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47-1377: Resetting Limit Switch

Application:

Nissan and Toyota vehicles equipped with anti-pinch window lift motors using mechanical limit switches (like 47-1377).

Problem:

When "Auto-Up" is selected, the window closes but bounces down 2 or 3 inches and stops.

Cause:

Motor was bench tested or operated before being installed into the window regulator, which cancels the upper limit position.

Solution:

The window travel limits must be set for the motor to "know" whether the window is closed or open. Follow the installation steps below to set travel limits and to confirm that the replacement motor is functioning correctly. **Note:** If there are wires running to the motor back plate, this is an anti-pitch application.

1. Remove cover panel or other necessary door components. Remove window lift motor from the regulator, keep motor connected to the electrical connector.
2. Lift the window control switch for that motor for 10 seconds, as though raising the window; the motor will run freely. After 10 seconds, release the window switch.
3. Install the motor into the regulator. Using the window control switch, place the regulator near the middle of its travel — neither completely up nor completely down.
4. Install the cover panel or other necessary door components and ensure the wire harness for the motor is tied down with the strain relief. Be sure the wiring does not interfere with window operation.
5. Lift the window control switch to fully lift the window. Release the switch when window reaches the top.
6. Lower the window fully to reset the ring gear sensor mechanism. Hold the switch down manually.
7. Repeat step sequence 5 and 6 three (3) times.
8. Now lift the window using the Express Up feature (lift the switch up as far as it will travel and release). The window should continue to rise automatically all the way to its closed full up position. The window glass should NOT "bounce" down after stopping at the top of the window opening. If the window "bounces", the travel limit was not set properly. Repeat the process, carefully following every part of steps 1-6.
9. Lower the window completely using the Auto-Down feature.

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10. Test the anti-pinch function by allowing the window to close on a cardboard paper towel roll while raising the window using the Express Up feature. The window should stop and reverse 3 to 4 inches after contacting the paper towel roll.
11. Repeat step sequence 8, 9, and 10 three (3) times to verify correct function.
12. If the window motor does not pass the above testing, the motor should NOT be connected electrically in the door for the customer. Raise the window and disconnect the power cable until the problem can be resolved.

Complete the installation following instructions supplied with the unit and the vehicle service manual.

Note:

Please refer to your vehicle's service manual for specific diagnostic instructions. This ProTech bulletin is supplied as technical information only and is not an authorization for repair.