



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

COMMERCIAL & RESIDENTIAL GARAGE DOOR DIVISION

# TECHNICAL DATA SHEET

## #166

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## Guidelines for Connecting a Drawbar Operator to a Sectional Garage Door

This technical data sheet provides guidelines for connecting a drawbar operator to typical types of sectional garage doors and their supporting structures. These guidelines apply to new or retrofit installations of sectional garage door/drawbar operator systems.

### General

When a sectional garage door is opened and closed by means of a drawbar operator, it is important that the installation be secure enough to withstand the forces applied by the operator through repeated opening and closing cycles. The operator installation instructions should be followed.

### Pull Ropes and Locking Devices

It is important to remove any pull ropes from the door and to disengage, disable or remove any mechanical locking devices before installing an operator. Pull ropes are a potential entrapment hazard, and mechanical locking devices can interfere with the automatic operation of doors if such devices are engaged. Note: The door manufacturer's instructions should be consulted to determine whether to remove, versus disengage or disable, locking devices. Doors designed for higher wind loads may need to have locks disabled and not removed because such doors are usually wind load tested with locking devices engaged.

### Header Mounting Bracket for the Operator Rail

To ensure proper function of a drawbar operator, the header mounting bracket (that supports the operator's trolley rail) must be of adequate strength, and must be securely fastened, for adequate structural support. **WARNING: While mounting this bracket, care must be used so as not to split the spring pad. Splitting the spring pad may cause the spring mount to pull off of the wall, spin, and injure a person in its vicinity.**

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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 Commercial & Residential Garage Door 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.

### **Ceiling Mounted Bracket**

Whether or not the garage has a finished ceiling, a support bracket (and additional fasteners) is required to support the power head from the ceiling. Ensure that the support bracket fasteners engage the ceiling joist(s), not just finishing material.

### **Intermediate Rail Support**

Some operators require an intermediate rail support bracket to ensure proper rail support for the operator bracket. The manufacturer will usually include this bracket if it is needed, and will specify this in the installation instructions. A special support member may be needed if a long vertical support is required between the rail and the ceiling.

### **Door Arm to Operator Bracket Installation, for the Typical Residential Garage Door**

The bracket connecting the operator to the door must be structurally adequate based on the amount of force required to lift the door. Follow the manufacturer's instructions to determine the bracket arm angle from vertical when the door is in the fully closed position. See Figure 2 which illustrates such angle.

### **Door Arm to Operator Bracket Installation, for Low Headroom Residential Operators / Installations**

To ensure proper function, it may be necessary to either remove the upper arm (straight arm) from the trolley and replace it with the lower arm (curved arm), or cut the straight arm to accomplish the trolley settings. The bracket arm should still maintain an angle in accordance with the manufacturer's instructions. The arm portion extending from the connection to the door should be horizontal. Disconnect functionality should not be jeopardized by the arm configuration. Manufacturer's installation instructions must be consulted and strictly followed.

### **Door Arm to Operator Bracket Installation, for Non-Residential Operators / Installations**

The manufacturer's installation instructions must be consulted, as there may be variability in disconnect mechanisms for operators in these applications.

### **Garage Door Top Section Reinforcement**

Reinforce the top section of the garage door according to the manufacturer's instructions. In Figure 1, one example is given where horizontal reinforcement is placed at the top of the top section of the garage door, in close proximity to the connection of the operator bracket.

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### Installation Instructions

Always refer to the sectional garage door and drawbar operator manufacturer's instructions regarding detailed installation instructions. Reliable operation of safety systems is dependent upon proper installation of the door and operator system.

