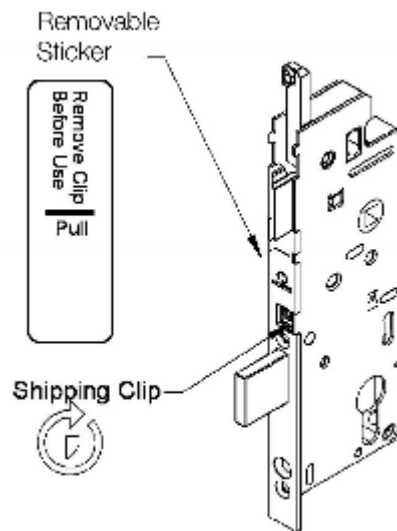


# Hardware Instruction Sheet

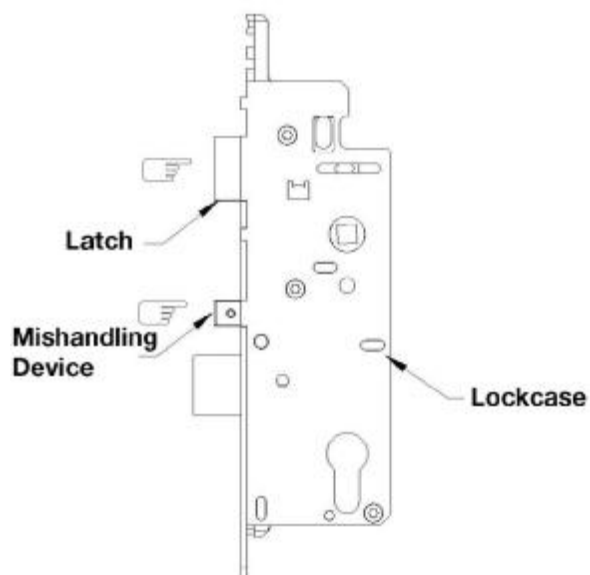
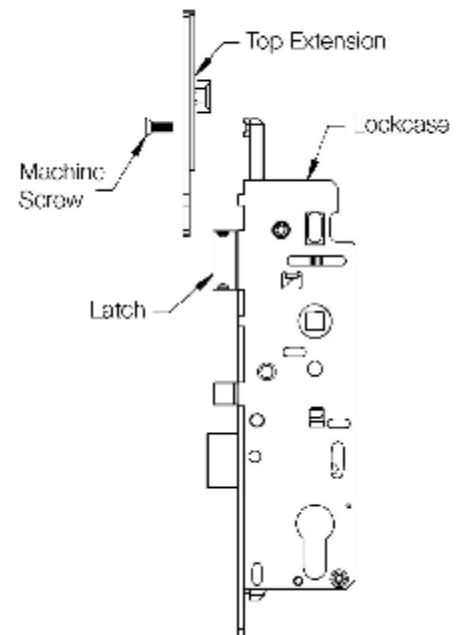


## Shipping Clip for Mishandling Device



1. Remove Sticker
2. Remove Shipping Clip.

## Attachment



## Reversing Latch and Mishandling Device

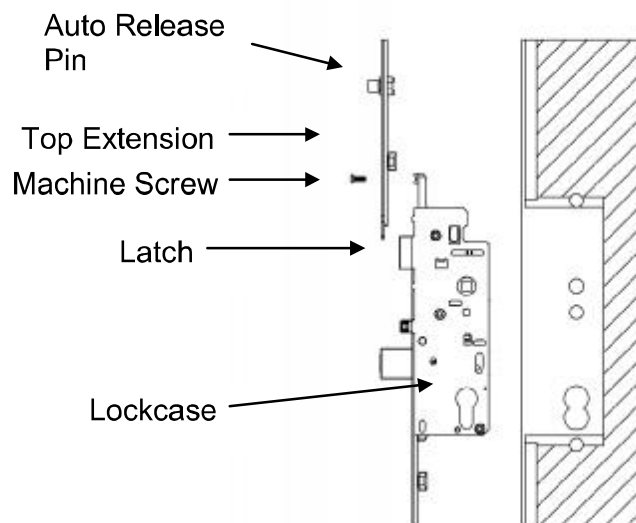
1. Pull and rotate Latch 180° with hand and release back into lockcase.
2. Pull and rotate Mishandling device 180° with handle and release back into lockcase.

# Installation of Multipoint Swing Door Hardware



**PLEASE NOTE: MAIN GEAR AND EXTENSIONS SHOULD BE HAND-TIGHTENED ONLY. EXCESSIVE FORCE MAY CAUSE DRIVE RAIL TO BIND AND INHIBIT SYSTEM OPERATION.**

1. When the door is in the open position, the bevel on the latch should push the latch into the lockcase when you close the door. If you need to reverse the latch, see Hardware Adjustment Sheet.
2. Slide main gear (shown in drawing) into place aligning holes drilled in door face with cylinder, handle holes and lockcase to properly accommodate trim.
3. Install handle set per Swinging Patio Door Handle Set Installation Instructions.



