



**DASMA**  
Door & Access Systems  
Manufacturers Association  
International

OPERATOR & ELECTRONICS DIVISION

# TECHNICAL DATA SHEET

## #369

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## Frequently Asked Questions Regarding Automated Garage Door Systems

*Q: Can a height other than 2" above the floor be used to test a door operator reversing mechanism?*

A: Testing may, and should, be conducted at different heights to verify that the door reverses properly; however, the door **MUST** be tested to reverse off of a one-inch block or a 2x4 block of wood laid flat on the floor centered on where the door closes.

*Q: Why is a 2x4 wood block recommended as the material to use to test a door operator reversing mechanism?*

A: A reversal test should be conducted regularly to ensure that the door reverses properly. A one-inch block is preferable; however, a 2 x 4 wood block is very common in a garage and is an acceptable alternate since it is 1½ inches in height when laid flat. A roll of paper towels is often used, but is not recommended as a reliable means of testing the reversing mechanism because paper towel rolls are not consistent test materials (for example - different size rolls and different roll densities are available)

*Q: What is the maximum allowable force to reverse a door?*

A: All residential garage door openers are tested to meet the requirements of Underwriters Laboratories standard UL 325 as required by federal law. The requirements include reversal testing at the maximum forces that can be generated by the garage door opener. It is important to ensure that the forces generated by the garage door opener are adjusted to the minimum level to operate the door reliably, not to maximum forces. Follow the garage door opener adjustment and test instructions in the owner's manual. Regularly test the door reversal to ensure it reverses on a one-inch block or a 2 x 4 block of wood laid flat.

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**Note: Technical Data Sheets are information tools only and should not be used as substitutes for instructions from individual manufacturers. Always consult with individual manufacturers for specific recommendations for their products and check the applicable local regulations.**

This Technical Data Sheet was prepared by the members of DASMA's Operator & Electronics Division Technical Committee. DASMA is a trade association comprising manufacturers of rolling doors, fire doors, grilles, counter shutters, sheet doors, and related products; upward-acting residential and commercial garage doors; operating devices for garage doors and gates, sensing devices, and electronic remote controls for garage doors and gate operators; as well as companies that manufacture or supply either raw materials or significant components used in the manufacture and installation of the Active Members' products.

*Q: At what height above the garage floor should a photoelectric sensor be mounted?*

A: Photoelectric sensors should never be installed higher than six inches off the floor. This ensures that a small child cannot crawl under the sensor's invisible beam.

*Q: Can a device other than a photoelectric sensor be used?*

A: UL 325 allows for devices other than a photoelectric sensor. One example is a door edge sensor. The garage door operator must monitor the proper operation of any external sensor at least once during each cycle of operation. If an external sensor is not operating properly, the door is not allowed to close except for a constant pressure switch, but not a portable transmitter. There are provisions for a secondary inherent entrapment protection system that limit the closing force of the door and do not require any external sensors. Refer to your owner's manual, or contact the garage door operator manufacturer, for the types of devices that have been properly tested with your operator.

*Q: Before installing a garage door operator, what care should be taken concerning the garage door?*

A: There are several items that should be checked before installing a garage door operator on a door:

1. **The door must be properly balanced and in good working order for an operator to be installed.** When in manual mode, the door should rest on the floor when fully closed, stay at rest when halfway up, and stay at rest even with the header when fully open. Consumers should never try to balance a door themselves. If there is any doubt about a door's balance, a trained door systems technician should inspect the door and make any necessary adjustments.
2. **Remove all ropes and remove or make inoperative all locks connected to the garage door before installing the operator.** This is necessary to help ensure smooth operation of the door and to prevent damaging the door or operator.
3. **The top section of the door must be properly reinforced to prevent damage.** The top section should be reinforced both horizontally and vertically. Consult the door manufacturer or a trained door systems technician if there is any doubt about door reinforcement.
4. **The door must be level to the floor.** Gaps between the door and the floor will prevent the reversal systems from working properly across the width of the door.

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During installation:

1. Locate the control button: (a) within sight of door, (b) at a minimum height of 5 feet so small children are not able to reach it, and (c) away from all moving parts of door.
2. Permanently install the entrapment warning label next to the control button in a prominent location.
3. Install the emergency release tag on or next to the emergency release.
4. Make sure operator instruction owner's manual is in the homeowner's possession.

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