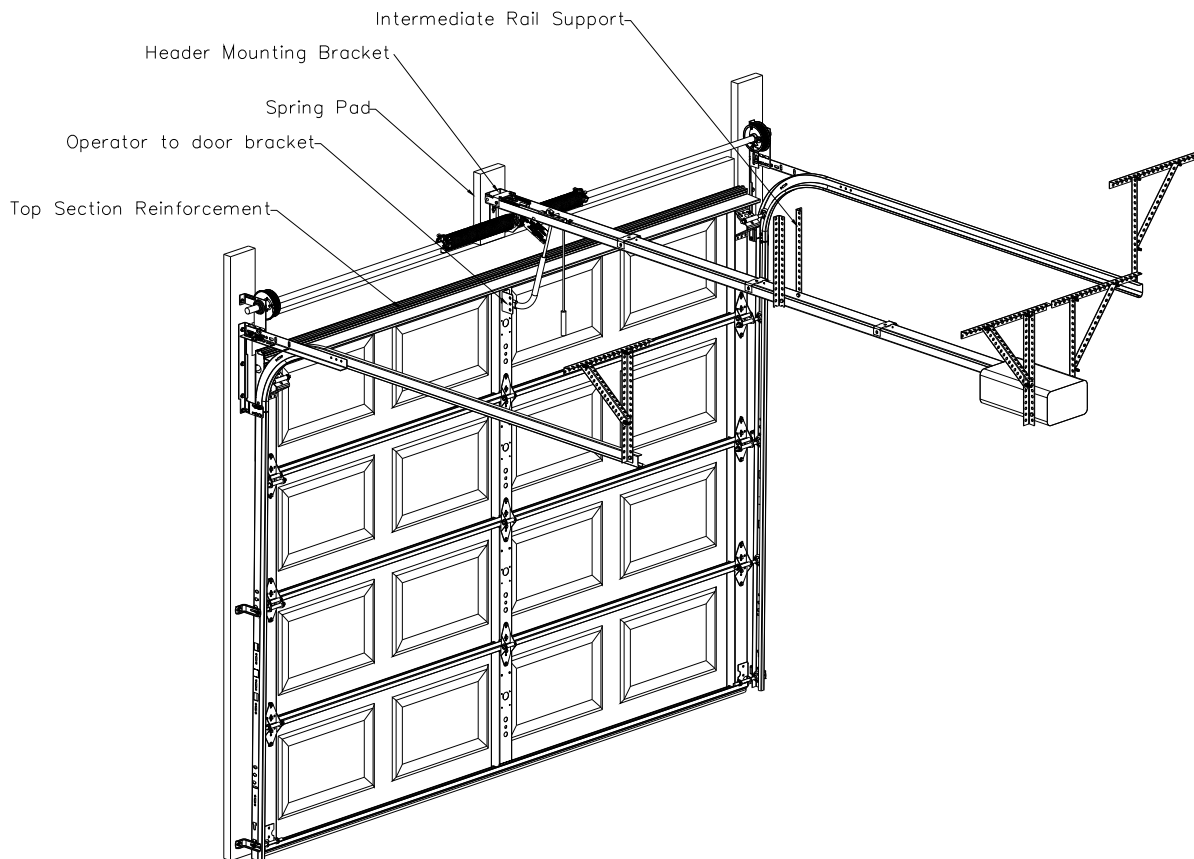


Figure 1

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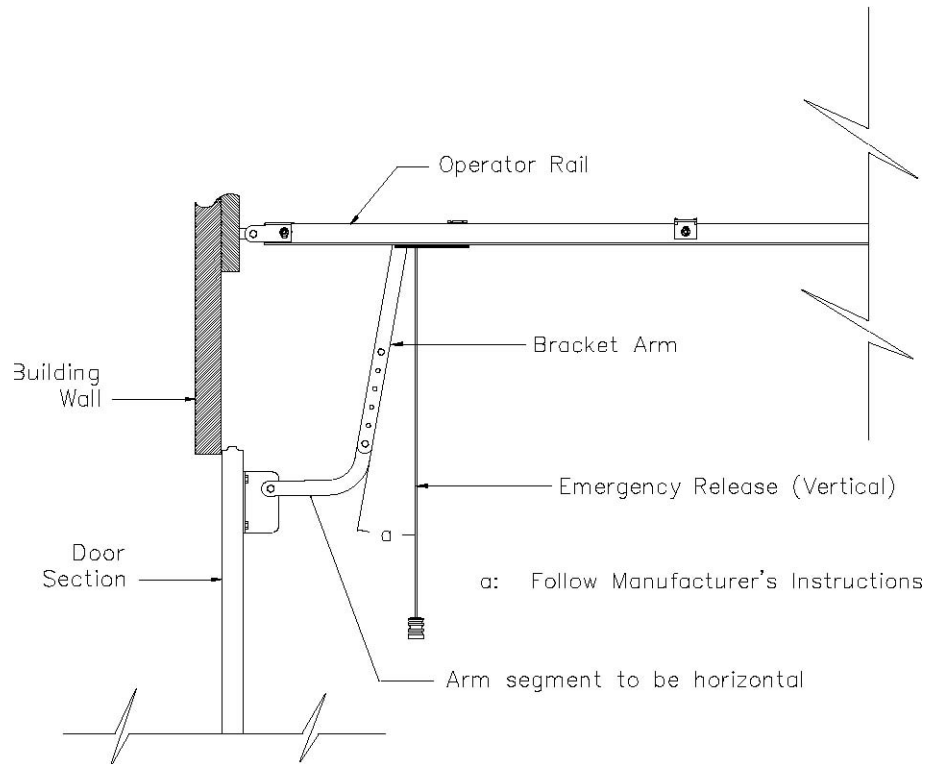


Figure 2

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