



# INTRODUCTION

PBB full height continuous stainless steel hinges that provide support for the full length of the door.

For doors up to 600 lbs

4'0" maximum door width

Hinge leafs are 13 Ga., 304 stainless, barrel .438 diameter

Knuckles are 2" long with special bearings system

Conforms to ANSI/BHMA 156.26, Grade 1

Hinges - Nominal sizes 7'(83-1/8"), 8'(95") & 10'(118-3/4") are non-handed

All full mortise and full surface hinges are non-handed

All Pin & Barrel hinges are symmetrical

Lock Edge Guards are non-handed

Special lengths available

Standard finish-US32D

Plated finishes available on request (require lead time)

Self-drilling screws standard

Fire Rating- UL and ULC fire Listed: UL10B/UL10C/UBC 7-2.

3 hours - hollow metal door

90 min. - hollow metal and composite core wood fire door

20 min. - wood door

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# COMPARATIVE FINISH SYMBOLS

		B.H.M.A. Finish Code BASE MATERIAL					
U.S.	DESCRIPTION	PBB	Steel	Brass	Bronze	Stainless	Alum.
USP	Primed for Painting	600	600	-	-	-	-
US1D	Dull Black	800	-	-	_	-	-
US3	Bright Brass	632	632	605	_	-	-
US4	Dull Brass	633	633	606	-	-	-
US10	Dull Bronze	639	639	-	612	-	-
US10B	Antique Bronze, Oiled	640	640	613	613	-	-
US10A	Antique Bronze, Lacquered	641	641	615	615	-	-
US26	Bright Chromium	651	651	625	625	-	-
US26D	Dull Chromium	652	652	626	626	-	-
US32	Polished Stainless Steel	629	-	-	_	629	-
US32D	Dull Stainless Steel	630	-	-	_	630	-
	Aluminum Lacquer	689	-	-	-	-	-
	CO-Lacquer, Light	-	-	-	_	-	-
	CO-Lacquer, Medium	694	-	-	_	-	-
	CO-Lacquer, Dark	695	-	-	-	-	-
	CO-Lacquer, Black	-	-	-	_	-	-
	Anodized, Dark Aluminum	710	-	-	_	-	-
	D. Brz, Powder Coat	810	-	-	_	-	-
	Off-White, Powder Coat	831	-	-	_	_	_

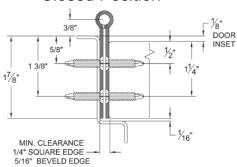
PBB Continuous Hinges can be plated or painted to match architectural finishes on the job. See table for finishes available. Custom finishes can be obtained - consult factory.

All plated and painted finishes require factory lead times, consult factory for lead times.

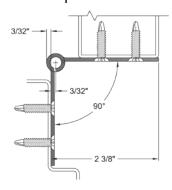


# CH51 SS PIN & BARREL SERIES

### **Closed Position**



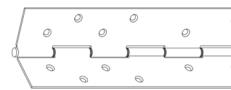
# 90° Open Position

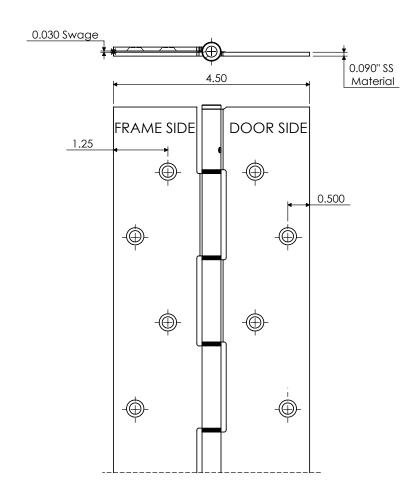


- No special door and frame preparation
- ◆ For beveled or square edged doors
- ♦ For 1 ¾" doors
- Supports door weights up to 600 lbs.
- ◆ 4'0" Maximum door width
- For high traffic, high abuse doors
- No exposed fasteners when door is closed
- ◆ All sizes are non-handed
- Lifetime mechanical warranty (See warranty information)
- Material –Heavy-duty 13 gauge 304 Stainless Steel
- Fully welded top and bottom knuckles at no extra cost
- Special friction free self lube bearings
- Self drilling screws
- ◆ ¼" diameter stainless steel pin
- Electrical modifications available
- ◆ Conforms to ANSI/BHMA 156.26, Grade 1
- UL/ULC fire listed on wood doors for up to 20 minutes
- UL/ULC fire listed on hollow metal & composite wood fire doors for 90 minutes
- UL/ULC fire listed on hollow metal doors for up to 3 hours
- Meets UL10B, UL10C, UBC 7-2.

# **FULL MORTISE EDGE MOUNT**







PBB Model	L	Length		v Count
Number	Inches	Centimeters	Door	Jamb
CH5179	79-1/8"	201.0	20	20
CH5183	83-1/8"	211.1	21	21
CH5185	85"	215.9	21	21
CH5195	95"	241.3	23	23
CH51119	118-3/4"	301.6	27	27

### 630 - Satin Stainless Steel - US32D

### **Full Mortise Fasteners-**

- a. Screw Pack 1 10 x 3/4" P.F.H. undercut self drilling tek screws
- b. Screw Pack 2 10 x 1 1/4" P.F.H. undercut sheet metal screws
  PLEASE SPECIFY SCREW PACK REQUIREMENTS



# CH51 SS PIN & BARREL SERIES

STANDARD HINGE LENGTH CONVERSION CHART

# **FULL MORTISE EDGE MOUNT**

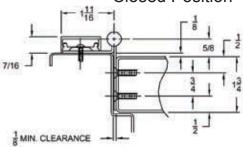
A 85.00 " ACTUAL LENGTH = A 7'2" DOOR OPENING	A 95.00" ACTUAL LENGTH = A 8' DOOR OPENING	A 118.75" ACTUAL LENGTH = A 10' DOOR OPENING
85.00 • 1.50 • 2.00 • 2.00 • 2.00 • 3.00 • 6.00 • 6.00 • 6.00 • 6.00 • 6.00 • 6.00 • 6.00 • 6.00 • 6.00 • 6.00 • 6.00	1.50 1.50 1.50 1.50 3.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00	118.75  118.75  118.75  118.75  118.75  10  11.50
*79.125" Field Cut Score Line	3.00 1.50 1.50 1.50	3.00 3.00 3.00 1.50 1.50 1.50

<sup>\*</sup>Please refer to page 47, "Stainless Steel Continuous Hinge Field Cutting Instructions" for more information.

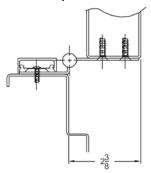


# CH52 SS PIN & BARREL SERIES

### Closed Position



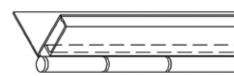
# 90° Open Position

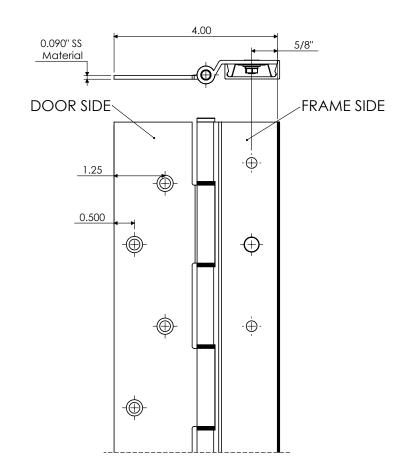


- For beveled or square edged doors
- ♦ For 1 ¾" doors
- Supports door weights up to 600 lbs.
- 4'0" Maximum door width
- ◆ For high traffic, high abuse doors
- Fully reversible No handing required.
- Install, clip and go system
- Material –Heavy-duty 13 gauge 304 Stainless Steel
- Self drilling screws
- ⁴ ¼" diameter stainless steel pin
- Decorative fastener covers
- Conforms to ANSI/BHMA 156.26, Grade 1
- UL/ULC fire listed on wood doors for up to 20 minutes
- UL/ULC fire listed on hollow metal & composite wood fire doors for 90 minutes
- UL/ULC fire listed on hollow metal doors for up to 3 hours
- Current transfer prep available (door leaf only)
- Patent Pending
- ◆ Meets UL10B, UL10C, UBC 7-2.

### HALF MORTISE







PBB Model	L	ength	Screw Count	
Number	Inches	Centimeters	Door	Jamb
CH5279	79-1/8"	201.0	20	11
CH5283	83-1/8"	211.1	21	12
CH5285	85"	215.9	21	14
CH5295	95"	241.3	23	13
CH52119	118-3/4"	301.6	27	16

### 630 - Satin Stainless Steel - US32D

### Half Mortise Fasteners -

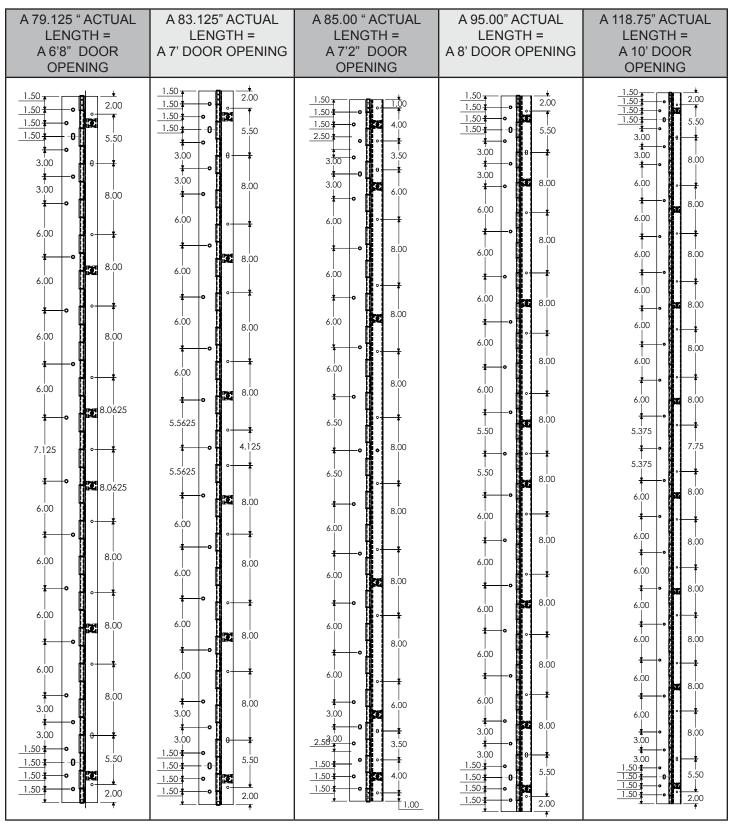
- a. Screw Pack 1 10 x 3/4" P.F.H. undercut self drilling tek screws
- b. Screw Pack 2 10 x 1 1/4" P.F.H. undercut sheet metal screws
- c. Screw Pack 3- #14 x 1" Wood Screw
- d. Screw Pack 4 1/4-20 x 3/4" P.P.H. self-drilling tek screws PLEASE SPECIFY SCREW PACK REQUIREMENTS



# CH52 SS PIN & BARREL SERIES

STANDARD HINGE LENGTH CONVERSION CHART

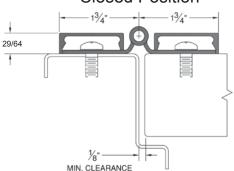
### HALF MORTISE



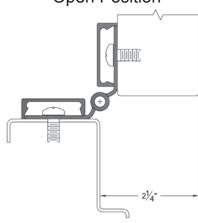


# CH53 SS PIN & BARREL SERIES

### **Closed Position**



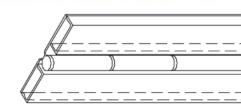
### **Open Position**

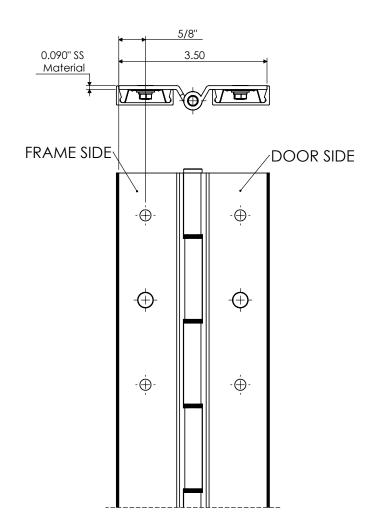


- No special door and frame preparation
- For beveled or square edged doors
- ◆ For 1 ¾" doors
- Supports door weights up to 600 lbs.
- ◆ 4'0" Maximum door width
- For high traffic, high abuse doors
- No exposed fasteners when door is closed
- Fully reversible No handing required
- Install, clip and go system
- Material –Heavy-duty 13 gauge 304 Stainless Steel
- · Self drilling screws
- ⁴¼" diameter stainless steel pin
- Decorative fastener covers
- ◆ Conforms to ANSI/BHMA 156.26, Grade 1
- UL/ULC fire listed on wood doors for up to 20 minutes
- UL/ULC fire listed on hollow metal & composite wood fire doors for 90 minutes
- UL/ULC fire listed on hollow metal doors for up to 3 hours
- Patent Pending
- ◆ Meets UL10B, UL10C, UBC 7-2.

# **FULL SURFACE FLUSH MOUNT**







PBB Model	L	ength	Screw Count	
Number	Inches	Centimeters	Door	Jamb
CH5379	79-1/8"	201.0	11	11
CH5383	83-1/8"	211.1	12	12
CH5385	85"	215.9	14	14
CH5395	95"	241.3	13	13
CH53119	118-3/4"	301.6	16	16

### 630 - Satin Stainless Steel - US32D

Full Surface Fasteners -

a. Screw Pack 4 – 1/4-20 x 3/4" P.P.H. self drilling tek screws PLEASE SPECIFY SCREW PACK REQUIREMENTS



# CH53 SS PIN & BARREL SERIES

STANDARD HINGE LENGTH CONVERSION CHART

# **FULL SURFACE FLUSH MOUNT**

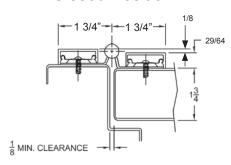
A 85.00 "ACTUAL LENGTH = A 7'2" DOOR OPENING	A 95.00" ACTUAL LENGTH = A 8' DOOR OPENING	A 118.75" ACTUAL LENGTH = A 10' DOOR OPENING
<u> </u>	2.00	2.00
3.50 0	8.00 8.00 8.00	5.50 8.00 8.00 8.00 8.00 8.00 8.00
85.00 85.00 8.00	95.00	118.75 1. 4 1. 7.75
8.00	8.00 8.00	7.75 
3 3 8.00 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 6 <b>1</b> 8.00	8.00 8.00
8.00	3.00 3.00 3.00	, 1.
*79.125" Field Cut Score Line  *83.125" Field Cut Score Line  *1.00	5.50 5.50 2.00	8.00   6

<sup>\*</sup>Please refer to page 47, "Stainless Steel Continuous Hinge Field Cutting Instructions" for more information.

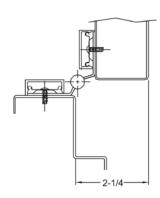


# CH53I SS PIN & BARREL SERIES

### **Closed Position**



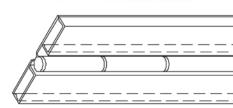
# 90° Open Position

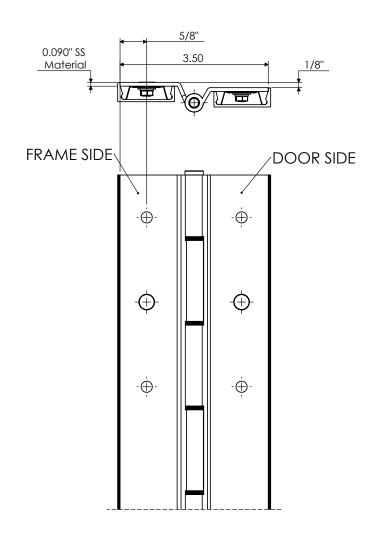


- No special door and frame preparation
- For beveled or square edged doors
- ◆ For 1 ¾" doors
- ◆ 1/8" Inset
- Supports door weights up to 600 lbs.
- 4'0" Maximum door width
- For high traffic, high abuse doors
- No exposed fasteners when door is closed
- Fully reversible No handing required
- Install, clip and go system
- Material –Heavy-duty 13 gauge 304 Stainless Steel
- Self drilling screws
- ¼" diameter stainless steel pin
- Decorative fastener covers
- ◆ Conforms to ANSI/BHMA 156.26, Grade 1
- UL/ULC fire listed on wood doors for up to 20 minutes
- UL/ULC fire listed on hollow metal & composite wood fire doors for 90 minutes
- UL/ULC fire listed on hollow metal doors for up to 3 hours
- Patent Pending
- Meets UL10B, UL10C, UBC 7-2.

