



AIRCRAFT MAINTENANCE MANUAL

SEALING OF ANTENNAS - MAINTENANCE PRACTICES

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to prepare the surface and the sealant, and apply the sealant used in the installation of antennas.
- B. The type of sealant to be applied is specified in the procedure for installation of each antenna.
- C. 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
20-11-01-910-801-A	ANTENNA SEALING	ALL



EMB145 – EMB135

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TASK 20-11-01-910-801-A

EFFECTIVITY: ALL

2. ANTENNA SEALING

NOTE: Refer to each Antenna Removal and Installation procedure.

A. General

Not applicable.

B. Zones and Accesses

Not Applicable

C. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Vacuum Cleaner	To clean the surface	
Commercially available.	Complete SENCO GUN model 250-6	To apply the sealant	
Commercially available	SENCO Nozzle No. 420 or 440	To apply the sealant	
Commercially available	Scale with precision in decigrams	To weigh the sealant	

D. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Rubber Gloves	Protection for the hands	AR
Commercially available	Brush	For cleaning	AR
Commercially available	Acrylic or Polyethylene Spatula	For your safety	AR
Commercially available	Goggles	Protection for the eyes	01
Commercially available	Respirator	For your safety	01
Commercially available	Safety clothing	For your safety	AR

E. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
780RTV (Spec No. ASTM-C-920)	Type II Class A White Silicone Sealant	AR
PR1440B2 (Spec No. AMS-S-8802)	Type II Class B2 Polysulfide Rubber Sealant	AR
P/S870C-12 (Spec No. MIL-PRF-81733)	Type IV-12 Rubber Sealant	AR
P/S870B-2 (Spec No. MIL-PRF-81733)	Type II-2 Gray Polysulfide Sealant	AR
Spec No. ASTM-D-740	Methyl ethyl ketone (MEK)	AR

(Continued)

SPECIFICATION (BRAND)	DESCRIPTION	QTY
Commercially available	Cloth which does not release lints	AR
Commercially available	Crocus Cloth No. 320	AR

F. Expandable Parts

Not Applicable

G. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the Task	Near the antenna to be installed

H. To Prepare the Surface
SUBTASK 110-002-A

NOTE: Clean an area larger than that to which you will apply the sealant.

- (1) Remove the old sealant with a wood/plastic scraper.
- (2) Remove all loose sealant from the work area with a vacuum cleaner.
- (3) Use the cloth soaked in the MEK and clean the surface. Use a brush to clean around the bolts and rivets.
- (4) Make the surface dry with a clean cloth which does not release lints before the MEK becomes dry.

CAUTION: DO NOT TOUCH THE CLEANED SURFACE WITH A BARE HAND OR THE NEW SEALANT WILL NOT BOND SATISFACTORILY. USE GLOVES IF IT IS NECESSARY TO TOUCH THE SURFACE.

- (5) Examine the area for corrosion and repair/replace as necessary.

I. To Prepare the Sealant
SUBTASK 910-002-A

WARNING: BE CAREFUL WHEN YOU USE THE CONSUMABLE MATERIAL(S). OBEY THE OPERATOR'S AND MANUFACTURER'S HEALTH AND SAFETY INSTRUCTIONS.

- (1) Make sure that the permitted life of the sealing compound or accelerator is not expired.

NOTE: Do not use a base compound or accelerator that is dried out, flaky, or lumpy.

- (2) Weigh the correct ratio of the base compound to the accelerator (Table 201). Use only the quantity to be applied.

Table 201 - BASE COMPOUND/ACCELERATOR RATIO

Sealant PN	Base: Accelerator Ratio (in weight)
P/S 870 B-2	100:17

Table 201 - BASE COMPOUND/ACCELERATOR RATIO (Continued)

P/S 870 C-12	100:17
PR 1440 B2	10:1

- (3) Mix the Accelerator and Base Compound in their containers until an equal consistency is got.
- (4) Slowly put the accelerator into the base compound and mix for approximately 4 to 5 minutes (P/S 870 B-2/C-12) or 7 to 10 minutes (PR 1440 B2).

To make sure that the mixture is equal, remove the compound not mixed which bonds to the bottom and include all the compound in the mixture. Make sure that:

 - No compound not mixed stays on the spatula.
 - No air goes into the mixture.
- (5) Clean the mixing equipment with MEK and a cloth or brush.

J. To Apply the Sealant

SUBTASK 390-002-A

WARNING: APPLY THE SEALANT IN OPEN AREAS AND DO NOT BREATHE ITS GASES. THE COMPOUNDS USED ARE POISONOUS AND FLAMMABLE. WEAR THE APPLICABLE GLOVES AND RESPIRATORS NOT TO PERMIT THESE MIXTURES TO TOUCH YOUR SKIN FOR LONG TIME. IF THE WORK IS TO BE DONE INDOORS, HAVE SUFFICIENT AIR AVAILABLE.

- (1) Apply the masking tape to the surface adjacent to the work area.
 - (2) Hold the sealant gun almost vertically to the surface. This will force the extruded sealant into the joint (antenna - surface). For the application time, refer to Table 202.
 - (3) Apply pressure to the sealant-gun handle and move the sealant-gun along the surface to be sealed.
 - (4) Use a spatula to make the newly-applied sealant stay in the applicable shape and smooth.
- Use wet sanding to make the cured sealant get the correct shape and a smooth finish.
Use the correct abrasive or applicable sharp-cutting tool.

K. Follow-on

SUBTASK 842-002-A

- (1) Remove the unwanted sealant with a cloth which does not release lint and MEK.
- (2) Remove and discard the masking tape.
- (3) Put an identifier near the sealed antenna with:
 - Date and Hour of the sealing.
 - Sealant curing time (Table 202).
- (4) Clean the tools with MEK.



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- (5) Let the sealant cure. For curing time, refer to Table 202.

Table 202 - APPLICATION TIME, TACK-FREE TIME, AND CURE TIME

SEALANT PN	APPLICATION TIME (HOURS)	TACK-FREE TIME (HOURS)	CURING TIME
P/S 870 B2	2	24	48 HOURS
PS/870 C-12	12	120	14 DAYS
PR 1440 B2	2	36	72 HOURS

- NOTE:
- The times given apply to a temperature of 24°C (72.5°F) and relative humidity of 50%. When the temperature increases 5°C to 8°C (9°F to 14.4°F), the times decrease by half and when it decreases 5°C to 8°C (9°F to 14.4°F), the times double.
 - The Sealant 780 RTV (white) is of the inert-cure type and is supplied prepared to be applied.

