

GLYNN-JOHNSON

Overhead Door Holders/Stops



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Overhead Door Controls

The best door control device is one that operates overhead, with an arm functioning from the jamb to the top of the door. When the door stopping or hold-open does not exceed 110°, this device is by far the most efficient.

The overhead holder and stop is **out of the way**, in contrast with floor or wall-mounted stops, which can be a stumbling hazard and are vulnerable to damage by accident and vandalism.

Glynn-Johnson overhead holders and stops should **always** be used on doors furnished with door closers, as closers are **not** door stops and should not be expected to perform that function. Glynn-Johnson overhead stops are designed to **protect** door closers from violent openings.

Selecting Degree of Hold-Open or Stop

Glynn-Johnson overhead holders are designed to function effectively from 85° to 110°. When conditions permit, we recommend the minimum degree of hold-open be set at 95° to put the door knob, pull and panic hardware beyond the flow of traffic.

When selecting the degree of Hold-Open for doors opening back-to-back, or against a wall, please note all Glynn-Johnson overhead holders have shock absorbers which ‘give’ approximately 5° – 7° beyond the hold-open or initial stop point.

The concept of dead stop templating means that the degree of opening be set 5°–7° less than the point of required dead stop to accommodate the compression of the shock absorber.

Door and Frame Reinforcement

Glynn-Johnson overhead holders and stops are fabricated from top quality brass, steel and stainless steel materials, and are designed to function even under constant heavy-duty abuse. Therefore, it is essential that all doors and frames be adequately reinforced to provide proper anchorage for the overhead stop.

For metal doors and frames, we recommend reinforcement be a minimum of 3/16" thick, 1-1/2" wide and 12" long to effectively distribute the load.

For wood doors and frames, we stress the importance of making them strong enough to provide proper anchorage for the door holders.

For reinforcement details, refer to individual templates for each overhead stop.

Definition of “Door Opening”

Glynn-Johnson defines the terms “door opening” as the actual width of the door opening, from jamb to jamb, not just the width of the door. Refer to the chart below, for example, and you will find that a 45" opening would require a size 5 holder if the door is hung on butts or offset pivots.

You will note also that, regardless of the style or series of holders, Glynn-Johnson has standardized the size of holders and stops for all openings, combining the size in the model number. The third digit in all models designates the size. If any further information is required on sizing a holder or stop, contact Glynn-Johnson or your local representative for assistance.

Butts/Offset Pivots¹

Size	Concealed Series			Surface Series				
	100	410	Door Opening	70	79	81	90	450
1	101 ²	411 ²	18" – 23"	–	–	–	–	451
2	102 ²	412 ²	23-1/16" – 27"	702	792	–	902	452
3	103	413	27-1/16" – 33"	703	793	813	903	453
4	104	414	33-1/16" – 39"	704	794	814	904	454
5	105	415	39-1/16" – 45"	705	795	815	905	455
6	106	–	45-1/16" – 54"	706	796 ³	816	906	–

¹ Refer to individual catalog pages for further details and for information on center hung applications.

² These sizes not available for use with offset pivots.

³ 796 unit may be templated for use on doors wider than 54". Contact factory with specific information on door frame construction.