# **FULL SURFACE 118" INSET**







PBB Model	L	ength	Screw Count	
Number	Inches	Centimeters	Door	Jamb
CH53I79	79-1/8"	201.0	11	11
CH53I83	83-1/8"	211.1	12	12
CH53I85	85"	215.9	14	14
CH53I95	95"	241.3	13	13
CH53I119	118-3/4"	301.6	16	16

### 630 - Satin Stainless Steel - US32D

Full Surface Fasteners -

a. Screw Pack 4 – 1/4-20 x 3/4" P.P.H. self drilling tek screws PLEASE SPECIFY SCREW PACK REQUIREMENTS



# CH53I SS PIN & BARREL SERIES

STANDARD HINGE LENGTH CONVERSION CHART

# **FULL SURFACE 1/8" INSET**

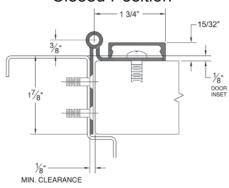
A 85.00 " ACTUAL LENGTH =	A 95.00" ACTUAL LENGTH =	A 118.75" ACTUAL LENGTH =
A 7'2" DOOR OPENING	A 8' DOOR OPENING	A 10' DOOR OPENING
85.00  *79.125" Field Cut Score Line *83.125" Field Cut Score Line *4.00  *79.125" Field Cut Score Line *4.00  *4.00  *6.00  *79.125" Field Cut Score Line *4.00  *6.00	95.00  95	8.00  118.75  8.00  7.75  7.75  8.00  8.00  8.00  8.00  8.00  8.00  8.00  8.00  8.00

<sup>\*</sup>Please refer to page 47, "Stainless Steel Continuous Hinge Field Cutting Instructions" for more information.

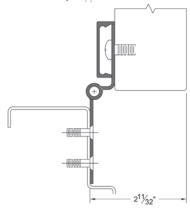


# CH54 SS PIN & BARREL SERIES

### **Closed Position**

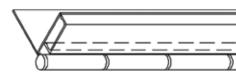


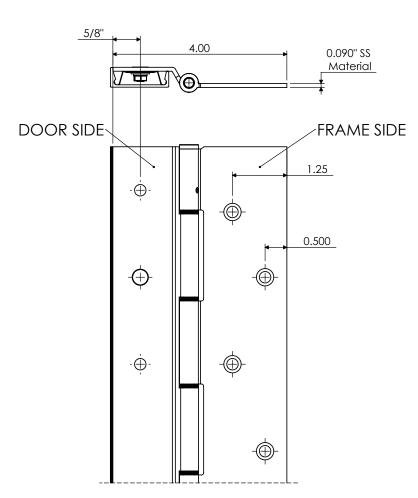
### **Open Position**



- ◆ For beveled or square edged doors
- ♦ For 1 ¾" doors
- ◆ Supports door weights up to 600 lbs.
- ◆ 4'0" Maximum door width
- ◆ For high traffic, high abuse doors
- Fully reversible No handing required.
- Install, clip and go system
- Material –Heavy-duty 13 gauge 304 Stainless Steel
- Self drilling screws
- ¼" diameter stainless steel pin
- ◆ Decorative fastener covers
- Conforms to ANSI/BHMA 156.26, Grade 1
- UL/ULC fire listed on wood doors for up to 20 minutes
- UL/ULC fire listed on hollow metal & composite wood fire doors for 90 minutes
- UL/ULC fire listed on hollow metal doors for up to 3 hours
- Current transfer prep available (frame leaf only)
- Patent Pending
- ◆ Meets UL10B, UL10C, UBC 7-2.

# HALF SURFACE





PBB Model	L	ength	Screv	v Count
Number	Inches	Centimeters	Door	Jamb
CH5479	79-1/8"	201.0	11	20
CH5483	83-1/8"	211.1	12	21
CH5485	85"	215.9	14	21
CH5495	95"	241.3	13	23
CH54119	118-3/4"	301.6	16	27

### 630 - Satin Stainless Steel - US32D

Half Surface Fasteners -

- a. Screw Pack 1 10 x 3/4" P.F.H. undercut self drilling tek screws
- b. Screw Pack 2 10 x 1 1/4" P.F.H. undercut sheet metal screws
- c. Screw Pack 4 -1/4-20 x 3/4" P.P.H. self-drilling tek screws
- d. Screw Pack 1/4" Sexbolt (optional)

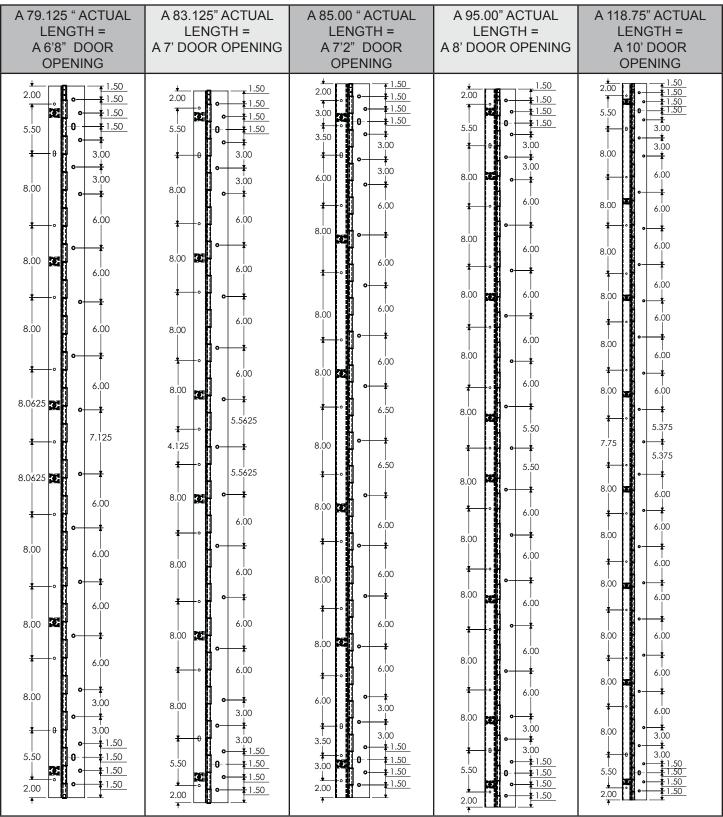
PLEASE SPECIFY SCREW PACK REQUIREMENTS



# CH54 SS PIN & BARREL SERIES

STANDARD HINGE LENGTH CONVERSION CHART

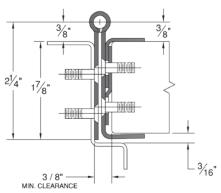
# HALF SURFACE



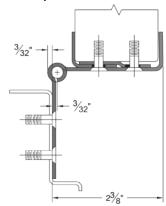


# CH51G SS PIN & BARREL SERIES

### **Closed Position**



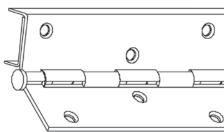
# Open Position

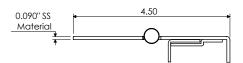


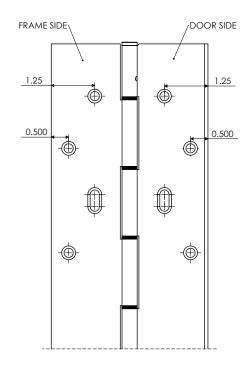
- For square edged doors
- ♦ For 1 ¾" doors
- Supports door weights up to 600 lbs.
- ◆ 4'0" Maximum door width
- ◆ For high traffic, high abuse doors
- No exposed fasteners when door is closed
- Fully reversible No handing required.
- Material –Heavy-duty 13 gauge 304 Stainless Steel
- Self drilling screws
- ◆ 1/4" diameter stainless steel pin
- Adjustable to accommodate slight variances in door thickness
- Electrical modifications available
- Conforms to ANSI/BHMA 156.26, Grade 1
- UL/ULC fire listed on wood doors for up to 20 minutes
- UL/ULC fire listed on hollow metal & composite wood fire doors for 90 minutes
- UL/ULC fire listed on hollow metal doors for up to 3 hours
- Meets UL10B, UL10C, UBC 7-2.

# **FULL MORTISE EDGE GUARD**









PBB Model	L	ength	Screw Count	
Number	Inches	Centimeters	Door	Jamb
CH51G79	79-1/8"	201.0	20	20
CH51G83	83-1/8"	211.1	21	21
CH51G85	85"	215.9	21	21
CH51G95	95"	241.3	23	23
CH51G119	118-3/4"	301.6	27	27

### 630 - Satin Stainless Steel - US32D

### Full Mortise Fasteners -

- a. Screw Pack 1 10 x 3/4" P.F.H. undercut self drilling tek screws
- b. Screw Pack 2 10 x 1 1/4" P.F.H. undercut sheet metal screw
- c. Screw Pack 5 10 32 x 3/4" P.F.H. undercut machine screw PLEASE SPECIFY SCREW PACK REQUIREMENTS



# CH51G SS PIN & BARREL SERIES

# STANDARD HINGE LENGTH CONVERSION CHART FULL MORTISE EDGE GUARD

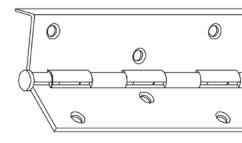
A 79.125 " ACTUAL LENGTH = A 6'8" DOOR OPENING	A 83.125" ACTUAL LENGTH = A 7' DOOR OPENING	A 85.00 " ACTUAL LENGTH = A 7'2" DOOR OPENING	A 95.00" ACTUAL LENGTH = A 8' DOOR OPENING	A 118.75" ACTUAL LENGTH = A 10' DOOR OPENING
1.50 1.50 1.50 0 0 1.50 3.00 3.00 6.00	1.50 1.50 1.50 1.50 1.50 1.50 3.00 3.00 6.00	1.50 1.50 1.50 1.50 1.50 3.00 6.00	1.50 1.50 1.50 1.50 1.50 1.50 3.00 3.00 6.00	1.50 1.50
6.00	6.00	6.00	6.00	6.00
6.00 7.125	5.5625	6.50	5.50	6.00 5.375
6.00	5.5625	6.50	5.50	5.375
6.00	6.00	6.00	6.00	6.00 6.00 6.00 6.00
6.00	6.00	6.00	6.00	6.00
3.00 3.00 3.00 4.1.50 4.1.50 4.1.50 4.1.50	3.00 3.00 3.00 4.1.50 4.1.50 4.1.50 4.1.50 4.1.50	3.00 3.00 3.00 4.50 4.50 4.50 4.50 4.50	6.00 3.00 3.00 1.50 1.50 1.50 1.50	6.00 3.00 3.00 1.50 1.50 1.50

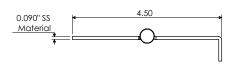


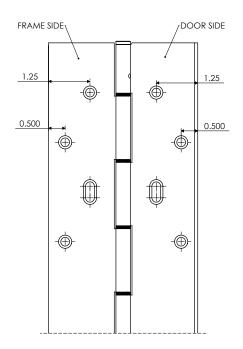
# CH51L SS PIN & BARREL SERIES

# **FULL MORTISE EDGE MOUNT HINGE GUARD**





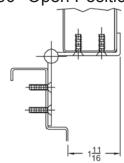




PBB Model	L	ength	Screv	v Count
Number	Inches Centimeters		Door	Jamb
CH51L79	79-1/8"	201.0	20	20
CH51L83	83-1/8"	211.1	21	21
CH51L85	85"	215.9	21	21
CH51L95	95"	241.3	23	23
CH51L119	118-3/4"	301.6	27	27

# Closed Position $\begin{array}{c|ccccc} & & & & & & & & & & & & & & & \\ \hline & & & & & & & & & & & & & & & \\ \hline & & & & & & & & & & & & & \\ \hline & & & & & & & & & & & & \\ \hline & & & & & & & & & & & \\ \hline & & & & & & & & & & \\ \hline & & & & & & & & & & \\ \hline & & & & & & & & & & \\ \hline & & & & & & & & & \\ \hline & & & & & & & & & \\ \hline & & & & & & & & & \\ \hline & & & & & & & & & \\ \hline & & & & & & & & & \\ \hline & & & & & & & & & \\ \hline & & & & & & & & & \\ \hline & & & & & & & & & \\ \hline & & & & & & & & & \\ \hline & & & & & & & & & \\ \hline & & & & & & & & & \\ \hline & & & & & & & & & \\ \hline & & & & & & & & & \\ \hline & & & & & & & & & \\ \hline & & & & & & & & & \\ \hline & & & & & & & & & \\ \hline & & & & & & & & \\ \hline & & & & & & & & \\ \hline & & & & & & & & \\ \hline & & & & & & & & \\ \hline & & & & & & & & \\ \hline & & & & & & & & \\ \hline & & & & & & & \\ \hline & & & & & & & \\ \hline & & & & & & & \\ \hline & & & & & & & \\ \hline & & & & & & & \\ \hline & & & & & & & \\ \hline & & & & & & & \\ \hline & & & & & & & \\ \hline & & & & & & & \\ \hline & & & & & & & \\ \hline & & & & & & & \\ \hline & & & & & & & \\ \hline & & & & & & & \\ \hline & & & & & & & \\ \hline & & & & & & & \\ \hline & & & & & & & \\ \hline & & & & & & \\ \hline & & & & & & & \\ \hline & & & & & \\ \hline$

# 90° Open Position



- For square edged doors
- ◆ For 1 ¾" doors

<sup>1</sup>/<sub>4</sub> MIN. CLEARANCE

- Supports door weights up to 600 lbs.
- ◆ 4'0" Maximum door width
- For high traffic, high abuse doors
- No exposed fasteners when door is closed
- Door edge lip on stop side only
- Material –Heavy-duty 13 gauge 304 Stainless Steel
- · Self drilling screws
- 1/4" diameter stainless steel pin
- Concealed flush mount
- Conforms to ANSI/BHMA 156.26, Grade 1
- UL/ULC fire listed on wood doors for up to 20 minutes
- UL/ULC fire listed on hollow metal & composite wood fire doors for 90 minutes
- UL/ULC fire listed on hollow metal doors for up to 3 hours
- ◆ Meets UL10B, UL10C, UBC 7-2.

