829681-00

Half Surface Continuous Hinges

# 045HD, 046HD, 053HD, & 054HD

IVES

Installation Instructions

## ⚠ CAUTION

Please follow the installation instructions carefully. Not doing so may result in improper installation and void the manufacturer's guarantee. These hinges have a permanent, factory applied lubricant. Removal or alteration of this lubricant, anodizing or painting of the product in the field will void the guarantee.

## INSTALLATION NOTES

| | |
|---|---|
| **Reinforcing and Rivet nuts:** | No frame reinforcement is required for doors up to 200 lbs. For doors between 200 and 450 lbs, a 16 gauge channel in the frame is required. For doors greater than 450 lbs (600 lb max.), rivet nuts are required in the frame in addition to the frame reinforcement. |
| **Doors:** | For doors up to 200 lbs, no door reinforcement is required. For doors greater than 200 lbs, up to 600 lbs, a 16 gauge channel in the door is required. |
| **Pairs of Doors with Mullions:** | If the mullion is between the doors, treat as a single door installation. If the mullion is behind the doors, treat as a double door installation. |

## HINGE CUTTING (IF NECESSARY)

**Note:** All standard length hinges are supplied slightly shorter than nominal door height to avoid threshold or carpeting clearance problems. All uncut hinges are templated and non-handed. Use the same model for both right and left hand openings. If hinge is longer than door and needs cut, follow instructions below. Once the hinge is cut it becomes handed because the cut end must go on bottom.

### 1 Determine hinge height.

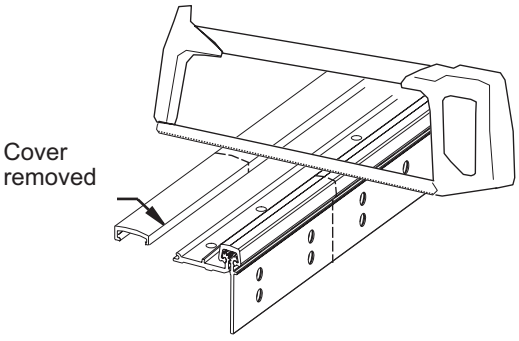
If hinge is taller than door, hinge must be cut to match door height. Hinge must not be taller than door height. Mark hinge and covers with line where cut is needed.

### 2 Cut hinge.

**A.** Fold hinge so that channel is up.

**B.** Starting on channel, cut through entire hinge along line. Covers should not be snapped onto hinge but must be cut to same length as hinge.

**C.** Debur all cut edges with file.



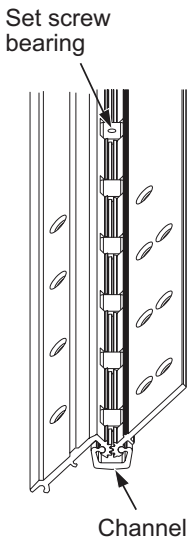

### 3 Special note, when cutting off more than 13.50".

**A.** If more than 13.5" is cut from bottom of hinge, a set screw bearings will be cut off. This set screw bearing is required for proper operation.

**B.** In this case remove the set screw bearing from the cut off section by loosening set screw and sliding back channel.

**C.** Loosen set screw(s) on hinge, slide back channel, and replace a non set screw bearing with a set screw bearing.

**D.** Slide channel back into place and tighten all set screws.



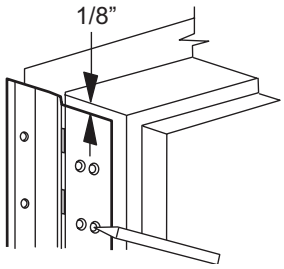

**⚠ CAUTION**

- 83", 85", and 95" hinges require 2 set screw bearings.
- 120" hinges require 3 set screw bearings.

# INSTALLATION

## 1 Prepare frame hole locations.

**A.** Open hinge and place frame leaf flat against surface of frame leaving 1/8” gap between top of hinge and frame header. Hinge lip should be held tight against the frame face from top to bottom.




**B.** Center punch all hole locations on frame.

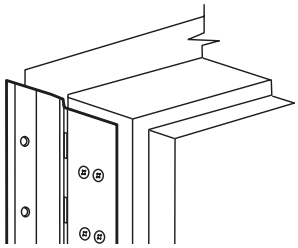
**C.** If metal frame, no drilling is required with standard screws supplied (self drilling/self tapping). If using optional screws (thread forming), drill all frame holes using #13 (.185”) or 3/16” (.188”) drill.

