

# ENERGY DOOR COMPANY Doors PRIME, ProE, SELECT

Installation Instructions



## Safety and Warnings

Always read and follow the safety instructions before proceeding. Your safety and the safety of others is very important. We have provided many important safety messages in this manual. Please read these messages carefully. These safety warnings alert you to potential hazards that could harm you or others and render damage to ENERGY DOOR COMPANY products.

All safety messages are associated with a safety alert symbol. These symbols are found throughout the manual. The definition of these symbols is described below:



*Protective Eyewear – Potential risk of eye injuries, protective eyewear required when performing this and any other associated tasks.*



*Protective Gloves – Potential risk of injury to your hands, protective gloves required when performing this and any other associated tasks.*



*Risk of Electrical Shock– Potential Electrical Shock Hazard present; pay close attention to instructions when performing this and any other associated tasks when this symbol is present. Failure to follow these instructions can result in severe injuries, fire, or electrical shock.*



*Commercial Refrigeration – This symbol indicates for use inside a commercial refrigeration case with packaged foods only.*



*Warning – To reduce the risk of fire, electrical shock or injury special attention is needed in the following:*

- 1. Use this unit only in the manner intended by the manufacturer.*
- 2. Turn power off before removing existing lighting system and follow appropriate lock out/tag out safety procedures*



*Stop – Before you begin: Read instructions carefully and thoroughly.*

### Qualified Personnel

The ENERGY DOOR COMPANY product/systems described in this installation manual should only be operated by personnel qualified for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, can identify risks and avoiding potential hazards when working with these ENERGY DOOR COMPANY products/systems.

Installation of this assembly requires a person certified and knowledgeable of electrical systems complying with the electrical regulations for the specific country (electrical safety standards and laws, accident and fire prevention laws, EC directives). *Any extra component needed such as overcurrent protection or outlet box must be provided by the customer if not already in place.*

## Door Installation Instructions

The installation of the door requires the installation of a new frame and door. Even if both the door and the existing case are certified, it is the customer's responsibility to ensure that the combination is still complying with the case's certification.

Please read this manual in its entirety. It should answer most of your installation questions. For personal and system safety and for optimum product performance, make sure you thoroughly understand the contents before installing, using, or maintaining this product.



*NOTE: TURN OFF ALL ELECTRICAL POWER PRIOR TO BEGINNING WORK ON THE DOOR OR ON ANY ELECTRICAL. USE EXTRA CAUTION WHEN WORKING WITH OR AROUND THE DOOR GLASS PACKAGE.*

*NOTE: DO NOT use power tools for the following procedures.*

### Tools Required

- #2 Phillips-head screwdriver
- Flat-head screwdriver
- Needle-nose pliers
- Soldering iron
- Razor knife
- 7/16" & 1/2" hand wrench
- 5/32" hex key
- Rubber or plastic mallet
- Wire stripper and cutter
- Heat gun

### Recommendations and Suggestions

- Ensure that the door edge guards are in place when the doors are uncrated prior to installation.
- Complete replacement of wire assemblies is recommended whenever required.
- Splice wires only if necessary, using proper materials such as electrical tape, wire nuts, flux core solder and heat shrink.
- Apply liquid soap to rail plastic covers and gaskets upon installation, to facilitate insertion into mounting grooves.
- Keep doors and frames clean for product efficiency. This can also help reduce energy consumption and potential health hazards. Refer to cleaning instructions.
- Whenever binding gasket or plastic parts, use food grade silicone.
- Whenever replacing fluorescent lamps, always replace lamp covers as well.
- Always use the correct tool for the job to be performed. This ensures proper installation and minimizes safety risks.
- If there is any doubt about the work to be performed, consult with a certified technician or ENERGY DOOR COMPANY representative.
- Preventative maintenance is recommended to ensure product longevity.



*Warning: Door edge guards must NEVER be removed/ Removal will cause damage to the door.*

## Frame Installation Instructions

Read instructions completely before installing the frame.

- Clearance between the frame sill and the case bottom or floor is mandated by local building codes.
- Sill net opening height must be at a minimum of two inches.
- Sill must be completely level.