### 630 - Satin Stainless Steel - US32D

### Full Mortise Fasteners -

- a. Screw Pack 1 10 x 3/4" P.F.H. undercut self drilling tek screws
- b. Screw Pack 2 10 x 1 1/4" P.F.H. undercut sheet metal screw
- c. Screw Pack 3 10-24 x 3/4" P.F.H. undercut machine screw
- d. Screw Pack 5 10 32 x 3/4" P.F.H. undercut machine screw PLEASE SPECIFY SCREW PACK REQUIREMENTS



# CH51L SS PIN & BARREL SERIES

STANDARD HINGE LENGTH CONVERSION CHART

# **FULL MORTISE EDGE MOUNT HINGE GUARD**

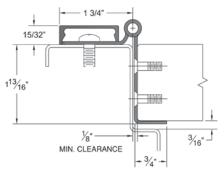
A 79.125 " ACTUAL LENGTH = A 6'8" DOOR OPENING	A 83.125" ACTUAL LENGTH = A 7' DOOR OPENING	A 85.00 " ACTUAL LENGTH = A 7'2" DOOR OPENING	A 95.00" ACTUAL LENGTH = A 8' DOOR OPENING	A 118.75" ACTUAL LENGTH = A 10' DOOR OPENING
OPENING  1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.5	1.50 1.50	OPENING  1.50 1.50 1.50 1.50 3.00 6.00 6.00 6.00 6.00 6.00 6.00 6.0	1.50 1.50	OPENING  * 1.50  * 1.50  * 1.50  * 1.50  * 1.50  * 3.00  * 3.00  * 4.00  * 6.00  * 6.00  * 6.00  * 6.00  * 6.00  * 6.00  * 6.00  * 6.00  * 6.00  * 6.00  * 6.00  * 6.00  * 6.00  * 6.00  * 6.00  * 6.00  * 6.00  * 6.00  * 7.5375  * 6.00  * 7.5375  * 6.00  * 7.5375  * 6.00  * 7.5375  * 6.00  * 7.5375  * 6.00  * 7.5375  * 7.5375  * 7.5375  * 7.5375  * 7.5375  * 8.00  * 8.00  * 8.00  * 8.00  * 8.00  * 8.00  * 8.00  * 8.00  * 9.00  *
0 0 0 1.50 0 1.50	0 0 ± 1.50 0 ± 1.50 0 ± 1.50 1.50	0 0 0 1.50 0 1.50 0 1.50	3.00 1.50 1.50 1.50 1.50 1.50	3.00 • ‡1.50 • ‡1.50 • ‡1.50 • ‡1.50



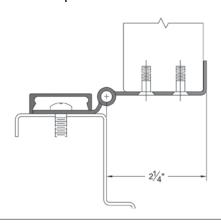
# CH52L SS PIN & BARREL SERIES

# **FULL MORTISE EDGE MOUNT HINGE GUARD**

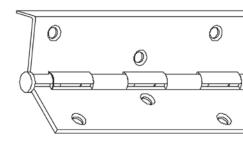
### **Closed Position**

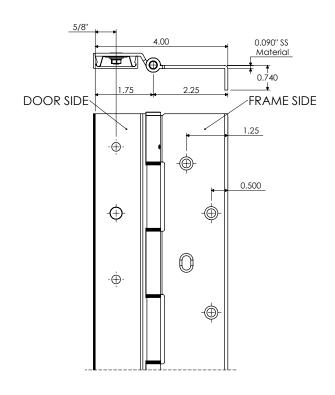


# **Open Position**



- For square edged doors
- ◆ For 1 ¾" doors
- Supports door weights up to 600 lbs.
- ◆ 4'0" Maximum door width
- For high traffic, high abuse doors
- No exposed fasteners when door is closed
- Door edge lip on stop side only
- Material –Heavy-duty 13 gauge 304 Stainless Steel
- · Self drilling screws
- 1/4" diameter stainless steel pin
- Concealed flush mount
- ◆ Conforms to ANSI/BHMA 156.26, Grade 1
- UL/ULC fire listed on wood doors for up to 20 minutes
- UL/ULC fire listed on hollow metal & composite wood fire doors for 90 minutes
- UL/ULC fire listed on hollow metal doors for up to 3 hours
- ◆ Meets UL10B, UL10C, UBC 7-2.





PBB Model	L	Length		Screw Count	
Number	Inches Centimeters		Door	Jamb	
CH52L79	79-1/8"	201.0	20	20	
CH52L83	83-1/8"	211.1	21	21	
CH52L85	85"	215.9	21	21	
CH52L95	95"	241.3	23	23	
CH52L119	118-3/4"	301.6	27	27	

### 630 - Satin Stainless Steel - US32D

### Full Mortise Fasteners -

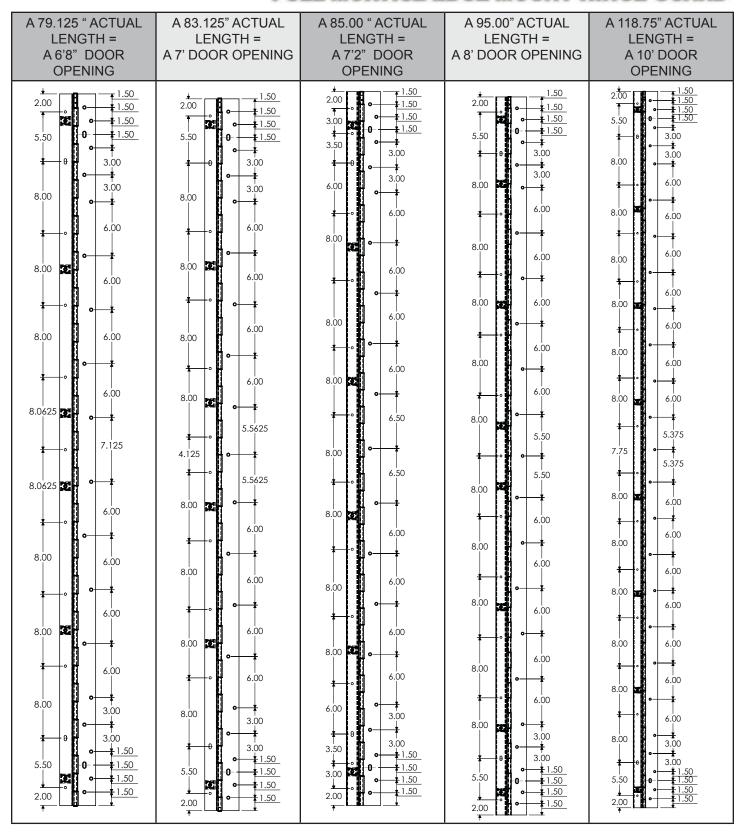
- a. Screw Pack 1 10 x 3/4" P.F.H. undercut self drilling tek screws
- b. Screw Pack 2 10 x 1 1/4" P.F.H. undercut sheet metal screw
- c. Screw Pack 3 10-24 x 3/4" P.F.H. undercut machine screw
- d. Screw Pack 5 10 32 x 3/4" P.F.H. undercut machine screw PLEASE SPECIFY SCREW PACK REQUIREMENTS



# CH52L SS PIN & BARREL SERIES

STANDARD HINGE LENGTH CONVERSION CHART

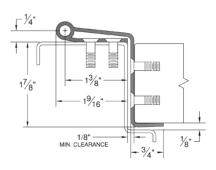
# **FULL MORTISE EDGE MOUNT HINGE GUARD**



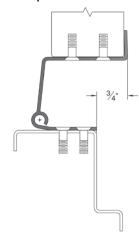


# CH52CL SS PIN & BARREL SERIES

### Closed Position



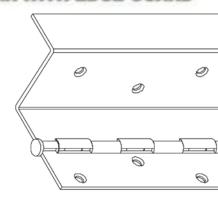
# **Open Position**

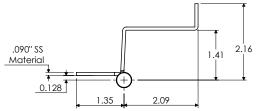


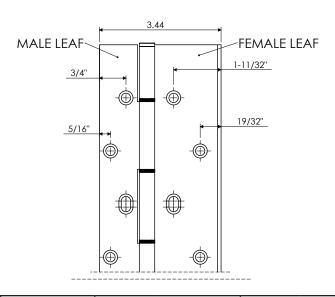
- For square edged doors
- ♦ For 1 ¾" doors
- Supports door weights up to 600 lbs.
- 4'0" Maximum door width
- For high traffic, high abuse doors
- Nominal sizes 7'(83-1/8"), 8'(95") & 10'(118-3/4") are non-handed
- 6'8"(78-3/4") & 7'2"(85") are handed hinges
- Material –Heavy-duty 13 gauge 304 Stainless Steel
- Self drilling screws
- No exposed fasteners when door is closed
- ◆ Door edge lip on stop side
- Protects door edge
- ⁴ ¼" diameter stainless steel pin
- Decorative fastener covers
- ◆ Conforms to ANSI/BHMA 156.26, Grade 1
- UL/ULC fire listed on wood doors for up to 20 minutes
- UL/ULC fire listed on hollow metal & composite wood fire doors for 90 minutes
- UL/ULC fire listed on hollow metal doors for up to 3 hours
- Meets UL10B, UL10C, UBC 7-2.



### SWING CLEAR WITH EDGE GUARD







PBB Model	3.		Screv	v Count
Number	Inches Centimeters		Door	Jamb
CH51CL79	79-1/8"	201.0	20	20
CH51CL83	83-1/8"	211.1	21	21
CH51CL85	85"	215.9	21	21
CH51CL95	95"	241.3	23	23
CH51CL119	118-3/4"	301.6	27	27

### 630 - Satin Stainless Steel - US32D

Full Mortise Fasteners-

a. Screw Pack 1 - 10 x 3/4" P.F.H. undercut self drilling tek screws b. Screw Pack 2 - 10 x 1 1/4" P.F.H. undercut sheet metal screws

PLEASE SPECIFY SCREW PACK REQUIREMENTS



# CH52CL SS PIN & BARREL SERIES

STANDARD HINGE LENGTH CONVERSION CHART

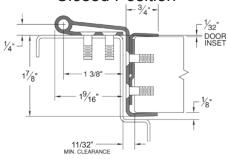
# SWING CLEAR WITH EDGE GUARD

A 79.125 " ACTUAL LENGTH = A 6'8" DOOR OPENING	A 83.125" ACTUAL LENGTH = A 7' DOOR OPENING	OPENING		A 118.75" ACTUAL LENGTH = A 10' DOOR OPENING
79.125  79.125  79.125  79.125  79.125  70.125  70.125  70.125  71.125  71.125  71.125  71.125  71.125  71.125  71.125  71.125  71.125  71.125  71.125  71.125  71.125	1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50	85.00	95.00 • 1.50 • 1.50 • 1.50 • 1.50 • 3.00 • 3.00 • 6.00 • 6.00 • 6.00 • 6.00 • 6.00 • 6.00 • 6.00 • 6.00 • 7.50 • 6.00 • 7.50 • 7.50	118.75  118.75

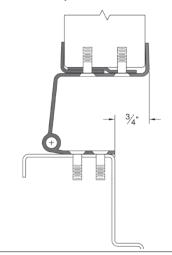


# CH51CG SS PIN & BARREL SERIES

### **Closed Position**

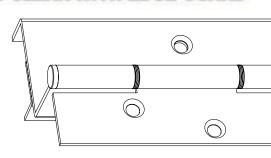


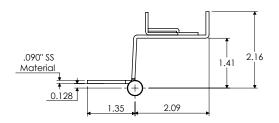
# 90° Open Position

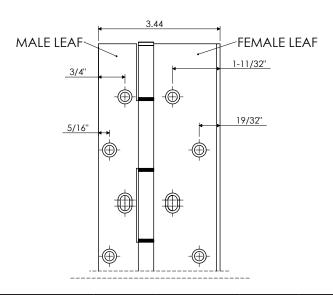


- For square edged doors
- ◆ For 1 ¾" doors
- Supports door weights up to 600 lbs.
- 4'0" Maximum door width
- For high traffic, high abuse doors
- Nominal sizes 7'(83-1/8"), 8'(95") & 10'(118-3/4") are non-handed
- 6'8"(78-3/4") & 7'2"(85") are handed hinges
- Material –Heavy-duty 13 gauge 304 Stainless Steel
- Self drilling screws
- No exposed fasteners when door is closed
- ◆ Door edge lip on stop side
- Protects door edge
- ⁴ ¼" diameter stainless steel pin
- Decorative fastener covers
- ◆ Conforms to ANSI/BHMA 156.26, Grade 1
- UL/ULC fire listed on wood doors for up to 20 minutes
- UL/ULC fire listed on hollow metal & composite wood fire doors for 90 minutes
- UL/ULC fire listed on hollow metal doors for up to 3 hours

# SWING CLEAR WITH EDGE GUARD







PBB Model	L	ength	Screw Count	
Number	Inches Centimeters		Door	Jamb
CH51CG79	79-1/8"	201.0	20	20
CH51CG83	83-1/8"	211.1	21	21
CH51CG85	85"	215.9	21	21
CH51CG95	95"	241.3	23	23
CH51CG119	118-3/4"	301.6	27	27

### 630 - Satin Stainless Steel - US32D

Full Mortise Fasteners-

a. Screw Pack 1 - 10 x 3/4" P.F.H. undercut self drilling tek screws b. Screw Pack 2 - 10 x 1 1/4" P.F.H. undercut sheet metal screws

PLEASE SPECIFY SCREW PACK REQUIREMENTS



# CH51CG SS PIN & BARREL SERIES

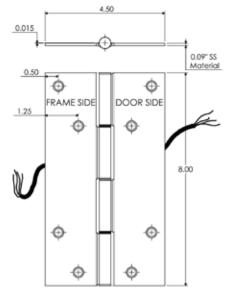
STANDARD HINGE LENGTH CONVERSION CHART

# SWING CLEAR WITH EDGE GUARD

		, 1141	MING GLEAR MII	H EDGE GOMED
A 79.125 " ACTUAL	A 83.125" ACTUAL	A 85.00 " ACTUAL	A 95.00" ACTUAL	A 118.75" ACTUAL
I FNGTH =		I FNGTH =	I FNGTH =	I FNGTH =
	A / DOOK OF EINING		A 6 DOOR OF EINING	
OPENING		OPENING		OPENING
A 79.125 " ACTUAL LENGTH = A 6'8" DOOR OPENING  1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.5	A 83.125" ACTUAL LENGTH = A 7" DOOR OPENING  1.50 1.50 1.50 1.50 3.00 6.00 6.00 6.00 6.00 6.00 6.00 6.0	, 1141		The state of the s
6.00 6.00 6.00 6.00 6.00 7 3.00 7 1.50 9 1.50 9 1.50	6.00 6.00 6.00 6.00 6.00 7 8.00 1.50 1.50 1.50	6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 7.00	6.00 6.00	6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00



# CH51E SS PIN & BARREL SERIES



OTHER SPECIFICATION: Height of Hinge: 79-1/8" (+.000/-.015)

83-1/8" (+.000/-.015) 85" (+.000/-.015) 95" (+.000/-.015) 118-3/4" (+.000/-.015)

MATERIAL GUAGE:  $.090 \pm .005$  for continuous hinge line

MATERIAL:

Heavy duty 13 guage 304 Stainless Steel

# FULL MORTISE EDGE MOUNT 79", 83", 85", 95", 120"

- CH51E Stainless Steel-Polished and Satin Finish
- Continuous Electric hinge allows electric currents and signals to pass from jamb through the hinge into the door in an invisible manner.
- Conforms to ANSI/BHMA 156.26, grade 1.

GENERAL PRODUCT INFORMATION: PBB, Inc. template hinges are manufactured to close tolerances and meet all specifications and requirements set by the American National Standards Institute (ANSI).

HINGE SWAGING: A standard swaging of our standard weight full mortise hinge when closed to parallel position provides a 1/32" clearance between leaves.

CONCEALED ELECTRIC THROUGH-WIRE: Two, four, six, eight, and ten continuous electric conductors. See specification below.

### NOTES:

All electrical hinge modification are to be placed in the center hinge position. Any other locations will void warranty. For grout filled frames install PBB mortar box-Failure to install mortar box voids warrantv.

PURCHASE ORDERS PLACED FOR ELECTRIC MODIFICATION ARE NON CANCELLABLE

Additional wire length may be purchased at additional cost. See pricebook for additional cost.

PACKAGING INFORMATION: One electric continuous hinge and screw pack per unit carton. Installation instructions and installation template included.