4. Remove machine screw in top of lockcase. Slide top extension into place and fasten to lockcase with the supplied machine screws to door edge. Use #8 screws. The #8 screws should be screwed in flush with the faceplate, but not over tightened. Test gear with the door in the open position. Engage system by lifting handle (note if multipoint system operates on the edge of the door) and extend deadbolt by turning thumbturn. If the system operates on the door edge and the deadbolt operates, the hardware system in the door is fully functional. If not, please see the Troubleshooting Guide.
5. Adjust auto release pin if need. See Hardware Adjustment page.

## Inactive Panel Hardware Installation

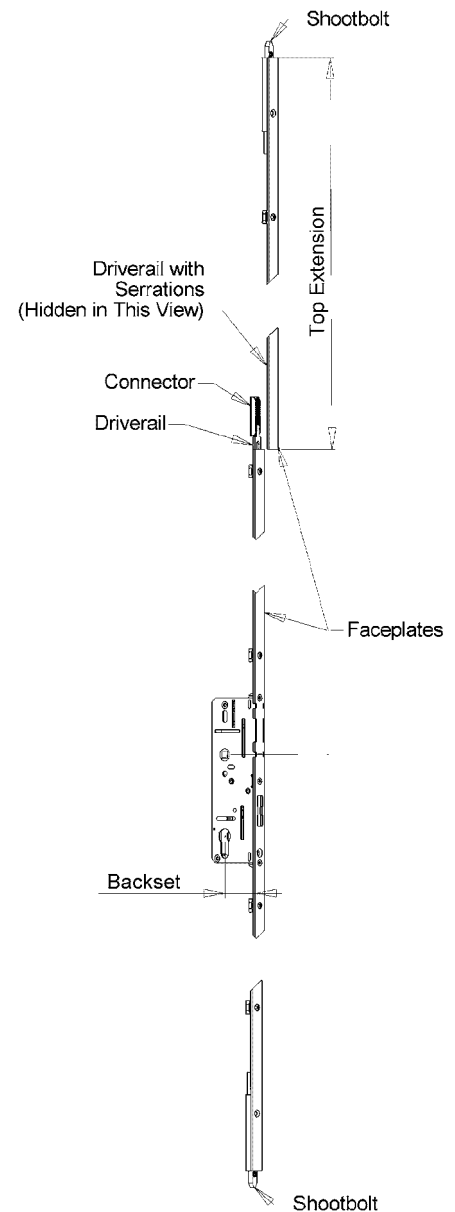
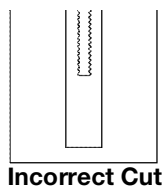
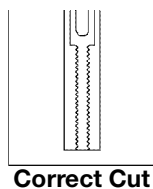
We recommend assembly of the inactive gear in the activated (locked) position. To be consistent in the operation and assembly, you should assemble the gear operator as follows:

1. Insert the lockcase into the mortise pocket in the edge of the inactive panel. Insert the Construction Handle into the handle hub of the gear and lift up on the handle to force the inactive gear into the engaged position. Insert the Thumbturn Insert and turn to lock. The Thumbturn will spin freely after it hits the locking point.
2. Slide the driverail of the top extension outward to extend the shootbolt. Connect the serrated driverail of the top extension to the connector of the main gear. Make sure the teeth are fully engaged (seated into the connector). The shootbolts should extend 3/4". Screw the top extension to the stile.
3. Finish screwing the inactive system into the stile.
4. Turn the thumbturn insert to unlock. Operate the handle set to retract and extend the shootbolts. The shootbolts should operate freely.
5. For a security test, lift up on the handle to engage the shootbolts. Turn the thumbturn insert to lock them into place. Push down on the handle in an attempt to disengage the shootbolts, if properly installed, the shootbolts should not react while the thumbturn insert is locked.

## Cutting Shootbolt Extensions

The faceplate of the shootbolt extension should span from the edge of the extension you are connecting with to the top edge of the door panel. You can cut the extension shorter if you use a connecting plate over the connection. Make sure that you have at least 1-1/4" of serrations left to make a good connection.

