

# ALUMINUM CONTINUOUS GEARED HINGES

## Full Surface Aluminum Continuous Geared Hinges / Heavy Weight

### SCHHD157/ Full Surface Hinges

The SCHHD157 is an Aluminum Continuous Geared Full Surface Hinge designed with a 1/16" (1.59 mm) door inset. It is compatible with standard frames without hinge preps and can be installed with or without reinforcements, depending on the door weight. The frame face must provide a flat surface at least 7/8" (22.23 mm) wide. A clearance of at least 1/16" is required between the hinge edge of the door and the frame rabbet. "HD" models feature additional bearings and frame fasteners, making them suitable for heavy-duty applications.

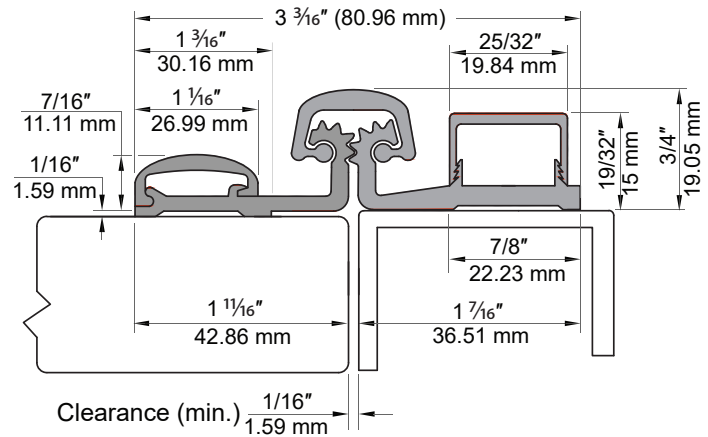


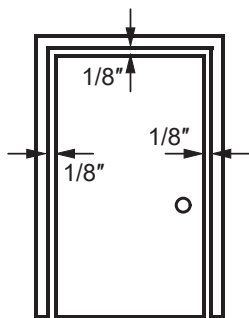
Fig. 1

### Hinge Length

All SCH Hinges are supplied approximately 1" (25.4mm) to 1 5/16" (33.34 mm) shorter than the nominal door height to prevent clearance issues with thresholds or carpets. If trimming the hinge is necessary, first determine the door's correct handing and hinge orientation. Mark and trim only from the bottom of the hinge—do not cut from the top.

Door Height	Hinge Length
7' - 0"	83" (2108 mm)
8' - 0"	95" (2413 mm)

### Door Clearance Required

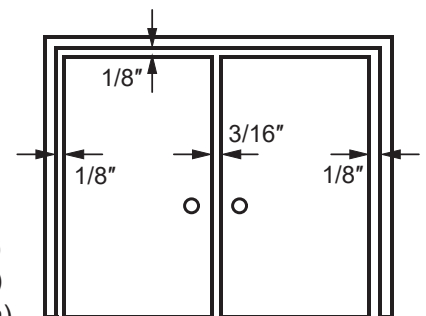


#### SINGLE DOOR

Typical hinge side clearance	1/8" (3.18 mm)
Typical latch side clearance	1/8" (3.18 mm)
TOTAL*	1/4" (6.36 mm)

#### DOUBLE DOORS

Typical first hinge side clearance	1/8" (3.18 mm)
Typical clearance between doors	3/16" (4.76 mm)
Typical second hinge side clearance	1/8" (3.18 mm)
TOTAL*	7/16" (11.11 mm)



### Cut the Hinge to Fit

- Keep the hinge in the closed position and remove door leaf caps if necessary.
- Determine the handing, if applicable.
- Cut the hinge at one end only. After cutting, the hinge must be installed according to the template hole pattern aligns at the top.
- Use a metal cutting saw, starting with the gear cap.
- A minimum clearance of 1/16" (1.59 mm) is required between the hinge edge and the frame.
- To prevent grout interference with hinge fasteners, use mortar guards made of styrofoam or wood for the frames.
- For new site-hung wood doors, if trimming is necessary, scribe and cut from the latch edge to maintain sufficient hinge stile thickness for secure fastening.
- For remodeling existing wood or laminate doors, if trimming is needed, scribe and cut from the hinge edge of the door and plane it smooth.