	MODELS AVAILABLE				
E2W	Concealed electric through-wire. 2 PTFE coated 20 gauge high Amp.				
E2+4W	Concealed electric through-wire. 2 PTFE coated 20 gauge. 4 PTFE coated 28 gauge.				
E4W	Concealed electric through-wire. 4 PTFE coated 28 gauge				
E6W	Concealed electric through-wire. 6 PTFE coated 30 gauge				
E8W	Concealed electric through-wire. 8 PTFE coated 30 gauge				
E10W	Concealed electric through-wire. 10 PTFE coated 30 gauge				

# **Electrical Specifications -**

(Maximum Continuous Rating)

E2W - 24 VAC/DC, @ 3 amps, continuous, 8 amp surge

E4W - 24 VAC/DC, 1 pr @ 1 amp, 1 pr @ .25 amps

E6W - 24 VAC/DC, 1 pr @ 1 amp, 2 pr @ .10 amps

We do not recommend splicing hinges containing 26 AWG wire (EL4W, 6W) to any wire heavier than 18 AWG

E8W - 24 VAC/DC, 1 pr @ 1 amp, 3 pr @ .10 amps E10W - 24 VAC/DC, 1 pr @ 1 amp, 4 pr @ .10 amps

We do not recommend splicing hinges containing 28 AWG wire (EL8W, 10W) to any wire heavier than 20 AWG

### 630 - Satin Stainless Steel - US32D

**Full Mortise Fasteners-**

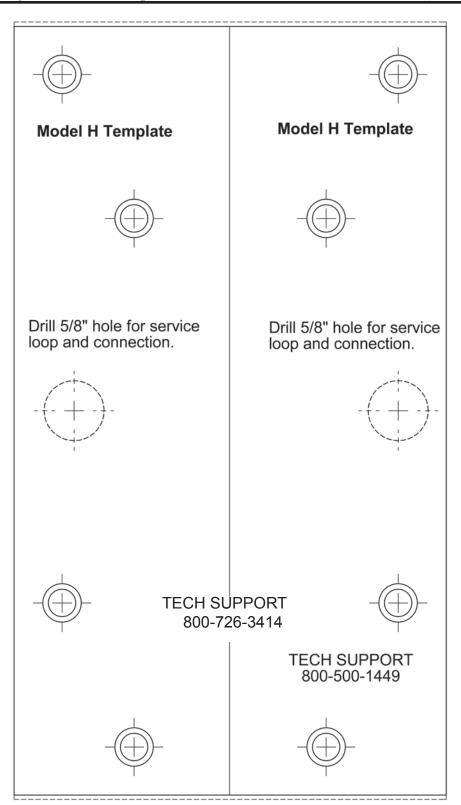
a. Screw Pack 1 - 10 x 3/4" P.F.H. undercut self drilling tek screws b. Screw Pack 2 - 10 x 1 1/4" P.F.H. undercut sheet metal screws

PLEASE SPECIFY SCREW PACK REQUIREMENTS



# CH51E SS PIN & BARREL SERIES

Make sure that printer settings on browser is set to 100% magnification as well as verifying that from the top line to bottom line (not the dashed lines) is exactly 8".





# STAINLESS STEEL EDGE GUARD SERIES

# CH5G(B&S) - CH5L(CB&CS) - CH5A(TB&TS)

### FOR EDGE GUARD MODELS:

CH5GB - BEVEL EDGE

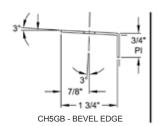
CH5GS - SQUARE EDGE

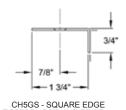
CH5LB - BEVEL EDGE

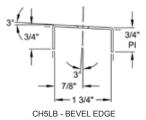
CH5LS - SQUARE EDGE

CH5AB - BEVEL EDGE

CH5AS - SQUARE EDGE

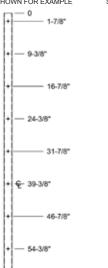






SHOWN FOR EXAMPLE - 0

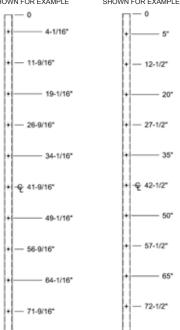
MODEL CH5LS-78.750" (6'8")



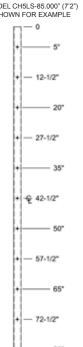
61-7/81

76-7/8 - 78-3/4°

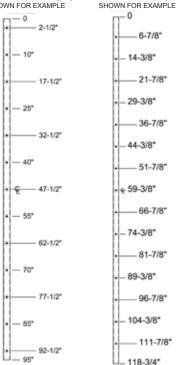




MODEL CH5LS-85.000" (7'2") SHOWN FOR EXAMPLE

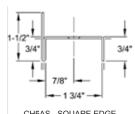


MODEL CH5LS-95.000" (8'0") SHOWN FOR EXAMPLE MODEL CH5LS-118.75" (10'0") SHOWN FOR EXAMPLE

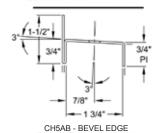


3/4" 3/4" 7/8\* - 1 3/4" -

CH5LS - SQUARE EDGE



CH5AS - SQUARE EDGE



For bevel edge door (Suffix B) or square edge door (Suffix S)

83-1/8

- ♦ For 1 ¾" doors
- For high traffic, high abuse doors
- ◆ 3/4" door single edge lip, or dual sides
- Adds security for exterior doors
- Standard lengths 78-3/4", 83-1/8", 85", 95", 118-3/4"
- ◆ Nominal sizes 6' 8", 7', 7' 2", 8' & 10'
- No exposed fasteners when door is closed
- Special lengths available
- Cut-outs available as required
- Templated and non handed
- Material -Heavy-duty 13 gauge 304 Stainless Steel
- Self drilling screws

PBB Model	L	ength	Screw Count	
Number	Inches Centimeters		Door	Jamb
CH5X79	78-3/4"	201.0	11	-
CH5X83	83-1/8"	211.1	11	-
CH5X85	85"	215.9	11	-
CH5X95	95"	241.3	13	-
CH5X119	118-3/4"	301.6	15	-

### 630 - Satin Stainless Steel - US32D

Edge Guard Fasteners a. Screw Pack 2 - 10 x 1 1/4" P.F.H. undercut sheet metal screws PLEASE SPECIFY SCREW PACK REQUIREMENTS



# EDGE GUARD ORDER FORM

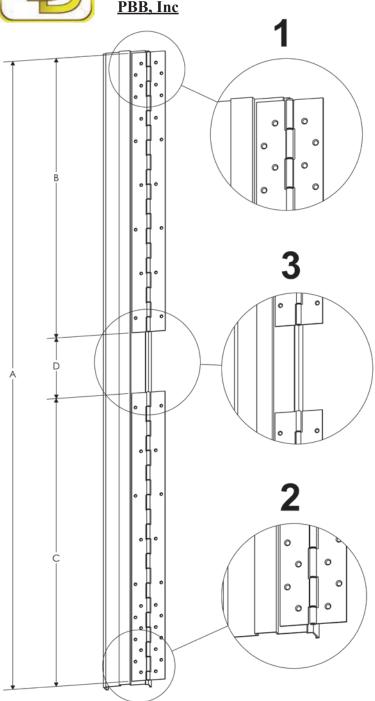
Customer P.O. Number	Customer P.O. Date	Requested Ship Date	PBB Sales Order Number
C D BOTTOM	3/4" PI 3/4" CH5GB - BEVEL EDGE  3/4"  7/8"  CH5GS - SQUARE EDGE	Standard Models Availa  3**  3/4**  CH5LB - BEVEL EDGE  3/4**  CH5LS - SQUARE EDGE	3° 1-1/2° 1 3/4°
Handing Information		Standard Cutouts Availa	<u>able</u>
Inside Active Door	NO. 1 NO. 2 86 Latchbolt Cutout Cutout	NO. 3 NO. 3 NO. 161 S	1 1/8"  1 1/8"  NO. 5  NO. 6  Automatic
Line # Qty.	Model #	Hand	Total Length (A)
1			
		1	i l
2			
3			

Line #	Length From Bottom of Edge Guard to the Centerline of Cutout						
Line #	First Cutout No. B Second Cutout No. C Third Cutout No. D						
1							
2							
3							
4							
5							

24	Customer Signature:	Date:	
	o dotorrior orginataro.		



# CH51E INSTALLATION INSTRUCTIONS



<u>Dimensions Table</u>				
<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	
79.125"	31.95475"	39.07975"	8.0905"	
83.125"	37.95475"	37.07975"		
85.125"	37.95475"	39.07975"		
95"	41.95475"	44.95475"		

# **(A)**BEFORE DOOR INSTALLMENT

All holes in the door and frame must be drilled correctly and fasteners properly installed. Failure to use the fasteners supplied by PBB, Inc. will void the UL fire rated listing.

The Universal Screw Pack contains sheet metal and self-drilling Tek screws. This allows two different installation option. If installing a wood or non-reinforced hollow metal door, follow option (I) in the instructions. If you use the self-drilling Tek screws (recommended for grouting frames), follow option (II). If the grout is hard, drilling a pilot hole can help.

- •Perform each step of these instructions unless specially labeled (I) or (II).
- (1) Place top hinge on frame as shown in figure of this instruction page.
  - •Allow 1/8" between top of hinge and underside of header panel on frame.
  - •Allow 1/16" between stop and edge of hinge. Carefully mark all the hole locations on the door jamb with the hinge held firmly in place. (Be sure the hinge is level and plumb with frame before proceeding further)
- (2) Temporarily place provided electric continuous hinge template and place bottom hinge on frame as shown in figure of this instruction page.
  - •Allow 1/16" between stop and edge of hinge.
  - •Measure from the top of upper hinge to the bottom of lower hinge to verify the length (A).
  - Carefully mark all the hole locations on the door jamb with the hinge held firmly in place. (Be sure the hinge is level and plumb with frame before proceeding further)
- (3) Electrical continuous hinge spacing is now provided.

### ---->GO TO SECTION B ON REVERSE SIDE

# © AFTER DOOR INSTALLMENT

Attach the hinges to the frame, leaving the electric hinge unattached for wiring into frame. Once wiring is complete, attach electric hinge into frame.

(C-I) using #10 x 1-1/4" flat head undercut sheet metal screws. (Figure 2)

OR

(C-II) using self-drilling Tek screws. (Figure 2) (Advise Caution-Use of power drill may over-torque self drilling screw and cause stripping of threads.)

Close the door and check for proper alignment.

- •If the door requires adjustment for proper fit, make this adjustment by loosening screws on the frame leaf and shimming where needed using shims. (Call PBB for shims)
- •Follow instructions in the box for field cut-down.
- •Hospital tips on hinges should be placed on the top of the door



# CH51E INSTALLATION INSTRUCTIONS

### PBB, Inc

- **B**(1) Place the top hinge on the edge of the door. Carefully line up the hinge with the top and back edges of the door.
  - •Mark all the hole locations on the door with the hinge held firmly in place.
  - •Center punch each hole.
  - (I) or (II) Drill all the holes using a #26 drill.
    - (B-I) Attach the hinge to the door with #10 x 1-1/4" flat head undercut sheet metal screws. (Bottom figure)

OR

- (B-II) Attach the hinge to the door with #10 x 1/2" flat head undercut self-drilling Tek screws. (Bottom figure) (Advise Caution-Use of power drill may over-torque self drilling screw and cause stripping of threads.)
- (2) Place the electrical hinge template below the upper hinge.

  Carefully line up the template with the bottom of the top hinge and back edges of the door.
  - •For electrical hinge wiring on door side drill a maximum 5/8" hole through specified location on the template. Then remove template, wire the door and then place hinge on door.

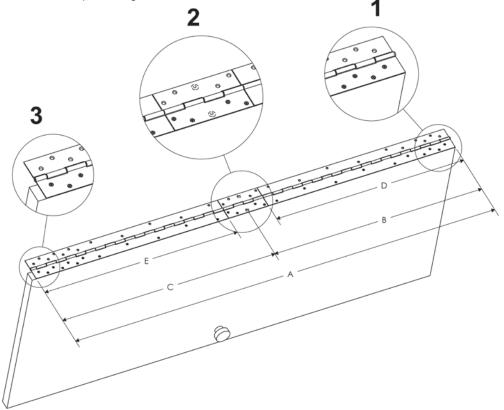
- •Mark all hole locations on the door with hinge held firmly in place.
- •Center punch each hole.
- •(I) or (II) Drill all the holes using a #26 drill.
- •Repeat steps (B-I) or (B-II) for electric hinge.

NOTE: Please be careful as damaging wires will void warranty.

- (3) Place the lower hinge below the electrical hinge. Carefully line up the hinge with the back edges of the door and verify length (A).
  - •Mark all hole locations on the door with hinge held firmly in place.
  - ·Center punch each hole.
  - •(I) or (II) Drill all the holes using a #26 drill.
  - •Repeat steps (B-I) or (B-II) for bottom hinge.

NOTE: Hinge barrels must line up exactly so there is no binding on hinge.

--->GO TO SECTION C ON REVERSE SIDE



Dimensions Table				
A	В	С	D	Е
79.125"	36"	43.125"	31.95475"	39.07975"
83.125"	42"	41.125"	37.95475"	37.07975"
85.125"	42"	43.125"	37.95475"	39.07975"
95.000"	46"	49.000"	41.95475"	44.95475"



# CH51 INSTALLATION INSTRUCTIONS

All holes in the door and frame must be drilled correctly and properly installed. Failure to use the fasteners supplied by PBB, Inc. will void the UL fire rated listing.

The Universal Screw Pack contains sheet metal and self-drilling Tek screws. This allows two different installation option. If installing a wood or non-reinforced hollow metal door, follow option (A) in the instructions. If you use the self-drilling Tek screws (recommended for grouting frames), follow option (B). If the grout is hard, drilling a pilot hole can help.

- •Perform each step of these instructions unless specially labeled (A) or (B).
- (1) Place hinge on frame as shown in Figure 1 on page 2 of these instructions.
  - •Allow 1/8" between top of hinge and underside of header panel on frame.
  - •Allow 1/16" between stop and edge of hinge.
- (2) Use two slotted screw holes on top and two slotted screw holes on the bottom of the hinge to initially mount the hinge onto the door and frame. The door position can then be easily adjusted before installing the remaining screws to secure the final door position.
- (3) Carefully mark all the hole locations on the door jamb with the hinge held firmly in place. (Be sure the hinge is level and plumb with frame before proceeding further)
- (4) Mark and center punch each hole. The use of a center punch can help center the hole so that the fasteners will enter straight.
- (5) (A) or (B) Drill all the holes using a #26 drill.

- (6) Place the hinge on the edge of the door. Carefully line up the hinge with the top and back edges of the door.
- (7) Mark all the hole locations on the door with the hinge held firmly in place.
- (8) Center punch each hole.
- (9) (A) or (B) Drill all the holes using a #26 drill.
- (10-A) Attach the hinge to the door with #10 x 1-1/4" flat head undercut sheet metal screws. (Figure 2)

### OR

(10-B) Attach the hinge to the door with #10 x 3/4" flat head undercut self-drilling Tek screws. (Figure 2) (Advise Caution-Use of power drill may over-torque self drilling screw and cause stripping of threads.)

- (11) Attach the hinge to the frame
- (A) using #10 x 1-1/4" flat head undercut sheet metal screws. (Figure 2)

### OR

- (B) using self-drilling Tek screws. (Figure 2) (Advise Caution-Use of power drill may overtorque self drilling screw and cause stripping of threads.)
- (12) Close the door and check for proper alignment.
  - •If the door requires adjustment for proper fit, make this adjustment by loosening screws on the frame leaf and shimming where needed using shims. (Call PBB for shims)
  - •Follow instructions in the box for field cut-
  - •Hospital tips on hinges should be placed on the top of the door.