*When cutting the extension, make sure to have the end of the drive rail pulled even with the faceplate.*



# ***Adjustment Instructions for HOPPE Roller Multipoint***

## **Required Tools**

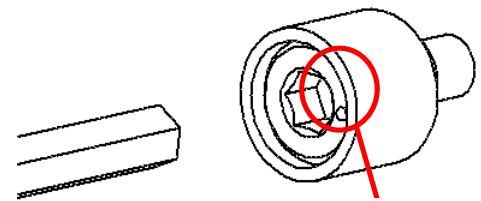
1. A 4 mm or 5/32" hex wrench is required

## **Introduction**

This instruction applies to HOPPE HLS9000 and HLS2000 Roller Multipoint locking systems. HOPPE Roller Multipoint locks feature adjustability to provide optimal weather seal compression. Each Roller lock point has an adjustment cam that pivots about an eccentric axis. This allows for +/- 1 mm adjustments that provide additional weather seal compression or improved gear operation.

## **Making the Adjustment**

1. Open the door that features the Roller Multipoints and locate a Roller lock point. There are multiple Roller lock points in a locking system.
2. On the face of the Roller lock point, locate the positional indicator. This small dot indicates the current positional setting of the Roller cam.
  - A. A 9:00 o'clock position indicates the leftmost position.
  - B. A 3:00 o'clock position indicates the rightmost position.
  - C. A 6:00 o'clock position indicates the lowest roller position.
  - D. A 12:00 o'clock position indicates the highest roller position.
3. Insert the hex wrench into the Roller cam and turn to move the positional indicator to the desired position. Turn the positional indicator toward the hinge side of the door to increase weather seal compression. The hinge side of the door is the side from which the hinges are visible when the door is closed. Turn the positional indicator away from the hinge side of the door to decrease weather seal compression.
4. Repeat the adjustment for the remaining Roller lock points as desired.
5. Close the door and engage the Roller Multipoints to test the adjustments.
6. Adjustments may result in over-compression of the weather seal causing difficult lock operation. Re-adjust Rollers to reduce weather seal compression when lock operation is undesirable.



***Positional Indicator***

***9:00 o'clock = Leftmost Position***



***3:00 o'clock = Rightmost Position***



***12:00 o'clock = Highest Position***



***6:00 o'clock = Lowest Position***



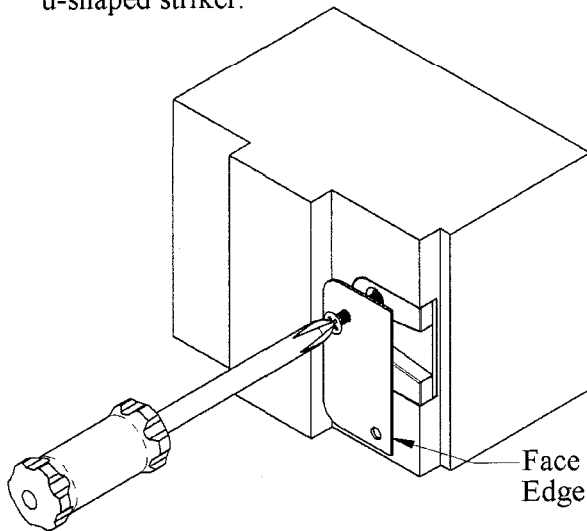
## Installation of HLS Multipoint System Auto Release Strike (When Replacing Old Automatic Gear)

①

Remove top screw from existing u-shaped strike and attach new underplate directly on top of the existing u-shaped strike with the screw you removed. Line up face edge of new underplate with the edge of jamb (see below).

Mark an outline of the underplate on the frame.

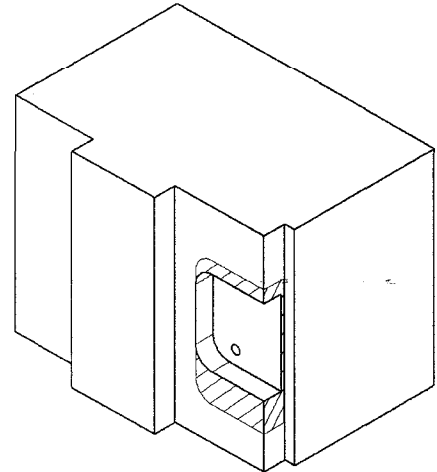
Remove the screw to remove underplate, remove second screw from existing strike and take out old u-shaped striker.



②

Route inside the outline you made (shown below as the shaded area) to remove the excess frame material.

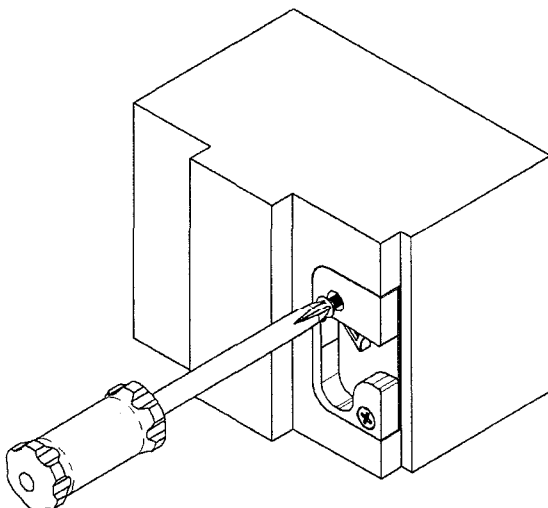
Note: Increase the depth to 9.5mm [3/8"]



