

**ABBREVIATED COMPONENT MAINTENANCE MANUAL**  
**LIGHTED ICING INDICATOR**  
**P/N 864-001 AMDT A**

**LIST OF REVISIONS**

Rev No.	1	2	3	4	5
Rev Date	May 26/98	Oct 10/01	Aug 01/07	July 17/08	Dec 30/10

**LIST OF EFFECTIVES PAGES**

Page 1 of 6	Page 2 of 6	Page 3 of 6	Page 4 of 6	Page 5 of 6	Page 6 of 6	
Dec 30/10	Dec 30/10	Dec 30/10	Dec 30/10	Dec 30/10	Dec 30/10	

**LIST OF SERVICE BULLETINS**

SB No.	Rev No.	MOD. No	INCORP. DATE	TITLE
SB 864-30-0001-001	1	EDES 07-61	Oct 2007	Improvement of illumination device reliability (upgrade the unit to AMDT A)

**TASK 30-81-12-870-801-A01**

**1 Description and Operation**

The Lighted Icing Indicator is installed on the central strut of the windshield to be visible by both pilots. The system informs the crew when, icing conditions are encountered, by accretion of ice on Lighted Icing Indicator, and is the initial point for the formation of ice on the aircraft. The Icing Indicator is illuminated by an internal light source (green LED) for night operation where ice accretion masks this light source.

**Approximate dimensions and weights**

Diameter: 10 mm (0.39 in),  
 Length 131mm (5.16 in)  
 Weight: 0.07 kg (0.15 lb).  
 Consumption: Inferior to 10mA@28VDC

**TASK 30-81-12-700-801-A01**

**Testing and Fault Isolation**

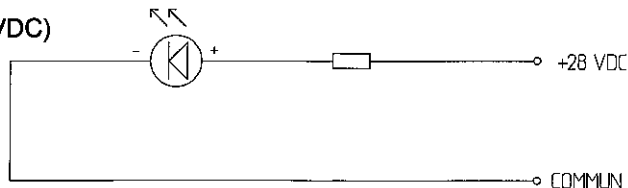
Not applicable

**TASK 30-81-12-878-801-A01**

**Schematics and wiring diagrams**

The Lighted Icing Indicator is connected to the power supply with 2 wires:

- Red wire: +28VDC
- Blue wire: common (DC RTN/ 0VDC)



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**ABBREVIATED COMPONENT MAINTENANCE MANUAL**  
**LIGHTED ICING INDICATOR**  
**P/N 864-001 AMDT A**

TASK 30-81-12-000-801-A01

Disassembly

CAUTION: ENSURE THAT PAINTED PARTS ARE NOT DAMAGED DURING DISASSEMBLY.

NOTE: IF NECESSARY, UPGRADE PNR 864-001 to 864-001 AMDT A WITH RELEVANT SERVICE BULLETIN.

A: Reason for the job

The disassembly of the unit gives access to the GREEN LED (30) for replacement if lighting unit is found defective.

B: Job set up information

(1) Fixtures, tools, test and support equipment

Reference	Qty	Designation
No specific	1	Fork wrench N°13

C: Job set up

Not applicable

D: Procedure

SUBTASK 30-81-12-000-001-A01

(1) Disassembly of the equipment. See IPL figure 01.

(a) With an applicable tool, unscrew the COVER (10) which gives access to the DIFFUSER (20).

(b) Remove the SEAL (40).

(c) If necessary, pull the DIFFUSER away from the COVER (10).

(d) Pull the GREEN LED (30) and remove it.

(e) If necessary, remove the AMDT A MARKER SLEEVE (70) and pull in direction of the removed GREEN LED to extract the WIRE ASSY (50) from the MAIN PART (60).

TASK 30-81-12-100-801-A01

Cleaning

A: Reason for the job

Self-Explanatory

B: Job set up information

(1) Fixtures, tools, test and support equipment

Reference	Qty	Designation
No specific	1	Dry rag

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**ABBREVIATED COMPONENT MAINTENANCE MANUAL**  
**LIGHTED ICING INDICATOR**  
**P/N 864-001 AMDT A**

C: Job set up  
Not applicable

D: Procedure  
SUBTASK 30-81-12-100-001-A01  
Clean the housing carefully with a specified tool.

