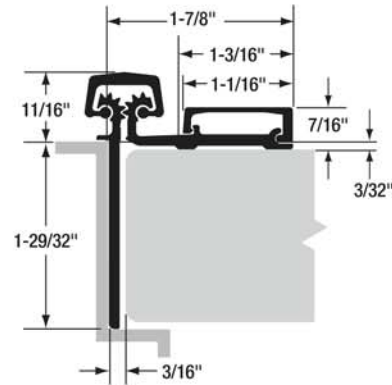
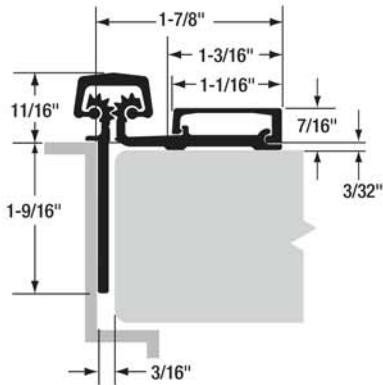
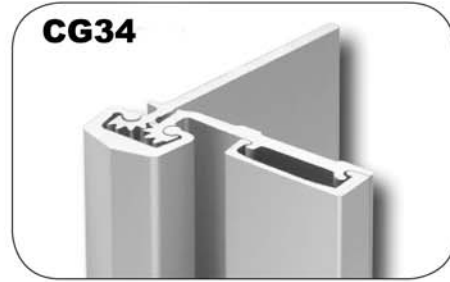




INSTALLATION INSTRUCTIONS

CG34N-CG34



Calculating Required Door Clearances

For Square and Beveled-Edge Doors

IMPORTANT: All standard length PBB hinges are supplied slightly shorter than nominal door height to avoid threshold or flooring clearance problems.

IMPORTANT: Refer to NFPA 80 manual for clearance requirements on fire-rated entrances.

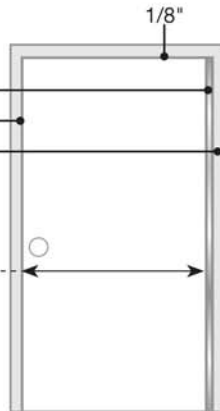
SINGLE DOOR:

Hinge side clearance	5/32"
Latch side clearance	1/8"
Frame variance clearance	1/32"

Total Width Clearance 5/16"

To determine door width:

Subtract the Total Width Clearance from the width of the frame opening.



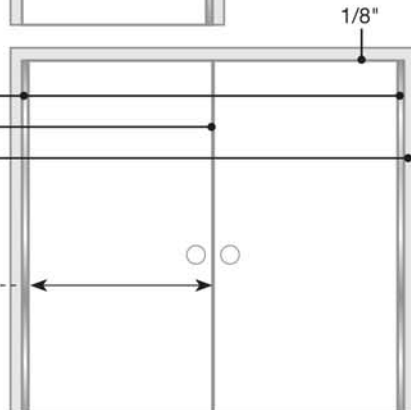
DOUBLE DOORS (PAIR):

Hinge side clearance (2x)	5/32"
Latch side clearance	3/16"
Frame variance clearance	1/16"

Total Width Clearance 9/16"

To determine door width:

Subtract the Total Width Clearance from the width of the frame opening; divide the result by 2.



Important Warranty Information:

The following actions will void any warranty, expressed or implied:

- Failure to install the hinge according to the Installation Instructions supplied with every PBB hinge.
- Use of fasteners other than those supplied with the hinge.
- Unauthorized field modifications, including alteration or removal of the factory-applied lubricant, altering the original finish or painting the hinge.

NOTE: For double-door entrances with a mullion *between* the pair of doors, calculate each door width using the Single Door clearances.

For double-door entrances with a mullion *behind* the pair of doors, calculate each door width using the Double Doors clearances.



INSTALLATION INSTRUCTIONS

CG34N-CG34

Tools Needed

- Metal-cutting saw
- #13 or 3/16" drill
- 3/8" drill
- 5/32" drill (wood frames only)
- #3 Phillips drive
- 5/64" Allen wrench
- Hammer
- Shims

Parts Supplied

- #12-24x1/2" 410 SS thread-forming Phillips undercut flathead screws
- Pan head Tek (self-drilling) screws
- 1-1/2" barrel nuts (sexnuts)
- 1/4-20x1-1/16" shoulder screws
- Striker pins

Optional Parts

- #12x1-1/2" 410 SS Phillips undercut flathead wood screws
- 1-3/4" barrel nuts for doors 2"–2-1/4" thick

How to Cut the Hinge to Fit

- A. Keep hinge in the "door closed" position (Fig. 1).
- B. Determine whether this will be a right- or left-hand installation. Install the cut end at the bottom.
- C. Using a metal-cutting saw, begin the cut through the hinge cap first.

IMPORTANT: Cut only one end. This maintains the original templated six-hole pattern at the top of the hinge. It also allows any chips to work their way out after installation.

- D. Remove leaf covers by sliding off from uncut end of hinge.
- E. Reinstall any set screw bearing that may have been cut off.