Note: If the cut length interferes with a set screw bearing, remove the set screw bearing and replace it with a plain bearing positioned above the cut location.

# INSTALLATION

## SCHHD157 Installation Instruction

### Attach Hinge to Frame (See Fig. 2)

1. The frame face must have a flat surface at least  $7/8"$  (22.23mm) wide to support hinge. If wider than  $7/8"$ , mark a line on the frame face  $1"$  to  $1\frac{5}{16}"$  (33.34 mm) from the center of the gap between the door and jamb. For a typical  $1/8"$  hinge side gap, the line will be  $1\frac{15}{32}"$  (37.31 mm) from the center of the gap.
2. Place the outer edge of the hinge frame leaf on this mark, with the top of the hinge positioned  $1/16"$  ( $1/8"$  maximum) below the level of the header rabbet. Note: A  $1/16"$  shim is recommended due to initial settling of the bearings.
3. Mark and center punch the accurate screw hole locations.
4. For 16-gauge metal frames, pre-drilling pilot holes is unnecessary when using the provided self-drilling screws. For metal frames thicker than 16 gauge, drill and tap all mounting holes for #12-24 threads before installing the screws. For wood frames, pre-drill pilot holes using a  $5/32"$  (0.156") bit to accommodate optional #12 wood screws.

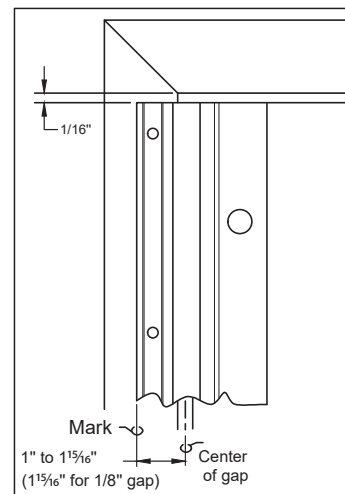


Fig. 2

### Prepare Door

5. Shim the door into the opening to achieve the required clearances.
6. Attach the door leaf to the door temporarily by inserting screws into the locator holes. Remove the shims and check the door clearances. Note: Make any necessary adjustments to realign the door properly when the shims are removed.
7. Mark the locations for the top and bottom barrel nuts on the door using a  $3/8"$  (9.53 mm) striker pin.
8. Remove the door and place it on a horizontal surface. Drill holes at the marked locations using a  $3/8"$  (9.53 mm) drill bit.
  - Metal door: Use the provided optional #12 self-drilling screws
  - Wood door frame: Use a #18 (.170"/4.5 mm) bit for optional #12 wood screws

Note: Ensure the holes are drilled squarely through both faces of the door.

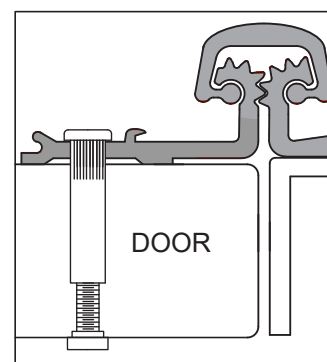


Fig. 3

### Attach Door to Hinge (See Fig. 3)

9. Fasten the door to the door leaf as illustrated. Adjust the frame to ensure proper door alignment and smooth operation.
10. Fasten the frame to the frame leaf as illustrated. Adjust the frame to ensure proper door alignment & smooth operation. Remove shims and wedges.
11. Secure door to door leaf with barrel nuts and  $1/4$ -20 sexbolts.

