

	XtremeAir GmbH, Harzstr.2, D-39444 Hecklingen Tel: +49 39267 60999 0, Fax: +49 39267 60999 20 www.xtremeair.de info@xtremeair.de	Document No. SB-XA42-2018-009
		Issue: A.00
DOA-Nr.: EASA.21J.360	Service Bulletin	Date: 05.04.2018

Priority 4 – Customer convenience

Subject: Smoke oil refill limit switch

Aircraft type affected: XA41 and XA42

Serial numbers affected: MSN 01 – 07 and MSN 101 – 125 and 130, 131, which applied SB-2016-005

Compliance: Optional

Time of Compliance: At user discretion

Purpose: To notify the owner of the subject aircrafts of the option to install a smoke oil refill limit switch.

Background: The smoke oil refill limit switch is an overfill protection. It turns off the smoke oil pump when the smoke oil tank is refilled completely.

Manpower: It is estimated that five (5) man-hours are necessary to apply this service bulletin.

Materials: The parts kit SB-XA42-2018-009 should be ordered through spares@xtremeair.de:

- (1x) ea. Vertical switch XS-0110-041
- (1x) ea. Changeover relay XS-0130-021
- (1x) ea. 2 circuit cap, XS-0120-011
- (1x) ea. 2 circuit plug, XS-0120-012
- (2x) ea. Pin, XS-0120-101
- (2x) ea. Socket, XS-0120-102
- (1x) ea. PIDG Receptacle terminal DIN 46245 - 6,3x0,8 for AWG 22-16, fully insulated – or equivalent –
- (6x) ea. PIDG Receptacle terminal DIN 46245 - 6,3x0,8 for AWG 16-14, fully insulated – or equivalent –
- (1x) ea. Splice crimp M81824/1-2 iaw MIL-S-81824/1
- (1x) ea. 8-32 EZ point stud
- (1x) ea. Washer AN960-8
- (1x) ea. Nut MS21044N3

For XA41 only:
 (1x) AFM-XA41-0040-002 - AFM chapter 7 page 14 Rev. A.02

For XA42 only:
 (1x) AFM-XA42-0040-002 - AFM chapter 7 page 14 Rev. C.02

Replaces Service Bulletin No. / Date:
Not applicable

Page 1 / 7

	XtremeAir GmbH, Harzstr.2, D-39444 Hecklingen Tel: +49 39267 60999 0, Fax: +49 39267 60999 20 www.xtremeair.de info@xtremeair.de	Document No. SB-XA42-2018-009
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The following consumables are necessary:

- Alcohol cleaner – or equivalent –
- Sealant Epple 33
- Liquid electrical tape
- Heat shrink tubing
- 18AWG cable M22759-32-18-9
- 22AWG cable M22759-32-22-9
- Araldite 2022-1

Accomplishment Instructions: Read all the instructions and make sure the complete procedure is understood before starting the assembly work on the aircraft. In case of doubt, contact the manufacturer.

1. Drain the smoke tank iaw chapter 85-10-00 of AMM.
2. Remove the RH footrest in the front cockpit.
3. Remove the battery box cover and disconnect the battery completely (2x 6mm bolts, 10mm wrench).
4. For XA41 only:
Remove the seat (MS 1032 screws, PH 2 screwdriver).
5. For XA42 only:
Remove the rear seat and open the two access covers of the RH side panel (MS 1032 screws, PH 2 screwdriver).
6. Disconnect the smoke switch. Refer to chapter 39-20-00 of AMM.
7. Disconnect the On/Off switch for the smoke system on the top of the throttle grip. Refer to chapter 39-30-00 of AMM.
8. Disconnect the circuit breaker for the smoke system. Refer to chapter 39-50-00 of AMM.
9. Disassemble the smoke oil flop tube iaw chapter 85-10-00 of AMM.
10. Drill a hole with dia. 12mm in the smoke tank shell. Refer to Figure 1 for the correct position.
11. Clean the inner and outer smoke tank from shavings.
12. Apply Epple 33 on mating surfaces of the delivered smoke oil limit switch (P/N: RSF53Y100JC) and install it on the smoke tank.
13. Assemble the smoke oil flop tube iaw chapter 85-10-00 of AMM.
14. For XA41 only:
 1. Identify the smoke relay on the RH seat frame. Refer to Figure 2.
 2. Clean the area aft of this relay with alcohol.
 3. Bond the 8-32 EZ point stud on the RH seat frame with a distance of 50mm aft of the smoke relay using Araldite 2022-1. Refer to the manufacturer's bonding instructions for further handling information.

