains all Part Numbers (PN) ever included in the Detailed Parts. The part number is followed by the applicable figure and item number / variant references.

The numerical index is alphanumerical, and is arranged in the following order:

– dash,
– letters from A through Z,
– numerals from 0 through 9.

(d) Vendor Code index

The vendor code index is alphanumerically arranged according to the manufacturer's code. This list includes the names and addresses of all manufacturers cited in the detailed nomenclature.

(2) Identification of a component part

There are several different ways to identify a component part.

(a) To find a part with a known Part Number (PN).

1 Refer to the Numerical Index and find the PN.

2 The numerical index contains the following information about the reference:

– the reference of the part specific to the airline (column left blank),
– the illustrated catalogue sequence number (CSN). Application: 2-150A (2 = Figure number, 150A = sequence number).
– the quantity per CSN.

3 Refer to the figure in the parts list.

4 Find the item number on the illustration.

(b) To find a PN with a known Equipment Designator Index.

This index specifies the item reference and the CSN relevant to a given symbol.

1 A circuit symbol is made up of:

– 1 or 2 letters specifying the nature of the component part (letter symbol),
– 1 or 2 numerals stating the order code of the component part in the relevant subassembly,
– or possibly with a position suffix, containing 2 or 4 numerals, and defining the subassembly in which the component part is mounted. This suffix is chosen at random.

Application: R10 - 6

R = Letter Symbol,

10 = Order No.,

6 = Position suffix.

2 List of position suffixes versus the subassembly designation.

FIGURE	DESIGNATION	SUFFIX
1	Refuel panel multi tank indicator (MTI), assembly	10
2	Circuit card display	20
3	Circuit card assembly, CPU	32

3 List of sub-assemblies versus the position suffix number.

SUFFIX	DESIGNATION	FIGURE
10	Refuel panel multi tank indicator (MTI), assembly	1
20	Circuit card display	2
30	Circuit card assembly, CPU	3

(c) To find a PN through the illustrated nomenclature:

1 Find the illustration that shows the breakdown of the assembly.

2 Find the part and make a note of the item number.

3 Look in the parts list related to the illustration for the item number. This will also gives you the P/N and the description.

C. Use of the Detailed Parts List

(1) The detailed parts list includes the nomenclature and illustrations of the unit components.

– 1st column: Figure and Item/Item variant number
– 2nd column: Part Number
– 3rd column: Airline Part Number
– 4th column: Indentation
– 5th column: Nomenclature
– 6th column: Units per Assembly

(2) Figure and Item Numbers

(a) An item number is given to each part-numbered assembly, subassembly or item in the parts list.

(b) The figure number, which includes the items in the list, is given on the first line at the top of each page.

(c) The highest assemblies for each figure shall be listed first. If there is more than one part number for an assembly, use alpha variant item numbers e.g. 1A, 1B, 10A, 10B etc. In the usage code column of the assembly parts, the letters are used to link parts to the correct assembly. Use alpha variant item numbers for:

– Parts introduced by modification, product improvement, change of material etc.
– Similar parts with different usage code
– Optional parts, unless an alpha variant is listed for another reason. In this case, optional part numbers must be given in the Nomenclature column.

(d) Assemblies, sub-assemblies and parts in the list which are not illustrated are identified with a dash (-) before the item number.

(3) Manufacturer's Part Number

A manufacturer's part number is given to each assembly, subassembly and detail parts (illustrated or not).

(4) Nomenclature

(a) The nomenclature is indented to show the item relationship as follows:

```
1  2  3  4  5  6  7
Assembly
.  Detail parts of assembly
.  Subassembly
   Attaching parts and/or storage parts for subassembly
   *  *  *
.  .  Detail parts for subassembly
      Sub-subassembly
      Attaching parts and/or storage parts for sub-subassembly
   *  *  *
.  .  .  Detail parts for sub-subassembly
   etc...
```

(b) A vendor code is given for all items or articles not made by the prime manufacturer of the assembly.