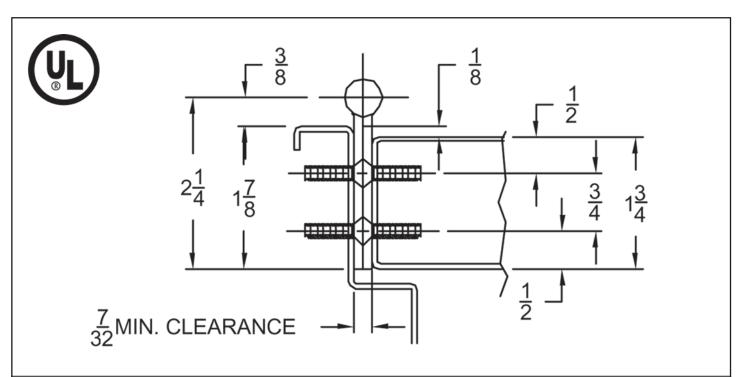
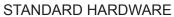
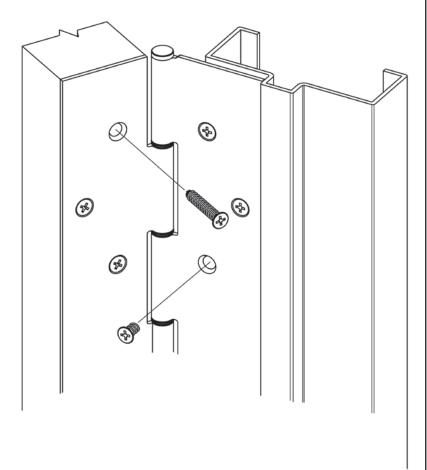


Figure 1: Hinge Placement & Clearance Template





#10 x 1-1/4" Phillips Flat Head Undercut Sheet Metal Screw



#10 x 3/4" Phillips Flat Head Undercut Self Drilling Tek Screw



(Caution-Use of power drill may over-torque self drilling screw and cause stripping of threads.)

Figure 2: Installation (Exploded View)

**Universal Screw Pack** 



# CH52 INSTALLATION INSTRUCTIONS

**PBB** Model CH52 is a Stainless Steel Continuous Half Edge Mount Hinges for 1-3/4" (44.5mm) thick doors. The frame face must have a flat surface at least 1-5/8" wide. Clearance required between the hinge edge of the door and the frame rabbet is 1/8" (3.2mm) minimum.

### **Hinge Length**

All PBB Stainless Steel Continuous Hinges are supplied 7/8" to 1" shorter than the nominal door height to avoid threshold or carpet clearance problems.

### **General Fitting Procedure**

- For new construction with metal doors/frames: To accommodate the 1/8" (3.2mm) minimum hinge clearance required for PBB Model CH52, order the door undersized or the frame header oversized. See the clearance information above to attain the proper size. Mortar guards, either styrofoam or wood, are recommended for frames to prevent grout from interfering with the installation of the hinge fasteners.
- <u>For new site-hung wood doors</u>: If necessary, scribe and cut from the latch edge of the door to leave sufficient hinge stile thickness for proper fastening. See the clearance information above to attain the proper finished width of the door. A minimum clearance of 1/8" (3.2mm) is required between the hinge edge of the door and the frame rabbet.
- <u>For remodeling with existing wood or laminate doors:</u> If necessary, scribe and cut from the hinge edge of the door and plane smooth. See the clearance information above to attain the proper finished width of the door. A minimum clearance of 1/8" (3.2mm) is required between the hinge edge of the door and the frame rabbet.

### INSTALLATION PROCEDURE

### **Door Preparation**

- 1. With the hinge open, place the hinge door leaf against the edge of the door. Position the top of the hinge flush with the top of the door. For the CH52, to achieve a 1/8" inset, position the 'pull' face of the door 5/8" from the center of the hinge pin.
- 2. Adjustment hole locations. Accurate location is important for proper hinge installation.
- 3. For hollow metal doors ≤.110" (2.8mm) thick, it is not necessary to pre-drill pilot holes if using the self-drilling screws provided. For hollow metal doors >.110" (2.8mm) thick, pre-drill pilot holes using #27 (.144"/3.7mm) bit. For wood doors, pre-drill pilot holes using a #25 (.149"/3.8mm) bit.
- 4. Attach the hinge to the door. For metal doors, use the #10 self-drilling screws provided (recommended driver speed 1,900 -2,500 RPM). For wood doors, use the #10 wood screws provided.

### Hanging the Door

- 1. With the hinge mounted to the door, set the door into the frame using shims or wedges to adjust for the desired clearance on all sides. Allow 1/8" (3.2mm) clearance between the top of the door and the frame header rabbet. Allow 1/16" (1.6mm) minimum clearance between the hinge door leaf and the frame rabbet.
- 2. With the door held securely in place, rotate the hinge leaf into position on the face of the frame.
  - a) For metal frames, mark and center punch the adjustment hole locations on the frame face. For metal frames ≤.110" (2.8mm) thick, it is not necessary to pre-drill pilot holes if using the self-drilling screws provided. For metal frames >.110" (2.8mm) thick, pre-drill pilot holes using a 7/32" (5.5mm) bit. Install the 1/4" self-drilling screws (recommended driver speed 1,900-2,500 RPM).
  - b) For wood frames, mark and center punch the adjustment hole locations on the frame face. Pre-drilling pilot holes using a 7/32" (5.5mm) bit. Install the #14 wood screws.
- 3. Remove all shims and wedges and make a gentle trial swing. Carefully check the door for proper swing and clearance.

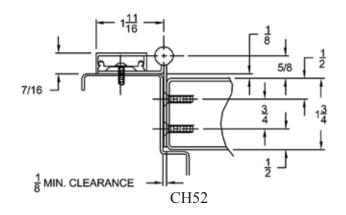


# CH52 INSTALLATION INSTRUCTIONS

### Install the Clip N-Go

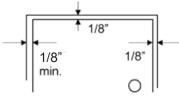
1. Position the Molding so that the short leg is closest to the hinge pin. Hook the short leg over the Molding Clips along the full length of the hinge. Starting at the top and working downward press the long leg of the Molding in place completely over the outside edge of the door leaf. If necessary, gently tap in place using a rubber mallet, taking care not to damage the molding.

Note: The standard screw pack includes 1/4" self drilling screws for metal frames and #10 wood screws for wood doors. #14 wood screw and #10 self drilling screw available only on request at time of order.



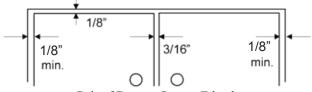
DOOR HEIGHT	HINGE LENGTH	NUMBER OF FASTENERS (Door/Frame)
6'-8"	79-1/8" (2006 mm)	20/11
7'-0"	83-1/8" (2111 mm)	21/12
7'-2"	85" (2159 mm)	21/14
8'-0"	95" (2413 mm)	23/13
10'-0"	118.75" (3022 mm)	27/16

### **Total Clearance Between Door and Frame Width**



Single Door - Square Edged

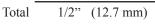
Hinge Thickness	1/8"	(3.2  mm)
Allowance for frame irregularities	1/32"	(0.8  mm)
Latch side clearance (typical)	1/8"	(3.2 mm)
Total	9/32"	(7.1 mm)



Pair of Doors - Square Edged

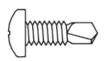
Hinge Thickness	1/8"	(3.2  mm)
Allowance for frame irregularities	1/32"	(0.8  mm)
Latch side clearance (typical)	3/16"	(4.8  mm)
Second hinge thickness	1/8"	(3.2  mm)
Second allowance for frame irregularities	1/32"	(0.8  mm)

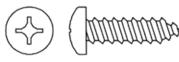
















#10 SELF-DRILLING SCREW

1/4" SELF-DRILLING SCREW

#14 WOOD SCREW

#10 WOOD SCREW



# CH53 INSTALLATION INSTRUCTIONS

All holes in the hinge must be drilled correctly and properly installed. Failure to will void the UL fire rated listing.

Do not install Snap-On cover until installation is 100% complete, and the assembly is correctly fastened and properly fitted.

The Screw Pack contains self-drilling Tek screws. These screws are also recommended for grout-filled frames.

- Perform each step of these instructions.
- (1) Place hinge on frame as shown in Figure 1 on the other side of these instructions.
  - Allow 1/8" between top of hinge and underside of header.

Note that at least 1 13/16" of frame face is required for mounting this hinge.

- (2) Mark the position of the top and bottom adjustment holes with a center punch, then drill and fasten. The use of the PBB drill tool can help center the hole so that the fasteners will enter straight.
- (3) After the top and bottom screws are installed, drill and fasten the remaining holes.
- (4) Fold the door leaf back over the frame leaf and place the door in the door frame.
  - Place shims under the door to provide 1/8" clearance between the header and the top of the door.
  - Add shims at both the hinge and latch side of the door so that 1/8" clearance will be maintained equally on the lock side of the door.
- (5) With the door held firmly in place, return the door leaf to the face of the door and repeat the drilling procedure described in steps (2) and (3). For Molly Jacknuts or Steel Sex Bolts or any other type of fastening devices needed, Please contact PBB directly at 1-800-726-3414.

(6) Remove all shims and wedges and make a gentle swing. Carefully check the door for proper swing and clearance.

### (7) Install the Clip N-Go

Position the Molding so that the short leg is closest to the hinge pin. Hook the short leg over the Molding Clips along the full length of the hinge. Starting at the top and working downward press the long leg of the Molding in place completely over the outside edge of the door leaf. If necessary, gently tap in place using a rubber mallet, taking care not to damage the molding.-

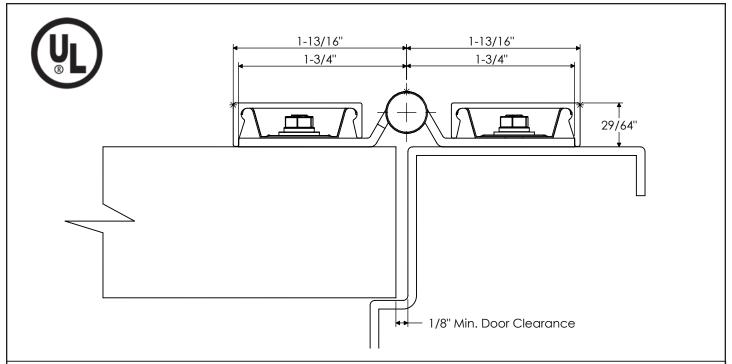
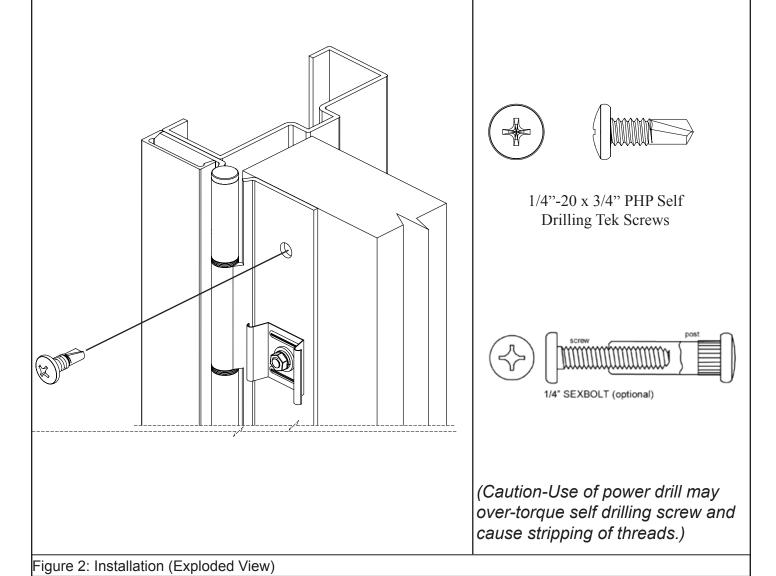


Figure 1: Hinge Placement & Clearance Template

### STANDARD HARDWARE



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# CH53I INSTALLATION INSTRUCTIONS

All holes in the hinge must be drilled correctly and properly installed. Failure to will void the UL fire rated listing.

Do not install Snap-On cover until installation is 100% complete, and the assembly is correctly fastened and properly fitted.

The Screw Pack contains self-drilling Tek screws. These screws are also recommended for grout-filled frames.

- Perform each step of these instructions.
- (1) Place hinge on frame as shown in Figure 1 on the other side of these instructions.
  - Allow 1/8" between top of hinge and underside of header.
  - Note that at least 1 13/16" of frame face is required for mounting this hinge.
- (2) Mark the position of the top and bottom adjustment holes with a center punch, then drill and fasten. The use of the PBB drill tool can help center the hole so that the fasteners will enter straight.
- (3) After the top and bottom screws are installed, drill and fasten the remaining holes.
- (4) Fold the door leaf back over the frame leaf and place the door in the door frame.
  - Place shims under the door to provide 1/8" clearance between the header and the top of the door.
  - Add shims at both the hinge and latch side of the door so that 1/8" clearance will be maintained equally on the lock side of the door.
- (5) With the door held firmly in place, return the door leaf to the face of the door and repeat the drilling procedure described in steps (2) and (3). For Molly Jacknuts or Steel Sex Bolts or any other type of fastening devices needed, Please contact PBB directly at 1-800-726-3414.

(6) Remove all shims and wedges and make a gentle swing. Carefully check the door for proper swing and clearance.

# (7) Install the Clip N-Go

Position the Molding so that the short leg is closest to the hinge pin. Hook the short leg over the Molding Clips along the full length of the hinge. Starting at the top and working downward press the long leg of the Molding in place completely over the outside edge of the door leaf. If necessary, gently tap in place using a rubber mallet, taking care not to damage the molding.-

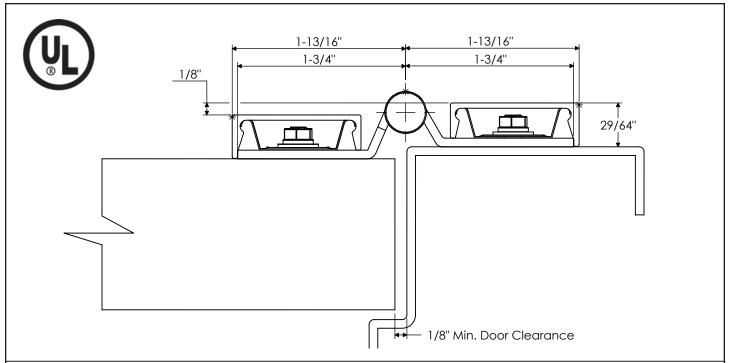
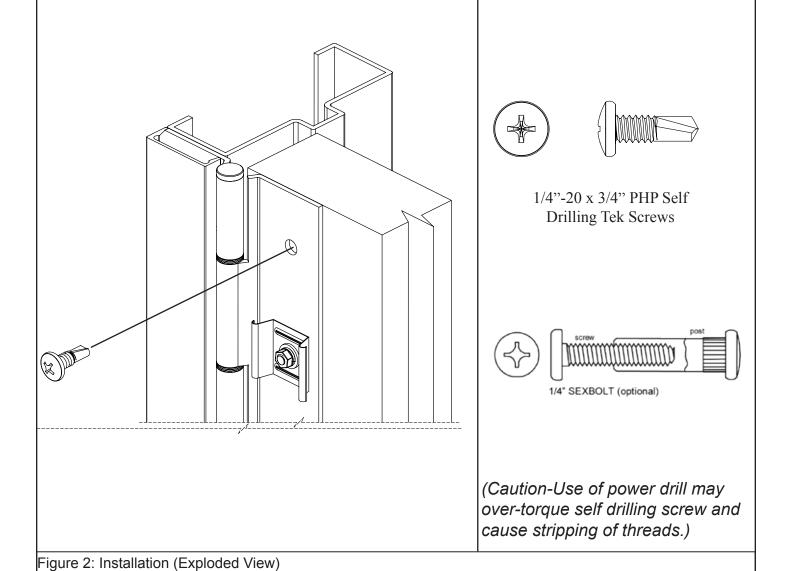


Figure 1: Hinge Placement & Clearance Template

# STANDARD HARDWARE





# CH54 INSTALLATION INSTRUCTIONS

**PBB** Model CH54 is a Stainless Steel Continuous Half Surface Hinges for 1-3/4" (44.5mm) thick doors. Clearance required between the hinge edge of the door and the frame rabbet is 1/8" (3.2mm) minimum. Our model provide for a 1/8" door inset.

#### **Hinge Length**

All PBB Stainless Steel Continuous Hinges are supplied 7/8" to 1" shorter than the nominal door height to avoid threshold or carpet clearance problems.