③

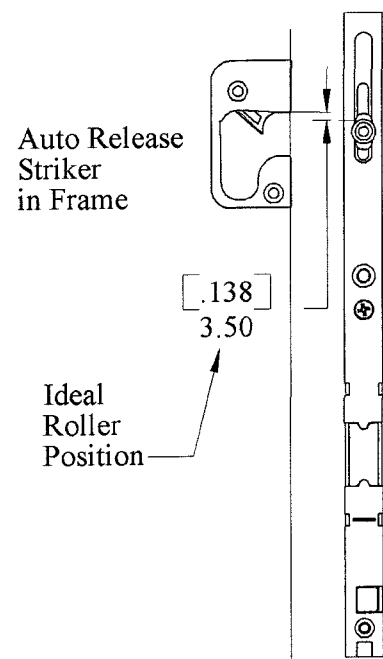
Insert the new underplate and then the new auto release striker into frame and tighten screws.

Install the new multipoint gear system as per instructions.



④

Adjust the auto release pin. Loosen screw using a 3mm allen wrench to adjust the position of the auto release pin, then tighten to fix position.



# Handle Set Installation

## Swing Door Handle Set Installation Instructions

A Phillips screwdriver is required.

A Hex wrench for set screws is provided in the hardware package.

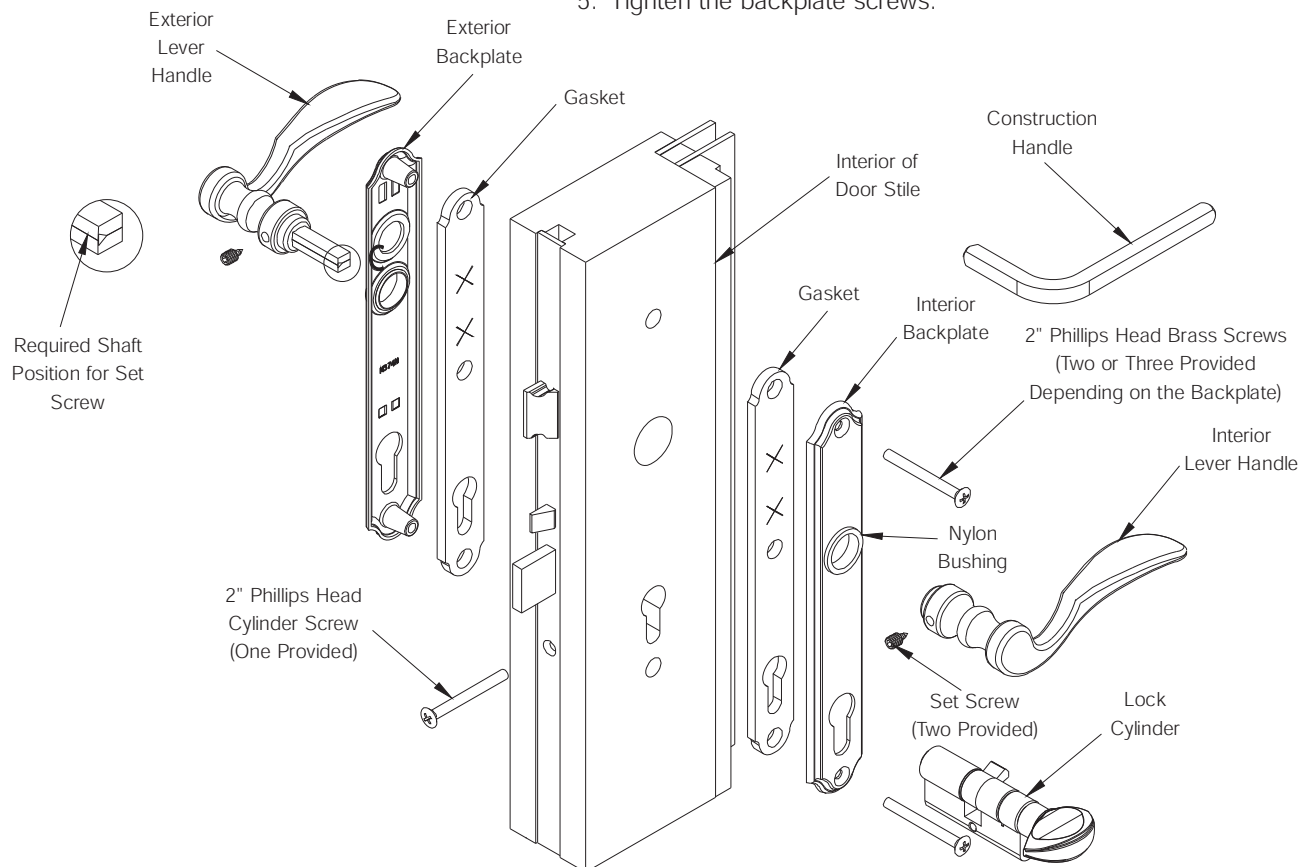
To prevent damage to the handle set while in construction phase, use the enclosed construction handle to operate the door. Lift handle to engage multipoint while in the closed position. Push down on handle to open the door.

