
SERVICE BULLETIN - TFA10-26-0020

Installation of AAE Cargo Fire Protection System (FPS) Placards and Suppression Harnesses on the B737-400 series aircraft equipped with the AAE FPS Kit Configuration B737-400(-1400)

Revision	Issue Date	Approved By
IR	January 12, 2015	<i>W. A. Euk</i>

- Changes to this Service Bulletin are indicated by a bar in the left hand margin.

SAFETY INTENT

This Service Bulletin identifies a possible “unsafe” condition when the AAE Cargo Fire Protection System Placards identifying Extinguisher Bottle 1 and Bottle 2, and their respective electrical Pressure Switch and Squib Harnesses at the Suppression Rack, were installed on the B737-400 series aircraft.

Upon review of AAE Installation Drawings TFC07-0062Q, “Class C Cargo Comp. FPS Placard Location Instructions”, Sheets 5, 6, and 7, it was found that, the callouts for the following placards are shown in the wrong locations.

- BOM Item No. -220 "BTL 1 Cargo Suppression", P/N TFC05-0044-36 is shown to be installed on BTL 2
- BOM Item No. -223 "BTL 1 Pressure Switch", P/N TFC05-0044-39 is shown to be installed on BTL 2
- BOM Item No. -225 "BTL 1 Squib", P/N TFC05-0044-41 is shown to be installed on BTL 2

And

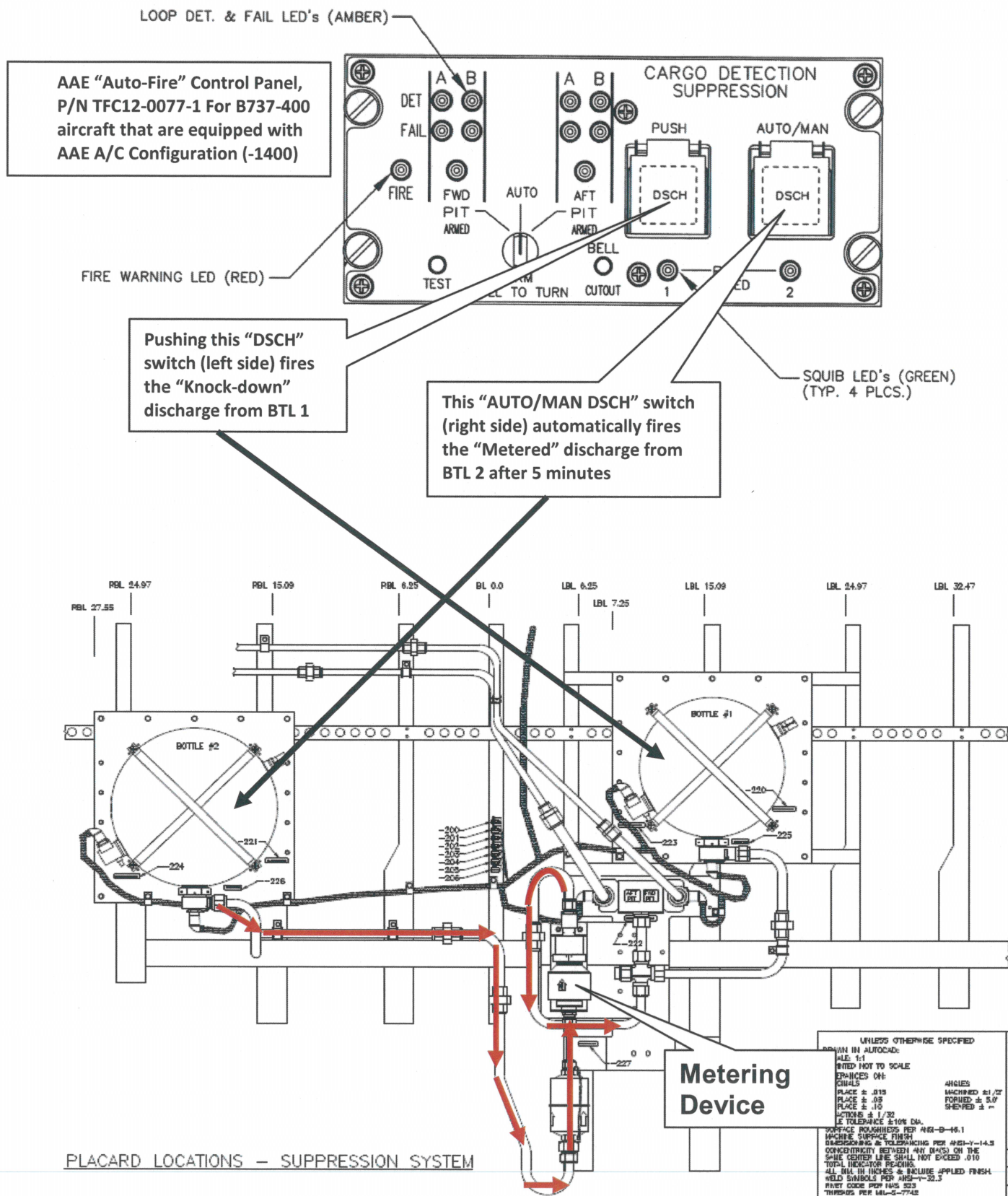
- BOM Item No. -221 "BTL 2 Cargo Suppression", P/N TFC05-0044-37 is shown to be installed on BTL 1
- BOM Item No. -224 "BTL 2 Pressure Switch", P/N TFC05-0044-40 is shown to be installed on BTL 1
- BOM Item No. -226 "BTL 2 Squib", P/N TFC05-0044-42 is shown to be installed on BTL 1