*Before installing the frame, confirm that the size of the net opening accommodates the finish frame. If the tolerances are too high, the net opening will have to be enlarged. When gap between the frame and net opening is greater than 1/8", shim the gap for a proper fit refer to Shimming Section for clarification. Check the size of the finished frame to the net opening.*



*Protective Eyewear – Potential risk of eye injuries, protective eyewear required when performing this and any other associated tasks.*



*Protective Gloves – Potential risk of injury to your hands, protective gloves required when performing this and any other associated tasks.*

### Frame Installation

Verify openings conform to net openings listed on the original order.

1. Insert the finished frame assembly into the net opening. DO NOT force the frame if the fit is too tight.
2. Insert a mounting screw into a mounting hole in each corner of the frame and tighten each screw until it is approximately a quarter inch from flush.
3. Ensure the frame is aligned properly or square. Refer to "Frame Installation Reference (Figure 1)".
  - a. Use a measuring tape to measure diagonally one corner to the opposite and note the distance.
  - b. Measure the distance between the remaining corner.
  - c. Both measurements should be the same, within a 1/16" difference.
4. Confirm the frame and frame flanges are vertically aligned to the wall surface around the net opening. Refer to "Frame Installation Reference (Fig. 2)" for further clarification.
5. Place a level on the top flange of the header frame to check if it is horizontally aligned.
6. If the top of the header frame sags or bows, correct as necessary.
7. When the frame is aligned, tighten all mounting screws securely until each is flush to the frame surface.



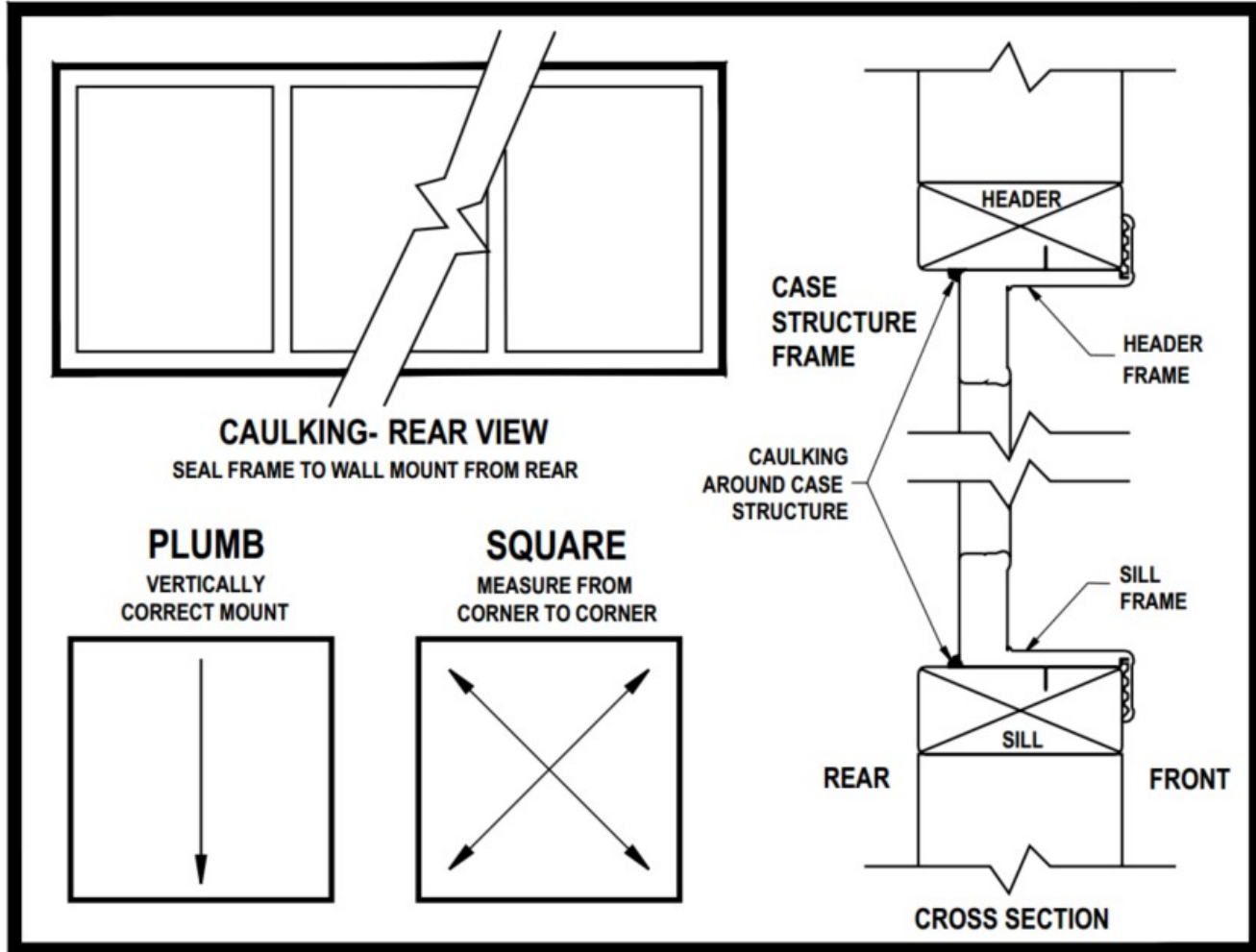
*Warning: DO NOT over-tighten the screws, as this can cause the frame to become out of square.*

