



CRUISER
AIRCRAFT

SERVICE BULLETIN

Czech Aircraft Group s.r.o
Na Záhonech 212
686 04 Kunovice
Czech Republic
info@cruiseraircraft.com

No.: SB-SC-085

Date: 2021-04-08

Page: 1 of 5

Rev.: 2

Date: 2021-12-15

MODEL AFFECTED:	SportCruiser / PiperSport operating outside EASA rules
SUBJECT:	Substitution of Trail Tech light
AIRCRAFT AFFECTED:	All SportCruiser / PiperSport aircraft
COMPLIANCE:	According to the owner's decision.

DESCRIPTION:

This Service Bulletin contains instructions how to replace Trail Tech light for a SunRay light.

AUTHORISATION TO PERFORM:

Repairman (LS-M) or Mechanic (A&P)

REASON:

Trail Tech light has ceased production and will be replaced by SunRay light if necessary.

MANPOWER:

4 hours

SPECIAL TOOLS:

Common tools for aircraft maintenance.

Drill diam. 2,5mm (minimal length 120mm).

WEIGHT AND BALANCE:

No effect

ELECTRICAL LOAD DATA:

N/A

PUBLICATIONS AFFECTED:

N/A

MATERIAL AND COSTS:

All costs to be covered by the aircraft owner/operator.



CRUISER
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Page: 2 of 5

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MATERIAL:

ITEM No.	NOMENCLATURE	DESCRIPTION	QUANTITY (PCS)
001	6902LI11	SunRay 01-1150 light (with connector)	1
002	SI0676N_110_001	Mock-up of the light	1
003A	SI0678N-A	Pad A	1
003B	SI0678N-B	Pad B	1
003C	SI0678N-C	Pad C	1
004	3111K312	Screw AN525-10R12	1
005	3111K316	Screw AN525-10R16	1
006	3121A653	Nut AN365-1032	1
007	3131A310	Washer AN960-10	5
008	3131A312	Washer AN960-10L	2
009	664M0004	Wire	2 m
010	512O2148	Shrink tube	0,1 m
011	4610A003	Loctite 243	1
012	4410V002 ¹	Emfimastic PU50	1
013	N/A ^{1,2}	3M Marine Adhesive Sealant 5200	1
014	6602TOG3 ^{1,3}	3A toggle circuit breaker	1
015	6612FU03 ^{1,3}	3A circuit breaker	1

¹one of these, ²order in local store, ³depends on airplane equipment

ACCOMPLISHMENT INSTRUCTIONS:

NOTE: During the implementation of this SB follow AC43-13.

1. Set the **MASTER BAT** and **LDG L** switch to OFF.
2. Remove engine cowlings, disconnect positive (+) battery terminal (see MM, Chapter 11).
3. Remove the original landing light (see MM, Chapter 11).
4. Set-up the mock-up of light (002) and pad (003A, 003B or 003C) to the hole (see Fig. 1). Light must be parallel to flange in cowling. Parallelism may be setup by the pad.



Fig. 1: Mock-up in the hole



CRUISER
AIRCRAFT

No.: SB-SC-085

Date: 2021-04-08

Page: 3 of 5

SERVICE BULLETIN

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- Using a mock-up, drill a 2.5 mm hole. Then drill the hole to a diameter of 5.2 mm.
- Depending on the resulting joint thickness, choose a suitable screw (004 or 005) and a combination of washers (007 and 008).
- Test light (001) and verify the parallelism of the front of the light and the flange in the cowling after tightening the bolt. Due to the tightening of the screw, the parallelism may be broken. In this case, choose another pad.
- If necessary, repeat steps 5 to 7.
- Enlarge the front hole for the light to an oval with dimensions 62x59mm (see Fig. 2).

NOTE: Slight overlap between top of light lens and cowling is acceptable (approx. 5 mm).