Further, if it is verified that the placards were installed incorrectly, this may have resulted in the BTL 1 and BTL 2 Suppression Harnesses being mated to the Pressure Switch and Squib on the wrong extinguisher bottle, decreasing the ability of the AAE FPS Suppression System to provide enough extinguishing agent to put out a fire and keep it suppressed for the required duration of protection.

This Service Bulletin is intended to resolve the unsafe condition by providing the operator/maintenance personnel with step-by-step instructions on how to (1) inspect the AAE Cargo FPS Placards and Suppression Harnesses at the Suppression Rack Assembly to determine if they are installed correctly; and if they are not, (2) re-install new placards and suppression harnesses in a manner that will eliminate the current unsafe condition and remove the possibility of it reoccurring during future scheduled maintenance.

To accomplish this, it's important to understand that the 1st Extinguisher Bottle (BTL 1) of the AAE Cargo FPS always provides a “High-Rate Knockdown” agent discharge. And the 2nd Extinguisher Bottle (BTL 2) of the AAE Cargo FPS always provides a “Metered” discharge of agent to sustain the concentration of agent in the compartment for the required duration of protection. To help the installer/maintenance personnel understand, below is a photo of the “Auto-Fire” Cargo FPS Control Panel, P/N TFC12-0077-1, along with a diagram of the suppression rack installation for the B737-400 equipped with AAE A/C Configuration (-1400).

Note BTL 2, regardless of its location, is ***always*** the container that is connected to the metering device.



AAE Cargo FPS Suppression Rack Installation (View Looking AFT)
For B737-400 aircraft that are equipped with AAE A/C Configuration (-1400)
 (Section shown above is from AAE Installation drawing TFC07-0062Q, Sheet 7, Rev. A dated 12/05/14)

ACRONYMS

AD – Airworthiness Directive
CT – Critical Task(s)
DAH – Design Approval Holder
FAA – Federal Aviation Administration
FPS – Cargo Fire Protection System
RC – Required for Compliance
SB- Service Bulletin
STC – Supplemental Type Certificate
TC – Type Certificate

DEFINITIONS

Required for Compliance (RC) – Notates which steps in this SB must be done for compliance with an AD. Steps with the “RC” notation have a direct effect on detecting, preventing, resolving, or eliminating the unsafe condition identified above.

NOTES

1. Some steps in the “SERVICE BULLETIN INSTRUCTIONS” section of this SB are identified as *Required for Compliance* (RC). Such steps are preceded with a notation “RC” and are determined to be *critical tasks* that have a direct effect on detecting, preventing, resolving, or eliminating the unsafe condition identified by this SB. If this SB is mandated by an airworthiness directive (AD), the steps identified as RC must be done to comply with the AD.

Steps not identified with RC are recommended and may be deviated from; done as a part of other actions; or done with accepted methods different from those given in this SB, if the RC steps can be done, and the airplane returned to a serviceable condition.

2. This SB includes instructions that refer to steps, methods, techniques, and practices described in other AAE, LTD documents. When the words “refer to” are used and there are other acceptable methods, techniques, and practices (including tools, equipment, and test equipment) those acceptable methods, techniques, practices (including tools, equipment, and test equipment) may be used to complete the work. When the words “in accordance with” are used, the steps, methods, techniques, and practices (including tools, equipment, and test equipment) in the AAE, Ltd document must be used.”

3. The AAE Kit Part Numbers/serial numbers identified in the “EFFECTIVITY” section of this SB were purchased and intended for installation on the specific B737-400 aircraft serial numbers shown. However, it’s possible that the AAE Kit was actually installed on another B737-400 aircraft that has a different aircraft serial number that is not shown. This Service Bulletin is effective, and compliance is required, for all B737-400 aircraft that are equipped with the AAE Kit Serial Numbers shown in the “EFFECTIVITY” section of this SB regardless of what aircraft serial number they were actually installed on, except for those aircraft that have been scrapped.

COMPLIANCE

For “active” aircraft, this (SB) shall be performed as soon as possible during the next scheduled maintenance stop but no later than 30 days.

For “Inactive” aircraft, this (SB) shall be performed before the aircraft is returned to service.

For aircraft that have been scrapped, only Section F of this SB is applicable.