(c) This vendor code or the abbreviation NP (Non Procurable) is written at the far right-hand side in the first line of the nomenclature.

(5) Effectivity Code

In a figure, the part number identified by an effectivity code shows that the coded part must be used with other parts identified with the same alpha designation. Also, coded parts can be used with all other non-coded parts (no alpha designation).

The effectivity code must begin with A and continue with B, C, ... Z. If required, the succession will follow BA, CA, DA ... ZA, CB, DB, EB, ... DC, EC, FC, etc. The succession will always begin with the subsequent alpha set which follows the last set by one alpha.

(6) Units Per Assembly

The units per assembly column shows the number of necessary units for the subsequent higher assembly. In some cases, the letters "RF" (Reference) or "AR" (As Required) replace this information.

(7) Abbreviations

- AR = As required
- DET = Detail
- LH and RH = Left and right
- NHA = Next higher assembly
- NP = Non procurable
- OLD PN = Old part number
- ORDER OVERLGTH MPN = Actual part number is more than 15 characters
- OVERSIZE = Oversize repair parts
- R = Modified
- RF = For reference
- SEL FROM = Select from parts
- POST SB = Post Service Bulletin,
- POST SL = Post Service Letter,
- SUPSD BY = Superseded by
- SUPSDS = Supersedes
- UNDERSIZE = Undersize repair parts

(a) The following letters are used in the standard index:

T	tera = 10 exp(12)
G	giga = 10 exp(9)
M	mega = 10 exp(6)
K	kilo = 10 exp(3)
U	one = 1
MY	milli = 10 exp(-3)
MU	micro = 10 exp(-6)
N	nano = 10 exp(-9)
P	pico = 10 exp(-12)

(b) The following letters are used in the standard index to indicate tolerances on electronic components.

B	0.1%
C	0.25%
D	0.50%
F	1%
G	2%
J	5%
K	10%

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VENDOR'S CODE INDEX

VENDOR CODE	NAME ADDRESS
08806	GENERAL ELECTRIC CO MINIATURE LAMP PRODUCTS DEPT LIGHTING BUSINESS GROUP NELA PK CLEVELAND OH 44112 USA
80205	NATIONAL AEROSPACE STANDARDS COMMITTEE AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA INC 1000 WILSON BLVD SUITE 1700 ARLINGTON 22209 USA
96906	MILITARY STANDARDS PROMULGATED BY MILITARY DEPARTMENTS UNDER AUTHORITY OF DEFENSE STANDARDIZATION MANUAL 4120 3-M WASHINGTON DC USA
F0110	AFNOR (ASSOCIATION FRANCAISE DE NORMALISATION) 11 AV FRANCIS DE PRESSENSE 93571 LA PLAINE ST DENIS CEDEX FRANCE
F0111	BNAE-BUREAU DE NORMALISATION DE L'AERONAUTIQUE ET DE L'ESPACE TECHNOPOLIS 54 199 RUE JEAN-JACQUES ROUSSEAU 92138 ISSY LES MOULINEAUX FRANCE
F0214	SAFRAN ELECTRONICS & DEFENSE COCKPIT SOLUTIONS 7 RUE DES LONGS QUARTIERS CS50029 93108 MONTREUIL CEDEX FRANCE
F0224	HOWMET FIXATIONS SIMMONDS SAS 9 RUE DES CRESSONNIERES 72110 SAINT COSME EN VAIRAIS FRANCE
F0286	TYCO ELECTRONICS FRANCE SAS 29 CHAUSSEE JULES CESAR 95300 CERGY PONTOISE FRANCE
F1699	BOLLHOFF OTALU ROUTE D'APREMONT ZI DE L'ALBANNE 73490 LA RAVOIRE FRANCE

VENDOR'S CODE INDEX (Cont'd)

