

THERMAL SWITCHES - REPAIR

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to repair the thermal switch bracket.
- B. The procedures in this section are given in the sequence below. The tasks identified with (◆) are part of the Scheduled Maintenance Requirements Document (SMRD).

TASK NUMBER	DESCRIPTION	EFFECTIVITY
21-20-02-300-801-A	REPAIR OF THERMAL SWITCH BRACKET	ALL

TASK 21-20-02-300-801-A

EFFECTIVITY: ALL

2. REPAIR OF THERMAL SWITCH BRACKET

A. General

(1) This task gives the procedures to repair the thermal switch bracket.

B. References

REFERENCE	DESIGNATION
AMM TASK 21-20-01-400-801-A/400	-
AMM TASK 21-20-02-000-801-A/400	-
AMM TASK 21-20-02-400-801-A/400	-
AMM TASK 21-20-04-000-801-A/400	-
AMM TASK 21-20-04-400-801-A/400	-

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Sandpaper, 240-grit	To break surface gloss	AR
Commercially available	Rubber gloves	Hand protection	1 pair
Commercially available	Safety goggles	Eye protection	1 pair
Commercially available	Shop Wipes	For cleaning	AR
Commercially available	Dust Mask	To prevent skin irritations and excessive inhalation	1
Commercially available	Paint brush	To apply the resin	1
Commercially available	Wooden Stick	To remove remaining mold release	AR
Commercially available	Acrylic or Polyethylene Spatula	To remove thermal insulation	1

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
TT-I-735	Isopropyl Alcohol - Commercial grade	AR
Commercially available	HE 1908 Adhesive	AR

(Continued)

<i>SPECIFICATION (BRAND)</i>	<i>DESCRIPTION</i>	<i>QTY</i>
KB 42/75 - 75 mm (2.95 in) or equivalent (PN=OT-7)	Adhesive Type	AR
AMS-C-9084	Fabric, Glass Style 7781	93.5 cm ²
AMS3091A	FREKOTE 3-GAL, QZ11-1 or FREKOTE 700-NC	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

<i>QTY</i>	<i>FUNCTION</i>	<i>PLACE</i>
1	Does the task	In the aircraft

I. Preparation

SUBTASK 841-002-A

- (1) Make sure that the aircraft is safe for maintenance.
- (2) Remove the thermal switches (AMM TASK 21-20-02-000-801-A/400).
- (3) Remove the ducts shown ([Figure 801](#), sheet 1). Refer to AMM TASK 21-20-04-000-801-A/400.

J. Repair to Improve the Thermal Switch Attachment

SUBTASK 300-002-A

- (1) For a better attachment of the thermal switch, do as follows:
 - (a) Partially remove the thermal insulation from the ducts. Refer to [Figure 801](#), sheet 1.
 - (b) With the aid of an spatula, carefully remove the switch bracket and keep it to be used again.
 - (c) With the aid of 240-grit sandpaper, remove the remaining adhesive from the work area in the duct ([Figure 801](#), sheet 1).
 - (d) Clean the repair area with isopropyl alcohol.
 - (e) Prepare the adhesive mixture (HE 1908) in the proportion of 100 x 85 as shown on the product label.

NOTE: Application time is 15 minutes.
 - (f) Bond the bracket to the duct with the prepared adhesive mixture.
 - (g) Cure at 15°C - 25°C (59°F - 77°F) ambient temperature for 48 hours or accelerate the cure with lamps at 60°C - 70°C (140°F - 158°F) for 2 hours.

- (h) Use isopropyl alcohol to clean the repair area and the bracket .
- (i) Prepare two pieces of style-7781 fiberglass fabric with 57mm x 82mm (2.25 in x 3.25 in) in size. Refer to [Figure 801](#), sheet 1.
- (j) Apply mold release P/N FREKOTE 33-GAL, QZ-11-1, FREKOTE 700-C, or similar product, to the removed screws and install them back to the bracket. Make sure to keep a clearance of 4 to 6 mm for lamination. Refer to [Figure 801](#), sheet 2.

NOTE: The mold release and screws are used to protect the locknut threads.

- (k) Prepare other adhesive mixture (HE 1908) as given in step (e).
- (l) Laminate the two layers of fiberglass on the bracket (with the two screws installed). Use a paint brush to apply the prepared mixture.
- (m) Cure at 15°C - 25°C (59°F - 77°F) ambient temperature for 48 hours or accelerate the cure in the stove (or with the aid of heat lamps) at 60°C - 70°C (140°F - 158°F) for 2 hours.
- (n) After the curing time, remove the screws from the bracket, smooth the surface with 240-grit sandpaper and, if necessary, enlarge the hole to 4.5 mm (0.18 in). Take care not to cause damage to the locknut threads ([Figure 801](#), sheet 2).
- (o) With a cutter, open the main hole to 15 mm (0.60 in) ([Figure 801](#), sheet 2).
- (p) With a wooden stick, remove the remaining mold release as necessary.
- (q) Clean the holes and locknut threads with isopropyl alcohol.
- (r) With adhesive tape P/N KB 42/75 or equivalent (P/N = OT-7), repair the thermal insulation cut. Protect the exposed duct as shown in [Figure 801](#), sheet 2. Make sure that there is a clearance for the switch installation.