APPROVAL

The technical content of this Service Bulletin that affects the AAE Cargo FPS type design is *FAA approved*.

EFFECTIVITY

The following AAE Cargo FPS Kits may be affected.

<u>AAE, LTD FAA STC Number</u>	<u>AAE A/C Configuration</u>	<u>AAE Kit Part Number / Kit Serial Number/Work Order No.</u>	<u>Purchased By/ Date/Purchase Order Number</u>	<u>Purchased for Installation on Aircraft Serial Number</u>	<u>Status 12/12/14 per “www.Airfleets.net”</u>
ST01114WI	-1400	TFK B737-400-1400 AEF GH / 352 / 030111-P2	Aersale, Inc. / March 2011 / P.O. 10005335	25417	Inactive -Stored
ST01114WI	-1400	TFK B737-400-1400 AEF GH / 298 / 030111-P1	Aersale, Inc. / March 2011 / P.O. 10005335	27149	Active. Operated by Xtra Airways
ST01114WI	-1400	TFK B737-400-1400 AEF GH / 355 / 060811-P1	AirCastle Advisor LLC / June 2011/ P.O. 1148-0- TECH/2011	27003	Inactive - Stored October 2014
ST01114WI	-1400	TFK B737-400-1400 AEF GH / 254 / 020707-P1	Aviation Capital Group / February 2007 / P.O. 28661RyanCSFD-1	28661	Active. Operated by Gading Sari Aviation Services
ST01114WI	-1400	TFK B737-400-1400 AEF GH / 215 / 110405-P1	Boeing Capital Corporation / November 2005 / P.O. 24132-DEL-003	24132	Active. Operated by Peruvian Airlines.
ST01114WI	-1400	TFK B737-400-1400 AEF GH / 318 / 080609-P1	Castle 2003 IA LLC / August 2009 / P.O. 2801	25375	Active. Operated by Rio Linhas Aereas
ST01114WI	-1400	TFK B737-400-1400 AEF GH / 356 / 050911-P2	Castle 2003 IA LLC / May 2011 / P.O. 4392	26281	Active. Operated by Sriwijaya Air
ST01114WI	-1400	TFK B737-400-1400 AEF GH / 291 / 100807-P1	GECAS – US, ACS of Spain / October 2007 / P.O. L848097	23865	Active - Freighter
ST01114WI	-1400	TFK B737-400-1400 AEF GH / 333 / 061510-P1	GECAS – US, ACS of Spain / June 2010 / P.O. L866410	28881	Active - Freighter
ST01114WI	-1400	TFK B737-400-1400 AEF GH / 313 / 060209-P1	MacQuarie AirFinance / June 2009 / P.O. 3055-0- 1950	24474	Active. Operated by Cargo Air
ST01114WI	-1400	TFK B737-400-1400 AEF GH / 317 / 071609-P1	Sky King Inc. / July 2009 / P.O. 15290	24706	Inactive - Stored. Sky King. Leased from ILFC

INSTALLATION DRAWINGS AND DOCUMENTS

This Service Bulletin includes the following AAE installation drawings and data.

- Supplement Type Certificate STC No. ST01114WI
- AAE Drawing TFA10-0061, Master Drawing List, Revision U*, dated 12/05/14 for STC No. ST01114WI
- AAE Drawing TFC07-0073, Bill of Materials, Revision D*, dated 07/27/11 for STC No. ST01114WI
- AAE Installation Drawing TFC07-0062Q, Class C Cargo Comp. FPS Placard Location Instructions, Sheet 7, Revision A dated 12/05/14 *
- AAE Installation Drawing TFC07-0062N, Class C Cargo Comp. FPS Tubing/Wiring Suppression Rack Install. Instructions, Sheet 9, Revision IR dated 07/05/05 *
- AAE Installation Drawing TFC03-0252, System Diagram Fire Suppression B737, Sheet 1, Revision IR dated 04/01/03 *
- AAE System Maintenance Manual TFC18-0207, Rev. IR, dated 11/25/09 Chapter 26-23-00 *

(* Or Later FAA approved revision)

Please contact AAE to obtain copies of the above data if needed.

AAE PARTS, MATERIALS, AND TEST EQUIPMENT

This Service Bulletin includes the following AAE parts, materials, and test equipment.

Qty 1 of BOM Item No. -220 Placard, "BTL 1 Cargo Suppression", P/N TFC05-0044-36
Qty 1 of BOM Item No. -223 Placard, "BTL 1 Pressure Switch", P/N TFC05-0044-39
Qty 1 of BOM Item No. -225 Placard, "BTL 1 Squib", P/N TFC05-0044-41
Qty 1 of BOM Item No. -221 Placard, "BTL 2 Cargo Suppression", P/N TFC05-0044-37
Qty 1 of BOM Item No. -224 Placard, "BTL 2 Pressure Switch", P/N TFC05-0044-40
Qty 1 of BOM Item No. -226 Placard, "BTL 2 Squib", P/N TFC05-0044-42
Qty 1 of BTL 2 Extension Harness Assembly
Qty 2 of Heat Shrink P/N FIT221-1-1/2(CLR)
Qty 4 of Terminal, Ring #10 P/N 36154
Qty 4 of End Caps, P/N MS25274-2

Please contact AAE to obtain the above parts if they are missing.