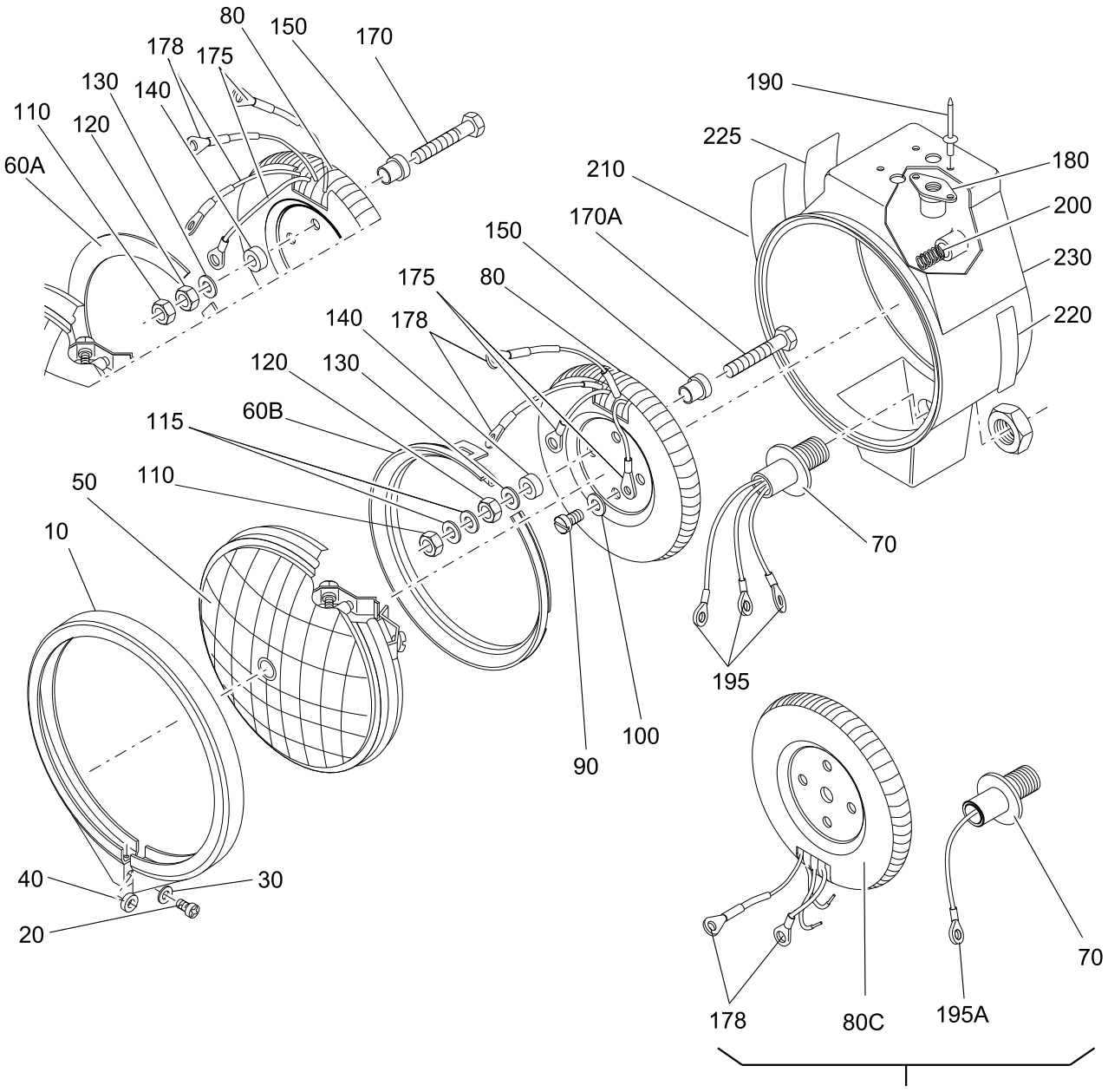
VENDOR CODE	NAME ADDRESS
F9556	EMHART FASTENING ¸ ASSEMBLY SNC ZAC DES PETITS CARREAUX 2 B AVE DES COQUELICOTS 94385 BONNEUIL SUR MARNE CEDEX FRANCE