Replaces Service Bulletin No. / Date: <i>Not applicable</i>	Page 2 / 7
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4. Cure the bonding for (at least) 60min at room temperature.
 5. Mount the smoke refill relay (P/N: GRL-S-112DF) on the stud using the AN960-8 washer and MS21044N3 nut.
15. For XA42 only:
1. Identify the smoke relay on the RH side of the lateral frame under the rear seat. Refer to Figure 2.
 2. Clean the area left of this relay with alcohol.
 3. Bond the 8-32 EZ point stud on the lateral frame with a distance of 50mm to the smoke relay using Araldite 2022-1. Refer to the manufacturer's bonding instructions for further handling information.
 4. Cure the bonding for (at least) 60min at room temperature.
 5. Mount the smoke refill relay (P/N: GRL-S-112DF) on the stud using the AN960-8 washer and MS21044N3 nut.
16. Make the cable connections as shown in the wiring diagram from Figure 3 and 4.
Points to consider:
- red marked wires must be reconnected (see red arrows)
 - green marked wires stand for new connections
17. Cover all open electrical connections with liquid tape.
 18. Reassemble and reconnect all items in reverse order.
 19. Fill the smoke tank iaw. chapter 85-00-00 of AMM and check if the smoke refill limit switch works properly.
 20. Check for leaks.
 21. Perform a ground test for all remaining smoke system functions.
 22. Exchange AFM chapter 7 page 14 with the delivered one (Rev. A.02 for XA41 and Rev. C.02 for XA42) in the AFM. Update the revision of this page in the *log of effective pages* by hand.

Replaces Service Bulletin No. / Date: <i>Not applicable</i>	Page 3 / 7
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	XtremeAir GmbH, Harzstr.2, D-39444 Hecklingen Tel: +49 39267 60999 0, Fax: +49 39267 60999 20 www.xtremeair.de info@xtremeair.de	Document No. SB-XA42-2018-009
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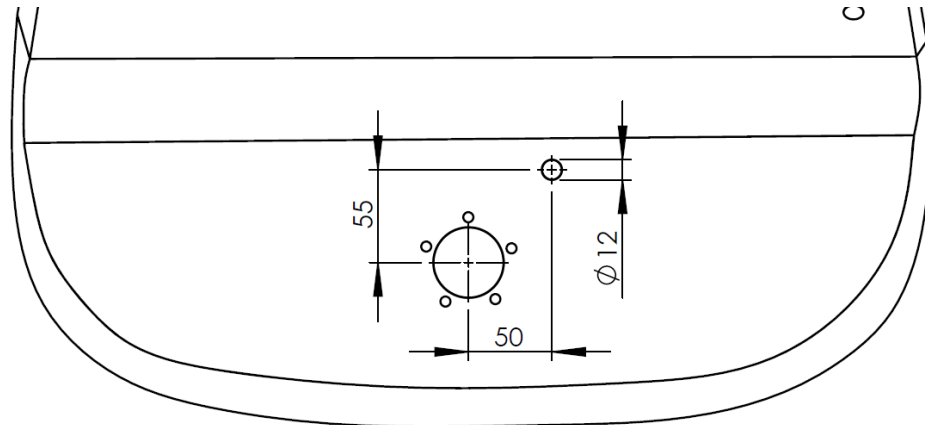