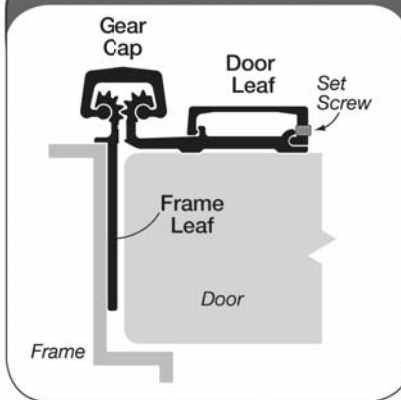
A. Attach Hinge to Frame

1. Hold hinge in the "door open" position (Fig. 2).
2. Use a shim to position the top end of the hinge 1/8" below the header to allow for door clearance. Align the frame leaf alignment flange tightly against the frame face.
3. Mark (or center punch) one hole at top and one hole at bottom of frame leaf. Drill holes at marked locations.
 - Metal door frame: Use a #13 (.185") or 3/16" (.188") drill bit.
 - Wood door frame: Use a 5/32" (.156") drill bit.
4. Fasten frame leaf to door frame.
 - Metal door frame: Use #12-24 flat head screws provided.
 - Wood door frame: Use #12x1-1/2 flat head wood screws (optional).

B. Prepare Door

5. Shim door into opening to provide required clearances.

Fig. 1 Door Closed Position



6. With a #3 Phillips drive, temporarily fasten the door leaf to the door by inserting the pan head Tek (self-drilling) screws into at least two of the four locator holes.
7. Remove shims and check door clearances.

NOTE: Door may sag slightly when shims are removed. Make necessary adjustments needed to bring door back into alignment.

8. Mark locations for top and bottom barrel nuts on the door using 3/8" striker pin.
9. Remove door and lay on horizontal surface. Use a 3/8" drill bit to drill holes at marked locations.

NOTE: Be sure to drill holes squarely through both door faces.

C. Attach Door to Hinge

10. Fasten the door to the door leaf with the top and bottom barrel nuts and two 1/4-20 shoulder screws.
11. Adjust frame leaf as needed to correct door alignment and assure proper door operation.
12. Mark (or center punch) remaining frame leaf hole locations. Drill holes in frame through the frame leaf and secure with flat head screws.
13. Mark remaining 3/8" holes on door through the door leaf. It is recommended that the door be removed and laid on horizontal surface to be sure holes are drilled squarely through both door faces.
14. Secure door to door leaf with barrel nuts and 1/4-20 shoulder screws.

D. Install Leaf Cover

15. Loosen set screws from side of door leaf cover (Fig. 3) using 5/64th Allen wrench.

NOTE: For added security, apply a bead of construction or panel adhesive inside the leaf cover or over the barrel nut heads before installation.

16. Align the end of the leaf cover with the top end of the hinge.
17. Starting at the top, apply pressure along the length of the cover, snapping it into place as you move downward (Fig. 3).

NOTE: Protect cover surface from damage if you use a hammer to tap it into place.

Fig. 2 Door Open 90°

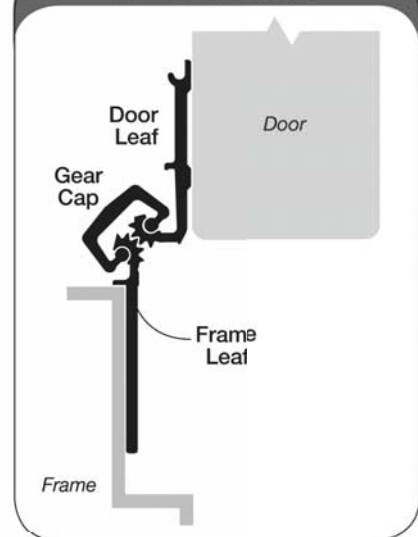
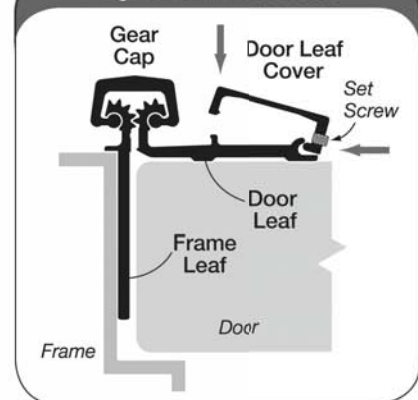


Fig. 3 Install Leaf Cover



18. Use a 5/64" Allen wrench to securely tighten set screws.

Reinforcing & Rivnuts®

No hinge reinforcement is necessary except on extremely high-frequency, extremely heavy or extra-wide doors. Rivnuts are recommended for use in the frame when the door exceeds 450 lb. (max. 600 lb.)

NOTE: Only PBB steel Rivnuts are to be used with fire-rated PBB hinges.

Grouted/Slushed-in Frames

For ease of installation, it is recommended some sort of mudguard be installed behind the frame. Do not use self-drilling, thread-forming screws to drill into grouted frames. If mudguards have not been used, carefully drill pilot holes through frame and remove grout for screw clearance. Do not oversize holes in frame.

Fire-Rated Hinges

All stock PBB hinges are 90 minute UL-rated, without pins. Please contact PBB for complete information about its fire-rated hinges.