Use water and a soft cloth to clean. Do not use brass cleaner as it will remove the protective coating.

### Note:

Handles and backplates vary by style but application is the same.

1. Apply the backplate gasket to the inside of the exterior backplate. Push gasket firmly onto place to ensure a tight seal. Apply the backplate gasket to the inside of the interior backplate. Apply interior and exterior backplates and fasten loosely with the two screws provided. Note: The screw heads must be on the interior side of the door.
2. Insert the two-piece handle shaft into the handle. Be sure to orient the shaft as shown below. Screw the setscrew until flush with handle using the hex wrench. Insert the handle into the latch hole.
3. Install the interior handle on the shaft through the latch hole, pressing tightly to the backplates. Tighten the interior handle set screw with hex wrench. Screw until flush with handle.
4. Insert the keyed cylinder from the interior side of the door until it is flush with the exterior backplate. Install the cylinder screw in the screw hole below the deadbolt in the edge of the door.
5. Tighten the backplate screws.

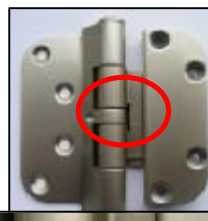


# HOPPE Adjustable Hinge Installation Instructions



Two types of HOPPE Adjustable Hinges will be installed on each door panel:

1. **Set Hinge:** The Set Hinge provides +/- 0.12" vertical adjustment. The Set Hinge is pre-assembled at a centered position allowing for 0.12" adjustment upward or downward. A centered position is indicated by the alignment of two hash marks with the middlemost knuckle gaps when viewing the hinge in the open position as shown. There are two types of set hinges. Refer to the application diagram on Page 2 to determine the set hinge that matches your door configuration.
2. **Guide Hinge:** The Guide Hinges provide +/- 0.12" horizontal adjustment. Look for the visible adjusting screw on the face of the door sash leaf. This identifies the hinge as a Guide Hinge.



## Installation

1. Determine hinge locations on the frame and door panel. Recommended hinge positions are given in the table. The topmost hinge on the door panel is given in the first row.

Number of Hinges	3	4	4	5
Panel Weight	Up to 165 lbs	Up to 165 lbs	165 to 330 lbs	165 to 330 lbs
Hinge Position from Top of Panel to Bottom	GUIDE	GUIDE	GUIDE	GUIDE
	SET	GUIDE	SET	GUIDE
	GUIDE	SET	SET	SET
		GUIDE	GUIDE	SET
				GUIDE

