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How to Rodent Proof Large Vertically Opening Doors with RodeXit's All-In-One Rodent Proofing Seal October 2023

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1 Introduction

Many large vertically opening doors are equipped with a massive and 2 - 4 in (5 - 10 cm) high bottom seal, in which there is an electronic safety mechanism with a sensor.

Such doors pose 2 problems:



- The width of the All-In-One seal is only 2.4 in (6.2 cm), so the height of the threshold gap covered by the massive bottom seal may exceed the width of the All-In-One seal.
- The All-In-One seal can in some cases not be mounted by means of screws and washers driven into the metal base of the door, because the screws may risk damaging the safety mechanism (if any) when driven in. Furthermore it is never a viable solution to drive screws into the bottom seal.

The 1st problem can be solved by using 2 pieces of the All-In-One seal side by side.

The 2nd problem can be solved by using double-sided tape instead of screws and washers.







2 Tools and Materials

You will need these tools and materials:

- 1) A roll of the rodent resistant All-In-One seal.
- A roll of a suitable double-sided tape e.g. ³/₄ in (19 mm) wide 3M VHB LSE 160 WF tape.
- 3) Straight tin snips.
- 4) A degreasing agent.
- 5) A cloth for applying the degreasing agent.
- 6) A sharp-pointed knife for removing the protective foil from the double-sided tape.

It is handy also to have a J-roller for applying pressure on the seam.

3 How to Mount the All-In-One seal

You can choose to rodent proof the entire bottom seal or just to rodent proof the leftmost and rightmost parts of the bottom seal, where the risk of rodent attacks is highest. Rodent proofing the entire bottom seal is described in section 3.1, and rodent proofing the leftmost and rightmost parts is described in section 3.2.

In all the descriptions it is assumed that you use a ³/₄ in (19 mm) wide 3M VHB LSE 160 WF tape. You may of course use another suitable tape.

3.1 Rodent Proofing the Entire Bottom Seal

3.1.1 3¹/₄ - 4 in (8.2 - 10 cm) High Bottom Seals

When rodent proofing a massive $3\frac{1}{4}$ - 4 in (8.2 - 10 cm) high bottom seal you will need 2 pieces of the All-In-One seal placed side by side.

There are several ways, in which the 2 pieces and the tape can be combined. It is unfortunately not all the combinations that work well. This is a relatively safe one:











The figure shows a cross sectional view of:

- The bottom part of a verticality opening door with a 4 x 4 in (10 x 10 cm) massive bottom seal.
- 2 pieces of All-In-One seal.
- 4 strips of (green) double-sided tape.

The lowermost strip of double-sided tape is as marked by the red circle placed around $\frac{1}{2}$ in (1¹/₄ cm) above the ground. That is because the lowermost part of the bottom seal often is soft and flexible, so proper adhesion of the double-sided tape to the lowermost part cannot be achieved.

Follow the below steps.

They should in order to achieve proper adhesion be taken at temperatures in the range of 50-100 degrees F(10-38 degrees C) – preferably at room temperature or higher.

- 1) Clean the ground under the door thoroughly in order to reduce the risk of contaminating the surfaces with dirt that may compromise the tack of the double-sided tape.
- 2) Cut off 2 equally long pieces of All-In-One seal. The length should roughly correspond to half the width of the bottom seal.
- 3) Make sure that the surfaces are clean and dry. Use a degreasing agent for removing all grease.
- 4) Take care not to touch the cleaned surfaces with greasy fingers.
- 5) Roll 2 pieces of double-sided tape onto the entire length of the lower piece of All-In-One seal and cut the tape with the tin snips. One of the tape pieces shall be flush with the upper edge of the seal, and the other one shall be ¹/₂ in (1¹/₄ cm) above the lower edge of the seal.
- 6) With the point of the knife loosen around 2 in (5 cm) of the protective foil from the tape strips at the right end of the lower piece.
- 7) Open the door around 1 in $(2\frac{1}{2} \text{ cm})$, so the bottom seal is free of the ground.
- 8) Push the door slightly inwards and tuck the left end of the lower piece of All-In-One seal behind the door's left side seal.
- 9) While keeping the left end tucked behind the side seal close the door completely. It will usually require 2 persons one holding the All-In-One seal in place and one closing the door.
- 10)Adjust the position of the seal, so it gets into featherlight contact with the ground. Make sure that the 2 loosened ends of the protective foils stick out over and under the lower piece of seal, so you can get hold of them.