If not already in your inventory, contact AAE, Ltd to obtain Squib Tester, P/N TFC20-0003-2. Availability is 3-5 days ARO. Your order should be submitted by email to sales@aae-ltd.com or aaeltd@compuserve.com; or by fax at 816-228-4191.

The BTL 2 Extension Harness Assembly included with the SB was built by AAE using the materials, notes, and specifications shown in Appendix 1.

SERVICE BULLETIN INSTRUCTIONS

A. Gain access to the aircraft and the AAE Cargo FPS Suppression Rack Assembly located at F.S.540 between LBL 32.47 and RBL 27.55.

(1) Location Zones

Flight Compartment – Left

Flight Compartment – Right

Forward Cargo Compartment

(2) Access Panels

4404R, Forward Cargo Compartment

(3) Open the forward cargo door, 4404R.

(4) Remove the bulkhead at the aft end of the forward cargo compartment to gain access to the fire suppression bottles.

B. **RC** - Perform a detailed visual inspection of the AAE Cargo FPS Placards to verify they are the correct placards and that they are installed in the proper locations as follows:

(1) At the AAE Cargo FPS Extinguisher Bottle, BTL 1, P/N TFC14-0039-1, located at F.S. 540 between LBL 24.97-LBL 6.25 - Using AAE Drawing, Placard Location Instructions, TFC07-0062Q, Sheet 7, Revision A dated 12/05/14, or later FAA approved revision

i. Visually inspect the placards installed on the AAE BTL 1 Suppression Mounting Plate P/N TFC06-0127-101 (BOM Item 692). Verify they are the following placards and that they are installed in the locations on the mounting plate in accordance with this AAE Drawing.

1. BOM Item No. -220 Placard, "BTL 1 Cargo Suppression", P/N TFC05-0044-36
2. BOM Item No. -223 Placard, "M9404 BTL 1 Pressure Switch", P/N TFC05-0044-39
3. BOM Item No. -225 Placard, "M9404 BTL 1 Squib", P/N TFC05-0044-41

If they ARE the correct placards and they are installed in accordance with the AAE Drawing, proceed to Step B (2) of this SB.

If they ARE NOT the correct placards or they ARE NOT installed in accordance with the AAE Drawing, accomplish Steps B (1ii) and B (1iii) below.

ii. Remove the existing AAE Cargo FPS Placards (i.e. BOM Item No. -221, -224, and -226) from the mounting plate P/N TFC06-0127-101 (BOM Item 692) and destroy/discard them.

SERVICE BULLETIN INSTRUCTIONS (Cont.)

- iii. Install the following AAE provided Cargo FPS Placards on the Mounting Plate, P/N TFC06-0127-101 in accordance with the AAE Drawing, Placard Location Instructions, TFC07-0062Q, Sheet 7, Revision A dated 12/05/14 or later FAA approved revision.
 - 1. BOM Item No. -220 Placard, "BTL 1 Cargo Suppression", P/N TFC05-0044-36
 - 2. BOM Item No. -223 Placard, "M9404 BTL 1 Pressure Switch", P/N TFC05-0044-39
 - 3. BOM Item No. -225 Placard, "M9404 BTL 1 Squib", P/N TFC05-0044-41

- iv. Proceed to Step B (2)

- (2) At the AAE Cargo FPS Extinguisher Bottle, BTL 2, P/N TFC14-0051-1, located at F.S. 540 between RBL 12.8-RBL 27.55 - Using AAE Drawing, Placard Location Instructions, TFC07-0062Q, Sheet 7, Revision A dated 12/05/14, or later FAA approved revision
 - i. Visually inspect the placards installed on the AAE BTL 2 Suppression Mounting Plate P/N TFC06-0152-101 (BOM Item 290). Verify they are the following placards and that they are installed in the locations on the mounting plate in accordance with this AAE Drawing.
 - 1. BOM Item No. -221 Placard, "BTL 2 Cargo Suppression", P/N TFC05-0044-37
 - 2. BOM Item No. -224 Placard, "M9405 BTL 2 Pressure Switch", P/N TFC05-0044-40
 - 3. BOM Item No. -226 Placard, "M9405 BTL 2 Squib", P/N TFC05-0044-42

If they ARE the correct placards and they are installed in accordance with the AAE Drawing, proceed to Step C of this SB.

If they ARE NOT the correct placards or they ARE NOT installed in accordance with the AAE Drawing, accomplish Steps B (2ii) and B (2iii) below.