TASK 30-81-12-200-801-A01  
Inspection/check  
Not applicable

TASK 30-81-12-300-801-A01  
Repair

A. Reason for the job  
Repaint of titanium parts after disassembly (if applicable).

B. Job Set Up information  
(1) Fixtures, tools, test and support equipment  
Not applicable

(2) Consumable material

Reference	Designation
ASNA 3646-5063 Surface treatment	Matt Black paint Blue anodizing (for titaniumTA6V)

(3) Referenced information

Reference	Designation
IGP 08-27 Painting Repair Station	Madelec's procedure – Repair solution for repainting titanium parts Madelec Aero F9503 Rambouillet (F78120)

C Job Set up  
Subtask 30-81-12-350-001-A01  
(1) Select the defective painted parts.  
(a) Select the COVER (10) and/or MAIN PART (60) with some painted defects.  
(b) Ship them with an appropriated packaging to the authorized and qualified repair shop for application of paint.

D. Procedure  
Subtask 30-81-12-350-002-A01  
(1) Remove the painting and treatment on damaged parts.  
(REFER to IGP 08-27)

Subtask 30-81-12-350-003-A01  
(2) Retreat with protective treatment and repaint the damaged parts.  
(REFER to IGP 08-27)

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**ABBREVIATED COMPONENT MAINTENANCE MANUAL**  
**LIGHTED ICING INDICATOR**  
**P/N 864-001 AMDT A**

TASK 30-81-12-400-801-A01  
Assembly

CAUTION: ENSURE THAT PAINTED PARTS ARE NOT DAMAGED DURING THE ASSEMBLY

NOTE: AFTER EACH DISASSEMBLY, REPLACE THE SEAL (40) AND USE ADHESIVE LOCTITE TO REASSEMBLE THE COVER (10).

A: Reason for the job  
 Self-Explanatory

B: Job set up information

(1) Fixtures, tools, test and support equipment

Reference	Qty	Designation
No specific	1	Fork wrench N°13
No specific	1	Heating tool
No specific	1	Torquemeter with fork wrench N°13

(3) Consumables

Reference	Specification	Source
Adhesive Loctite 242 (alternative: Loctite 243)	MIL S 46163 ( for Loctite 242)	Local supply
Sealant Loctite 5926	/	Local supply

C: Job set up  
 Not Applicable

D: Procedure

SUBTASK 30-81-12-440-001-A01

(1) Assembly of the parts. See IPL figure 01

- (a) If necessary, put in the WIRE ASSY (50) in position inside the MAIN PART (60).
- (b) Slot the GREEN LED (30) in its socket on the WIRE ASSY (50).
- (c) Do a check of the polarization with a 28VDC power applied to the correct input wires (refer to TASK 30-81-12- 800-801-A01). A green light must be visible on GREEN LED (30).
- (d) If necessary, put the DIFFUSER (20) in position inside the COVER (10).
- (e) Install the SEAL (40) in the COVER (10) against the DIFFUSER (20).
- (f) Apply adhesive Loctite on thread of MAIN PART (60).
- (g) Torque the COVER (10) with an applicable fork wrench to between 3.95N.m and 4.05N.m
- (h) If necessary, at the rear of the MAIN BODY (60), put to size and shape the AMDT A MARKER SLEEVE (70) by heating with dedicated heating tool.
- (i) Apply sealant Loctite at the rear of the MAIN PART (60) to prevent humidity intrusion around set of wires and wait at ambient temperature not less than 24 hours.

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**LIGHTED ICING INDICATOR**  
**P/N 864-001 AMDT A**

TASK 30-81-12-820-801-A01

Fits and clearances

IPL Fig. Item No	Designation	Torque Value	
		N.m	Lbf.in
1-10	COVER	4 +/-0.05	35.4 +/-0.44

IPL Fig. Item No	Designation	Final clearance
		Lighting checking
1-1A	LIGHTED ICING INDICATOR	Green illumination shall be visible through COVER grooves when energized with external power supply (28VDC +/-0.5) applied in accordance with TASK 30-81-12-878-801-A01