8. Check entire frame to ensure installation is correct.



*Warning: Use only food grade silicone sealant (add caulking for larger gaps) to seal the gap between the frame and the surrounding wall, inside case, cooler.*

Figure 1. Frame Installation Reference



### Shimming

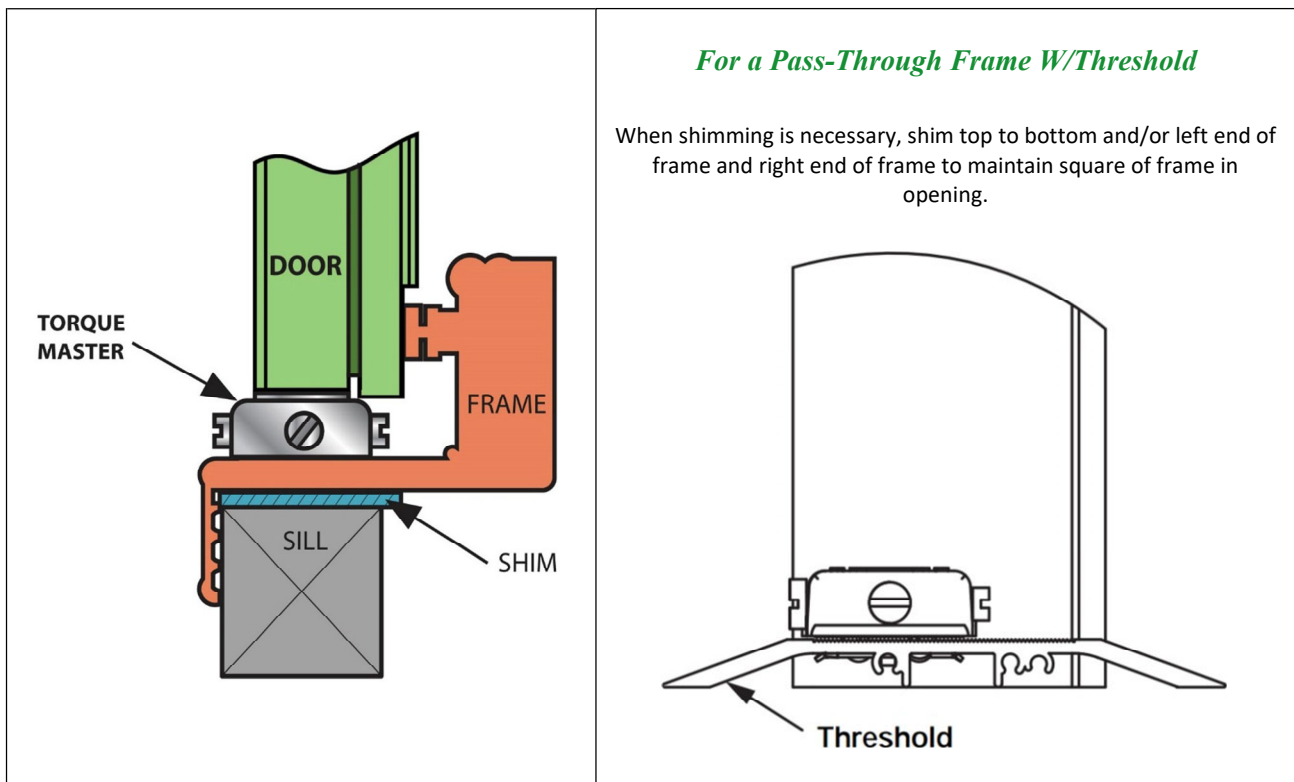
Verify the size of the finished frame to the net opening.

