8600 Premier Sliding Doorware System for Bi-Parting Doors

Part Number: 8600*

Note: Prior to beginning prefabrication and installation verify opening size.

Door builders must provide appropriate instructions to door installers for doorware system features and options that require installation at the job site. These instructions are for shop fabrication of the door and frame systems. For field installation of the fabricated system use instructions IS-8600EZ-15B (Installation Instructions).

Review these instructions and locate all components. A component list is shown on the last three pages.

To provide sufficient load bearing capacity, system should be mounted to a framework of metal lad lumber or plywood sandwiched to wall. Materials must be of a thickness and strength necessary to support door and all system hardware.

Special Notices:

- Your Kason heavy-duty doorware is rated at 440 lb/200 kg maximum load
- All components are factory sized based upon use of 2" door overlap. Larger overlaps will reduce opening clearance if used at maximum width for system.
- Doors with a height to width ratio of over 2-1/2:1 are not recommended unless the trolleys are wider than the doors

PREFABRICATE 8600 DOOR SYSTEM

FIG. 1

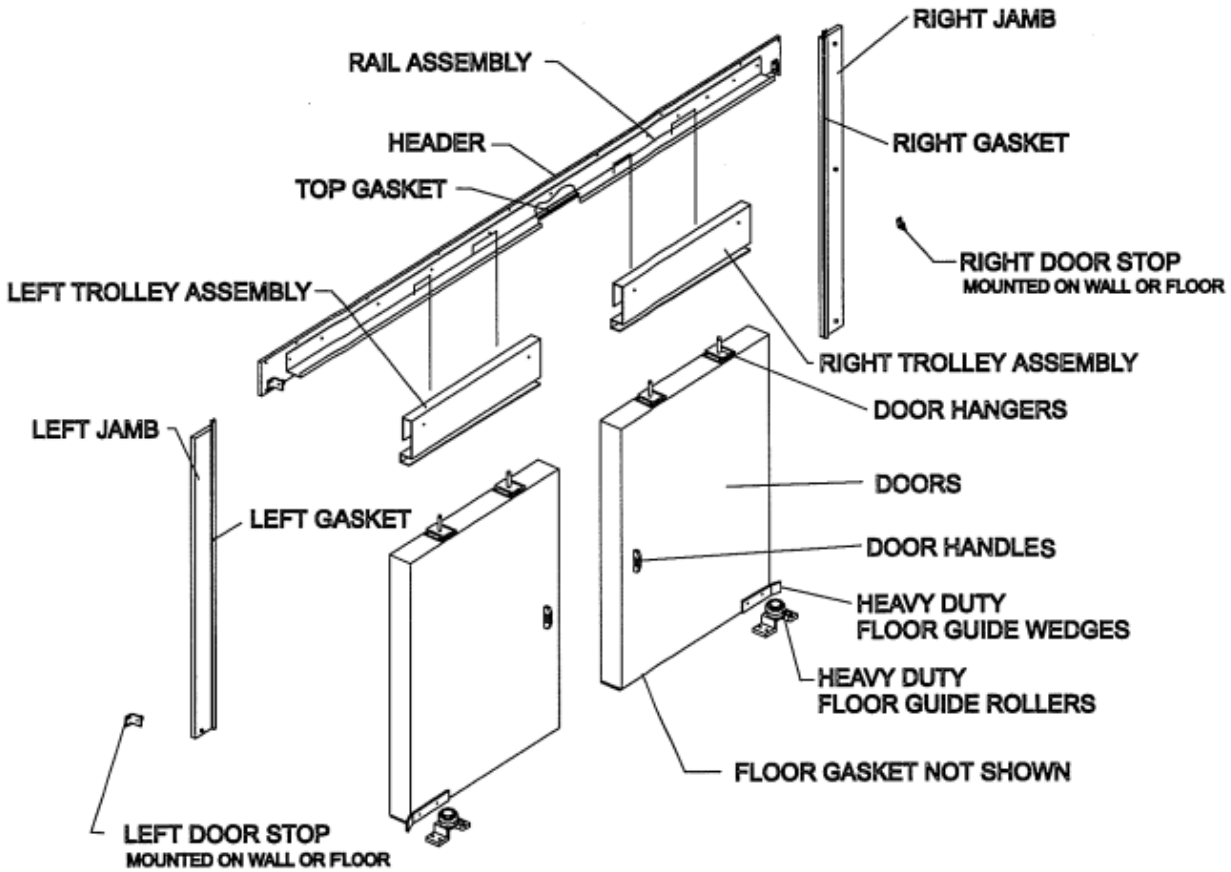

Fig. 1 shows a typical 8600 bi-parting door system as it would be sent to the job site for installation