If wood frame, use 5/32” (.156”) drill. Optional wood screw pack required.

## 2 Mount hinge to frame.

**A.** Attach frame leaf to frame. For metal frame, use the provided #12-24 x 3/4” flat head screws. For wood frame, use the optional #12 x 1.25” flat head wood screws.

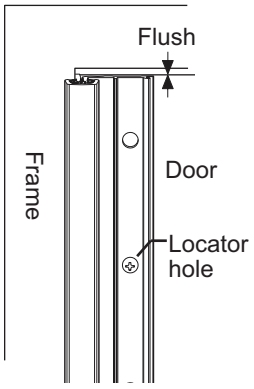
**Note:** Fasten top screw first, and bottom most screw second, making sure hinge is aligned correctly. Then install all other screws in frame.



## 3 Mark door for hinge thru bolts.

**A.** Securely move door into opening and place door leaf of hinge on face of door so that top of door is flush with top of hinge.

**NOTE:** There should be 1/8” clearance between the top of the door and the bottom of the frame header. Between the edge of the door and frame on hinge side the clearance should be 1/16” for square edge door or 3/32” for beveled edge door. An angle block, jack or shims will be helpful in positioning the door properly.




**Check to be sure hinge leaf is square to door with correct gaps. See illustrations in step 5 to further understand door gaps required.**

**B.** With hinge and door held firmly and accurately in place, use panhead self-drilling screws to attach the door leaf to the door through four locator holes. Remove shims or block and check door alignment. Occasionally, door will sag slightly so some adjustment may be required.

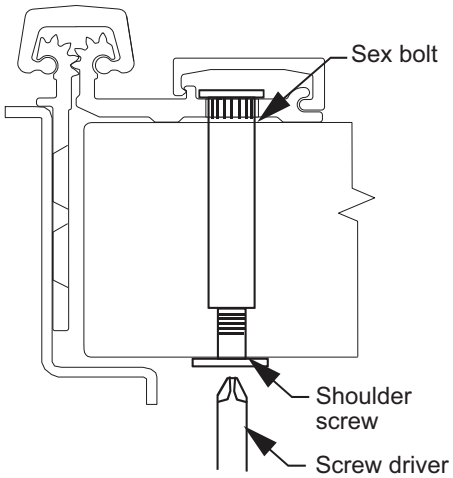
**C.** When door is aligned, mark all locations for thru bolts.

## 4 Prepare door and install thru bolts

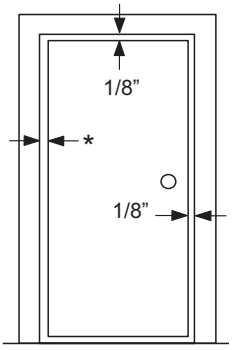
**A.** Remove door and drill all thru holes with 3/8” drill.

**B.** Secure door to hinge using 1/4”-20 shoulder screws and sex bolts.

**Note:** Sex bolts should be located on side of door that requires security.



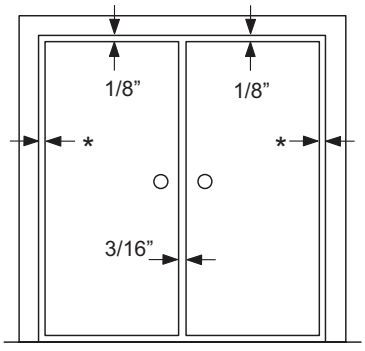

## 5 Check for proper operation and clearances.




**A.** Close door and check for proper operation.

**B.** Check push side of door for proper clearances. Clearance for single door is shown to the right and double door is shown below.

**C.** Check with NFPA 80 manual for clearance requirements on FIRE-RATED openings.




* 1/16” for square edge door
3/32” for beveled edge door

## 6 Mount screw cover.

**A.** Align cover with top of hinge and snap into place as you go down the hinge. It may be necessary to use a rubber hammer. If so, **protect cover surface from damage.**

**B.** Secure with set screws. If added security is desired, apply a bead of construction panel adhesive inside the door cover, or over the thru bolt heads.

**Customer Service**
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Printed in U.S.A.
829681-00 Rev. 01/14-c