- Subtract the frame height measurement, from the net opening's height measurement.
- Subtract the frame width measurement, from the net opening's width measurement.
- Divide each number in half. This is the amount of gap that will occur between the width of the frame and the net opening.

If the gap between the frame and net opening is greater than 1/8", shim the gap for a proper fit. Refer to Figure 1 for detailed view of shim location.

1. Acquire sturdy, penetrable material, such as a piece wood. The thickness of the material should be wedge shaped or slightly less than the gap to be filled.
2. Measure the gap length (height or width of frame) and cut the shim material to 1/16" less than the measured length.
3. Install the shim using the same type of mounting hardware that will be used to install the frame. Be certain that the shim installation hardware will not interfere with the frame installation hardware.
4. If necessary, cut a second shim to the same length and install it in the opposite side of the net opening.
5. If the adjacent sides of the net opening need shimming, repeat the previous steps. Match the shim length to the frame sides of the net opening (less 1/16").

*Figure 2-3. Door and Frame Cross Section. (Shim Location)*



## Frame Electrical Wiring Connections



*Warning: To reduce the risk of fire, electrical shock or injury observe the following:*

- Use this unit in the manner intended by the manufacturer.
- Turn power off before removing existing lighting system and follow appropriate lock out/tag out safety procedures



*Risk of Electrical Shock – Potential risk of Electrical Shock; pay close attention to instructions when performing this and any other associated tasks.*

The individual wires extending from the flexible conduit atop the frame provide electrical power to various frame and door functions. Refer to appropriate “Wire Diagram Connection” shown in Table 3 below. Using wire connectors, these wires should be grouped by the HOT wires (Circuit wires), with the NEUTRAL wires and the GROUND wire connections going to their respective facility or case connections.

*Table 1. List of Possible Wire Diagram Connections for 100-120V*

<i>Heated Frame with Non-Heated Door</i>	<i>Heated Frame with Heated Door</i>
<p>BLUE _____ LIGHT CIRCUIT            WHITE/BLUE _____ LIGHT NEUTRAL BLACK            _____ FRAME HEAT CIRCUIT            WHITE _____ FRAME HEAT NEUTRAL            GREEN _____ GROUND</p>	<p>BLUE _____ LIGHT CIRCUIT            WHITE/BLUE _____ LIGHT NEUTRAL BLACK            _____ FRAME HEAT CIRCUIT            WHITE _____ FRAME HEAT NEUTRAL            RED _____ DOOR HEAT CIRCUIT            WHITE/RED _____ DOOR HEAT NEUTRAL            *ORANGE _____ CONTROLLER BYPASS/TEST            GREEN _____ GROUND</p>
<i>Non-Heated Frame with Non-Heated Door</i>	<i>Non-Heated Frame with Heated Door</i>
<p>BLUE _____ LIGHT CIRCUIT            WHITE/BLUE _____ LIGHT NEUTRAL            GREEN _____ GROUND</p>	<p>BLUE _____ LIGHT CIRCUIT            WHITE/BLUE _____ LIGHT NEUTRAL RED            _____ DOOR HEAT CIRCUIT            WHITE/RED _____ DOOR HEAT NEUTRAL            GREEN _____ GROUND</p>

*\*IF ENERGY CONTROLLER IS USED, RED AND WHITE/RED ARE CONNECTED INTERNALLY. CONTROLLER BYPASS/TEST ORANGE WIRE IS CAPPED.*



*Warning: Wiring for lights should have separate circuit from the frame heater wiring circuit.*