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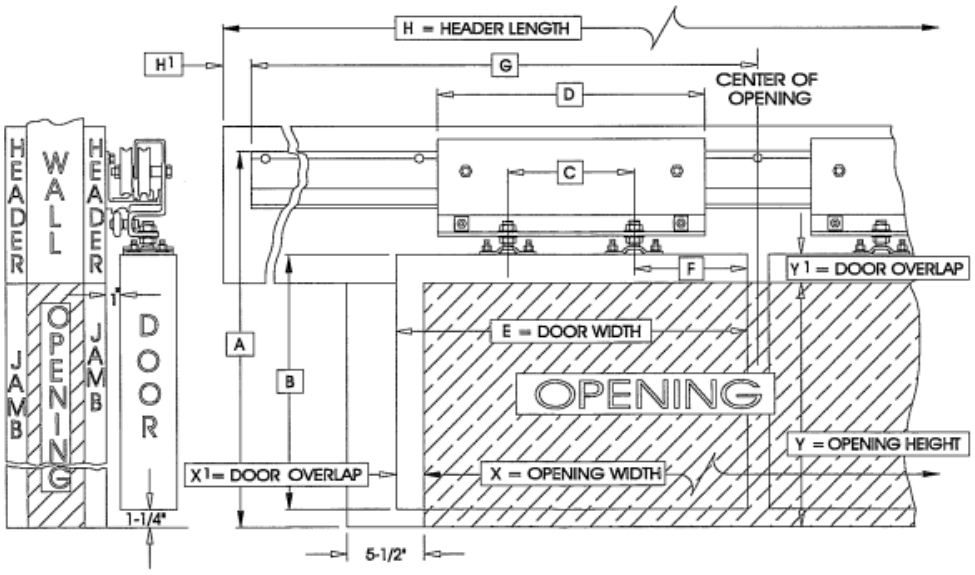
DETERMINING CRITICAL DIMENSIONS

Calculate and write in dimensions in spaces provided below

A =	_____	Y + Y[1] + 7-1/4″
B =	_____	Y + Y[1] - 1-1/4″ = Height of Door Plug
X[1], Y[1] =	_____	2″ or Door Overlap If Other Than 2″
C =	30″	If D = 42″ ** (24″ for Doors Less Than 42″ Using Extra Hole)
	36″	If D = 48″
	48″	If D = 60″
	60″	If D = 72″
	74″	If D = 96″
D =	42″	For 95″ Maximum Opening Width System
	48″	For 119″ Maximum Opening Width System
	60″	For 143″ Maximum Opening Width System
	72″	For 167″ Maximum Opening Width System
	96″	For 192″ Maximum Opening Width System
E =	_____	(2X[1] + X -1″)/2 = Door Width Using Kason Bulb Gasket
		(2X[1] + X -1-1/2″)/2 = Door Width Using Kason Safety Edge
F =	_____	(E - C) /2 or 6″ Min. Used in Case of Narrow Doors
G =		Rail Length/2 (Rail Length Listed Below)
	193″	For 95″ Maximum Opening Width System
	236″	For 119″ Maximum Opening Width System
	292″	For 143″ Maximum Opening Width System (2 piece rail using two 146″ lengths)
	386″	For 167″ Maximum Opening Width System (2 piece rail using two 193″ lengths)
	472″	For 192″ Maximum Opening Width System (2 piece rail using two 236″ lengths)
	_____	D + E + F + 2″ (Use Only if Rail Must be Shortened for Clearance)
H =	_____	2G + 4″ Manual Door
H =	_____	2G + 28″ Power Door
H =	_____	2G + 24″ Manual Dual Action Bi-Parting Door
H[1]=	2″	For Manual Door Both Ends
	10″	For Power Unit, Idler End
	18″	For Power Unit , Motor End
	11″	For Manual Dual Action Bi-Parting Kit, Fixed Idler End
	13″	For Manual Dual Action Bi-Parting Kit, Spring Idler End