K. Follow-on

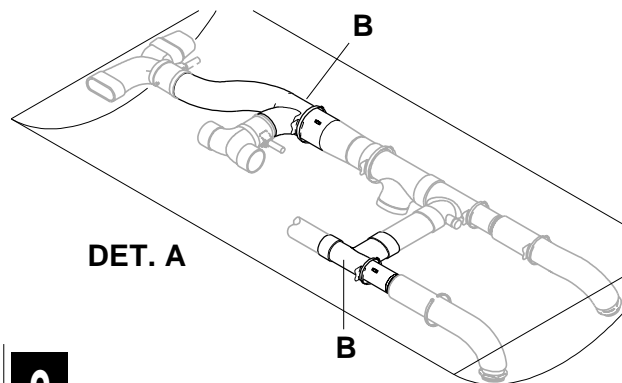
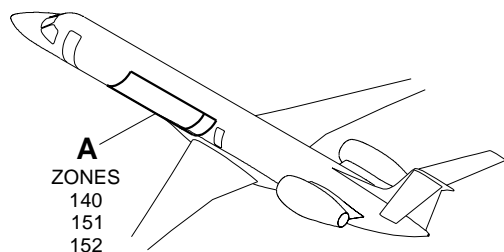
SUBTASK 842-002-A

- (1) For the thermal insulation, refer to AMM TASK 21-20-01-400-801-A/400.
- (2) Install the thermal switches (AMM TASK 21-20-02-400-801-A/400).
- (3) Install the reworked ducts. Refer to AMM TASK 21-20-04-400-801-A/400.

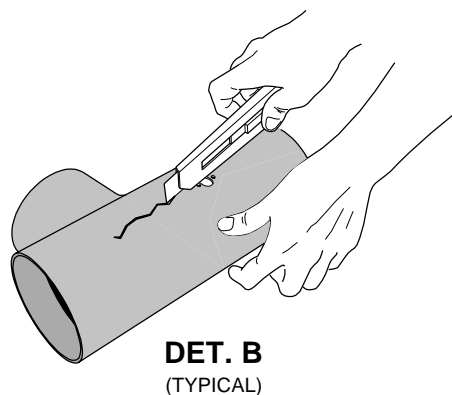
EFFECTIVITY: ALL

Thermal Switch Brackets - Repair

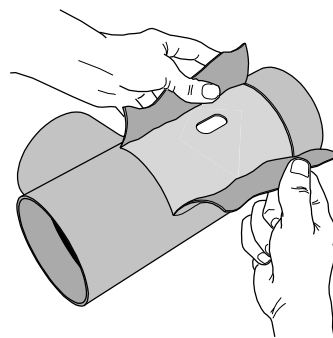
Figure 801 - Sheet 1



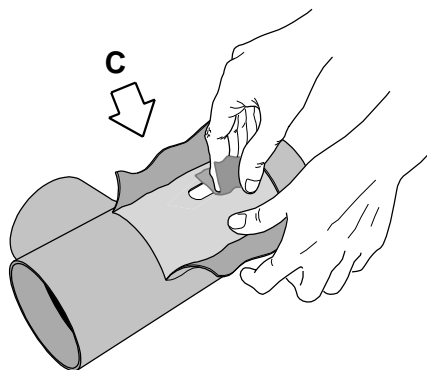
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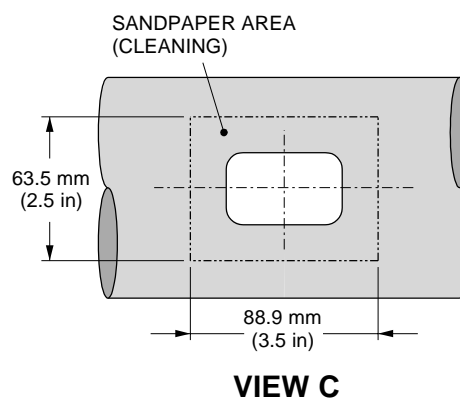
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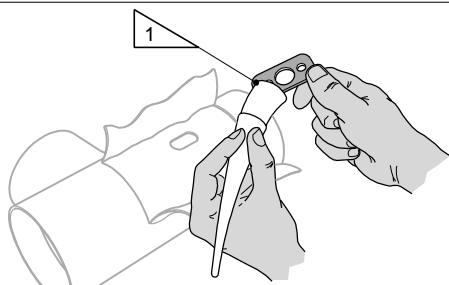
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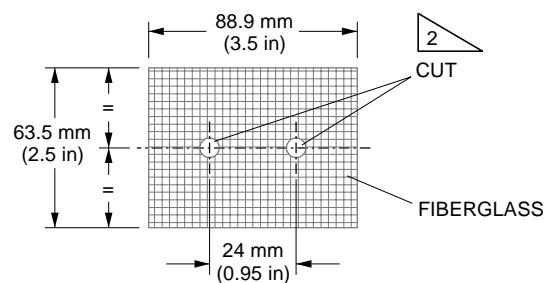


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1 APPLY ADHESIVE MIXTURE HE 1908.