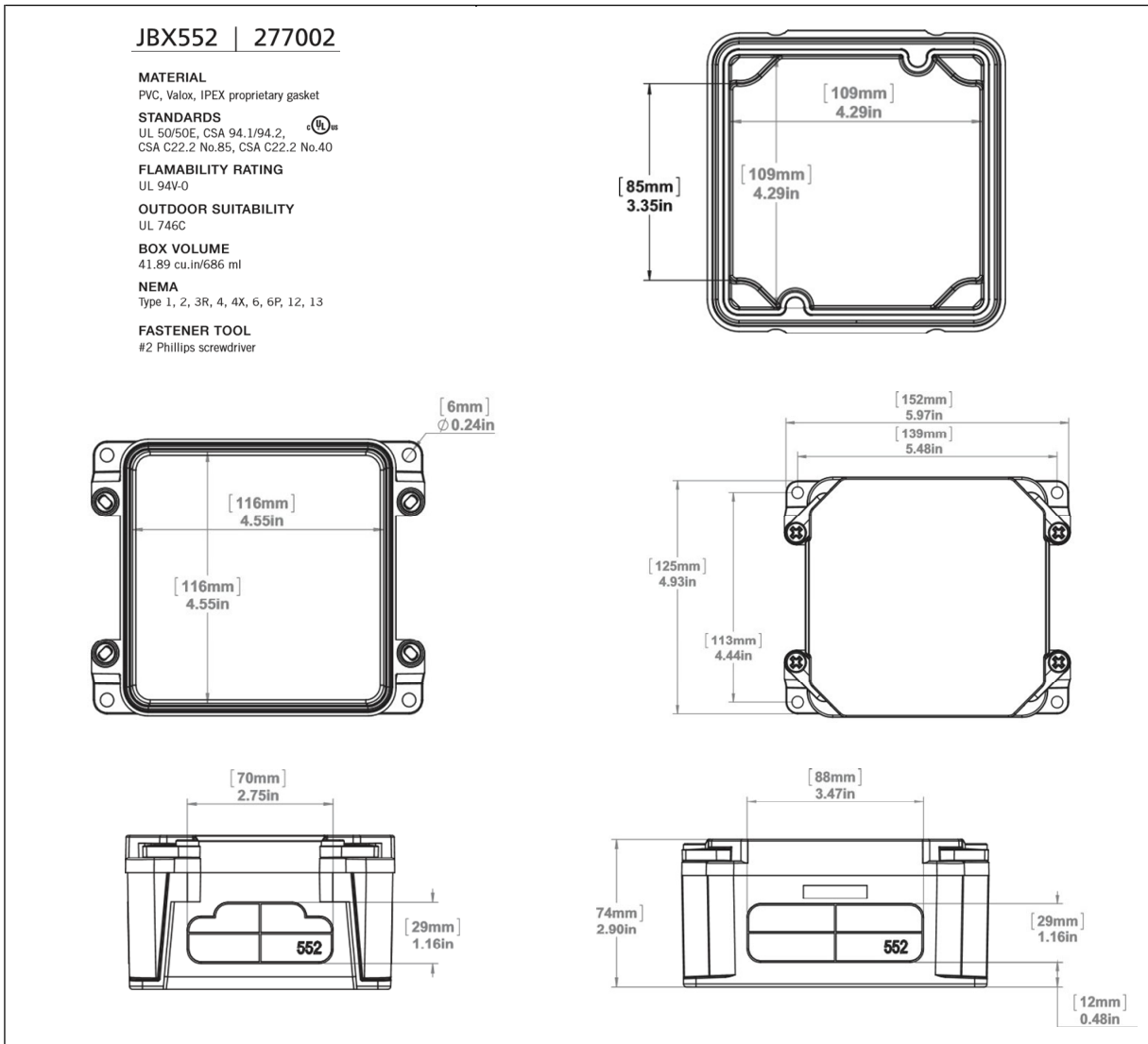
**Outlet Box Specifications**



*Warning: Overcurrent protection and outlet box are needed and must be provided by the customer. Installation requires a person certified and knowledgeable of electrical systems.*