#### **General Fitting Procedure**

- For new construction with metal doors/frames: To accommodate the 1/8" (3.2mm) minimum hinge clearance required for PBB Model CH54, order the door undersized or the frame header oversized. See the clearance information above to attain the proper size. Mortar guards, either styrofoam or wood, are recommended for frames to prevent grout from interfering with the installation of the hinge fasteners.
- For new site-hunq wood doors: If necessary, scribe and cut from the latch edge of the door to leave sufficient hinge stile thickness for proper fastening. See the clearance information above to attain the proper finished width of the door. A minimum clearance of 1/8" (3.2mm) is required between the hinge edge of the door and the frame rabbet.
- <u>For remodeling with existing wood or laminate doors:</u> If necessary, scribe and cut from the hinge edge of the door and plane smooth. See the clearance information above to attain the proper finished width of the door. A minimum clearance of 1/8" (3.2mm) is required between the hinge edge of the door and the frame rabbet.

# **INSTALLATION PROCEDURE**

Frame Preparation

- 1. With the hinge open, place the hinge frame leaf against the frame rabbet. Position the top of the hinge 1/8" (3.2mm) below the header. Allow 1/16" (1.6mm) minimum between the frame stop and the edge of the hinge.
- 2. Mark and center punch the screw hole locations. Accurate location is important for proper hinge installation.
- 3. For metal frames less than 7/64" (2.8mm) thick, it is not necessary to pre-drill pilot holes if using the self-drilling screws provided. For metal frames greater than 7/64" (2.8mm) thick, pre-drill pilot holes using a #27 (.144"/3.7mm) bit. For wood frames, pre-drill pilot holes using a #25 (.149"/3.8mm) bit.
- 4. Attach the hinge to the frame rabbet. For metal frames, use the #10 self-drilling screws provided (recommended driver speed 1,900-2,500RPM). For wood frames, use optional #10 wood screws.

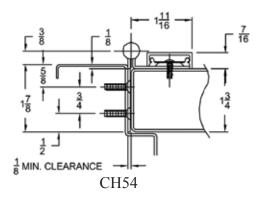
- 1. Rotate the hinge leaf out of the way and set the door into the frame, using shims or wedges to adjust for the desired clearance on all sides. Allow 1/8" (3.2mm) clearance between the top of the door and the frame header rabbet. Allow 1/16" (1.6mm) minimum clearance between the edge of the door and the hinge frame leaf.
- 2. With the door held securely in place, rotate the hinge leaf into position on the face of the door.
- a) For metal doors, mark and center punch the hole locations on the door face. For metal doors less than 7/64" (2.8mm) thick, it is not necessary to pre-drill pilot holes if using the self-drilling screws provided. For metal doors greater than 7/64" (2.8mm) thick, predrill pilot holes using a 7/32" (5.5mm) bit. Install the 1/4" self-drilling screws (recommended driver speed 1,900-2,500RPM).
- b) For wood doors, mark and center punch the hole locations on the door face. Pre-drill pilot holes using a 7/32" (5.5mm) bit. Install the #14 wood screws, placing a Molding Clip under the head of a screw at five locations along the hinge one at each end and the others spaced equally in between.
- c) (Optional Sexbolt Mounting) Locate a sexbolt at each end hole, with the others spaced equally in between. (Note: There are more holes in the hinge than required. Use a minimum of 10 sexbolts.) Mark and center punch only the hole locations where a sexbolt will be inserted. Rotate the hinge leaf back out of the way. At each mark, drill a hole completely through the door using a 1/4" (6.3mm) bit. From the 'push' face of the door, at each hole location, bore 1-1/4" (32mm) deep using a 3/8" (9.5mm) bit. Do not bore completely through the door. Rotate the hinge leaf into position on the face of the door. Insert the sexbolt posts from the 'push' side of the door and the screws from the 'pull' side.
- 3. Remove all shims and wedges and make a gentle trial swing. Carefully check the door for proper swing and clearance.



# CH54 INSTALLATION INSTRUCTIONS

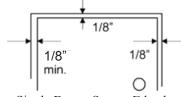
# Install the Clip N-Go

1. Position the Molding so that the short leg is closest to the hinge pin. Hook the short leg over the Molding Clips along the full length of the hinge. Starting at the top and working downward press the long leg of the Molding in place completely over the outside edge of the door leaf. If necessary, gently tap in place using a rubber mallet, taking care not to damage the molding.



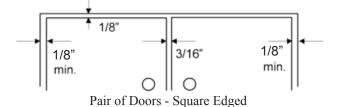
DOOR HEIGHT	HINGE LENGTH	NUMBER OF FASTENERS (Door/Frame)
6'-8"	79-1/8" (2006 mm)	11/20
7'-0"	83-1/8" (2111 mm)	12/21
7'-2"	85" (2159 mm)	14/21
8'-0"	95" (2413 mm)	13/23
10'-0"	118.75" (3022 mm)	16/27

# **Total Clearance Between Door and Frame Width**



Single Door - Squa	are Edged
Hinge Thickness	

Hinge Thickness Allowance for frame irregularities Latch side clearance (typical)	1/32"	(3.2 mm) (0.8 mm) (3.2 mm)
Total		(7.1 mm)



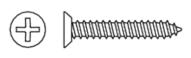
Hinge Thickness 1/8" (3.2 mm)Allowance for frame irregularities 1/32" (0.8 mm)Latch side clearance (typical) 3/16" (4.8 mm)Second hinge thickness 1/8" (3.2 mm)Second allowance for frame irregularities 1/32" (0.8 mm)

1/2" (12.7 mm) Total

# NOTE:

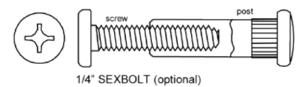
The standard screw pack includes 1/4" self drilling screws for metal frames and #10 wood screws for wood doors. #14 wood screws and #10 self drilling screws available only on request at time of order.





#10 WOOD SCREW







# CH51G INSTALLATION INSTRUCTIONS

**PBB** Model CH51G are a Stainless Steel Continuous Edge Mount Hinge for 1-3/4" (44.5mm) thick doors. It allows for minor lateral adjustment to the door after installation. CH51G feature protective corner guards. Clearance required between the hinge edge of the door and the frame rabbet is 9/32" (7.1mm) minimum. For metal doors, a 1/8" (3.2mm) thick reinforcement plate is strongly recommended along the hinge edge for proper thread engagement of the adjustment studs. This model is not recommended for use on doors that have a beveled edge on the hinge side, nor for use on doors that have electrical modifications such as through-wires or power transfer devices.

## **Hinge Length**

All PBB Stainless Steel Continuous Hinges are supplied 7/8" to 1" shorter than the nominal door height to avoid threshold or carpet clearance problems.

# **General Fitting Procedure**

- For new construction with metal doors/frames: To accommodate the 9/32" (7.1mm) hinge clearance required for PBB Model CH51G order the door undersized or the frame header oversized. See the clearance information above to attain the proper finished width required. A 1/8" (3.2mm) thick reinforcement plate is strongly recommended along the hinge edge for proper thread engagement of the adjustment studs. The hinge edge of the door should not be beveled. Mortar guards, either styrofoam or wood, are recommended for frames to prevent grout from interfering with the installation of the hinge fasteners.
- <u>For new site-hung wood doors</u>: If necessary, scribe and cut from the latch edge of the door to leave sufficient hinge stile thickness for proper fastening. A minimum clearance of 9/32" (7.1 mm) is required between the hinge edge of the door and the frame rabbet. Do not bevel the hinge edge of the door. See the clearance information above to attain the proper finished width of the door.
- For remodeling with existing wood or laminate doors: If necessary, scribe and cut from the hinge edge of the door and plane smooth. A minimum clearance of 9/32" (7.1 mm) is required between the hinge edge of the door and the frame rabbet. Do not bevel the hinge edge of the door. See the clearance information above to attain the proper finished width of the door.

# **Installation Procedure**

# Frame Preparation

- 1. With the hinge open, place the hinge frame leaf against the frame rabbet. Position the top of the hinge 1/8" (3.2mm) below the header. Allow 1/16" (1.6mm) between the frame stop and the edge of the hinge.
- 2. Mark and center punch the screw hole locations. Accurate location is important for proper hinge installation. Use drill tool provided.
- 3. For metal frames less than 7/64" (2.8mm) thick, it is not necessary to pre-drill pilot holes if using the self-drilling screws provided. For metal frames greater than 7/64" (2.8mm) thick, pre-drill pilot holes using a #26 (.1471"/3.7mm) bit. For wood frames, pre-drill pilot holes using a #26 (.1471"/3.8mm) bit.
- 4. Do not attach the hinge to the frame at this time.

#### **Door Preparation**

- 1. With the hinge open, place the hinge door leaf against the edge of the door. Position the integral corner guard fully against the 'push' face of the door. Position the top of the hinge flush with the top of the door. Use drill tool provided.
- 2. Mark and center punch the screw hole locations. Accurate location is important for proper hinge installation.
- 3. For wood doors, drill pilot holes using a (.312"; 7.9mm) bit to a minimum depth of 1-3/8" (35mm). For reinforced metal doors, drill pilot holes using a 5/16" (7.9mm) bit and tap for 3/8"-16 threads.
- 4. Using a 3/16" Allen wrench, screw a (.312"; 7.9mm) adjustment stud into each hole. Insert each stud until it is flush with the edge of the door. The studs are designed for a tight friction fit in the holes so they will not turn when the mounting screws are being tightened. If the Adjustment Studs turn too freely, apply LOCTITE<sup>TM</sup> (for threaded joints) to the stud's external threads during installation.

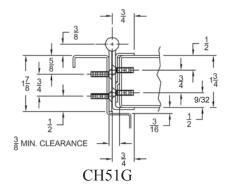
- 1. Slide Protective Corner Guard component into position on the door edge and fully against the 'pull' face of the door together with the hinge door leaf making certain the integral corner guard is fully against the 'push' face of the door. Install a#10 machine screw in the top two and bottom two hole locations only and fully tighten. Do not install the remaining screws in the door leaf at this time.
- 2. Position the door (with hinge attached) at 90° to the frame. Attach the hinge to the frame rabbet. For metal frames, use the #10 self-drilling screws provided (recommended driver speed 1,900-2,500 RPM). For wood frames, use the #10 wood screws.
- 3. Make a gentle trial swing. Carefully check for proper swing and door clearances.



# CH51G INSTALLATION INSTRUCTIONS

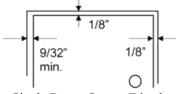
# Adjusting the Door

- 1. If lateral adjustment of the door is required due to excessive or uneven door/frame clearance, make adjustments using either the top two and/or bottom two screws installed in the door. It is not necessary to remove the hinge from the door to make adjustments.
- 2. Remove one of the two screws and insert a 3/16" Allen wrench through the hole into the Adjustment Stud. It may be necessary to slightly loosen the second screw while rotating the Adjustment Stud outward to the desired position. Then adjust the second Stud in the same manner. Re-insert and tighten the #10 machine screws when complete.
- 3. Make any necessary adjustments at the other end of the hinge in the above manner until the proper door fit is achieved.
- 4. Using a 3/16" Allen wrench, adjust all remaining studs until each rests against the back of the hinge leaf.
- 5. Install #10 machine screws into all remaining holes and tighten.
- 6. Make a gentle trial swing. Carefully check for proper swing and door clearances.



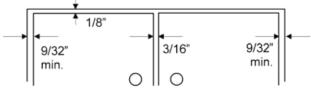
DOOR HEIGHT	HINGE LENGTH	NUMBER OF FASTENERS (Door/Frame)
6'-8"	79-1/8" (2006 mm)	20/20
7'-0"	83-1/8" (2111 mm)	21/21
7'-2"	85" (2159 mm)	21/21
8'-0"	95" (2413 mm)	23/23
10'-0''	118.75" (3022 mm)	27/27

# **Total Clearance Between Door and Frame Width**



Single Door - Square Edged

Hinge Thickness Allowance for frame irregularities Latch side clearance (typical)	1/32"	(7.1 mm) (0.8 mm) (3.2 mm)
Total	7/16"	(11.1 mm)



Pair of Doors - Square Edged

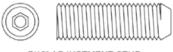
Hinge Thickness	9/32"	(7.1  mm)
Allowance for frame irregularities	1/32"	(0.8  mm)
Latch side clearance (typical)	3/16"	(4.8  mm)
Second hinge thickness	9/32"	(7.1  mm)
Second allowance for frame irregularities	1/32"	(0.8  mm)

Total 13/16" (20.6 mm)









#10 WOOD SCREW

#10 MACHINE SCREW

7/16" ADJUSTMENT STUD

#10 SELF-DRILLING SCREW



# CH51L INSTALLATION INSTRUCTIONS

All holes in the door and frame must be drilled correctly and properly installed. Failure to do so will void the UL fire rated listing.

The Universal Screw Pack contains sheet metal and self-drilling Tek screws. This allows two different installation option. If installing a wood or non-reinforced hollow metal door, follow option (A) in the instructions. If you use the self-drilling Tek screws (recommended for grouting frames), follow option (B). If the grout is hard, drilling a pilot hole can help.

- •Perform each step of these instructions unless specially labeled (A) or (B).
- (1) Place hinge on frame as shown in Figure 1 on page 2 of these instructions.
  - •Allow 1/8" between top of hinge and underside of header panel on frame.
  - •Allow 1/16" between stop and edge of hinge.
- (2) Use two slotted screw holes on top and two slotted screw holes on the bottom of the hinge to initially mount the hinge onto the door and frame. The door position can then be easily adjusted before installing the remaining screws to secure the final door position.
- (3) Carefully mark all the hole locations on the door jamb with the hinge held firmly in place. (Be sure the hinge is level and plumb with frame before proceeding further)
- (4) Mark and center punch each hole. The use of a center punch can help center the hole so that the fasteners will enter straight.
- (5) (A) or (B) Drill all the holes using a #26 drill.

# (Door Preparation

- (6) Place the hinge on the edge of the door. Carefully line up the hinge with the top and back edges of the door. Position the integral corner guard fully against the "push" face of the door. Check handing.
- (7) Mark all the hole locations on the door with the hinge held firmly in place. The use of the Pbb drill tool can help center the hole so that the fasteners will enter straight.
- (8) Center punch each hole.
- (9) (A) or (B) Drill all the holes using a #26 drill. (10-A) Attach the hinge to the door with #10 x 1-1/4" flat head undercut sheet metal screws. (Figure 2)

#### OR

(10-B) Attach the hinge to the door with #10 x 3/4" flat head undercut self-drilling Tek screws. (Figure 2) (Advise Caution-Use of power drill may over-torque self drilling screw and cause stripping of threads.)

- (11) Attach the hinge to the frame
- (A) using #10 x 1-1/4" flat head undercut sheet metal screws. (Figure 2)

#### OR

- (B) using self-drilling Tek screws. (Figure 2) (Advise Caution-Use of power drill may overtorque self drilling screw and cause stripping of threads.)
- (12) Carefully close the door and check for proper alignment and door clearances.
  - •If the door requires adjustment for proper fit, make this adjustment by loosening screws on the frame leaf and shimming where needed using shims. (Call PBB for shims)
  - •Follow instructions in the box for field cutdown.
  - •Hospital tips on hinges should be placed on the top of the door.

