

FIREPROOF WIRING PENETRATIONS

1. PLANNING INFORMATION

- A. EFFECTIVITY** ALL 750XL aircraft up to and including S/N 221.

- B. REASON** During a review of the Installation Main A/C Loom (P/N 11-81021) a possibility of ineffective firewall sealing was identified.

- C. DESCRIPTION** This Service Bulletin provides procedures to improve the firewall sealing by installation of new components (Firewall Penetration Tubes, Firesleeve and Hose Clip).

- D. COMPLIANCE** Within 300 hr.

- E. APPROVAL** By delegated authority.

- F. TOOLING** N/A.

- G. WEIGHT AND BALANCE** No change.

- H. REFERENCE** PAL Drawing P/N 11-81021-4, 11-80701

- I. HOURS REQUIRED** 8 Hours.

- J. WARRANTY COVER** Normal Warranty conditions apply.

2. **ACCOMPLISHMENT INSTRUCTIONS**

A. **Main Loom**

NOTE: Sealant manufacturer’s storage, health precautions, minimum cure times, and use instructions must be obeyed.

- 1) Remove the upper engine cowl to get access to the wiring loom feed thru on the LH side of the firewall, (adjacent to the relay box, if fitted) (See Figure 1).

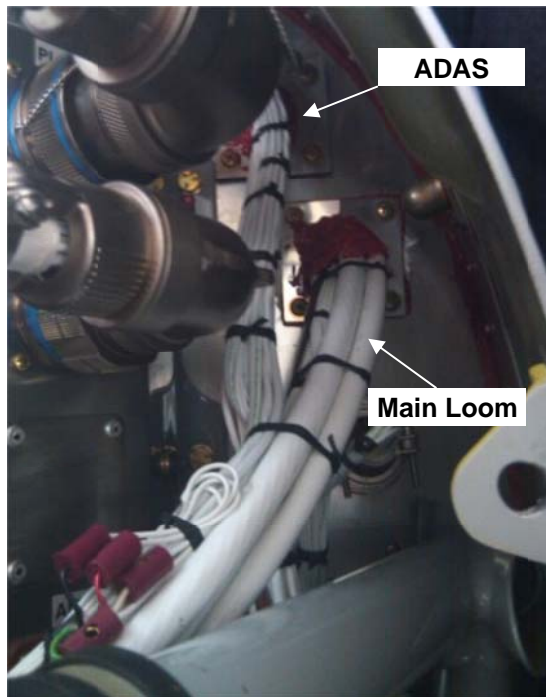


FIGURE 1 FIREWALL (MAIN LOOM AND ADAS)

- 2) Remove and retain the Qty 4 screws on the firewall loom feedthrough.
- 3) Remove and discard the two stainless plates and firesleeve material.
- 4) Remove any excess sealant from the loom and inspect the loom for chafing.
 - If chafing or any damage are present on Loom, contact PAL for further information;
 - If no chafing / damage are present, continue on Step 5).
- 5) Protect the loom and surrounding equipment and carefully enlarge the firewall loom hole to 1.375” diameter. This may be achieved using a small deburring tool. If this method is not successful it may be necessary to disconnect and pass the loom back through the firewall.
- 6) Cut and split a 3” length of firesleeve and wrap the loom near where it passes through the firewall. The firesleeve should be wide enough to wrap at least 1.5x around the loom.
- 7) Fit two firewall penetration tubes around the firesleeve allowing 0.25” of firesleeve to extend past the end of the tube. Ensure the firewall penetration tubes will securely hold the loom. If the loom is loose in the firewall penetration tubes use a wider length of firesleeve to wrap further around the loom.

- 8) Slide the Firewall Penetration Tubes and firesleeve along the loom and secure with Qty 4 Screws retained earlier (See Figure 2).