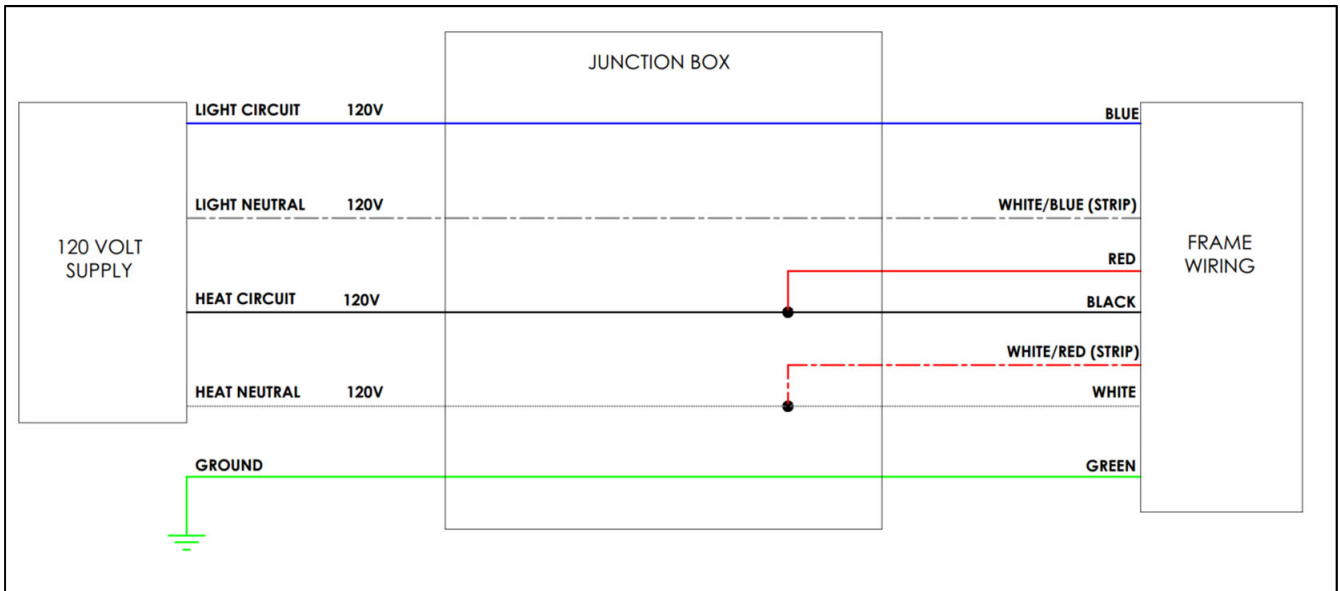
Outlet box must be a Scepter (model and specifications shown below) or the equivalent.

*Figure 4. Outlet Box Specifications*





*Figure 5. Wiring Diagram*



## Door Assembly Installation

The following instruction set will walk you through properly install the door onto the frame.



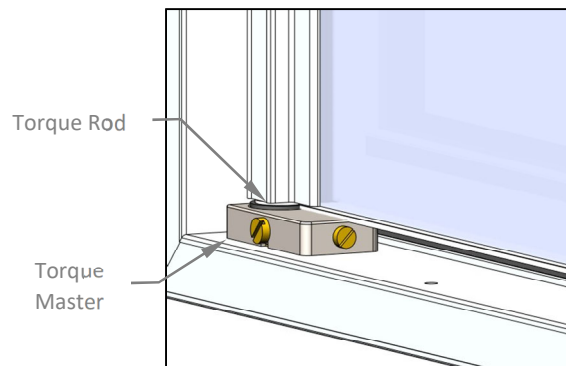
*Warning: Exercise caution when handling the door.*



*Protective Gloves– Potential risk of injury to your hands, protective gloves required when performing this and any other associated tasks.*

1. Hold the door on each side, with the handle facing forward. Lift the door and align the torque rod to insert into the Torque Master™ socket at the base of the frame.

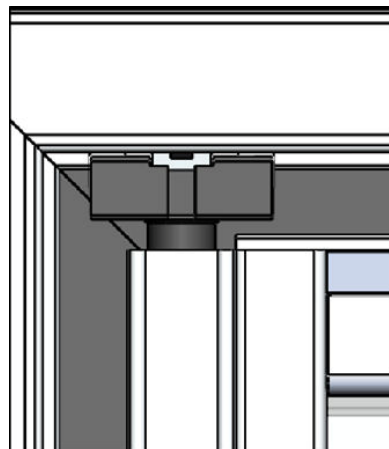
*Figure 6. Insert Torque Rod into Torque Master*



2. Engage the door with the hinge pin inserted into the Gib (hinge pin plug) receptacle at the top of the frame. Push the door into the frame until the hinge pin snaps into place.