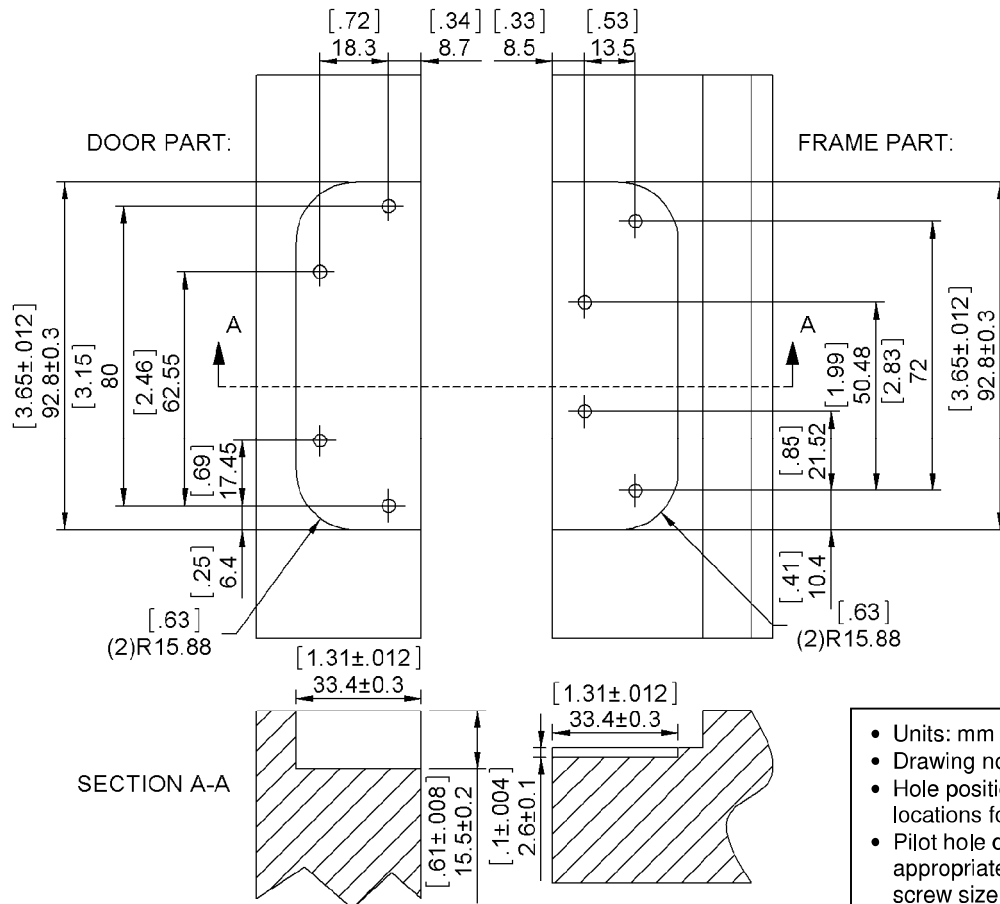
2. Prepare the door panel and frame. Door preparation specifications are given on Page 2.
3. Fasten hinges into the door panel. #10 ANSI wood screws that have a minimum length of 1.25" are recommended. The Set Hinge must be installed according to the installation label. The label on the frame leaf will point down to the sill when properly installed.
4. On the frame, use #10 ANSI wood screws that are 5/8" to 3/4" long in three of the four screw locations. One screw on each hinge should be at least 1 1/2" long to reach the stud. This screw is typically left out and is installed after the door is positioned in the rough opening.
5. Install the frame leaf of the Set Hinge into the routing on the frame and fasten securely. Do not allow the Set Hinge(s) to support the weight of the panel without installing the Guide Hinges.
6. Install the frame leaf of the guide hinges into the routings on the frame and fasten securely. Leaves on the Guide Hinges will slide freely up and down for alignment with the rout.
7. Do not adjust hinges prior to the final installation into the rough opening. This will affect the ability of the door installer and end user to utilize the full adjustment range of the HOPPE Adjustable Hinge.



## Disassembly

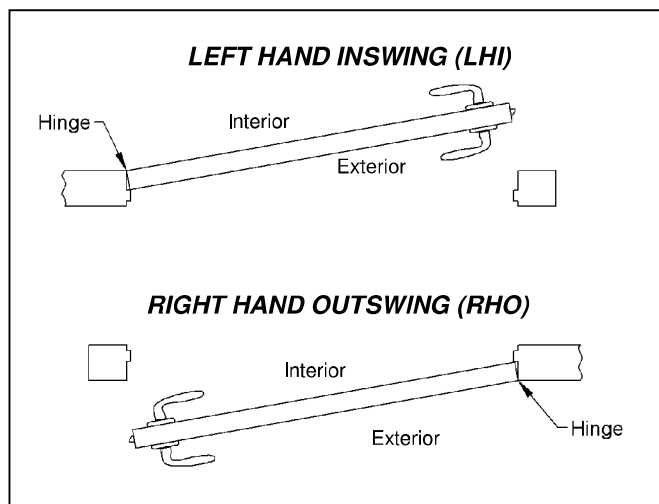
1. Do not attempt to remove the hinge pin as this may cause damage.
2. To disassemble the door panel from the frame, support the weight of the panel to relieve the weight from the hinges.
3. Carefully remove either the frame leaf screws or door leaf screws to displace the panel.

### **Door Preparation Specifications**

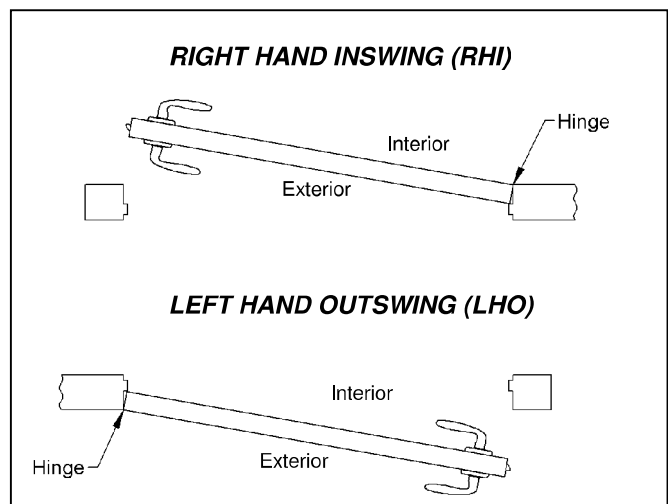


### Application Diagram for Set Hinges

NOTE: The same Set Hinge is used for both left hand inswing (LHI) doors and right hand outswing (RHO) doors. These Set Hinges are designated LHI/RHO. A different Set Hinge is used for both left hand outswing doors and right hand inswing doors. These are designated LHO/RHI.