FIG. 2



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DOOR PREPARATION

A. Determining Door Dimensions

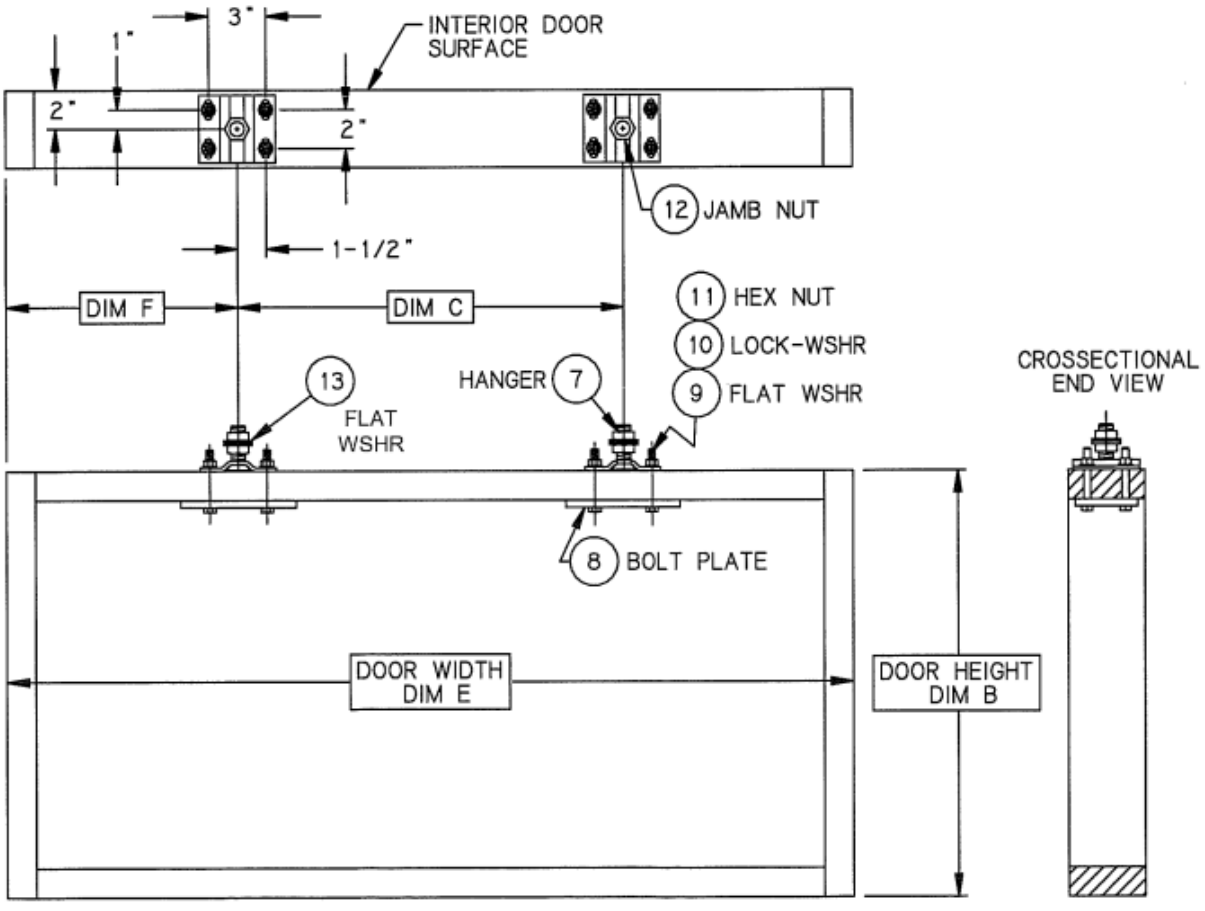
Calculate dimensions

Dim B	_____	From Page 2	Height of Door Plug
Dim D	_____	From Page 2	Length of Trolley
Dim E	_____	From Page 2	Width of Door Plug
Dim F	_____	From Page 2	Edge of Door to Edge of Trolley

B. Mounting Hanger Assembly to Door Frame

1. Referring to Fig. 3 locate and drill hanger bolt clearance holes for 3/8" bolts (4 places each).
2. Mount hanger to frame using bolt plates as shown below.
3. Install a 3/4" jam nut, two 3/4" flat washers and second 3/4" jam nut to hanger plate stud.
4. Attach skins and foam door panel per accepted procedure and add thermal breaker strips and trim.
5. Repeat procedure for opposite door.

