

Emergency lighting system - Emergency power supply units - Servicing

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Table 1 References

Data Module	Title
39-A-00-20-00-00A-120A-A	Helicopter safety - Pre-operation (make helicopter safe for maintenance)
39-B-33-51-00-00A-340A-A	Emergency lighting system - Function test

Table 2 Access points

Access Panel / Door Id	Data Module
No Access Point	

Table 3 Zones

Zone ID	Data Module
No Zones	

Preliminary Requirements

Required Conditions

Table 4 Required Conditions

Conditions	Data Module/Technical Publication
The helicopter must be safe for maintenance	39-A-00-20-00-00A-120A-A
The access door 213AL must be opened	39-A-06-41-00-00A-010A-A

Support Equipment

Table 5 Support Equipment

Nomenclature	Identification No.	Qty
Battery charger (for NiCd battery)	ZZ-00-00	1
Multimeter	ZZ-00-00	1

Supplies

Table 6 Supplies

Nomenclature
No Supplies

Spares

Table 7 Spares

Nomenclature
No Spares

Safety Conditions

No Safety Condition

Procedure

Note

The emergency power-supply units (PS13) and (PS14) are referred in this procedure as the supply unit (PS13) and supply unit (PS14).

- 1 Get access to the supply unit (PS13) (4, Figure 1) in the nose compartment.
- 2 Hold the accumulator (2) with your hands.
- 3 Turn the two camlocks (1) counterclockwise until they stop. Release the two camlocks (1) until their springs will let.
- 4 Carefully remove the two camlocks (1) from the accumulator (2). Let the related springs stay on the camlocks (1).

CAUTION

Move the accumulator (2) carefully. If you do not obey this condition, you can cause damage to the connector pins of the supply unit (PS13) (4).

- 5 Move the accumulator (2) in the opposite direction of the electrical connector. Continue until you disconnect the accumulator (2) from the connector pins of the supply unit (PS13) (4).
- 6 Remove the accumulator (2) from the supply unit (PS13) (4).
- 7 Put the accumulator (2) on an applicable work bench.
- 8 Do the servicing of the accumulator (2) as follows:
 - 8.1 Connect the Battery charger (for NiCd battery) (ZZ-00-00) to the electrical receptacles (3) of the accumulator (2) correctly.
 - 8.2 Apply the nominal discharge load of 7 A for a minimum time of 15 minutes with the battery charger.

CAUTION

Continue the discharge cycle until the drop voltage of the accumulator is equal but not less than 4.8 Vdc.

- 8.3 Monitor the voltage indication on the battery charger frequently or use the Multimeter (ZZ-00-00) if necessary.
- 8.4 Stop the discharge cycle when you get the minimum voltage of 4.8 Vdc in the accumulator (2).
- 8.5 Set the battery charger to supply 350 mA at 7.5 Vdc nominal voltage.
- 8.6 Set the charge time from 16 thru 24 hours maximum.
- 8.7 Start the charge cycle of the accumulator (2) with the battery charger. Make sure that the accumulator (2) becomes warm during the charge cycle.
- 8.8 Stop the battery charger when the charge cycle is at its end. Let the accumulator (2) temperature decrease.
- 8.9 Disconnect the battery charger from the electrical receptacles (3) of the accumulator (2).

Note

The found voltage of new accumulators must be not less than 6.28 Vdc. The found voltage on three years or more used accumulators must be not less than 6.10 Vdc.

- 8.10 Do a voltage check of the accumulator (2) with the Multimeter (ZZ-00-00) . Make sure that the voltage is not less than 6.5 Vdc.
 - 8.11 If you find voltage that is less than the given values, put the accumulator (2) in charge again. Keep the accumulator (2) connected to the battery charger until you have the 24 hours maximum charge time.
 - 8.12 Do again the Step 8.10 . If you find again a voltage less than the given values, replace the defective accumulator (2).
- 9 Remove the accumulator (2) from the work bench.

- 10 Put the accumulator (2) in its position on the supply unit (PS13) (4).