**Use LHI/RHO Set Hinges for these doors**



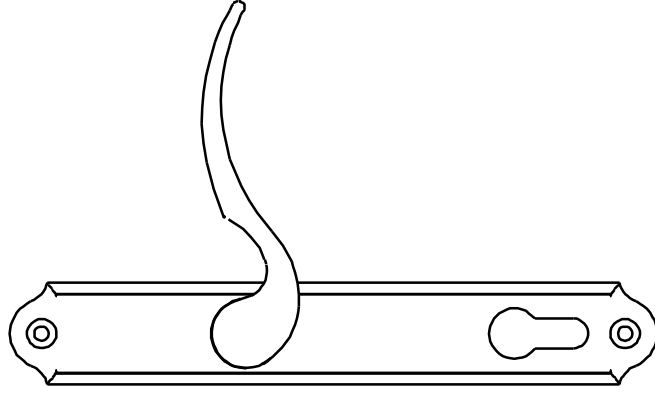
**Use LHO/RHI Set Hinges for these doors**



# Swing Door

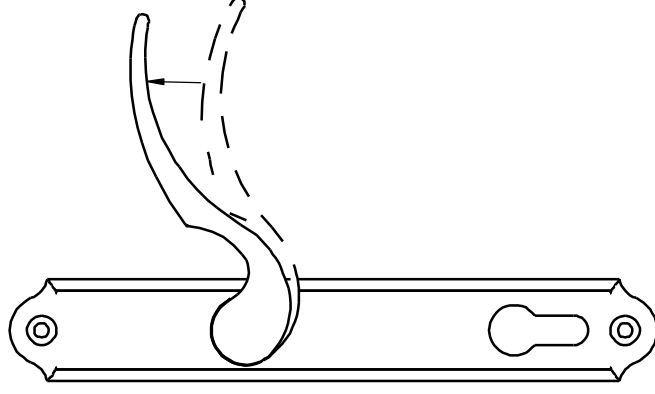
## Handle Operation Instructions

Handles and backplates vary in style



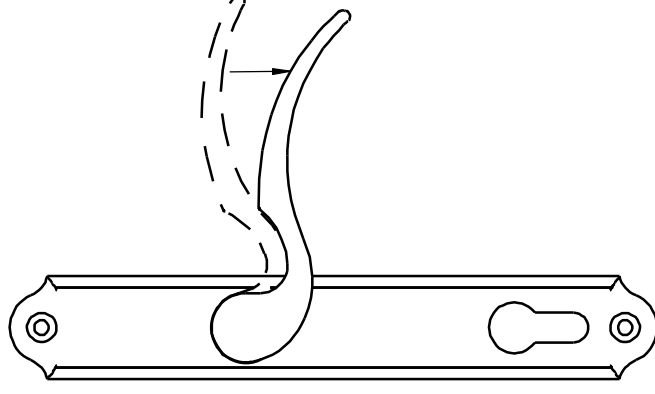
To lock an automatic system, push the door shut. Multi-points will engage automatically when the auto-release pin hits the strike plate mounted on the jamb.

Use a key or the thumbturn to engage the deadbolt after the multi-points are engaged.



To lock a manual system, lift the handle to engage the multi-points before engaging the deadbolt.

Use the a key or the thumbturn to engage the deadbolt after the multi-points are engaged.



To open both automatic and manual systems, disengage the deadbolt with a key or the thumbturn, push the handle down until multi-points are retracted, and then open door.