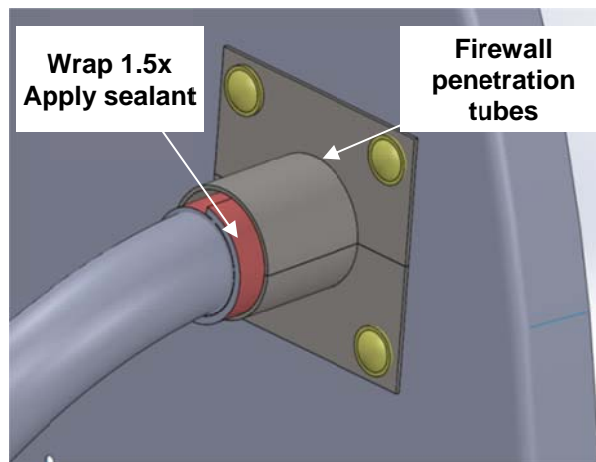


FIGURE 2 FIREWALL PENETRATION TUBES AND FIRESLEEVE

- 9) Apply sealant in any gaps of the firewall side.
- 10) Cut and split a 2" long piece of firesleeve and wrap the loom and firewall penetration tubes. The wrapping must be at least 1.25 times around the loom without any gaps.
- 11) Apply sealant in the overlapped areas and secure the sleeve to the firewall penetration tubes and loom with Qty 2 hose clamps.
- 12) Apply sealant at the end of the firesleeve (See Figure 3).
- 13) If an ADAS or DAAM is installed carry out part 2.B of this bulletin.
- 14) Install the upper engine cowl.

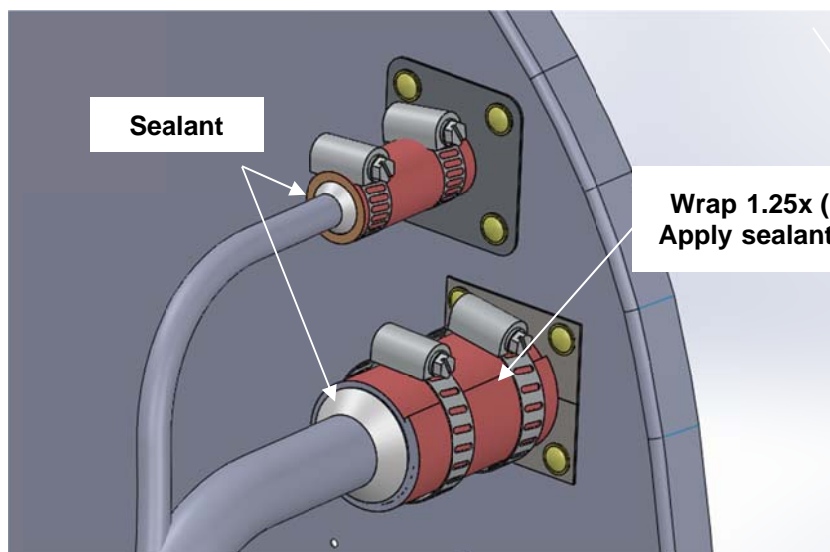
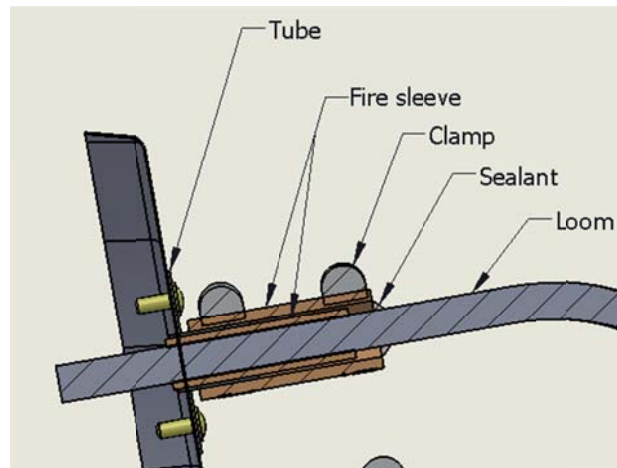


FIGURE 3 HOSE CLAMPS

B. ADAS/DAAM Loom (if installed)**FIGURE 4 ADAS WIRING PENETRATION**

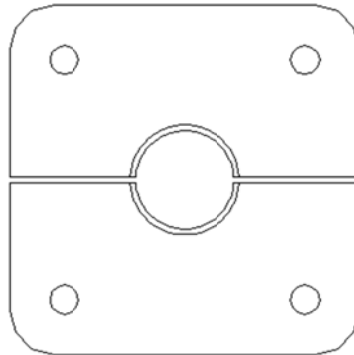
If a separate loom penetration is used for the ADAS or DAAM engine trend system (as shown in Figure 1), carry out the procedures A) or B) below:

A) Single Piece Tube

- 1) Remove the LH, Centre, & RH instrument panels as required to gain access to the firewall.
- 2) Remove and discard the Qty 4 screws on the ADAS or DAAM firewall loom feedthrough. Retain attachment washers and nuts.
- 3) Remove and discard the two stainless plates and phenolic spacer.
- 4) Remove any excess sealant from the loom and inspect the loom for chafing.
 - If chafing or any damage are present on Loom, contact PAL for further information;
 - If no chafing / damage are present, continue on Step 5).
- 5) If required, enlarge the firewall hole to accept the firewall tube
- 6) Disconnect the ADAS wires and route through the firewall tube & firesleeve.
- 7) Attach the firewall tube to the firewall using screws and retained washers and nuts.
- 8) Apply a small amount of sealing compound to the inner firesleeve and slide it into the firewall penetration tube.
- 9) Slide the outer firesleeve over the firewall penetration tube and secure with the clamps.
- 10) Apply sealant at the end of the firesleeve (See Figures 3 and 4).
- 11) Reconnect the ADAS wiring.
- 12) Refit the instrument panel(s).
- 13) Refit the upper engine cowl.
- 14) Carry out functional tests on all disturbed systems.

B) Split Tube

- 1) Remove the LH, instrument panel to gain access to the firewall.
- 2) Remove and discard the Qty 4 screws on the ADAS or DAAM firewall loom feedthrough. Retain attachment washers and nuts.
- 3) Remove and discard the two stainless plates and phenolic spacer.
- 4) Remove any excess sealant from the loom and inspect the loom for chafing.
 - If chafing or any damage are present on Loom, contact PAL for further information;
 - If no chafing / damage are present, continue on Step 5).
- 5) Cut the firewall penetration tube into 2 pieces as shown in Figure 5.

**FIGURE 5 ADAS SPLIT TUBE**

- 6) If required, enlarge the firewall hole to accept the firewall tube.
- 7) Attach the firewall tube to the firewall using screws and retained washers and nuts.
- 8) Split the inner firesleeve along its length and apply a small amount of sealing compound to split seam and outside of the firesleeve. Slide the sleeve into the firewall penetration tube.
- 9) Split the 1" OD outer firesleeve along its length and wrap the firesleeve around the loom and the firewall penetration tube and secure with the clamps.
- 10) Apply sealant at the end and split seam of the firesleeve (See Figures 3 and 4).
- 11) Refit the instrument panel(s).
- 12) Refit the upper engine cowl.
- 13) Carry out functional tests on all disturbed systems.

3. CERTIFICATION

Record compliance with this Service Bulletin in the Aircraft Log Book.

4. MATERIAL REQUIRED:

Main Loom Firewall penetration

<u>Description</u>	<u>Part Number / Specification</u>	<u>Qty Required</u>
FIREWALL PENETRATION TUBES	11-81857-2	2
FIRESLEEVE (-18 or larger)	SAE AS1072 *	12"
HOSE CLIP	NAS1922-0150-3H**	2
SEALING COMPOUND AIRCRAFT FIREWALL	AMS3374 or MIL-S-38249	A/R

ADAS or DAAM Firewall penetration (if fitted)

<u>Description</u>	<u>Part Number / Specification</u>	<u>Qty Required</u>
FIREWALL TUBE - (SINGLE)	11-81865-1	1
OR	OR	
FIREWALL TUBE - (SPLIT)	11-81865-2	2"
FIRESLEEVE 3/8" ID	SAE AS1072 * 2650-06	
METHOD A) FIRESLEEVE 5/8"ID	SAE AS1072 * / 2650-10	2"
METHOD B) FIRESLEEVE 1"ID	SAE AS1072 * / 2650-16	2"
HOSE CLIP	NAS1922-0100-3H	2
SCREWS	AN525-832R6	4
SEALING COMPOUND AIRCRAFT FIREWALL	AMS3374 or MIL-S-38249	A/R

* Suggested Manufacturers P/N Stratoflex Firesleeve 2650-XX, A-B Thermal Technologies S-AS1072-M029-X-X.

** Alter size to suit loom if required.