TASK 30-81-12-940-801-A01

Special tools, Equipment and consumable Materials

Not applicable

TASK 30-81-12-840-801-A01

Rework

A. Service Bulletin SB 864-30-0001-001

(a) Change PNR 864-001 into PNR 864-001 Amendment A

B. Equipment and Materials

Refer to SB 864-30-0001-001

C. Consumables Material List

Refer to SB 864-30-0001-001

D. Modification Kit SB 864-30-0001-001

E. Disassembly

Refer to SB 864-30-0001-001

F. Rework

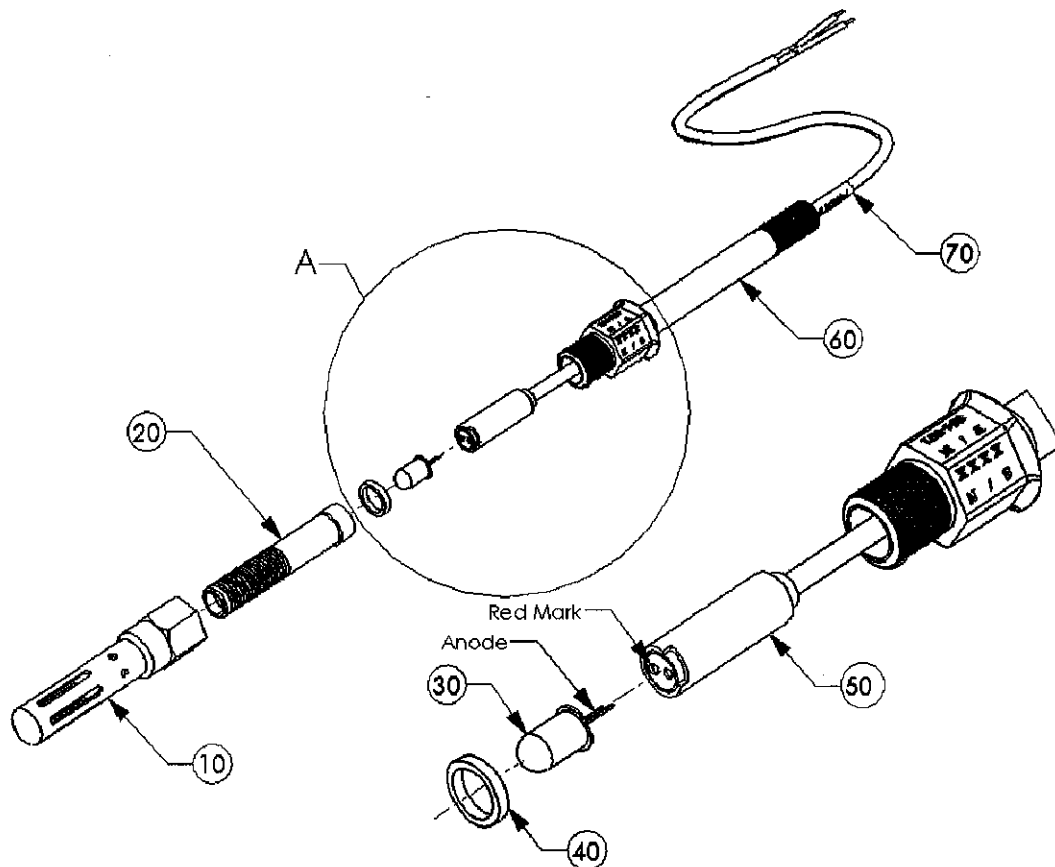
Refer to SB 864-30-0001-001

G. Assembly

Refer to SB 864-30-0001-001

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**P/N 864-001 AMDT A**

TASK 30-81-12-870-801-A01  
Illustrated Parts List



Lighted Icing Indicator  
Figure 1/GRAPHIC 30-81-12-991-001-A01

A: Detailed Parts List

FIG.-ITEM	PART NUMBER	AIRLINE PART NO	NOMENCLATURE	USAGE FROM TO	UNITS PER ASSY
1 - 1A	864-001		LIGHTED ICING INDICATOR (AMDT A)		RF
10	864-102		.COVER		1
20	864-103		.DIFFUSER		1
30	864-106		.GREEN LED		1
40	864-105		.SEAL		1
50	864-10311		.WIRE ASSY		1
60	864-101		.MAIN PART		1
70	864-1032		.AMDT A MARKER SLEEVE		1