ALPHA NUMERICAL INDEX

PART NUMBER	AIRLINE PART NUMBER	FIGURE NUMBER	ITEM NUMBER	TOTAL REQUIRED
152656		1	175	2
			195	3
			195A	1
153112		1	178	2
2021852		1	- 210A	1
22431AG040L		1	120	2
252PF01AAY00		1	- 50B	1
3012066		1	- 90A	2
3121654		2	70	2
3122203		2	40	2
			60	2
4058126		1	220	1
41327040016NP		1	200	2
4202893		1	150	2
4202908		1	140	2
4236534		1	- 1	RF
4325077		1	40	1
4325091		1	- 10	1
4325173		1	80	1
4325248		1	230	1
4325805		1	210	1
4330226		1	- 60	1
4330642		1	60A	1
4351643		1	- 10A	1
4383315		1	10B	1
4383322		1	60B	1
4384089		2	20	1
4384408		1	225	1
4384788		2	30	2
4394798		2	10	1
4394909		1	50A	1
		2	- 1	RF
4394953		2	50	1
4626		1	- 50	1
4PH135M		1	110	2
8000281Y00		1	- 1B	RF
8000306Y00		1	- 1A	RF
8000351Y00		1	- 80A	1
8001005Y00		1	- 80B	1
DZQ1AG040015UL		1	170	2
DZQ1AG040020UL		1	170A	2
JEAG030UL		1	30	1
JEAG040UL		1	115	4
			130	2
JFAG040UL		1	100	2
LHQ1AG040006UL		1	90	2
MS3474L8-33P		1	70	1

PART NUMBER	AIRLINE PART NUMBER	FIGURE NUMBER	ITEM NUMBER	TOTAL REQUIRED
NAS1352C04-12		1	20	1
NAS1474A4NP		1	180	2
PF0000317Y01		1	- 235	1
PF0000382Y00		1	80C	1
TAPK36BSNP		1	190	4

DETAILED PARTS LIST



POST SB 8000281-33-001
and SB 8000306-33-001

33-43-03-991-801-A01-01

LIGHT,RUNWAY-TURN OFF
SHEET 1 OF 1
Figure 1/GRAPHIC-33-43-03-991-801-A01

FIG. ITEM	PART NUMBER	AIRLINE PART No.	NOMENCLATURE 1234567		USAGE CODE	UNITS PER ASSY
1						
- 1	4236534		LIGHT,RUNWAY-TURN OFF		A	RF
- 1A	8000306Y00		LIGHT,RUNWAY-TURN OFF		B	RF
- 1B	8000281Y00		LIGHT, RUNWAY-TURN OFF		C	RF
- 10	4325091		. CLAMP,EQUIPPED SUPSD BY 4351643		A	1
- 10A	4351643		. CLAMP,EQUIPPED SUPSD BY 4383315 SUPSDS 4325091 POST SB 33-163		A	1
10B	4383315		. CLAMP PAR36, EQUIPPED SUPSDS 4351643 POST SB 4236534-33-001			1
20	NAS1352C04-12		.. SCREW, CAP, SOCKET HEAD (3110782)	80205		1
30	JEAG030UL		.. WASHER,FLAT Z DIA3 (3027107)	F0111		1
40	4325077		.. WASHER,INSULATING			1
- 50	4626		. LAMP, INCANDESCENT 28V 5.35A (GE) (3020872)	08806		1
50A	4394909		. LAMP,SUBSTITUTE HALOGEN (SHL) ASSY SEE FIG. 2 FOR DET			1
- 50B	252PF01AAY00		. PAR 36 LED LAMP REFER TO CMM 33-42-17 FOR DETAIL			1
- 60	4330226		. GASKET SUPSD BY 4330642		A	1
60A	4330642		. GASKET SUPSD BY 4383322 SUPSDS 4330226 POST SB 33-163		A	1
60B	4383322		. GASKET PAR36 SUPSDS 4330642 POST SB 4236534-33-001			1
70	MS3474L8-33P		. CONNECTOR,RECEPTA-CLE,ELECTRICAL 8 PIN CONTACTS (3109415)	96906		1
80	4325173		. AUTOTRANSFORMER,EQUIPPED RPLD BY PF0000382Y00 SUPSD BY 8000351Y00		A	1
- 80A	8000351Y00		. AUTO-TRANS-FORMER,EQUIPPED RPLD BY 8001005Y00 SUPSDS 4325173 POST SB 4236534-33-002			1