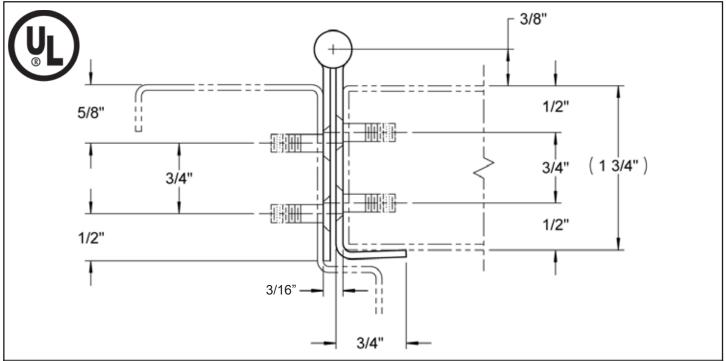
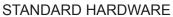
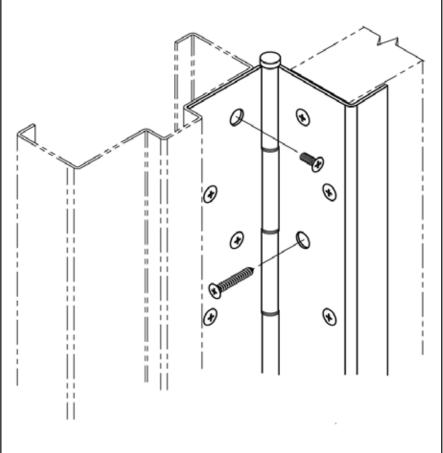


Figure 1: Hinge Placement & Clearance Template





#10 x 1-1/4" Phillips Flat Head Undercut Sheet Metal Screw



#10 x 3/4" Phillips Flat Head Undercut Self Drilling Tek Screw



(Caution-Use of power drill may over-torque self drilling screw and cause stripping of threads.)

Figure 2: Installation (Exploded View)

Universal Screw Pack



# CH52L INSTALLATION INSTRUCTIONS

**PBB** Model CH52L is a Stainless Steel Continuous Half Edge Mount Hinges for 1-3/4" (44.5mm) thick doors. The frame face must have a flat surface at least 1-5/8" wide. Clearance required between the hinge edge of the door and the frame rabbet is 1/8" (3.2mm) minimum.

# **Hinge Length**

All PBB Stainless Steel Continuous Hinges are supplied 7/8" to 1" shorter than the nominal door height to avoid threshold or carpet clearance problems.

#### **General Fitting Procedure**

- <u>For new construction with metal doors/frames</u>: To accommodate the 1/8" (3.2mm) minimum hinge clearance required for PBB Model CH52L, order the door undersized or the frame header oversized. See the clearance information above to attain the proper size. Mortar guards, either styrofoam or wood, are recommended for frames to prevent grout from interfering with the installation of the hinge fasteners.
- <u>For new site-hung wood doors</u>: If necessary, scribe and cut from the latch edge of the door to leave sufficient hinge stile thickness for proper fastening. See the clearance information above to attain the proper finished width of the door. A minimum clearance of 1/8" (3.2mm) is required between the hinge edge of the door and the frame rabbet.
- <u>For remodeling with existing wood or laminate doors:</u> If necessary, scribe and cut from the hinge edge of the door and plane smooth. See the clearance information above to attain the proper finished width of the door. A minimum clearance of 1/8" (3.2mm) is required between the hinge edge of the door and the frame rabbet.

#### INSTALLATION PROCEDURE

# **Door Preparation**

- 1. With the hinge open, place the hinge door leaf against the edge of the door. Position the top of the hinge flush with the top of the door. Position the integral corner guard fully against the "push" face of the door. Check handing.
- 2. Accurate location is important for proper hinge installation. Use adjustment holes for fine adjustment.
- 3. For hollow metal doors ≤.110" (2.8mm) thick, it is not necessary to pre-drill pilot holes if using the self-drilling screws provided. For hollow metal doors >.110" (2.8mm) thick, pre-drill pilot holes using #27 (.144"/3.7mm) bit. For wood doors, pre-drill pilot holes using a #25 (.149"/3.8mm) bit.
- 4. Attach the hinge to the door. For metal doors, use the #10 self-drilling screws provided (recommended driver speed 1,900 -2,500 RPM). For wood doors, use the #10 wood screws provided.

- 1. With the hinge mounted to the door, set the door into the frame using shims or wedges to adjust for the desired clearance on all sides. Allow 1/8" (3.2mm) clearance between the top of the door and the frame header rabbet. Allow 1/16" (1.6mm) minimum clearance between the hinge door leaf and the frame rabbet.
- 2. With the door held securely in place, rotate the hinge leaf into position on the face of the frame.
  - a) For metal frames, mark and center punch the adjustment hole locations on the frame face. For metal frames ≤.110" (2.8mm) thick, it is not necessary to pre-drill pilot holes if using the self-drilling screws provided. For metal frames >.110" (2.8mm) thick, pre-drill pilot holes using a 7/32" (5.5mm) bit. Install the 1/4" self-drilling screws (recommended driver speed 1,900-2,500 RPM).
  - b) For wood frames, mark and center punch the adjustment hole locations on the frame face. Pre-drilling pilot holes using a 7/32" (5.5mm) bit. Install the #14 wood screws.
- 3. Remove all shims and wedges and make a gentle trial swing. Carefully check the door for proper swing and clearance.

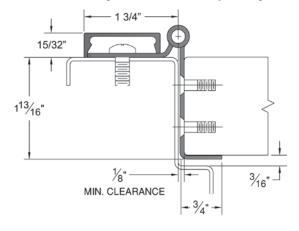


# CH52L INSTALLATION INSTRUCTIONS

# Install the Clip N-Go

1. Position the Molding so that the short leg is closest to the hinge pin. Hook the short leg over the Molding Clips along the full length of the hinge. Starting at the top and working downward press the long leg of the Molding in place completely over the outside edge of the door leaf. If necessary, gently tap in place using a rubber mallet, taking care not to damage the molding.

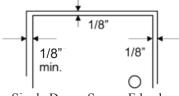
Note: The standard screw pack includes 1/4" self drilling screws for metal frames and #10 wood screws for wood doors. #14 wood screw and #10 self drilling screw available only on request at time of order.



CH52L

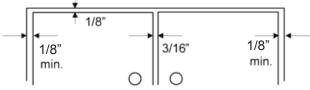
DOOR HEIGHT	HINGE LENGTH	NUMBER OF FASTENERS (Door/Frame)
6'-8"	79-1/8" (2006 mm)	20/11
7'-0"	83-1/8" (2111 mm)	21/12
7'-2"	85" (2159 mm)	21/14
8'-0"	95" (2413 mm)	23/13
10'-0''	118.75" (3022 mm)	27/16

# **Total Clearance Between Door and Frame Width**



Single	Door	<ul> <li>Square</li> </ul>	Edged

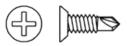
C I	_	_	
Hinge Thickness		1/8"	(3.2  mm)
Allowance for frame irregular	ities	1/32"	(0.8  mm)
Latch side clearance (typical)		1/8"	(3.2 mm)
	Total	9/32"	(7.1 mm)



Pair of Doors - Square Edged

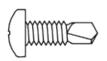
Hinge Thickness	1/8"	(3.2  mm)
Allowance for frame irregularities	1/32"	(0.8  mm)
Latch side clearance (typical)	3/16"	(4.8  mm)
Second hinge thickness	1/8"	(3.2  mm)
Second allowance for frame irregularities	1/32"	(0.8 mm)
•		

Total 1/2" (12.7 mm)

















#10 SELF-DRILLING SCREW

1/4" SELF-DRILLING SCREW

#14 WOOD SCREW

#10 WOOD SCREW



# CH52CL INSTALLATION INSTRUCTIONS

All holes in the door and frame must be drilled correctly and properly installed. Failure to do so will void the UL fire rated listing.

The Universal Screw Pack contains sheet metal and self-drilling Tek screws. This allows two different installation option. If installing a wood or non-reinforced hollow metal door, follow option (A) in the instructions. If you use the self-drilling Tek screws (recommended for grouting frames), follow option (B). If the grout is hard, drilling a pilot hole can help.

•Perform each step of these instructions unless specially labeled (A) or (B).

# Frame Preperation

- (1) Place hinge on frame as shown in Figure 1 on page 2 of these instructions.
  - •Allow 1/8" between top of hinge and underside of header panel on frame.
  - •Place the hinge edge in line with the frame face. Accurate location is important for proper installation.
- (2) Use two slotted screw holes on top and two slotted screw holes on the bottom of the hinge to initially mount the hinge onto the door and frame. The door position can then be easily adjusted before installing the remaining screws to secure the final door position.
- (3) Carefully mark all the hole locations on the door jamb with the hinge held firmly in place. (Be sure the hinge is level and plumb with frame before proceeding further)
- (4) Mark and center punch each hole. The use of the Pbb drill tool can help center the hole so that the fasteners will enter straight.
- (5) (A) or (B) Drill all the holes using a #26 drill.

# **Door Preparation**

- (6) Place the hinge on the edge of the door. Carefully line up the hinge with the top and back edges of the door. Position the integral corner guard fully against the "push" face of the door. Check handing.
- (7) Mark all the hole locations on the door with the hinge held firmly in place. The use of the Pbb drill tool can help center the hole so that the fasteners will enter straight.
- (8) Center punch each hole.
- (9) (A) or (B) Drill all the holes using a #26 drill. (10-A) Attach the hinge to the door with #10 x 1-1/4" flat head undercut sheet metal screws. (Figure 2)

#### OR

(10-B) Attach the hinge to the door with #10 x 3/4" flat head undercut self-drilling Tek screws. (Figure 2) (Advise Caution-Use of power drill may over-torque self drilling screw and cause stripping of threads.)

- (11) Attach the hinge to the frame
- (A) using #10 x 1-1/4" flat head undercut sheet metal screws. (Figure 2)

#### OR

- (B) using self-drilling Tek screws. (Figure 2) (Advise Caution-Use of power drill may overtorque self drilling screw and cause stripping of threads.)
- (12) Carefully close the door and check for proper alignment and door clearances.
  - •If the door requires adjustment for proper fit, make this adjustment by loosening screws on the frame leaf and shimming where needed using shims. (Call PBB for shims)
  - •Follow instructions in the box for field cutdown.
  - •Hospital tips on hinges should be placed on the top of the door.

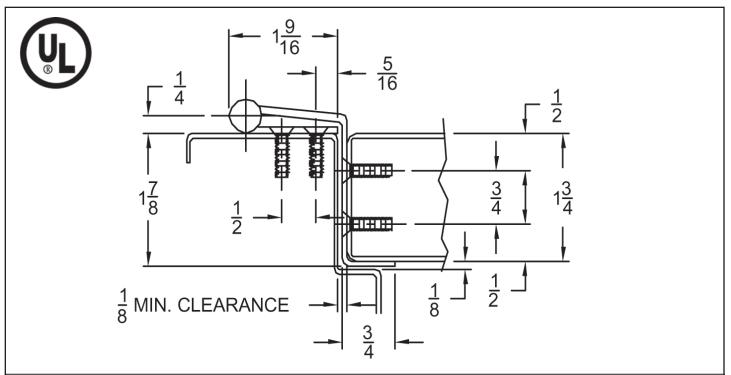
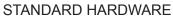
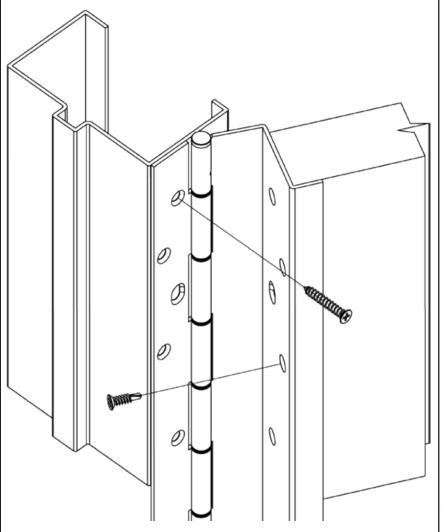


Figure 1: Hinge Placement & Clearance Template





#10 x 1-1/4" Phillips Flat Head Undercut Sheet Metal Screw



#10 x 3/4" Phillips Flat Head Undercut Self Drilling Tek Screw



(Caution-Use of power drill may over-torque self drilling screw and cause stripping of threads.)

Figure 2: Installation (Exploded View)

Universal Screw Pack



# CH51CG INSTALLATION INSTRUCTIONS

**PBB** Model CH51CG are a Stainless Steel Continuous Edge Mount Hinge for 1-3/4" (44.5mm) thick doors. It allows for minor lateral adjustment to the door after installation. CH51CG feature protective corner guards. Clearance required between the hinge edge of the door and the frame rabbet is 11/32" (8.7mm) minimum. For metal doors, a 1/8" (3.2mm) thick reinforcement plate is strongly recommended along the hinge edge for proper thread engagement of the adjustment studs. This model is not recommended for use on doors that have a beveled edge on the hinge side, nor for use on doors that have electrical modifications such as through-wires or power transfer devices.

# **Hinge Length**

All PBB Stainless Steel Continuous Hinges are supplied 7/8" to 1" shorter than the nominal door height to avoid threshold or carpet clearance problems.

# **General Fitting Procedure**

- For new construction with metal doors/frames: To accommodate the 11/32" (8.7mm) hinge clearance required for PBB Model CH51CG order the door undersized or the frame header oversized. See the clearance information above to attain the proper finished width required. A 1/8" (3.2mm) thick reinforcement plate is strongly recommended along the hinge edge for proper thread engagement of the adjustment studs. The hinge edge of the door should not be beveled. Mortar guards, either styrofoam or wood, are recommended for frames to prevent grout from interfering with the installation of the hinge fasteners.
- <u>For new site-hung wood doors</u>: If necessary, scribe and cut from the latch edge of the door to leave sufficient hinge stile thickness for proper fastening. A minimum clearance of 11/32" (8.7 mm) is required between the hinge edge of the door and the frame rabbet. Do not bevel the hinge edge of the door. See the clearance information above to attain the proper finished width of the door.
- For remodeling with existing wood or laminate doors: If necessary, scribe and cut from the hinge edge of the door and plane smooth. A minimum clearance of 11/32" (8.7 mm) is required between the hinge edge of the door and the frame rabbet. Do not bevel the hinge edge of the door. See the clearance information above to attain the proper finished width of the door.

# **Installation Procedure**

#### Frame Preparation

- 1. With the hinge open, place the hinge frame leaf as shown on diagram on back page. Position the top of the hinge 1/8" (3.2mm) below the header. Place the hinge edge in line with the frame face.
- 2. Use two slotted screw holes on top and two slotted screw holes on the bottom of the hinge to initially mount the hinge onto the door and frame. The door position can be easily adjusted before installing the remaining screws to secure the final door position. Mark and center punch the screw hole locations. Accurate location is important for proper hinge installation. Use drill tool provided.
- 3. For metal frames less than 7/64" (2.8mm) thick, it is not necessary to pre-drill pilot holes if using the self-drilling screws provided. For metal frames greater than 7/64" (2.8mm) thick, pre-drill pilot holes using a #26 (.1471"/3.7mm) bit. For wood frames, pre-drill pilot holes using a #26 (.1471"/3.8mm) bit.
- 4. Do not attach the hinge to the frame at this time.

# **Door Preparation**

- 1. With the hinge open, place the hinge door leaf against the edge of the door. Position the integral corner guard fully against the 'push' face of the door. Position the top of the hinge flush with the top of the door. Use drill tool provided.
- 2. Mark and center punch the screw hole locations. Accurate location is important for proper hinge installation.
- 3. For wood doors, drill pilot holes using a (.312"; 7.9mm) bit to a minimum depth of 1-3/8" (35mm). For reinforced metal doors, drill pilot holes using a 5/16" (7.9mm) bit and tap for 3/8"-16 threads.
- 4. Using a 3/16" Allen wrench, screw a (.312"; 7.9mm) adjustment stud into each hole. Insert each stud until it is flush with the edge of the door. The studs are designed for a tight friction fit in the holes so they will not turn when the mounting screws are being tightened. If the Adjustment Studs turn too freely, apply LOCTITE™ (for threaded joints) to the stud's external threads during installation.

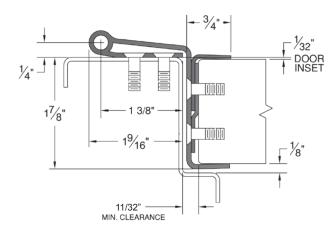
- 1. Slide Protective Corner Guard component into position on the door edge and fully against the 'pull' face of the door together with the hinge door leaf making certain the integral corner guard is fully against the 'push' face of the door. Install a#10 machine screw in the top two and bottom two hole locations only and fully tighten. Do not install the remaining screws in the door leaf at this time.
- 2. Position the door (with hinge attached) at 90° to the frame. Attach the hinge to the frame rabbet. For metal frames, use the #10 self-drilling screws provided (recommended driver speed 1,900-2,500 RPM). For wood frames, use the #10 wood screws.
- 3. Make a gentle trial swing. Carefully check for proper swing and door clearances.



