PREVOST SLIDE SEAL REPLACEMENT

This article is written about the replacement of a rear slide seal replacement on a 2001 Prevost XLII coach. Some of the techniques outlined in this article may not apply to all generations of slides or to slides not manufactured by Prevost.

This replacement was done by Roger Foster, Jim Keller and Jon Wehrenberg. None of us had ever replaced a seal, but we all possess some mechanical skills although we learned the task is not one requiring any special skills or training.

It is strongly suggested that if an owner is going to follow this article as a guide to seal replacement that he do a “dry run” of the critical steps which is to retract the slide pins and the slide room into the coach. Failure to retract the pins or prevent them from extending when necessary will result in severe damage to the slide.

Beginning the Process. The seal must be flexible and to insure this it is suggested the ambient temperature for slide seal replacement be at least 70 degrees F. Open the slide seal and lay it out in the sun on a table or clean surface to allow it to get warm while preparing the coach for its installation. The air hose goes toward the rear of the bus, and it is not centered in height so make certain the position of the seal is such that when it is ready to install you know which is the top of the seal and which is the inside and outside. Verify before beginning that the air supply hose on the new seal is in the same location as the one on the seal being replaced.

With the slide room in the closed position remove the awning arms from the slide and rotate them up and out of the way. Remove the mounting brackets. The upper bracket has a phillips headed screw located beneath the rubber gasket. When the nut and screw have been removed pull the bracket straight out. It may have some corrosion holding it so be patient and work it slowly so as not to damage the bond to the window. If you cannot remove it the seal can be replaced, but it will make insertion of the seal into position more difficult.

Extend the slide room.

The Hard Part. The first step is to remove the angles across the top face of the slide room. The angles are sealed to the top of the slide room with a mastic and are held in place with 6 MM flat head screws.

Locate and remove the screws. They are Allen head screws. It is possible to strip the socket, but as a remedy if that happens drive a Torx bit (#27 worked) into the Allen socket of the screw and remove the screw. Replacement screws are available at Lowes or any good fastener supply house.
The angles are now held in place with the Sikaflex sealant. Carefully pry the angles up from the rear and use a sharp knife or utility blade to sever the seal. DO NOT FORCE THE ANGLE UP AT THE REAR ANY MORE THAN NECESSARY TO CUT THE OLD SEALANT.

In the photo above Roger has removed the small end angle. Note the selection of tools and pry devices to get at and cut the Sikaflex seal.
This is a good view of the angle configuration. The angle is a tongue and groove insertion. In this view the rubber gasket below the angle was removed. Do not do that. Leave the gasket in place.

Once the sealant has been severed, push firmly against the rear of the angle straight out to slide the angle from the slide room.
After cutting the Sikaflex beneath the angle a port-a-power was used to ease the angle from its position. Note the scraper in the foreground that was used to slightly lift the rear of the angle so the Sikaflex could be cut. It still adhered in spots and the port-a-power was very effective at shearing it. Note the wood blocking behind the angle and across the top of the slide so the forces were distributed to avoid any localized damage.

This process was the most troublesome of the installation. The angle is tongue and grooved into the slide room, something not evident until it is removed. When removing the angle the greater amount of Sikaflex that can be cut with the blade, the easier removal would be. Do not attempt to remove the rubber gasket that is beneath the angle and which lays flat against the glass. The angle can come out with the rubber gasket in place. Just verify the rubber gasket has not been sealed to the glass. It should only adhere to the roof angle.

To slide the angle from the top of the slide we used a port-a-power. We carefully positioned wood lengths against the roof of the coach and the rear of the angle to distribute the forces and gradually applied pushing forces to shear the remaining Sikaflex and to free the angle from its tongue and groove mounting.
When the angles (two small end sections and the center section) have been removed, clean the angles and slide room to remove any corrosion and old Sikaflex. The best tool was found to be a drill with a paint stripper wheel.

Here some Sikaflex is being cut with a razor. In the picture below Roger is using the paint stripper to clean the aluminum of corrosion and remaining Sikaflex.
Getting Ready to Replace the Seal. At this point the slide room is ready to be retracted. The angle has been removed and the angle and its mounting surfaces have been cleaned, ready for re-assembly.

As soon as the slide room is in the closed position bleed all auxiliary air from the coach. The auxiliary air system must be at 0 PSI. This is critical. To insure no accidents make certain the auxiliary air compressor is off and that there is no way the auxiliary air pressure can go above zero.

In this particular coach the actuation of the slide pins is controlled by 2 five port
Norgren valves located in the second bay mounted on the ceiling. The valve located against the ceiling was dedicated to the rear slide. The hose at the rear bottom of that valve was the air supply for slide pin retraction. That fitting was removed from the Norgren valve and air from a shop air compressor was applied. The slide room pins retracted as a result of the air pressure. Once retracted they will remain retracted.