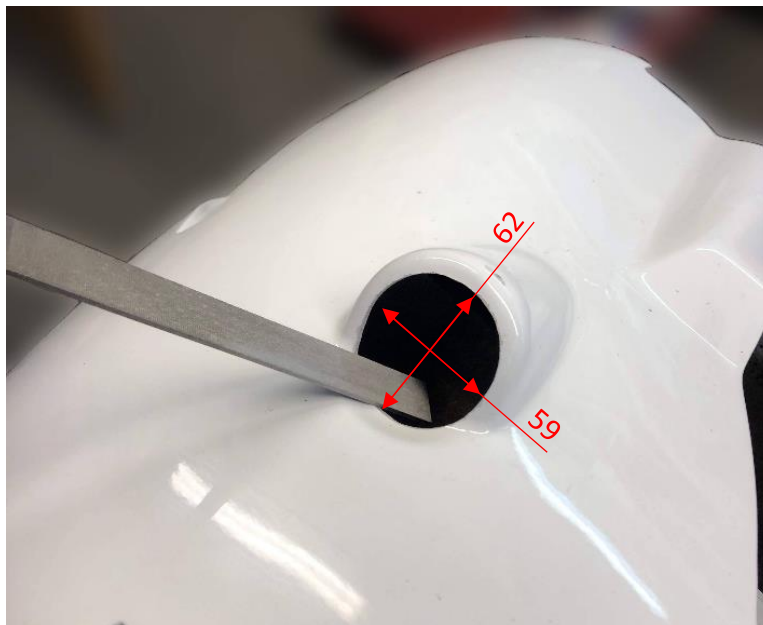


Fig. 2: Oval hole

- Degrease the surfaces where the adhesive will be applied.
- Glue the pad with glue (012 or 013). Before the glue hardens, the position can be checked and adjusted using a mock-up. To fix the glued joint, use a screw and a nut (006). Protect the screw against sealing with plastic foil and vaseline.
- Clean the drilled hole from glue residues.
- The light has 5 wires, only two will be used. Red 351C (positive) and black 352C (ground), blind the other wires with a shrink tube (010). See Fig. 3. Valid scheme depends on airplane equipment.

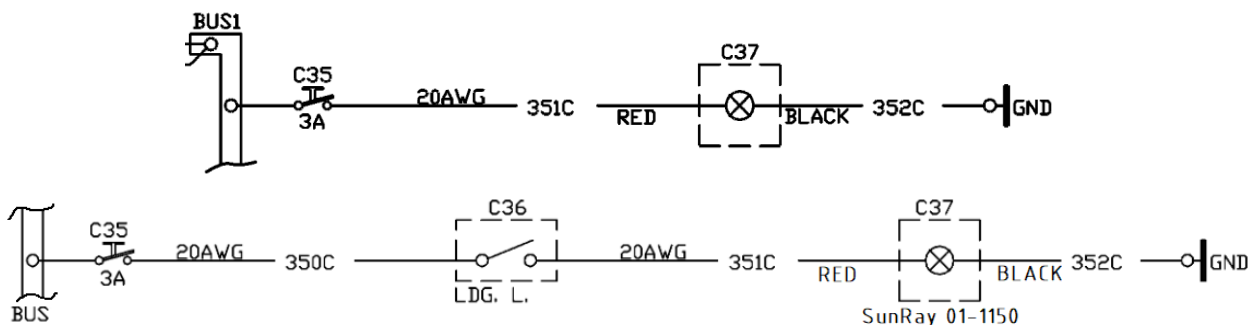


Fig. 3: Electric scheme



CRUISER
AIRCRAFT

No.: SB-SC-085

Date: 2021-04-08

Page: 4 of 5

SERVICE BULLETIN

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14. Extend the wires from light. So, they are above the left NACA intake.
15. Clean and degrease the screw.
16. Mount the light with screw. Glue the screw with Loctite (011).
17. Install lower engine cowling.
18. Extend the power cords over the left NACA intake
19. Crimp the connector to power cords and wires from light.
20. Glue the wires from light with glue over the left NACA intake. See Fig. 4.



Fig. 4: Glued wires



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Page: 5 of 5

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21. Let's cure the glue for 24 hours.
22. Replace the landing light circuit breaker with new circuit breaker (014 or 015).
23. Connect the connector.
24. Connect positive (+) battery terminal (see MM, Chapter 11).
25. Install upper engine cowling.
26. Set the **MASTER BAT** and **LDG L** switch to ON and check the correct function of light (Fig. 5).
27. Complete the aircraft records to reflect compliance with this Service Bulletin.



Fig. 5: SunRay Light

APPROVAL:

This Service Bulletin has been approved by:

Title	Head of Design Organization	Airworthiness Manager
Name	Jiří Sklenář	Jiří Sklenář
Hand written signature		