Figure 1: Position of the dia. 12mm hole for the smoke oil limit switch

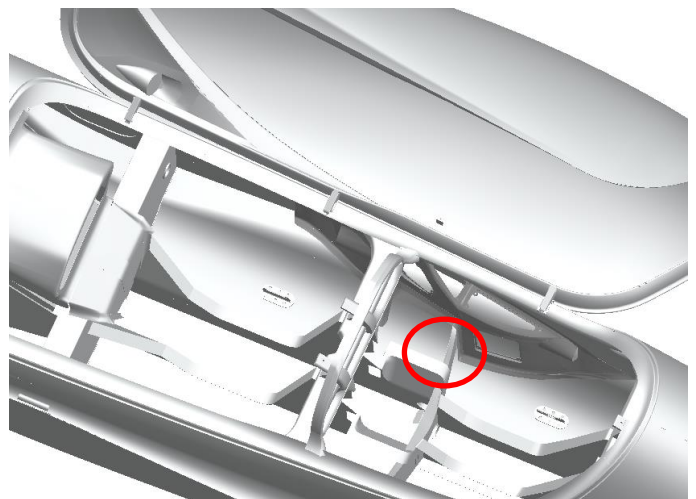


Figure 2: Position of the smoke relay, left: XA41 ; right: XA42

Replaces Service Bulletin No. / Date: <i>Not applicable</i>	Page 4 / 7
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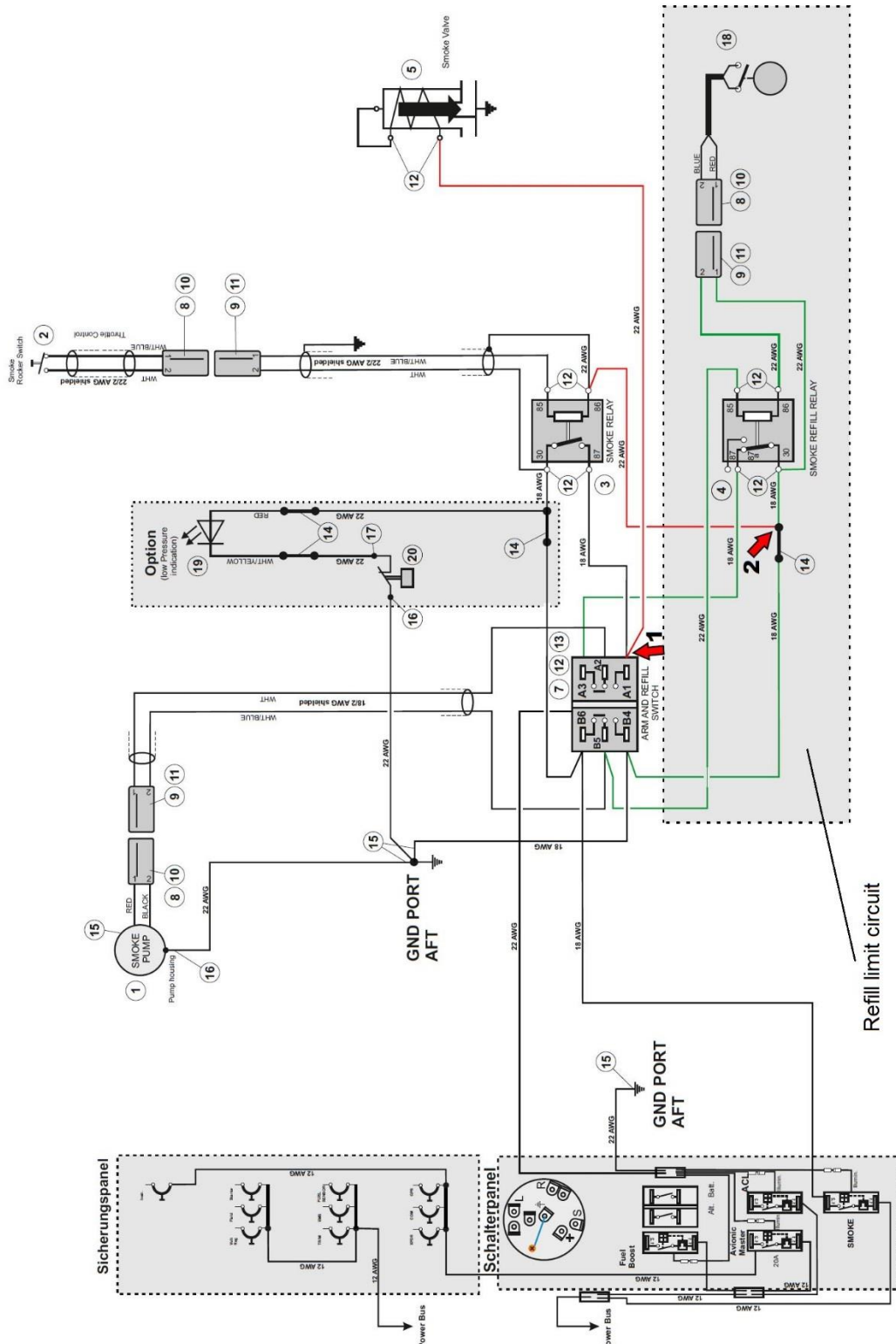
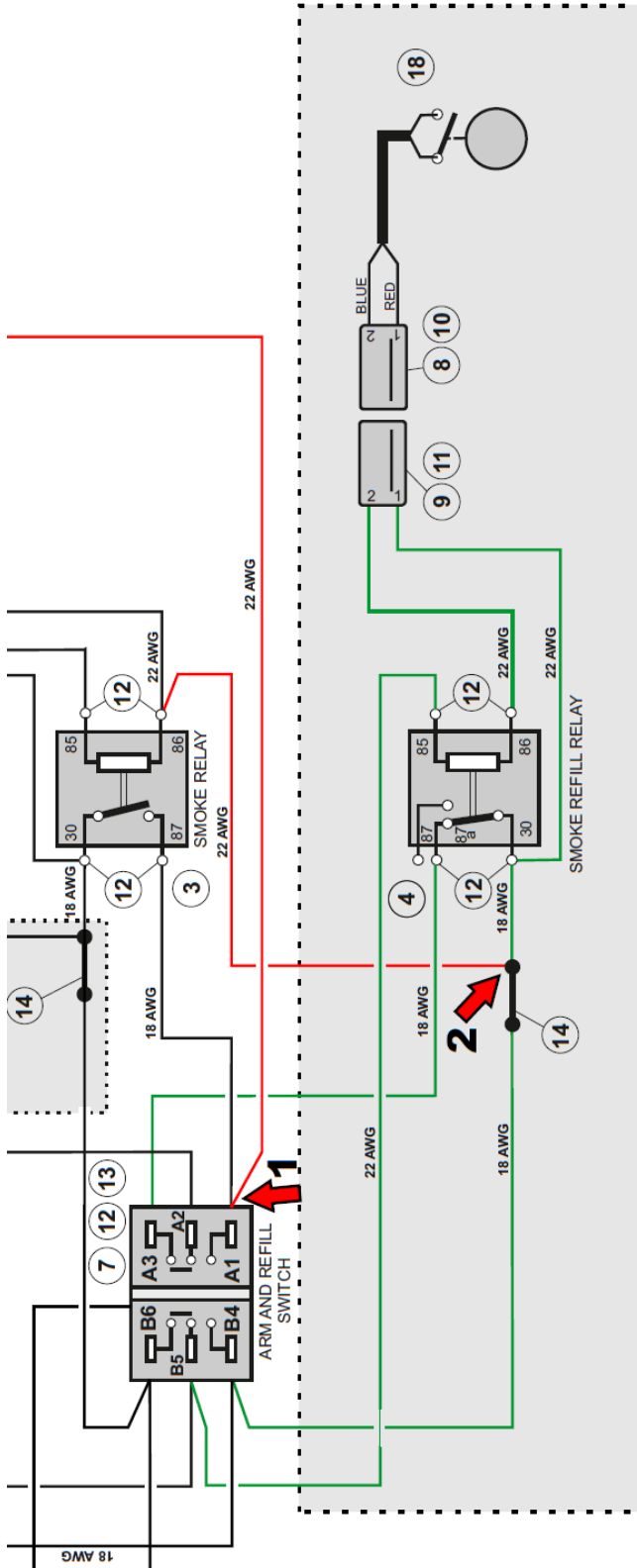