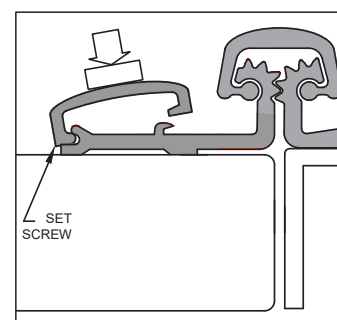


Fig. 4

### Install Leaf Cover on Door Leaf (See Fig. 4)

Use the provided  $5/64"$  (1.98 mm) hex key to locate and loosen the retaining setscrew on the edge of the molding. Align the longer leg of the molding along the outer edge of the door leaf, ensuring full-length contact with the hinge. Starting at the top, press or gently tap the short leg of the molding into place, using a rubber mallet or a hammer with a wood block for protection.

Finally, securely tighten the retaining setscrew.

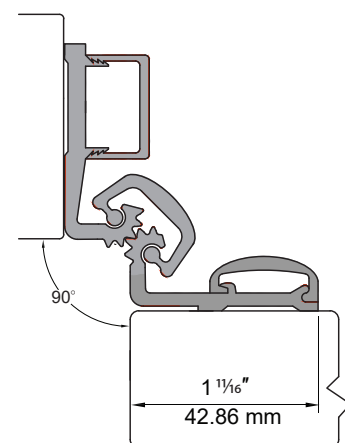
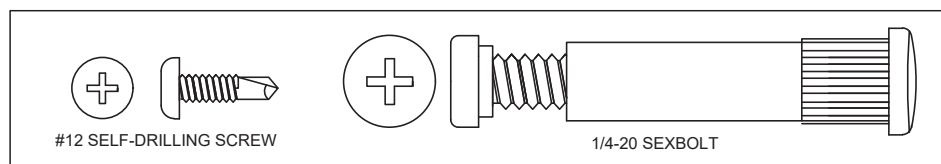