- ii. Remove the existing AAE Cargo FPS Placards (i.e. BOM Item No. -220, -223, and -225) from the mounting plate P/N TFC06-0152-101 (BOM Item 290) and destroy/discard them.
- iii. Install the following AAE provided Cargo FPS Placards on the Mounting Plate, P/N TFC06-0152-101 in accordance with the AAE Drawing, Placard Location Instructions, TFC07-0062Q, Sheet 7, Revision A dated 12/05/14 or later FAA approved revision.
 - 1. BOM Item No. -221 Placard, "BTL 2 Cargo Suppression", P/N TFC05-0044-37
 - 2. BOM Item No. -224 Placard, "M9405 BTL 2 Pressure Switch", P/N TFC05-0044-40
 - 3. BOM Item No. -226 Placard, "M9405 BTL 2 Squib", P/N TFC05-0044-42

- iv. Proceed to Step C of this SB

SERVICE BULLETIN INSTRUCTIONS (Cont.)

C. **RC** - Perform a detailed visual inspection of the AAE Cargo FPS Suppression Harnesses to verify proper Harness Installation of Extinguisher Bottle's Pressure Switch Harnesses and Squib Harnesses using AAE System Diagram, TFC03-0252, Sheet 1 at Revision IR dated 04/01/03, or later FAA approved revision and AAE Installation Drawing TFC07-0062N, Class C Cargo Comp. FPS Tubing/Wiring Suppression Rack Install. Instructions, Sheet 9 Revision IR dated 07/05/05 or later FAA approved revisions as follows:

- (3) At the AAE Cargo FPS Extinguisher Bottle, BTL 1, P/N TFC14-0039-1, installed on Suppression Mounting Plate P/N TFC06-0127-101, between LBL 24.97-LBL 6.25 -
- i. Inspect the electrical harness connected to the bottles pressure switch and
 1. Verify it is marked (D9495) "BTL 1 Pressure Switch Harness P/N TFC03-0255-103" and,
 2. Verify it is mated to BTL 1's pressure switch connector.
 - ii. Inspect the electrical harness connected to the bottles squib and
 1. Verify it is marked (D9494) "BTL 1 Squib Harness P/N TFC03-0255-102" and,
 2. Verify it is mated to BTL 1's squib connector.

If they ARE the correct harnesses and they are installed in accordance with the AAE Drawing, proceed to Step 4 of this SB as applicable to the AAE A/C Configuration installed on your aircraft.

If they ARE NOT the correct harnesses or they ARE NOT installed in accordance with the AAE Drawing, proceed to Step 4 of this SB as applicable to the AAE A/C Configuration installed on your aircraft.

- (4) At the AAE Cargo FPS Extinguisher Bottle, BTL 2, P/N TFC14-0051-1, installed on Suppression Mounting Plate P/N TFC06-0152-101, between RBL 12.8-RBL 27.55 -
- i. Inspect the electrical harness connected to the bottles pressure switch and
 1. Verify it is marked (D9496) "BTL 2 Pressure Switch Harness P/N TFC03-0255-105" and,
 2. Verify it is mated to BTL 2's pressure switch connector.
 - ii. Inspect the electrical harness mated to the bottles squib and
 1. Verify it is marked (D9497) "BTL 2 Squib Harness P/N TFC03-0255-104" and,
 2. Verify it is mated to BTL 2's squib connector.

If they ARE the correct harnesses and they are installed in accordance with the AAE Drawing, proceed to Step E of this SB as applicable to the AAE A/C Configuration installed on your aircraft. .

If they ARE NOT the correct harnesses or they ARE NOT installed in accordance with the AAE Drawing, accomplish Steps C (5) thru (11) of this SB.

SERVICE BULLETIN INSTRUCTIONS (Cont.)

- (5) At the P6-2 Panel located behind the Flight Officer's chair, locate the Cargo FPS circuit breakers "CARGO SMOKE DETECTORS – A LOOP", "CARGO SMOKE DETECTORS – B LOOP", AND "CARGO SMOKE CONTROL/FAULT PNLS", "OPEN" them, and install a "DO NOT CLOSE" tag to prevent accidental discharge of the bottles and diverter valve.
- (6) Disconnect (D9496) "BTL 2 Pressure Switch Harness, P/N TFC03-0255-105" from BTL 1's Pressure Switch and remove D9496 ground wires (W9448-001-20 and W9448-002-20) from ground studs (GD9184-DC and GD9185-S)
- (7) Disconnect (D9497) "BTL 2 Squib Harness, P/N TFC03-0255-104" from BTL 1's Squib and remove D9497 ground wires (W9449-001-20 and W9449-002-20) from ground studs (GD9182-DC and GD9183-S).
- (8) Remove the ring terminals from the BTL 2 Harness ground wires P/N W9448-001-20, W9448-002-20, W9449-001-20, and W9449-002-20; and install End Caps, P/N MS25274-2.
- (9) Disconnect (D9495) "BTL 1 Pressure Switch Harness, P/N TFC03-0255-103" from BTL 2's Pressure Switch and remove D9495 ground wires (W9447-001-20 and W9447-002-20) from ground studs (GD9184-DC and GD9185-S).
- (10) Disconnect (D9494) "BTL 1 Squib Harness, P/N TFC03-0255-102" from BTL 2's Squib and remove D9494 ground wires (W9446-001-20 and W9446-002-20) from ground studs (GD9181-DC and GD9183-S).
- (11) Using AAE Installation Drawing, TFC07-0062N, Class C Cargo Comp. FPS Tubing/Wiring Suppression Rack Install. Instructions, Sheet 9, Revision IR dated 07/05/05 or later approved revisions,
 - i. Re-route the BTL 2's Harnesses, (D9496) "BTL 2 Pressure Switch, P/N TFC03-0255-105" and (D9497) "BTL 2 Squib, P/N TFC03-0255-104" to the BTL 2 Extinguisher Container. ****DO NOT MAKE CONNECTIONS YET****.
 1. If the existing harness is now too short to reach the BTL 2's connectors, then AAE has included a "BTL 2 Extension Harness" with this SB that can be connected to the existing BTL 2 Pressure Switch and Squib Harnesses as follows:
 - a. The end of the extension harness, without the ground wires, is the end that will mate to the existing BTL 2 Pressure Switch and Squib Harnesses. The other end of the extension harness, with the ground wires, is the end that will mate to BTL 2's Extinguisher Container. See Appendix 1's Figure 1 for more details.