Figure 3: Smoke system wiring XA41/XA42

Replaces Service Bulletin No. / Date:
Not applicable



- Pos. 4 Changeover relay, GoodSky, P/N: GRL-S-112DF
- Pos. 8 2 circuit cap, TE Connectivity / AMP
P/N: 1-480319-0
- Pos. 9 2 circuit plug, TE Connectivity / AMP
P/N: 1-480318-0
- Pos. 10 Mat-N-Lock pin, TE Connectivity / AMP
P/N: 163558-2
- Pos. 11 Mat-N-Lock socket, TE Connectivity / AMP
P/N: 163557-2
- Pos. 12 PIDG Receptacle terminal DIN 46245 - 6,3x0,8
for AWG 22-16, fully insulated – or equivalent –
- Pos. 13 PIDG Receptacle terminal DIN 46245 - 6,3x0,8
for AWG 16-14, fully insulated – or equivalent –
- Pos. 14 Splice crimp M81824/1-2 iaw MIL-S-81824/1
- Pos. 18 Vertical switch, Cynergy3 Components Ltd,
P/N: RSF53Y100JC

Figure 3: Detailed wiring of the refill limit circuit

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Report accomplishment of the service bulletin via email to support@xtremeair.de, stating aircraft serial number and registration number.

Approval:

The technical content of this document is approved under the authority of DOA ref. EASA. 21J.360.

Replaces Service Bulletin No. / Date:
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Page 7 / 7