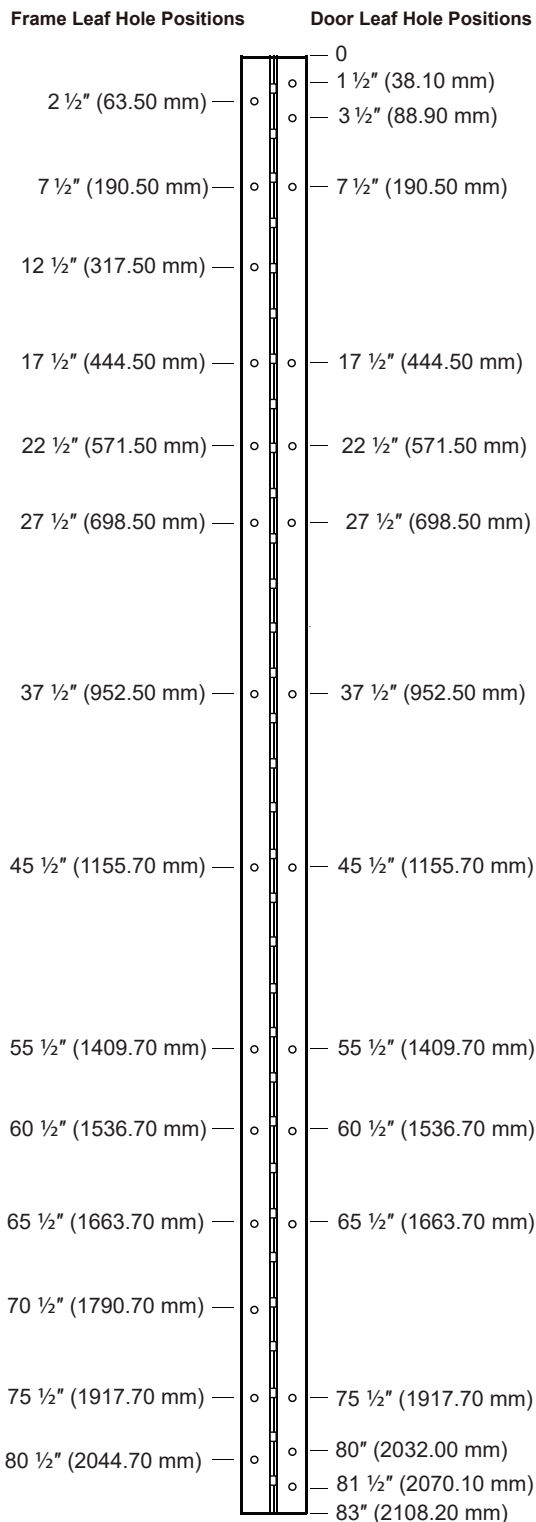
Fig. 5

# TEMPLATES & CROSS REFERENCES

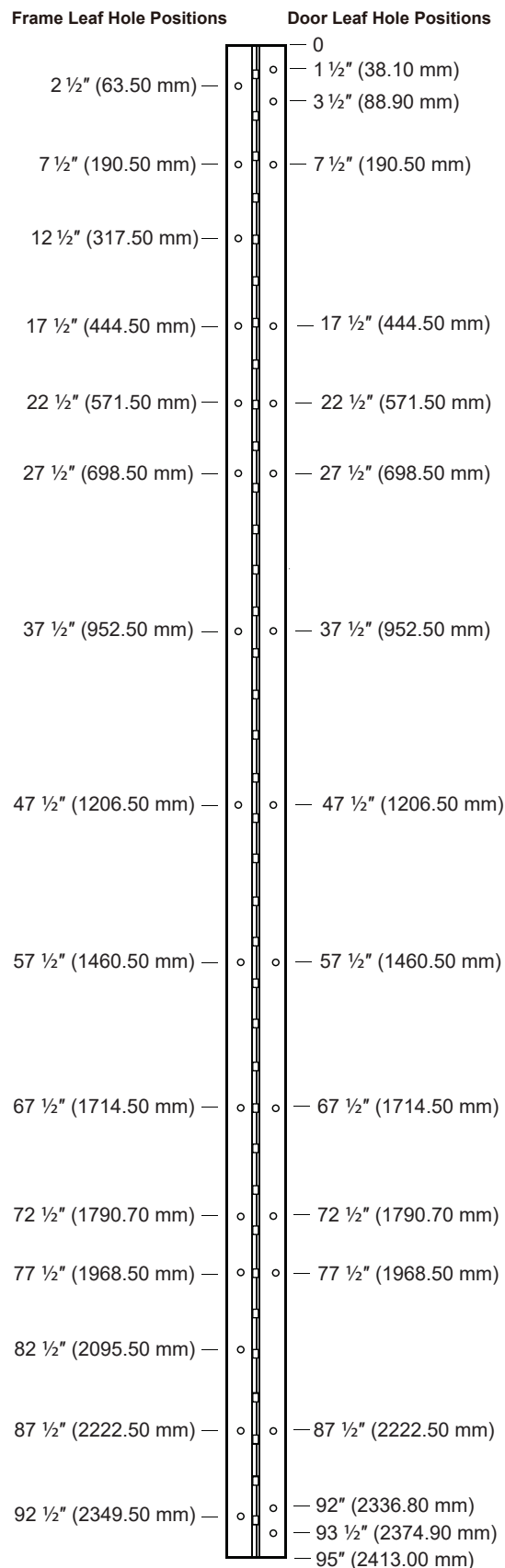
## SCHHD157 Templates

(Refer to Fig.1 through Fig.5)

**83"**: 24 fasteners and 32 bearings



**95"**: 26 fasteners and 36 bearings



## Cross References

SCH	SELECT	NGP	ROTON	PEMKO	MARKAR	MCKINNEY	ZERO	STANLEY	ABH	PBB	IVES
SCHHD157	SL57 HD600	HD5700	780-157HD	FSCPHD		MCK58HD	935DB	664HD	A570HD	CG33N	157XY