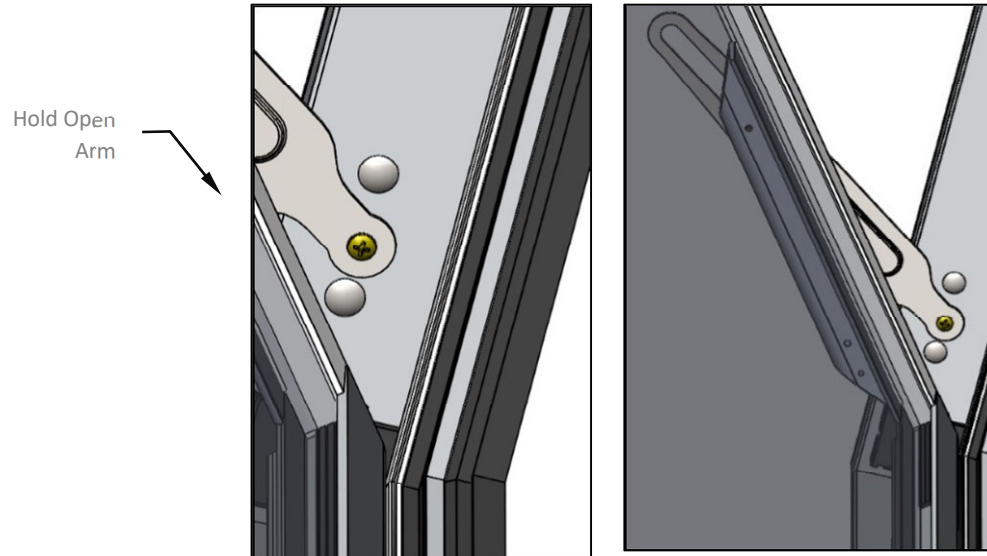
*Figure 7 - 8. Connect Hinge Pin*

Hinge Pin



3. Insert the hold-open screw through the hold-open standoff pivot hole.
4. Insert the screw through the frame standoff and tighten with a Phillips screwdriver.

*Figure 9 - 10. Installing Door Hold-Open Arm*



5. Set the door tension swing and correct the door alignment by adjusting the Torque Master. Read “Torque Master and SAG Adjustment” section.



*Warning: Exercise caution when handling the door.*



*Warning: DO NOT use power tools when adjusting the Torque Master.*



*Warning: DO NOT over tighten the hold-open bolt. Verify that the hold-open does not bind while sliding along the hold-open bolt. Adjust as necessary.*



*WARNING: Door edge guards must never be removed. Removal will cause damage to the door.*

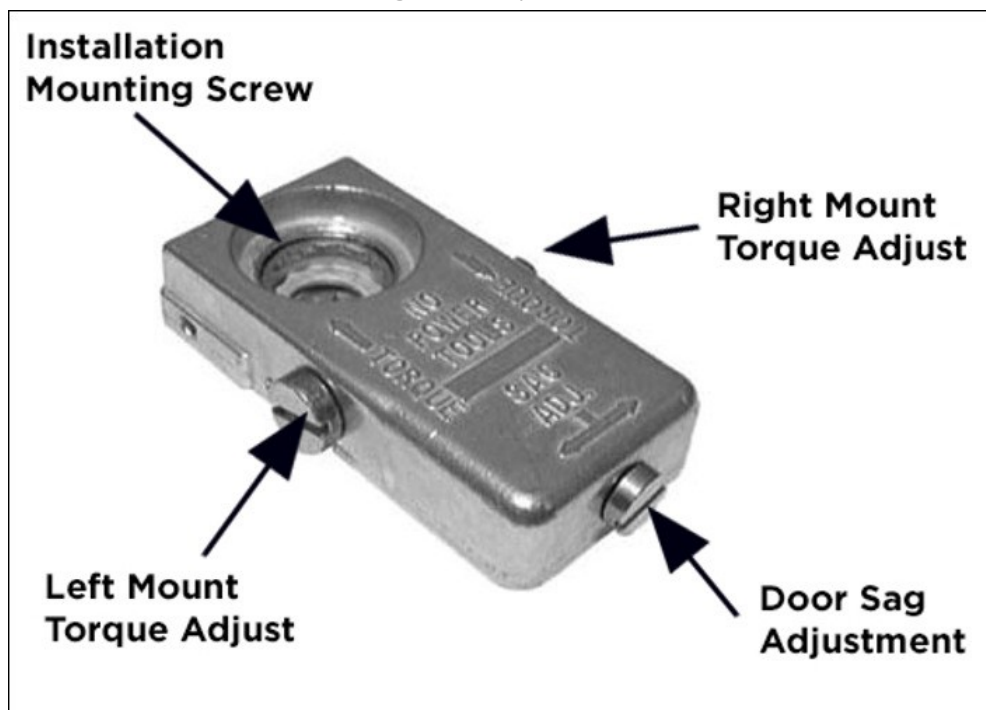
## Torque Master and Sag Adjustment

The Torque Master™ regulates the door alignment and the door closing tension. The following instruction set will walk you through properly adjusting door location and door sag.