Installation Methods

Door Mounting Hardware

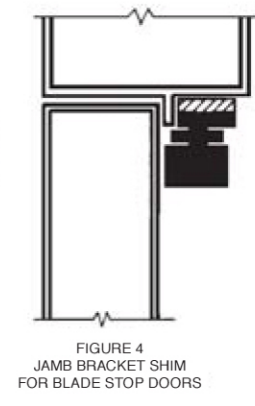
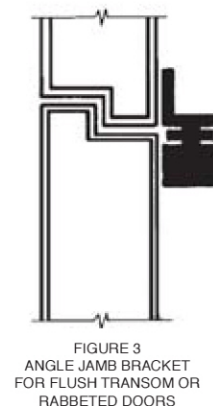
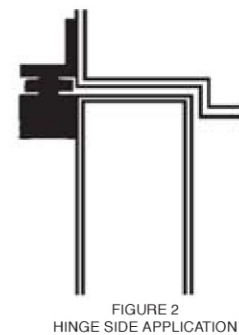
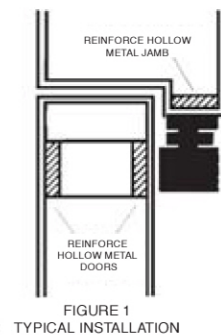
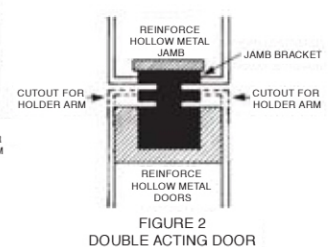
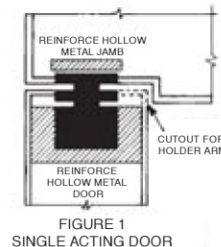
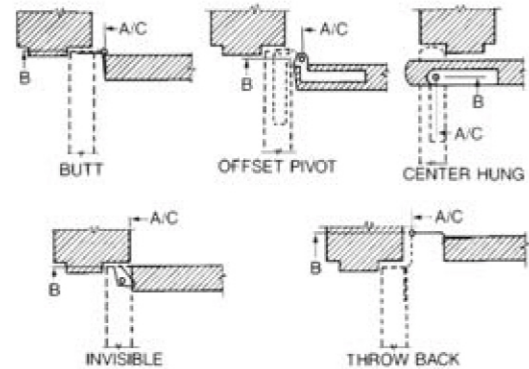
Mounting templates for all series holders show various types of hinging methods as well as various degrees of opening. To accommodate the overhead stop to the various mounting methods requires a simple shifting of dimensions A and B. To be assured that reinforcement and mortising are in the proper location, be sure to secure the proper templates from your Glynn-Johnson dealer. These templates include all necessary information for reinforcing door and frame, complete installation instructions for the various mounting methods and the degree of opening required.

Concealed

Concealed overhead door holder installation requires that the jamb bracket be mortised flush with the bottom of the jamb. The arm and channel must be mortised into the door so the arm is flush with top of the door. A cutout made for the arm on the stop side of single acting doors as in the sketch. Double acting doors require a cutout for the arm on both sides of the door as shown in the sketch. Hollow metal doors must be reinforced at the top of the door to provide necessary strength for the channel. Hollow metal frames must be reinforced in the jamb to provide strength for the jamb bracket. Strength of wood frame and door must be adequate for the holder specified. Accurate template drawings for each holder give complete reinforcement and mortising specifications. They are readily available from your Glynn-Johnson representative.

Surface Type

Surface mounted overhead door holder installation does not require mortising of jamb or door. The jamb bracket is surface mounted on the stop of the frame. The channel is also surface mounted on the face of the door. Hollow metal doors and jambs must be reinforced to provide necessary strength for the holder specified. Strength of wood doors and jambs must also be adequate for the holder. A typical surface mounted installation is shown in Figure 1 where jamb bracket is fastened to the stop. Angle jamb brackets are available for hinge side mounting (Figure 2) and for use with rabbeted doors or flush transom installations (Figure 3). Jamb brackets with special shims for use on jambs with blade stops are also available (Figure 4). Advise stop height and the appropriate shim kit will be provided.



450 Series Surface Overhead Door Holders/Stops



450 Series Medium-Duty

Glynn-Johnson provides the most complete line of overhead holders and stops, offering solutions for the most demanding door control problems. These surface-mounted holders and stops offer the widest variety of functions, materials and finishes to fit all medium- to light-duty applications.