- 11)When you are absolutely sure that the position of the lower piece of seal is correct, secure the unfoiled right end to the bottom seal by pressing it hard against the bottom seal.
- 12) With the lower piece of seal still in place:
 - a) gradually pull off the protective foil
 - b) while gradually pressing the unfoiled part <u>firmly</u> against the bottom seal.
- 13)Briefly put the taped joint under <u>firm</u> pressure preferably by means of a J-roller.
- 14) Mount the left upper piece of seal in the same way with the lower edge of it adjoining the upper edge of the left lower piece.
- 15)Mount the right lower and upper pieces of seal in the same way except of course that right shall be left and vice versa. The 4 pieces of seal should adjoin in the middle not overlap. It is a good idea to cut 2 slightly oversized pieces of the seal, put them into position, and then trim the length instead of trying to get the length right by means of a tape measure or other measuring device.
- 16)The tape will bond instantly, but the bond strength will gradually increase especially during the first 24 hours. Therefore, wait 24 hours before subjecting the rodent proofing seals to more than insignificant loads or shocks.

3.1.2 2¹/₂ in - 3¹/₄ in (6.3 - 8.2 cm) High Bottom Seals

Bottom seals that are $2\frac{1}{2}$ in - $3\frac{1}{4}$ in (6.3 - 8.2 cm) high are rodent proofed in the way described above in section 3.1 except that the lower tape on the upper pieces of All-In-One seal are placed differently as indicated by the orange circle on this figure:





3.1.3 2 - 2¹/₂ in (5 - 6.3 cm) High Bottom Seals

Bottom seals that are $2 - 2\frac{1}{2}$ in (5 - 6.3 cm) high are rodent proofed in the way described above in section 3.1 except:

• That there is no need for upper pieces of the All-In-One seal:



• That the lower pieces may have to be split in order to fit them to the height of the bottom seal.

The lower pieces can easily be split with sharp tin snips. The parallel steel wires in the seal will guide the splitting, so you always will get a fairly straight cut.



3.2 Rodent Proofing the Leftmost and Rightmost Parts of the Bottom Seal Only

You may choose only to rodent proof the leftmost and rightmost parts of the bottom seal, where the risk of rodent attacks is highest. If so, you should follow the same steps as when rodent proofing the entire bottom seal except of course that the pieces of the All-In-One rodent proofing seal will have to be shorter - e.g. only 20 in (50 cm).

4 Tips & Tricks

4.1 Use of Screws for Mounting the Upper Pieces of the All-In-One Seal

If screws can be driven into the base of the door without risking damaging the electric system, the upper pieces of the All-In-One seal can as indicated by the orange circle in this figure be mounted by means of

screws and washers (the purple widgets):



4.2 Saving Double-Sided Tape and Labor

Using less double-sided tape is desirable because it will save both money and labor. The use of all the double-sided tape described in section 3 on some doors may furthermore be somewhat of an overkill.

It is therefore worth considering limiting the use of the double-sided tape to the upper strips of tape as shown in this figure:



If you choose to do so, you should use the 1 in $(2\frac{1}{2} \text{ cm})$ wide version of the 3M VHB LSE 160 WF tape instead of the $\frac{3}{4}$ in (19 mm) wide version.

4.3 Monitoring and Maintenance

All rodent proofing seals should at regular intervals be monitored for maintenance needs. Fix or replace any seals that e.g. due to severe rodent attacks have been seriously compromised.