**NOTE:** Activation of the multi-point hardware will remain the same regardless of handle style.

# Swing Door Handle Set Installation Instructions



**A Phillips screwdriver is required.**

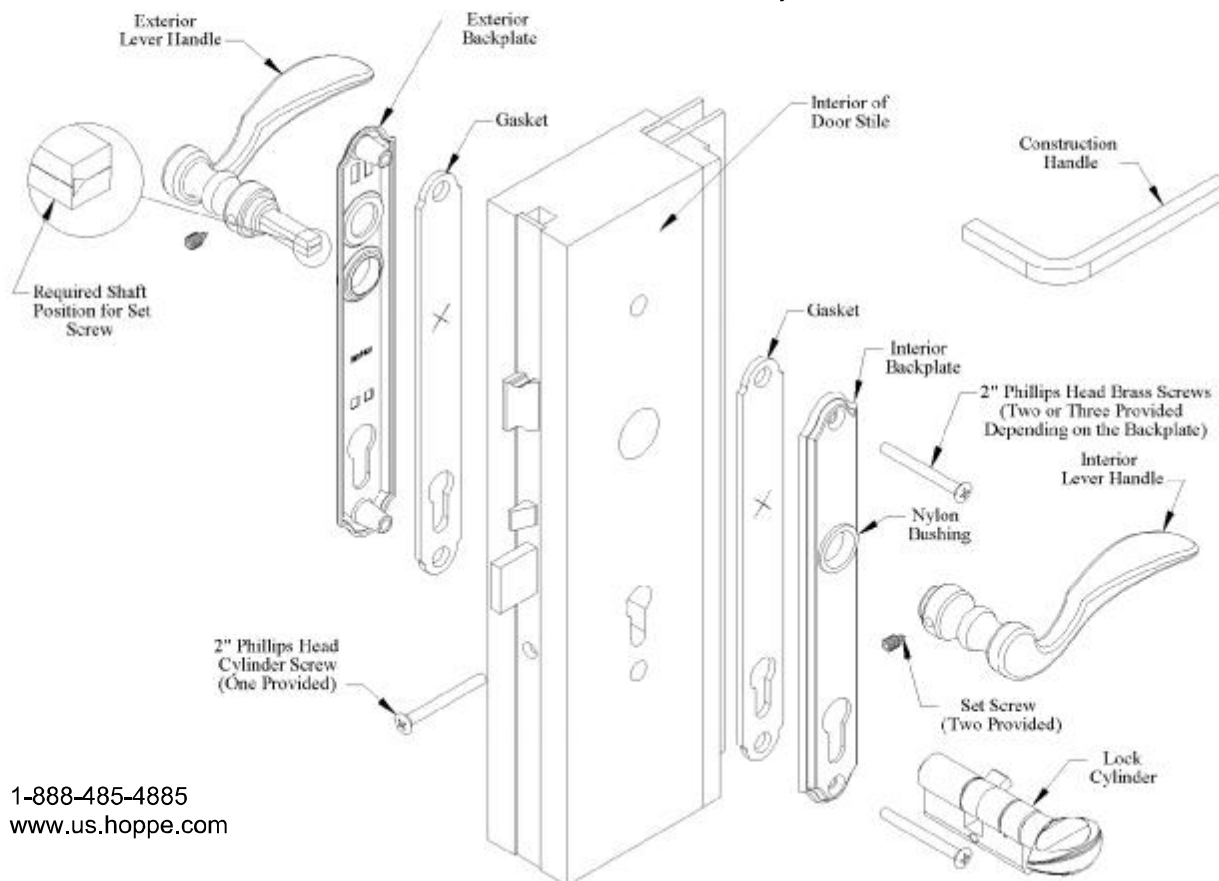
**A hex wrench for set screws is provided in the hardware package.**

**To prevent damage to the handle set during the construction phase, use the enclosed construction handle to operate the door. Lift the handle to engage the multipoints. Push down to disengage.**

**Use water and a soft cloth to clean. Do not use brass cleaner or solvent based cleaning agents as they will remove the protective coating on the hardware.**

**Note: Handles and backplates vary by style but application is the same.**

1. Apply the backplate gasket to the inside of the exterior and interior backplates. Push gaskets firmly into place to ensure a tight seal. Attach interior and exterior backplates to the door and fasten loosely with the screws provided. Note: The screw heads must be on the interior side of the door.
2. Insert the two-piece handle shaft into one handle. Be sure to orient the shaft as shown below. Screw the set screw until flush with handle using the hex wrench provided. Insert the handle with shaft attached through the escutcheon plate and door gear handle hole until extending out opposite side of door.
3. Install remaining handle onto shaft, pressing tightly to the backplates. Tighten the handle set screw with hex wrench. Screw until flush with handle.
4. Insert the keyed cylinder from the interior side of the door until it is flush with the exterior backplate. Install the cylinder screw in the screw hole below the deadbolt in the edge of the door to secure in place.
5. Hand tighten the backplate screws to complete assembly.



# Fixed (Dummy) Trim Installation Instructions



**Figure 1**

A 6mm allen wrench is needed for installation.

Note: The inside backplate has through holes and the outside backplate has threaded lugs.

Depending on backplate style, an additional hole may need to be drilled in the door to complete installation.

1. Determine handing. Remember handles will be perpendicular to backplate, pointing either to the left or right.
2. Slide handle into backplate so square corners of the handle neck match up with notches in backplate.
3. Insert screw from back side of plate into handle neck and firmly tighten down with the included 6mm allen wrench.

**Figure 2**

1. If not already done, pre-drill 10mm (.394") holes through door stile to accept backplate screws and lugs.
2. Mount handle and backplate assemblies to interior and exterior of door with screws provided.