Glynn-Johnson 450 series holders and stops provide reliable and versatile surface-mounted overhead door control for all medium to light-duty applications. The visible components are available in a wide variety of architectural finishes to complement any design. The 450 series holders and stops are designed for installation in virtually all types of doors and frames including doors with conventional butt hinges, offset pivots, continuous hinges, swing clear hinges and many other specialty hinges. The templates provided allow for variable mounting positions, ranging from 85° - 110° of opening.

Four Models:

- 450H Series Hold-Open Model
- 450S Series Stop-Only Model
- 450F Series Friction Hold-Open Model
- 450SE Series Special Stop-Only Model

Five Sizes:

- Simple
- Standardized
- Each model is available in five sizes

Three Options:

- J—Angle Jamb Bracket
- SHIM—Blade Stop Shim Kit
- SOC—Pin-in-Socket Security Screw Package

Unmatched Convenience:

- Non-Handed
- Improved Compatibility with Door Closers
- Improved Jamb Bracket Design
- Single Acting Doors
- Interior Applications
- Durable
- Easy to Install
- Improved Corrosion Resistance

Materials and Finishes:

In Brass, 300 series stainless steel or steel, these models offer the broadest range of finishes in the industry to complement any design. Brass and Stainless Steel offer the highest resistance to corrosion, while all these base materials are suitable for normal interior use.

Finish	Description
US3	Polished Brass
US4	Satin Brass
US10	Satin Bronze
US10B	Oil Rubbed Bronze
US32	Polished Stainless Steel
US32D	Satin Stainless Steel
SP4	Powder Coat Brass
SP10	Powder Coat Bronze
SP28	Powder Coat Aluminum
SP313	Powder Coat Dark Bronze
SPBLK	Powder Coat Black
652	Chrome-like Coating

Models

Glynn-Johnson 450 series holders and stops are designed for medium to light-duty applications. They're ideal for openings that are subject to normal activity, providing protection for the door, frame, hinges and surrounding walls or obstructions.

Designed for improved compatibility with most door closers, all models incorporate popular channel/slide arm design and offset jamb brackets. The improved design makes it easier to change functions in the field, should user requirements change.

450H Series Hold-Open

(Suffix H) These models conveniently hold doors open at a predetermined position, permitting unobstructed traffic flow.

These models feature an adjustable automatic Hold-Open that is activated when the door is opened to a preset angle. The Hold-Open tension can be adjusted using an allen wrench through the end of the slider located in the channel at the top of the door. Each meets the 250,000 test cycles required for Grade 1 classification.

450S Series Stop-Only

(Suffix S) When the Hold-Open function is not required, the Stop-Only function provides the same effective door control without keeping the door held open. The Stop-Only model may be used on fire doors.

450F Series Friction Hold-Open

(Suffix F) Friction Hold-Open models provide an alternative holding method ideal for patient room doors, wardrobe or closet doors, or similar applications where multiple Hold-Open positions are desired. The friction tension can be adjusted using an allen wrench on the slider located in the channel at the top of the door.

450SE Series Special Stop-Only

(Suffix SE) When Stop-Only models are used in conjunction with single point Hold-Open electronic door closers, the function may be ordered without the shock absorbing mechanism. Used as an auxiliary stop with these closers, they will prolong the life of the closer. The stop location is adjusted using an allen wrench on the stop block located in the channel.

Note: Caution should be taken when using this option in other applications, as the elimination of the shock-absorbing spring can put added stress on the door and frame.

Application Information

Closer Applications

Glynn-Johnson 450 series models require minimal door and frame preparation. They may be used in conjunction with most surface-applied door closers. In some cases, optional drop brackets may need to be mounted on the closers. These brackets are available from the closer manufacturer.