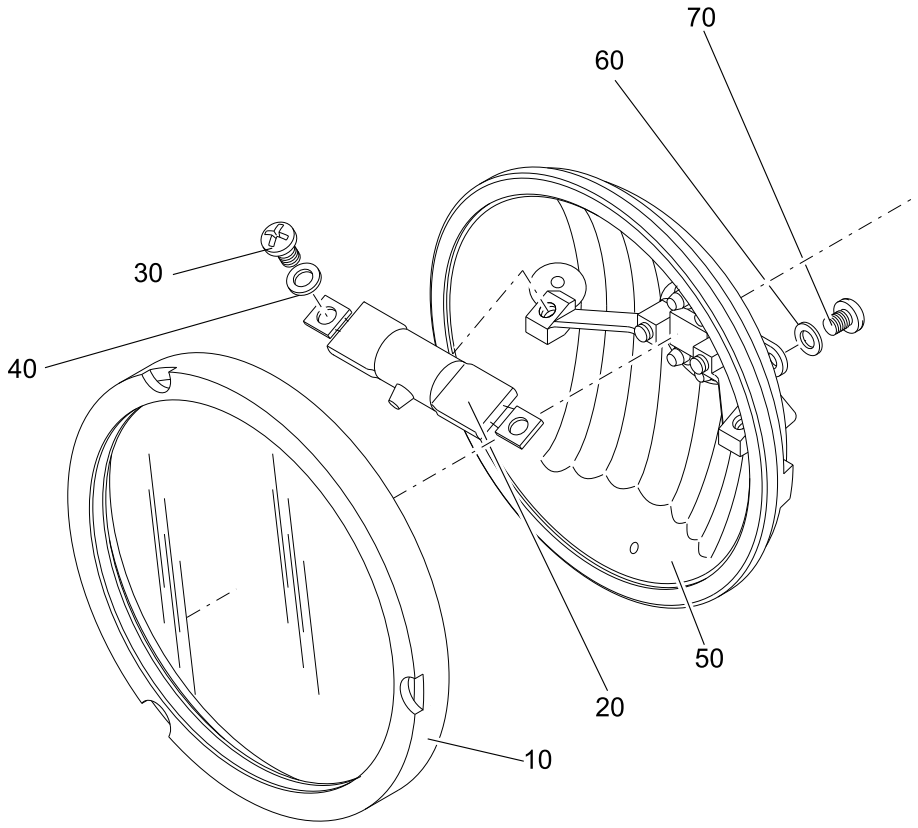
- ITEM NOT ILLUSTRATED

FIG. ITEM	PART NUMBER	AIRLINE PART No.	NOMENCLATURE 1234567		USAGE CODE	UNITS PER ASSY
1						
- 80B	8001005Y00		. CONVERTER RPLS 8000351Y00 POST SB 8000281-33-001 POST SB 8000306-33-001			1
80C	PF0000382Y00		. AUTO-TRANS-FORMER,EQUIPPED RPLS 8000351Y00 RPLS 8001005Y00 RPLS 4325173 POST SB 4236534-33-004 POST SB 8000281-33-003 POST SB 8000306-33-003 ATTACHING PARTS			1
90	LHQ1AG040006UL		. SCREW C M4X6 XC38 CDPL BCRPL (3030199) RPLD BY 3012066	F0110		2
- 90A	3012066		. SCREW C M4X8 RPLS LHQ1AG040006UL POST SB 8000281-33-004 POST SB 8000306-33-004 POST SB 4236534-33-005 * * *			2
100	JFAG040UL		.. WASHER,FLAT M4 (3020374)	F0110		2
110	4PH135M		.. NUT, SELF-LOCKING,EXTENDED WASHER M4 (3027635)	F0224		2
115	JEAG040UL		.. WASHER,FLAT Z DIA4 XC38 CDPL BCRPL (3024134)	F0110		4
120	22431AG040L		.. NUT (3018108)	F0111		2
130	JEAG040UL		.. WASHER,FLAT Z DIA4 XC38 CDPL BCRPL (3024134)	F0110		2
140	4202908		.. WASHER, INSULATOR			2
150	4202893		.. BUSHING, INSULATOR			2
170	DZQ1AG040015UL		.. SCREW H M4X15 XC38 CDPL BCRPL (3065192)	F0110		2
170A	DZQ1AG040020UL		.. SCREW H M4X20 XC38 CDPL BCRPL (3080262)	F0110	A	2
175	152656		.. LUG,TERMINAL (3040409) ALT TO 1577623-1 (F0286)	F0286	A	2

- ITEM NOT ILLUSTRATED

FIG. ITEM	PART NUMBER	AIRLINE PART No.	NOMENCLATURE 1234567		USAGE CODE	UNITS PER ASSY