SERVICE BULLETIN INSTRUCTIONS (Cont.)

- b. Slide Qty (1) 4" piece of the included heat shrink FIT221-1-1/2(CLR) over each connector at the end of the harness that will be mated to the existing harness (end without the ground wires).
 - c. Mate the existing harnesses connector (D9496) "BTL 2 Pressure Switch, TFC03-0255-105" to the same connector on the BTL 2 Extension Harness (D9496) "BTL 2 Pressure Switch, TFC03-0255-105". Position the heat shrink over the new connection and apply heat until the material firmly seals the new connection.
 - d. Mate the existing harnesses connector (D9497) "BTL 2 Squib, TFC03-0255-104" to the same connector on the BTL 2 Extension Harness (D9497) "BTL 2 Squib, TFC03-0255-104". Position the heat shrink over the new connection and apply heat until the material firmly seals the new connection.
- ii. At the end of the BTL 2 Extension Harness are two sets of ground wires (W9448-001-20/ W9448-002-20 and W9449-001-20/W9449-002-20). See Appendix 1's Figure 1 for more details. Connect ring terminals, P/N 36154 to the ends of these ground wires. Route these ground wires to the existing ground studs and connect them as follows:
 - a. D9496 ground wire (W9448-001-20) to ground stud GD9184-DC
 - b. D9496 ground wire (W9448-002-20) to ground stud GD9185-S
 - c. D9497 ground wire (W9449-001-20) to ground stud GD9182-DC
 - d. D9497 ground wire (W9449-002-20) to ground stud GD9183-S
- iii. Re-route BTL 1's Harnesses (D9495) "BTL 1 Pressure Switch, P/N TFC03-0255-103" and (D9494) "BTL 1 Squib, P/N TFC03-0255-102" to the BTL 1 Extinguisher Container. ****DO NOT MAKE CONNECTIONS YET****.
- iv. Route BTL 1's Harnesses ground wires to the existing ground studs and connect them as follows:
 - a. D9495 ground wire (W9447-001-20) to ground stud GD9184-DC
 - b. D9495 ground wire (W9447-002-20) to ground stud GD9185-S
 - c. D9494 ground wire (W9446-001-20) to ground stud GD9181-DC
 - d. D9494 ground wire (W9446-002-20) to ground stud GD9183-S
- v. Mate BTL 1's Harness (D9495) "BTL 1 Pressure Switch, P/N TFC03-0255-103" to BTL 1's pressure switch connector. **** DO NOT CONNECT BTL 1's Squib Harness at this time.**
- vi. Mate BTL 2's Harness (D9496) "BTL 2 Pressure Switch, P/N TFC03-0255-105" to BTL 2's pressure switch connector. **** DO NOT CONNECT BTL 2's Squib Harness at this time.**

SERVICE BULLETIN INSTRUCTIONS (Cont.)

- vii. Secure all wire harnesses and ground wires. IMPORTANT – harnesses should be secured in a manner that prevents them from accidentally being connected to the incorrect bottle during future maintenance.
- viii. Perform a Squib Circuit Test in accordance with Appendix 2 of this Service Bulletin.
- ix. Perform a Pressure Switch Test in accordance with Appendix 2 of this Service Bulletin.
- x. If the Squib Circuit and Pressure Switch tests are successful, proceed to Step D of this SB
- xi. If the Squib Circuit and Pressure Switch tests fail, contact AAE LTD at 816-228-3322 for assistance.