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2 FIBER ORIENTATION IN SHEETS AT 90 DEGREES TO EACH OTHER.

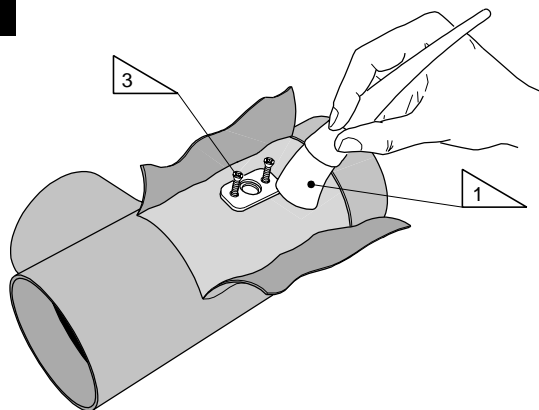
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EFFECTIVITY: ALL

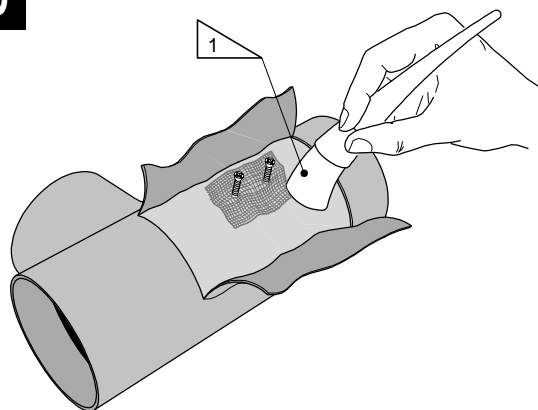
Thermal Switch Brackets - Repair

Figure 801 - Sheet 2

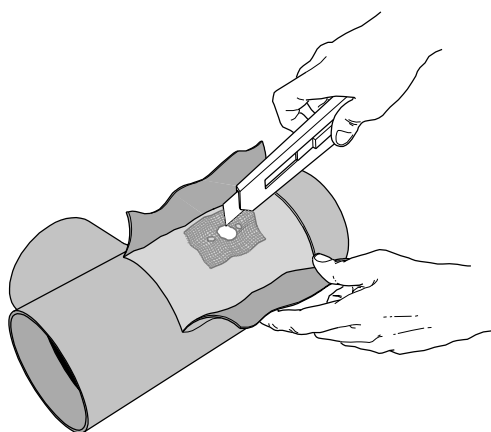
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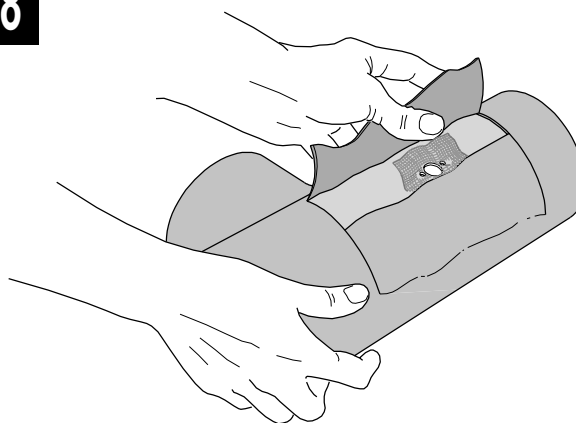
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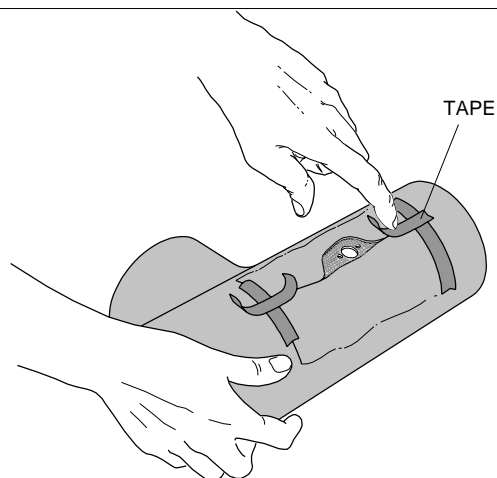
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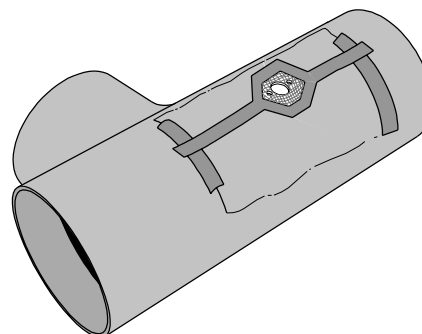
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3 APPLY MOLD RELEASE.

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