# CH51CG INSTALLATION INSTRUCTIONS

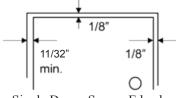
#### Adjusting the Door

- 1. If lateral adjustment of the door is required due to excessive or uneven door/frame clearance, make adjustments using either the top two and/or bottom two screws installed in the door. It is not necessary to remove the hinge from the door to make adjustments.
- 2. Remove one of the two screws and insert a 3/16" Allen wrench through the hole into the Adjustment Stud. It may be necessary to slightly loosen the second screw while rotating the Adjustment Stud outward to the desired position. Then adjust the second Stud in the same manner. Re-insert and tighten the #10 machine screws when complete.
- 3. Make any necessary adjustments at the other end of the hinge in the above manner until the proper door fit is achieved.
- 4. Using a 3/16" Allen wrench, adjust all remaining studs until each rests against the back of the hinge leaf.
- 5. Install #10 machine screws into all remaining holes and tighten.
- 6. Make a gentle trial swing. Carefully check for proper swing and door clearances.



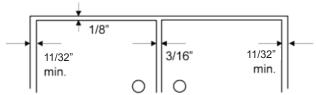
DOOR HEIGHT	HINGE LENGTH	NUMBER OF FASTENERS (Door/Frame)
6'-8"	79-1/8" (2006 mm)	20/20
7'-0"	83-1/8" (2111 mm)	21/21
7'-2"	85" (2159 mm)	21/21
8'-0''	95" (2413 mm)	23/23
10'-0"	118.75" (3022 mm)	27/27

# **Total Clearance Between Door and Frame Width**



Single Door - Square Edged

Hinge Thickness	11/32"	(8.7  mm)
Allowance for frame irregularities	1/32"	(0.8  mm)
Latch side clearance (typical)	1/8"	(3.2 mm)
Total	1/2"	(12.7 mm)



Pair of Doors - Square Edged

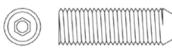
Hinge Thickness	11/32"	(8.7  mm)
Allowance for frame irregularities	1/32"	(0.8  mm)
Latch side clearance (typical)	3/16"	(4.8  mm)
Second hinge thickness	11/32"	(8.7  mm)
Second allowance for frame irregularities	1/32"	(0.8  mm)
-		

Total 15/16" (23.8 mm)





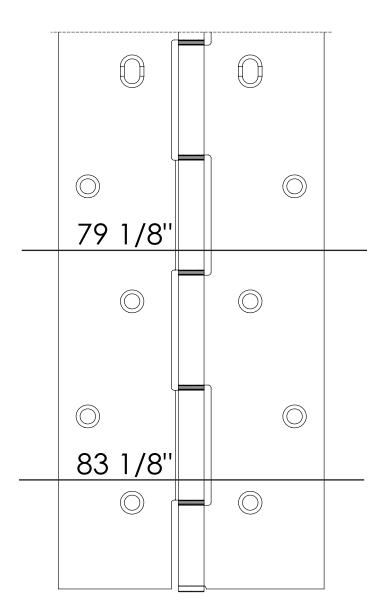




7/16" ADJUSTMENT STUD



# Stainless Steel Continuous Hinge Field Cutting Instructions



In the field, trimming or cutting should be done from the bottom of the hinge only.

The PBB 85" continuous hinges are marked at 83 1/8" and 79 1/8" on the back of the hinge. The hinge can be cut with a metal cut-off saw to desired length, identically matching our dedicated 83 1/8" and 79 1/8" hinges, in seconds without cutting through screws holes or hinge bearings. Stock one size and have three different sizes available for field application.

NOTE: Deburring after cutoff is highly recommended to avoid sharp edges.

PBB Stainless Steel Continuous hinges are always installed flush with the top edge of the door. Recommended header frame clearance is 1/8" (3.2mm). For hinge installation and preparation see PBB Continuous Hinge Installation Instructions.

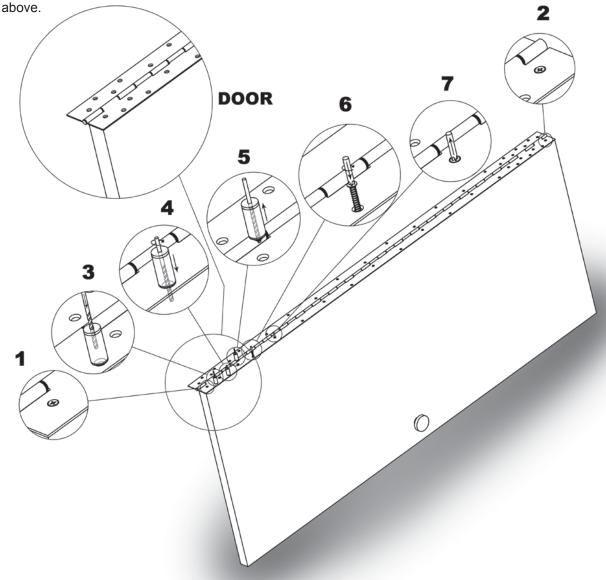


# DRILL TOOL INSTRUCTIONS

- 1-2 Follow installation instruction sheet by placing continuous hinge on edge of the door. Carefully line up the hinge with the top and back edges of the door. Mark all the hole locations with the hinge held firmly in place. Center punch the first top and first bottom hole. Place #26 drill bit into drill motor, drill the first top and first bottom hole using the #26 drill provided. Screw into place the top and bottom holes with the self drilling screws provided. (Make sure the hinge is lined up flush with the top edge of door and back edge of door before moving on to next step).
- 3 Using the #26 drill bit and drill motor, insert into drill tool guide. Place drill tool guide on next screw hole to be drilled pushing down and seating the drill guide to center.
- 4 Drill a pilot holde for the next screw.
- 5 Remove drill tool guide and move to the next hole for drilling. Follow steps 3 through 5 until all screw holes have been drilled.
- 6-7 Screw in the selected screw and for the proper application.

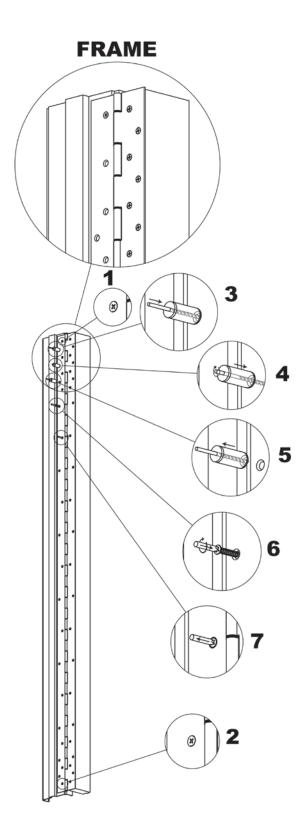
The drill tool guide may also be used on the frame if done so properly. **(Follow installation instruction sheet)** Drill tool guide may be used in place of center punching of holes if used properly.

The drill tool guide is designed to speed and ease the installation of the continuous hinge and help in drilling pilot holes straight. Should you have any questions concerning this application, please call us at the phone number





# DRILL TOOL INSTRUCTIONS



- 1-2 Follow installation instruction sheet by placing continuous hinge 1/8" between top of hinge and underside of header panel on frame. Allow 1/16" between stop and edge of hinge. Carefully line up the hinge with the top and back edges of the door. Mark all the hole locations with the hinge held firmly in place. Center punch the first top and first bottom hole. Place #26 drill bit into drill motor, drill the first top and first bottom hole using the #26 drill provided. Screw into place the top and bottom holes with the self drilling screws provided.
- 3 Using the #26 drill bit and drill motor, insert into drill tool guide. Place drill tool guide on next screw hole to be drilled pushing down and seating the drill guide to center.
- 4 Drill a pilot hole for the next screw.
- 5 Remove drill tool guide and move to the next hole for drilling. Follow steps 3 through 5 until all screw holes have been drilled.
- 6-7 Screw in the selected screw and for the proper application.

The drill tool guide may also be used on the frame if done so properly. (Follow installation instruction sheet)

Drill tool guide may be used in place of center punching of holes if used properly.

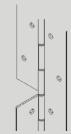
The drill tool guide is designed to speed and ease the installation of the continuous hinge and help in drilling pilot holes straight. Should you have any questions concerning this application, please call us at the phone number above.



# PRODUCT MODIFICATIONS

# Standard Edge Guard Cut-Outs

- -4 7/8 ASA strike
- -161 latch/strike
- -86 Mortise
- -Manual/Automatic Flush Bolt
- -Templates may be required for custom cutouts.
- -Separate edge guard order form required.





Available on all hinge models.
Continuous frame leaf with two-piece

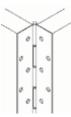
Indicate handing, clearance, door and

frame heights, and materials when

**Dutch Door Prep** 

door leaf.

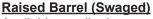
ordering.



#### Wide Throw/Narrow Leaf

Specify distance from pin centerline to heel edge of hinge when ordering. Reinforcement may be required on extreme wide throw applications.

Suffix - "W"



Available on all edge mount (CH51R) and half surface (CH54R)models. For cased open or center pivot doors. **Suffix - "R"** 





#### **Custom Hole Pattern**

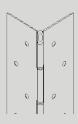
Any hole shape or pattern other than PBB standard template hole pattern. Indicate desired pattern and include dimensioned diagrams when ordering.

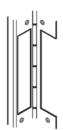
Suffix - "X"

# **Hospital Tip**

Available on all models.

Suffix - "H"





# **Electric Transfer Prep**

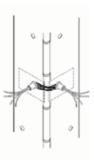
Centerline of hinge is standard location.
Hinge leaf cutout to accommodate
power transfer harness made by other
manufacturers. Separate EP order form
required. Single Cutout (EP-1) and
Dual Cutout (EP-2)
Suffix - "EP-1 or EP-2"

# **Concealed Current Transfer**

2-20ga wires: Suffix E2

2-20ga & 4-28ga wires: Suffix E2+4

4-28ga wires: Suffix E4 6-30ga wires: Suffix E6 8-30ga wires: Suffix E8 10-30ga wires: Suffix E10





# **Security Fastener**

Torx head security fasteners are available in lieu of standard fasteners.

#### **Security Studs**

Stainless steel security studs prevent slipping of leaves as stud on one leaf projects into hole in opposite leaf when hinge is in closed position.

Three studs installed on hinges up to 7'2". Four studs installed on hinges over 7'2". Door and frame must be specially prepared to

accommodate security studs.

Suffix - "S"

<u>Lead Lined Cover</u> - Only available on surface mounted hinges. Used for x-ray room doors and other locations where radiation leakage could be a problem. **Suffix - "L"** 



# POWER TRANSFER (EP-1 & EP-2)

			EP-1			EP-2				
Hinge Model:		1	<u> </u>	00	00	1	`	1	00	00
				00	00				00	00
Power Transfer Selection										"
Adams Rite 4612-1	Adams Rite 4612-2			۰	0				٥	٥
Securitron EPT	☐ Securitron EPTL									
Yale EPT	Yale EPTL		Cutout	ר			C	 utout	ור	$  \cap$
RCI 9512	RCI 9513		Centerlin	- 1				นเอนเ nterlin	e	
Dorma ES105	Precision EPT-5			_					_	
Folger Adams EPT	Folger Adams EPTL									
☐ Von Duprin	Other			-				<u> </u>	$\perp$	$\parallel$
CUTOUT SHAPE (MATCH EP MOUNTING FLANGE):	CUTOUT LOCATION:									
☐ Round End	☐ Door Leaf ☐ Both Leaves		1		٥					
Square End	Frame Leaf			7	0					
HANDING (FROM KEYED SIDE	E):	Llings		$\Gamma$					7	
Right Hand	Left Hand	Hinge Length				Hing Leng	_			
Right Hand Reverse	Left Hand Reverse		_	0	٥				٥	0
COMPANY:				0	٥				0	٥
APPROVED BY:										
DATE:				۰	٥				0	٥
DOOR MARKINGS:										
P.O. NUMBER										
transfer. Others available upon re and availability on preperations f LOCATION: Specify the dimensi centerline of the cutout. Geared	can be prepared for electric power equest. Contact factory for quotes for power transfer units. It is not from the top of the hinge to the hinge is installed flush with the top is positioned 1/8" (3.2mm) below			00 00 00	o oo oo		,		00 00 00	00 00
HANDING: Specify the handing of each door requiring the EP. ORDER: Use suffix "EP" plus the location (and handing if required). LEAD TIME: Call PBB for manufacturing lead times. IMPORTANT: PBB, Inc. does not recommend preparing door and frame for EP before receipt of hinge. If door and frame must			① Open end of EP flexible conduit mounting hole is customer's sole responsibility. Contact PBB, Inc. for technical assistance.							

be prepared before receipt of hinge, contact factory for special

template.

Please fill out this form and fax it to PBB, Inc. 1-866-722-8592



# CROSS REFERENCE

PBB	HAGER	SELECT	ABH	MCKINNEY	IVES	STANLEY	MARKAR	GALLERY
CH51	790-900	SL 300	A500	MCK FM 300	700	651	FM300	951
CH51CG	~~	SL310	~~	~~	~~	~~	HG310	~~
CH51G	790-905	SL 305	A505	MCK FM 305	705	652	HG305	952
CH51L	790-915	~~	~~	MCK HG 315	~~	653	HG315	953
CH51CL	790-911	SL 310	A511	MCK HG 311	711	656	HG311	956
CH52	790-904	~~	~~	~~	~~	~~	HM304	~~
CH52L	~~	SL306	~~	~~	~~	~~	HG306	~~
CH53	~~	SL 302	A502	MCK FS 302	702	~~	FS302	957
CH53I	~~	~~	~~	~~	~~	~~	FS301	~~
CH54	790-903	SL303	A503	MCK HM 304	~~	654	HS303	954
EG528B	~~	SL 308	~~	~~	~~	~~	HG308	~~
EG528S	~~	SL 308	~~	~~	~~	~~	HG308	~~
EG538CB	~~	~~	A538	~~	2	~~	EG-C-308	~~
EG538CS	~~	~~	~~	~~	~	~~	EG-C-308	~~
EG548TB	~~	~~	~~	~~	~~	~~	EG-T-308	~~
EG548TS	~~	~~	~~	~~	~	~~	EG-T-308	~~

#### **CONTINUOUS HINGE MODIFICATIONS**

- Special lengths Indicate Handing. -Suffix W
- Hospital Tip Suffix H.
- Dutch Door Prep Suffix D, indicate handing, clearance, door and frame heights.
- Blank No holes for special applications. Suffix K
- Raised Barrell (Swaged) Suffix R, available for half surface and edge mount models. Required for CH53 to open door 180 degrees.
- Standard Edge Guard Cut-out:

4-7/8' ASA Strike 161 Latch

86 Mortise

Manual Flush Bolts

**Automatic Flush Bolts** 

- Security Stud Suffix S, stainless steel studs mounted to frame leaf. Corresponding holes drilled in door leaf. Special prep required for frame and door.
- Sheared Leaf Suffix W for narrow door thickness. Specify distance from pin centerline to heel edge of hinge.
- Custom Hole Pattern Any hole dimension or pattern other than PBB standard. Indicate hole size and dimensions special hinge configuration with customer supllying the print. Suffix X

#### **ELECTRICAL MODIFICATIONS**

- Concealed Current Transfer Suffix E (E2, E2+4, E4, E6, E8, E10)
- Lead-Lined Cover Suffix L for surface mount only.
- Electrical Transfer Prep Suffix EP-1 or EP-2, indicate positions and handing.

SCREW PACK #/SECURITY SCREWS - Spanner Head - Suffix SH or Torx Head - Suffix TH screws available.

Refer to product page for screw fastner information.