UL Classification

The 450 series Stop-Only models are classified by Underwriters Laboratories (UL) as Miscellaneous Fire Door Accessories. This classification applies to use on either Hollow Metal Fire Doors or Wood Fire Doors. These units may be used on doors of any rating. As a reminder, the Miscellaneous Fire Door Accessories (GVUX) section is defined by UL as: "Miscellaneous fire door accessories are intended in the individual Listings. The accessories have been investigated to determine that when installed in accordance with the manufacturer's instructions, the accessories do not adversely affect the fire rating of the fire door and/or fire door frames."

Dead-Stop Templating:

For situations where a wall or similar obstruction is in place at an opening angle of 110° or less (e.g. doors that open back-to-back), dead stop templating should be used. This includes all Hold-Open, Friction and Stop-Only models, except when the "SE" option is used. The Dead Stop position is reached when the shock-absorbing spring is fully compressed, allowing an initial degree of opening of 5° to 7° less than the Dead Stop opening.

Example: If the holder is templated for 100° Dead Stop, the door will hold open somewhere between 93° to 95°, and no further than 100°.

Note: Do not use dead-stop templating on the 450SE Series since there is no shock-absorbing spring.

Environmental Conditions:

To assure a long operating life for holders and stops, consider the environment where they will be used. Doors that open to the exterior of a building or are subject to corrosive conditions should have a holder constructed primarily of stainless steel, brass or bronze materials. For interior doors, steel material may be acceptable, although brass and bronze substrates will provide a more attractive architectural grade finish.

Heavy-Use Applications:

Where doors and frames are subject to heavy use and abuse, a heavy-duty holder or stop should be considered. Also heavy-duty units should be considered on exterior doors subject to wind.

Options

Suffix J (Angle Jamb Bracket):

An additional option on the 450 Series is the Angle Jamb Bracket for hinge-side or flush transom mounting. The angle jamb bracket affixes to the standard jamb bracket. If ordered with the overhead add suffix J. If needed separately order 450J-Finish.

Suffix SHIM (Blade Stop Shims):

Shim kits are available in 3 sizes:

450 SHIM1 is a 3/16" Shim Kit

450 SHIM2 is a 3/8" Shim Kit

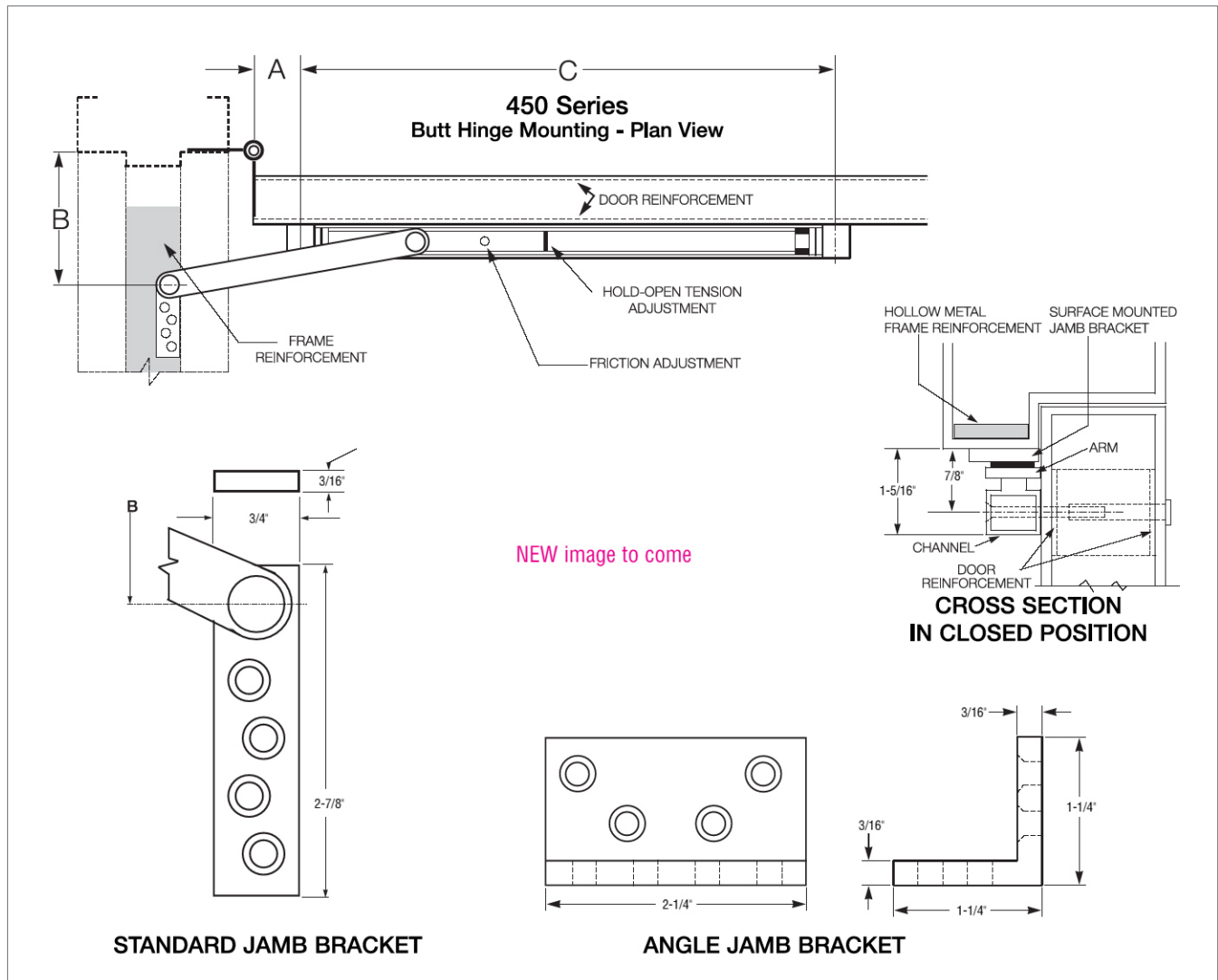
450 SHIM3 is a 9/16" Shim Kit

If ordered with overhead, add suffix SHIM (1, 2 or 3). If needed separately order 450SHIM (1, 2 or 3)-Finish.

Suffix SOC (Pin-in-Socket Security Screw Package):

A screw package with pin-in-socket screws for mounting the channel to the door and the jamb bracket to the frame is provided instead of the standard screw package.

450 Series Surface Overhead Door Holders/Stops



450 Series Sizing Chart								
BUTTS/OFFSET PIVOTS					CENTER HUNG			
SIZE	DOOR OPENING	STOP ONLY	HOLD OPEN	FRICTION	DOOR OPENING	STOP ONLY	HOLD OPEN	FRICTION
1	18"-23"	451S	451H	451F	23-1/16"-27"	451S	451H	451F
2	23-1/16"-27"	452S	452H	452F	27-1/16"-33"	452S	452H	452F
3	27-1/16"-33"	453S	453H	453F	33-1/16"-39"	453S	453H	453F
4	33-1/16"-39"	454S	454H	454F	39-1/16"-45"	454S	454H	454F
5	39-1/16"-45"	455S	455H	455F	45-1/16"-51"	455S	455H	455F

Note: This chart illustrates the most common types of hinging and door opening sizes.
For unusual door details, contact Glynn-Johnson for availability.

BHMA/ANSI, A156.8 & FED. Spec. Cross Reference		
G-J Model	BHMA*	FED. Spec.
451-455 H	C05511	1166
451-455 S	C05541	1166A
451-455 F	C05531	1164

* First numeral (0) designates optional material.

To specify:

Brass/bronze material, change 0 to 1 (i.e. C15511)

Stainless Steel Material, change 0 to 5 (i.e. C55511)

Steel material, change 0 to 8 (i.e. C85511)

The template information on this page is for reference only and is not intended to serve as an installation template.
For complete dimensional information, refer to Glynn-Johnson template book.