*Warning: Exercise caution when handling the door and DO NOT use power tools when adjusting the Torque Master™.*

*Figure 11. Torque Master*



1. Use a flathead screwdriver to adjust the torque rod tension, by turning the outside screw on the Torque Master. The door must automatically close from an open position.
  - Turn counter-clockwise to increase tension.
  - Turn clockwise to decrease the tension.
2. Adjust the door sag to square the door in the frame by turning the screw that is marked SAG ADJ. (sag adjustment), on the end of the Torque Master, until the door is aligned square in opening.
  - Turn counter-clockwise to raise handle side of door.
  - Turn clockwise to lower the handle side of door.

## Door Assembly Removal

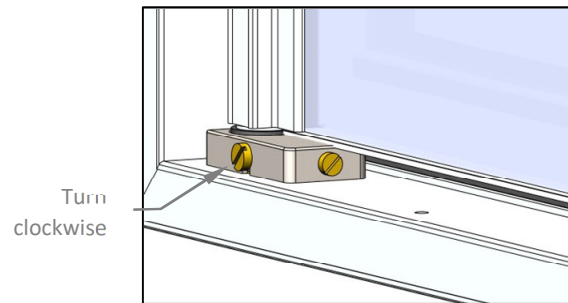
The following instruction set will walk you through properly removing door from frame.



**Warning:** Exercise caution when handling the door

1. Release tension on the Torque Master with a flat-head screwdriver. Turn the Torque Master front facing screw clockwise, until the door does not automatically close from an open position.

*Figure 12. Release Torque Master Tension*



2. Open the door to access the hold open device and remove the screw from the hold open with a Phillips screwdriver.

*Figure 13. Remove Hold Open Screw*



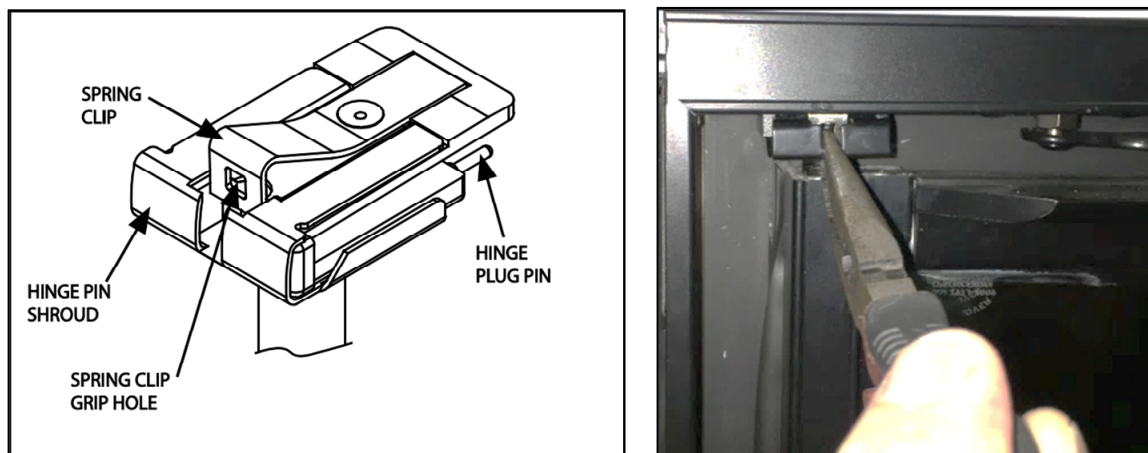
- Using a flat screw driver, unclip the hinge pin cap.

*Figure 12 - 13. Unclip Hinge Pin Cap*



- Retract the door to a near-closed position.
- Remove the hinge pin plug from the frame by inserting the top-half of needle-nose pliers into the spring clip grip hole and the bottom half beneath the hinge pin shroud.

*Figures 14 - 15. Disengaged Hinge Pin*



6. Compress the pliers to clamp down on the hinge pin spring clip, then simultaneously pull the hinge pin away from the frame and pull the door top out.

*Figure 16. Disengaged Door*



7. Lift the door out of the Torque Master and secure or lean the door on its side against a stable surface.

*Figure 17. Withdraw from Frame*

