

Piper Aft-Entry/Cargo Door Seal Installation Instructions (Part Number ETA-503)

NOTE: This seal is not to be installed in the cabin entry door or cargo door as with the old seal. Install the seal on the fuselage door opening(s). The old quarter-round (or bulb) seal must be removed from the doors. The old seal may be removed with the door installed on the aircraft; it is easier than removing the door from the aircraft before removing the seal.

Note: To remove the seal with the door(s) installed on the aircraft, remove the clevis screw, bushing and washer where the door holder attaches to the door sill on the aircraft door opening and swing the door(s) to rest on the side of the fuselage.

1. REMOVAL OF DOOR

- a. Remove the clevis screw, washer and bushing from the door holder assembly.
- b. Remove cotter pins, clevis pins and washers from door hinges.
- c. Remove door from plane and lay on a flat protected surface.

2. REMOVAL OF OLD SEAL

- a. Using a putty knife or similar tool, pry a section of the seal away from the door edge until you have a piece large enough to hold onto.
- b. Using adhesive remover (suggested: "OOPS" ADHESIVE REMOVER may be purchased from Wal-Mart or hardware store in the paint department) brush a liberal amount under the seal in the area of the adhesive and carefully lift the seal from the door edge until the entire seal is removed.
- c. Using a stiff brush (similar to a wire tooth brush) and "OOPS", remove all the old adhesive from the door (this is a good time to paint the door edge).

Note: In some areas where the seal is very old it may be necessary to use a heat gun to aid in the removal of the old seal.

- d. If your plane has a small rubber extrusion installed on the door opening, it should be removed the same as in step "b".
- e. Before you get started with the new seal installation you must make sure the channel where the seal fits is free of any loose paint. Using a small wire brush, clean the channel around the entire door opening (on the fuselage). When finished, wipe the entire surface with "OOPS" or suitable solvent to remove any oil or contamination. Make sure its dry before commencing with the seal installation.

3. INSTALLATION OF SEAL FOR AFT-ENTRY DOOR (WITHOUT CARGO DOOR).

Note: If your plane is equipped with an aft cargo door, proceed to step 4.

- a. Remove the new seal from the bag.

Note: Retain the enclosed PMA tag for insertion into the logbook or aircraft records.

- b. Carefully remove a small length of the white protective cover from the adhesive side of the seal.
- c. Starting near the attach point where the door holder attaches at the bottom of the door opening (sill), install the adhesive side of the seal onto the door channel as shown on drawing ETA503 view B-B.

Caution: Do not stretch the seal as you fit it around the corners of the door opening.

- d. Removing the protective covering as you go, install the seal around the entire door opening as shown on drawing ETA503 views A-A, B-B, and C-C.
- e. When you have the entire seal installed around the opening and are back at the starting point, cut the remaining portion of the seal $\frac{1}{4}$ inch longer than needed.
- f. Press the remaining end of the seal into position joining the two ends together.

- g. Using the enclosed tube of "Super Glue" spread the ends of the seal slightly and apply a drop of "Super Glue" on the end of the seal.

Warning! "Super Glue" can bond skin. Use caution when applying the seal. Wear eye protection!

4. INSTALLATION OF SEAL FOR AFT DOOR (WITH CARGO DOOR).

Note: If your plane is not equipped with an aft cargo door, proceed to step 5.

- a. Remove the new seal from the bag (don't lose the enclosed PMA tag).
- b. Carefully remove a small length of the white protective cover from the adhesive side of the seal.

Caution: Do not stretch the seal as you fit it around the corners of the door opening.

- c. Unlatch cargo door, lift to the open position and secure with strap.
- d. Starting near the cargo door hinge line on the main door opening, install the adhesive side of the seal onto the channel as shown on drawing ETA503 view C-C. Proceed in a CCW direction, removing the protective covering as you go.
- e. Install the seal around the entire door opening as shown on drawing ETA503 views A-A, and B-B continuing rearward along the complete lower sill to the aft corner of the cargo door opening.
- f. Carefully, without stretching the seal, bend the seal upward and continue installing the seal until you reach the top edge of the cargo door channel at the hinge line.
- g. Cut the seal (using a razor blade) as close to the top edge of the channel as possible. On door with window the hinge seal does not need replacing.

Note: If your model has a window in the baggage door, cut the seal at the hinge line. Take the remaining portion of the seal and install it on the forward channel of the cargo door as shown in view C-C.

- h. Install a portion of the remaining seal under the hinge and cut the seal at the forward edge next to the main door seal.
- i. Using the enclosed tube of "Super Glue", bond each end of the seal at the hinge to the seal previously installed.

Warning! "Super Glue" can bond skin. Use caution when applying the seal. Wear eye protection!

- j. Take the remaining portion of the seal and install in the forward channel of the cargo door as shown on drawing ETA503 view C-C.

Note: To insure long life of the new door seal and to aid in the initial sealing, wipe a light film of silicone grease on the seal using ETA Silicone Grease part number SL-101. Remove all traces of the silicone on seal with a paper towel. The seal will absorb what is needed.

5. INSTALLING DOOR

- a. Insert the door into position and install the washers, clevis pins and cotter pins on the door hinges and reconnect door holder to frame.
- b. Close door and secure upper latch.
- c. If door does not fit flush around the entire opening, start with the adjustment of the main latch by loosening the two screws and moving the striker plate in or out as required. Retighten the two screws. Repeat as necessary for proper fit.

6. ADJUSTMENT OF DOOR

- a. To acquire the proper vertical adjustment of the door, insert the necessary washer combination between the cabin door.
- b. Hinge(s) and fuselage bracket (clevis) assembly can be adjusted as necessary. Tap out the serrated door hinge bushings (if installed on your model) and rotate them to obtain the hinge centerline location that will provide proper door fit.

7. ADJUSTMENT OF THE UPPER DOOR SAFETY LATCH

- a. To adjust the door top safety latch, remove the two screws from the latch plate found on the top of the door opening.
- b. Remove the plate and turn the loop CW or CCW to make necessary adjustments. Initially the top latch should require more effort to latch until the seal compresses to fit the door.

c. Replace the latch plate and secure with the two attachment screws.

8. LOG BOOK ENTRY

a. Upon completion of the door seal installation a log book entry should be made to read:
"Removed door seal from entry door and installed a new FAA-PMA Door seal P/N ETA503 in accordance with manufacturer's instructions. PMA tag may be found in aircraft records or log book." Remove the PMA tag from bag and place in the aircraft records.

Note: After installing the seal, the door may initially require slightly more effort to close than in the past to it. The new seal will compress to fit the contour of the door, protruding rivets, and seams, and after a few days the door will close easily and seal perfectly.

Caution! Passengers can damage the seal by dragging their feet across the seal or stepping on the seal when getting into and out of the plane. Ask your passengers to please step into the plane and not drag their feet across or step on the door seal. The door seal is durable and should last for many years and can be easily repaired if damaged or torn.

----- END -----