1						
178	153112		.. LUG,TERMINAL (3040103)	F0286		2
180	NAS1474A4NP		. NUT,SELF-LOCKING,PLATE DIA.2500-28UNJF-3B STEEL CDPL (3109861) ATTACHING PARTS	NP		2
190	TAPK36BSNP		. RIVET,BLIND F120 DIA2.4X7.5 AG3.5 (3062666) * * *	NP		4
195	152656		. LUG,TERMINAL (3040409) ALT TO 1577623-1 (F0286)	F0286	A	3
195A	152656		. LUG,TERMINAL (3040409) ALT TO 1577623-1 (F0286)	F0286	B C	1
200	41327040016NP		. INSERT, SCREW THREAD M4X6 CORROSION-RESISTANT STEEL (3068425)	NP		2
210	4325805		. PLATE,INSTRUCTION		A	1
- 210A	2021852		. PLATE,IDENTIFICATION		B C	1
220	4058126		. PLATE,AMENDMENT			1
225	4384408		. LABEL,BAR CODE OPTIONAL PART			1
230	4325248		. SUPPORT,OPTIC			1
- 235	PF0000317Y01		. WATER BLOCK POST SB 4236534-33-003 POST SB 8000281-33-002 POST SB 8000306-33-002			1

- ITEM NOT ILLUSTRATED



33-43-03-991-802-A01-01

LAMP,SUBSTITUTE HALOGEN (SHL) ASSY
SHEET 1 OF 1
Figure 2/GRAPHIC-33-43-03-991-802-A01

FIG. ITEM	PART NUMBER	AIRLINE PART No.	NOMENCLATURE 1234567	USAGE CODE	UNITS PER ASSY
2					
- 1	4394909		LAMP,SUBSTITUTE HALOGEN (SHL) ASSY SEE FIG. 1 FOR NHA		RF
10	4394798		. LENS, EQUIPPED		1
20	4384089		. BULB, EQUIPPED		1
30	4384788		.. SCREW, CAPTIVE	NP	2
40	3122203		.. WASHER	NP	2
50	4394953		. MIRROR, EQUIPPED		1
60	3122203		.. WASHER	NP	2
70	3121654		.. SCREW		2

- ITEM NOT ILLUSTRATED