At the floor level on the forward side of the slide room was the gear motor which controls the slide room movement. The end shaft is a ½” hex. Place a wrench on the hex shaft and turn so the slide room begins to travel inward.
Make certain the room is moving inward. In this installation the room was brought in about 2 1/8” from the outside of the coach shell. That provided enough room to remove and reinstall the slide seal. Use extreme caution when bringing the slide room in. If it is brought in too much is can fall from the “tracks”.

The photo above shows it was brought in only enough to clear the seal and wipers. The masking tape was to prevent any damage to the coach finish.

Pulling the Old Seal. Once the room is in the old seal can be pulled from its mounted
position. It is recommended the air supply hose be cut long, and also near the old seal as soon as the seal is removed and used to pull the new hose into position.

The hose extends to the right through the coach insulating foam and it attaches to the seal. The hose opening is small and angled and inserting the hose from the new seal is difficult so it appears the best way to bring the new hose in is to pull it through using the old hose. Insert something in the end of the hoses to join them. Note, that as previously stated the hose is not centered so when beginning to apply the new seal the hose must be oriented properly.
When removing the old seal, pull it from the coach followed by a sharp razor scraper. That will greatly minimize the cleaning of the mounting surface and will cut down on time significantly.

The final step prior to new seal insertion is to clean the seal mounting surface. This was done with denatured alcohol and a scraper. It is not vital that every trace of the old adhesive is removed, but the surface must only have a film free of dirt or debris remaining.
Installing the New Seal. The new seal will be installed top side first, then the sides, then the bottom. We scored the adhesive protective strip and bent it forward towards the outside of the coach so it could easily be removed. We did not want to risk any dirt or foreign material on the adhesive surface.

Start with the top two corners and with the protective strips removed from the corners lightly push them in place. Then pull the protective strip and lightly press the center of the seal in place, followed by two more places located between the ends and the center. If the new seal is positioned properly, remove the balance of the protective strips and lightly press the entire length of the seal across the top of the opening in position.

Prior to repeating the process for the sides of the seal, feed the air hose into the hose opening and have a helper pull it tight. It is important to make sure the fitting which can be felt is inserted into the hole and is as flush against the hole as possible, if it is not fully inserted the slide room could slide against it and ruin the seal.

Finish the installation by adhering the bottom using the same technique as was used across the top. Once the seal is in place firmly press it in position around its entire perimeter. The best way to permanently secure the seal is to use air pressure against
the slide room so the periphery of the slide room at the masking tape and seal wiper was sprayed with a dry lubricant.

The slide room was then manually moved back into position by reversing the motion on the motor end shaft. A helper positioned outside the coach helped to notify the person turning the wrench to stop when the slide was in perfect alignment with the coach. While it was being moved out the outside helper was insuring the seal remained positioned properly and that it was not being pulled out of position.

At that point the pin retract air hose was replaced, the seal air hose was installed and the auxiliary air was allowed to build. The system was pressurized and to insure the seal was held tightly its pressure was increased from 5 PSI to 10 PSI and it was allowed to remain that way for about an hour.

At the end of an hour the slide room was extended.

**Final Details.** With the slide room extended the groove in the top angles was filled with Sikaflex 221 and the angles were replaced. The 6 MM screws were inserted and this caused the Sikaflex to extrude out. It was then smoothed across the top of the slide room and if there were any voids they were filled with Sikaflex 221. The coach was allowed to remain overnight until the Sikaflex cured. Any rough spots in the Sikaflex were shaved smooth with a razor.

The slide room was closed and the awning brackets and arms were re-attached.

**NOTES:**

This is a two man job. It is likely one person could do the job, but the risk is damaging the seal. Corrosion may affect how easily the roof angle comes off. The parts in question had a zinc chromate finish but there was some corrosion. It might not be a bad idea to allow extra time to re-apply zinc chromate to the raw aluminum surfaces and let it cure.

We do not know what changes are made to different generation slide assemblies and mechanisms. **As an installer it will be up to you to learn how to access the seal air supply hose and the slide room motor. It will be up to you to learn which air line causes the slide pins to retract. We know from experience that the wrong air line could cause the slide pins to extend and the result could be serious damage.** Do the experimenting to determine which hose retracts the pins with the slide in and the pins extended. In this manner you will clearly see you have selected the correct air line when they retract and in the closed position of the room extension of the slide pins will not cause any damage.
You will need metric allen wrenches, Torx screw driver bits (just in case), an assortment of scrapers including razor scrapers, some thin prying devices, a \( \frac{1}{2} \)" gear wrench for the motor, and a port-a-power or some kind of jacking device to push the top angle(s) out of position. A selection of SAE and metric wrenches and sockets will be required for various items such as awning brackets.

Materials used were wide masking tape, denatured alcohol, one tube of Sikaflex 221, rags, and some pipe dope.

Good luck.

Roger Foster
Jim Keller
Jon Wehrenberg
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