D. Return the airplane to its original condition.

- (12) Open the CARGO SMOKE CONTROL/FAULT PNLS circuit breaker and install a DO-NOT-CLOSE tag.
- (13) Disconnect the squib connectors from the squib tester
- (14) Mate BTL 1's Harness (D9494) "BTL 1 Squib, P/N TFC03-0255-102" to BTL 1's Squib connector.
- (15) Mate BTL 2's Harness (D9497) "BTL 2 Squib, P/N TFC03-0255-104" to BTL 2's Squib connector.
- (16) Reinstall the cargo compartment bulkhead and seal all seams with approved fire-proof tape.
- (17) Remove the "DO-NOT-CLOSE" tag and close the CARGO SMOKE CONTROL/FAULT PNLS circuit breaker.
- (18) Set aircraft power as necessary.
- (19) Proceed to Step E of this SB

SERVICE BULLETIN INSTRUCTIONS (Cont.)

E. **RC** - Make an entry in the affected aircrafts permanent maintenance records that this Service Bulletin was accomplished, including the date, location, and organization.

F. Complete the information below for the affected aircraft and send a copy of this SB to AAE LTD at P.O. Box 1117, Blue Springs, MO. 64013-1117.

<i>Aircraft Model Number</i>	<i>Aircraft Serial Number</i>	<i>AAE Kit Part Number</i>	<i>AAE Kit Serial Number</i>

This Service Bulletin WAS accomplished on the aircraft specified above by:

Name	Address	Phone	Email

**This Service Bulletin WAS NOT accomplished on the aircraft specified above because the aircraft has
been "Scrapped" by:**

Name	Address	Phone	Email

Name: _____
(Printed)

Signature: _____

Date: _____

APPENDIX 1
BTL 2 EXTENSION HARNESS BUILD-UP, NOTES, MATERIAL LIST, WIRES AND LABELS

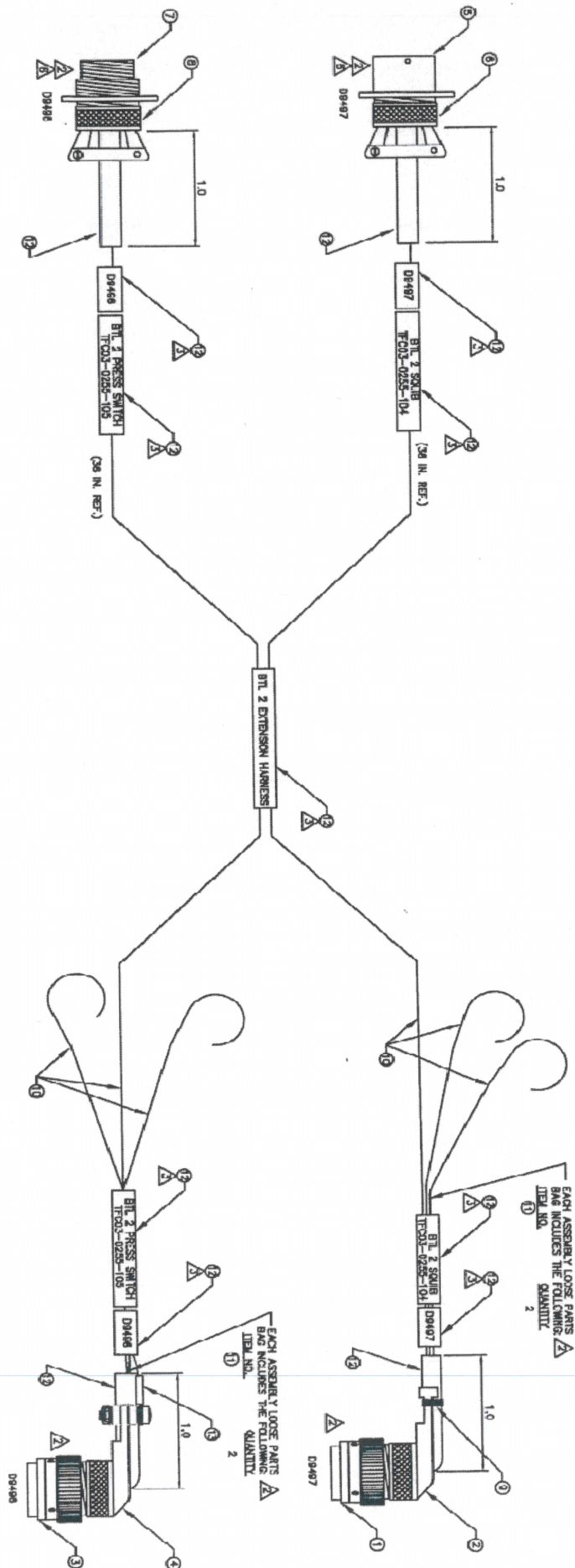


Figure 1. Bottle 2 Extension Harness

- Numbers outlined with a Triangle correspond to the "Notes" section on Page 15

APPENDIX 1 (Cont.)