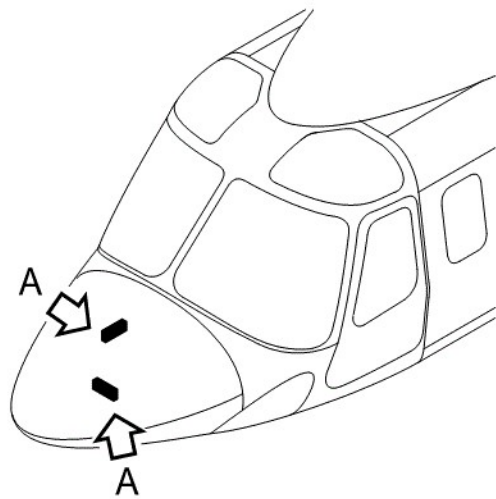
CAUTION

Move the accumulator (2) carefully. If you do not obey this condition, you can cause damage to the connector pins of the supply unit (PS13) (4).

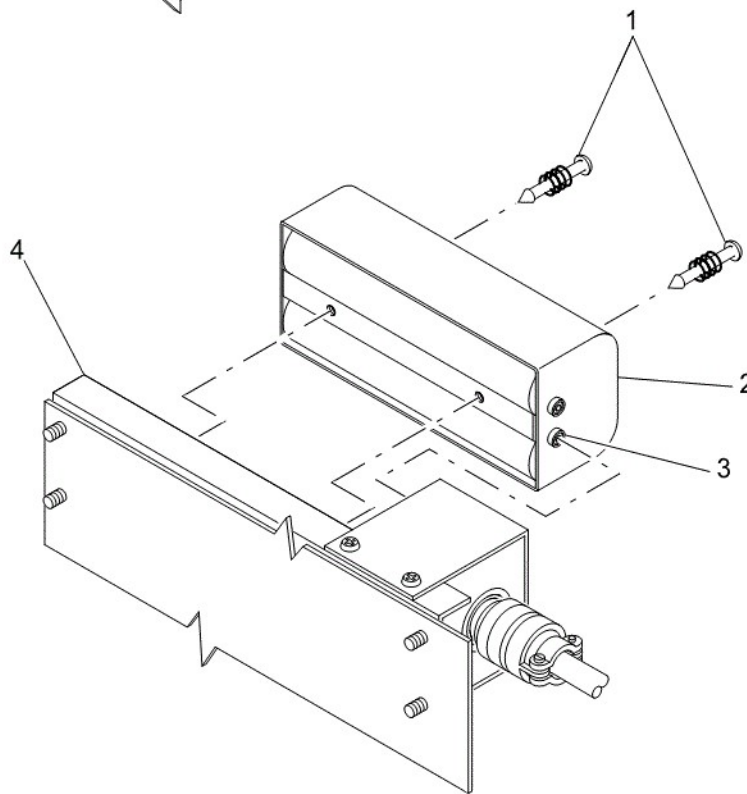
- 11 Move the accumulator (2) in the direction of the electrical connector. Continue until you connect the accumulator (2) to the connector pins of the supply unit (PS13) (4).
- 12 Hold the accumulator (2) with your hands.
- 13 Install the two camlocks (1) in the accumulator (2).
- 14 Push the related springs of the two camlocks (1) against the accumulator (2).
- 15 Turn the two camlocks (1) clockwise until they stop against the accumulator (2).
- 16 Do again the Step 2 thru Step 15 for the supply unit (PS14).

Requirements After Job Completion

- 1 Remove all the tools and the other items from the work area. Make sure that the work area is clean.
- 2 Close the access door 213AL. Refer to 39-A-06-41-00-00A-010A-A
- 3 Do the functional check of the emergency lighting system. Refer to 39-B-33-51-00-00A-340A-A



EMERGENCY POWER SUPPLY PS13 SHOWN
TYPICAL FOR EMERGENCY POWER SUPPLY PS14



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Figure 1 Emergency lighting system - Emergency power supply units - Servicing