BTL 2 EXTENSION HARNESS BUILD-UP, NOTES, MATERIAL LIST, WIRES AND LABELS

Appendix 1, Figure 1 Notes:

1. Bag Harness and label bag
2. Using the cut and marked wires identified in the appropriate list shown in Table 1 below, assemble the harnesses as shown. Terminate the wires in the connectors per Table 1 below. For wires and parts that are not terminated at time of build up (Loose Parts), bag these items separately and attach bags by the connector on the harness assembly. These loose parts will be installed at time of installation.
3. Identify harness with heat shrink label item No. 12 at connector ends per Table 2 below. Use 10 or 12 point Helvetica font, black letters on heat shrink label Item No. 12.
4. Bag and label loose parts by part number.
5. Perform a complete continuity test of wire terminations as shown by the wire list specified in Table 1 below. Verify each wire is electrically isolated (i.e. no continuity) from all the other wires in the assembly.
6. Install supplied heat shrink, P/N FIT221-1-1/2(CLR), qty 2, over the Bottle 2 Extension Harness connectors that attach to Bottle 2 Harness. Apply heat to shrink around connectors.
7. Protect connector from contamination during shipping and handling (dust caps preferred).

Bottle 2 Extension Harness Material List

Item No.	Description	Part No. or Identifying No.	Qty Req'd
1	Connector (D9497)	MS24266R10B5SN	1
2	Backshell, Size 10, RT	GTR21-10CD	1
3	Connector (D9496)	M83723/86R1005N	1
4	Backshell, Size 10, RT	M85049/51-1-10N	1
5	Connector (D9497)	M24264R10B5PN	1
6	Backshell, Straight	MS27291-1	1
7	Connector (D9496)	M83723/85R1005N	1
8	Backshell, Straight	M85049/52-1-10N	1
9	Lacing Cord (Type V, Sz 2, Finish C	MIL-T73735B	As Req'd
10	Wire, 1 Cond. 20 AWG	MIL-W-22759/16-20-9	per Table 1
11	Terminal, Ring #10	36154	4
12	Heat Shrink, 1/8" Label (2 inch)	98-WT31-0342	13
13	Terminal, Ring #6	36152	1
14	Heat Shrink, 1 1/2", Clr (4 inch)	FIT221-1-1/2(CLR)	2

APPENDIX 1 (Cont.)

BTL 2 EXTENSION HARNESS BUILD-UP, NOTES, MATERIAL LIST, WIRES AND LABELS

Table 1. Wire List

Item No.	Wire Number	Wire Type	Wire Color	Wire Length (Inches)	From	Pin	Termination Code	To	Pin	Termination Code	Function	Wire Style
1	W9432-034-20	MIL-W-22759/16-20-9	White	36	D9497	1	T	D9497	1	T	Bottle 2 Squib	Single Conductor
2	W9432-050-20	MIL-W-22759/16-20-9	White	36	D9496	2	T	D9496	2	T	Bottle 2 Pressure Switch	Single Conductor
3	W9448-001-20	MIL-W-22759/16-20-9	White	84	D9496	3	T	GD9184-DC		U	Press. Sw Btl 2 GD-DC	Single Conductor
4	W9448-002-20	MIL-W-22759/16-20-9	White	84	D9496	Backshell	T	GD9185-S		U	Press. Sw Btl 2 GD-S	Single Conductor
5	W9449-001-20	MIL-W-22759/16-20-9	White	84	D9497	2	T	GD9182-DC		U	Squib Btl 2 GD-DC	Single Conductor
6	W9449-002-20	MIL-W-22759/16-20-9	White	84	D9497	3	T	GD9183-S		U	Squib Btl 2 GD-S	Single Conductor

Table 2. Labels

Label	Qty Req'd
Btl 2 Extension Harness	1
Bottle 2 Squib TFC03-0255-104	2
Bottle 2 Pressure Switch TFC03-0255-104	2
D9496	2
D9497	2

APPENDIX 2
PROCEDURES TO COMPLETE A
SQUIB CIRCUIT TEST AND PRESSURE SWITCH TEST ON BTL 1 AND BTL 2

To accomplish a "Squib Circuit Test" - Refer to AAE System Maintenance Manual, TFA18-0207, Chapter 26-23-00, Fire Suppression System – Adjustment/Test, Code 6, Page 501, Revision IR dated 11/25/09, or later FAA approved revision, and complete Section 2. "Squib Circuit Test"

To accomplish a "Pressure Switch Test" - Refer to AAE System Maintenance Manual, TFA18-0207, Chapter 26-23-00, Fire Suppression System – Adjustment/Test, Code 6, Page 501, Revision IR dated 11/25/09, or later FAA approved revision, and complete Section 3. "Pressure Switch Test".

NOTE: Some of the steps in the above test procedures have already been accomplished in earlier steps of this SB and are redundant. Or they are not necessary to complete as part of this SB. The steps in the above test procedures are typical for a scheduled maintenance visit and assume access to the AAE Cargo FPS Suppression Rack and its components still need to be gained.

Contact AAE, LTD for a current copy of TFA18-0207