FIG. 3



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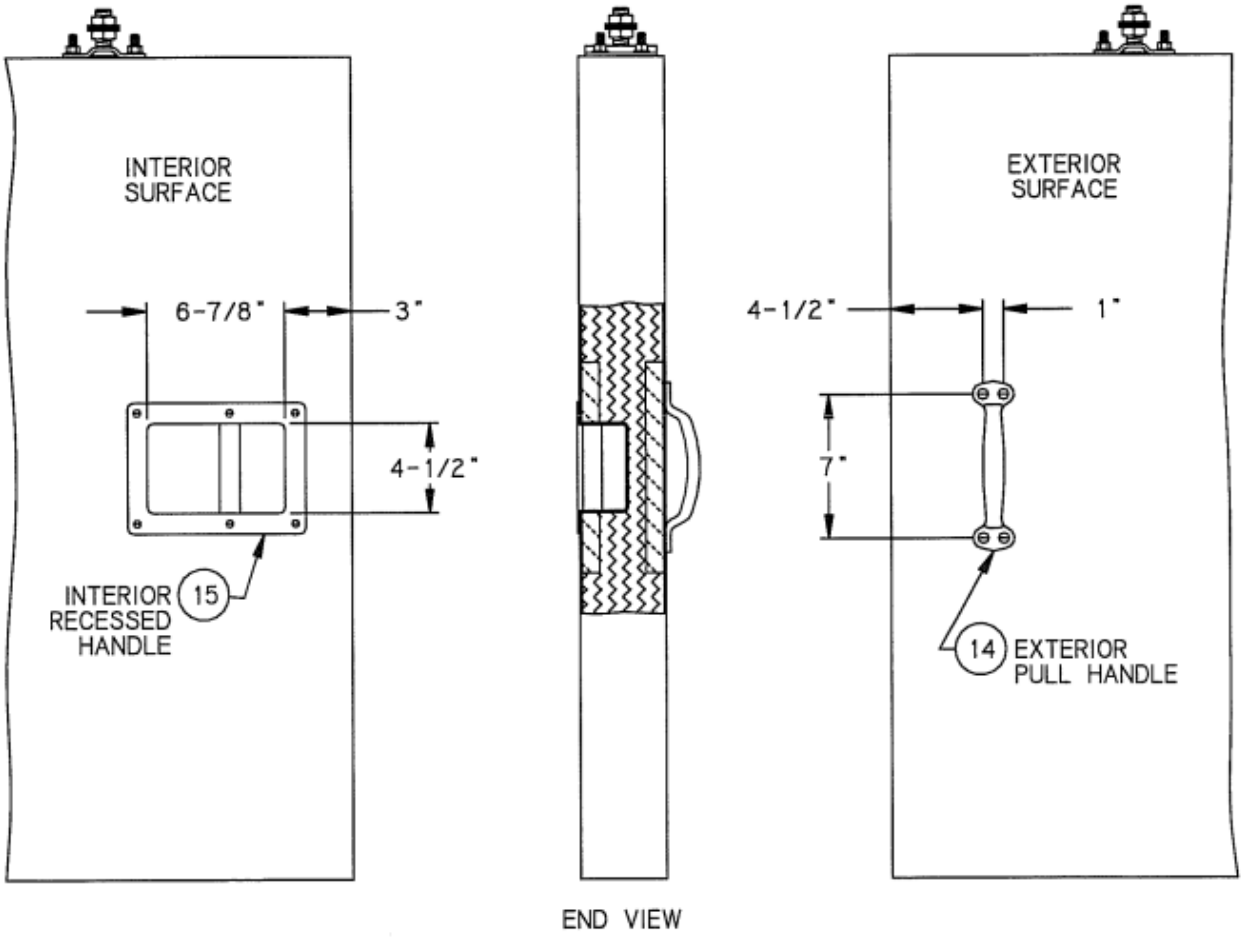
Notes

- Drawings below show right side door; for left side door locate handles from opposite door edge.
- Areas in which handles are attached should be well reinforced with plywood or tapping plates.

C. Mounting Exterior and Interior Handles

1. Exterior
   - Determine desirable handle height on door's exterior surface.
   - Place handle 4-1/2" from door edge as seen in Fig. 4 (right hand view)
   - Locate mounting holes using handle as template; punch and drill holes for 1/4" flat head _____ screws
   - Fasten handle securely in place
2. Interior Handle
   - Cut hole 6-7/8" x 4-1/2" to a depth of 2-3/8" in interior door surface as shown in Fig. 4 (left hand view)
   - Insert recessed pull handle into cutout positioned with pull bar nearest to door edge
   - Punch and drill mounting holes for No. 10 pan head screws using handle as template
   - Fasten handle securely in place

FIG. 4



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D. Mounting Optional Doorware

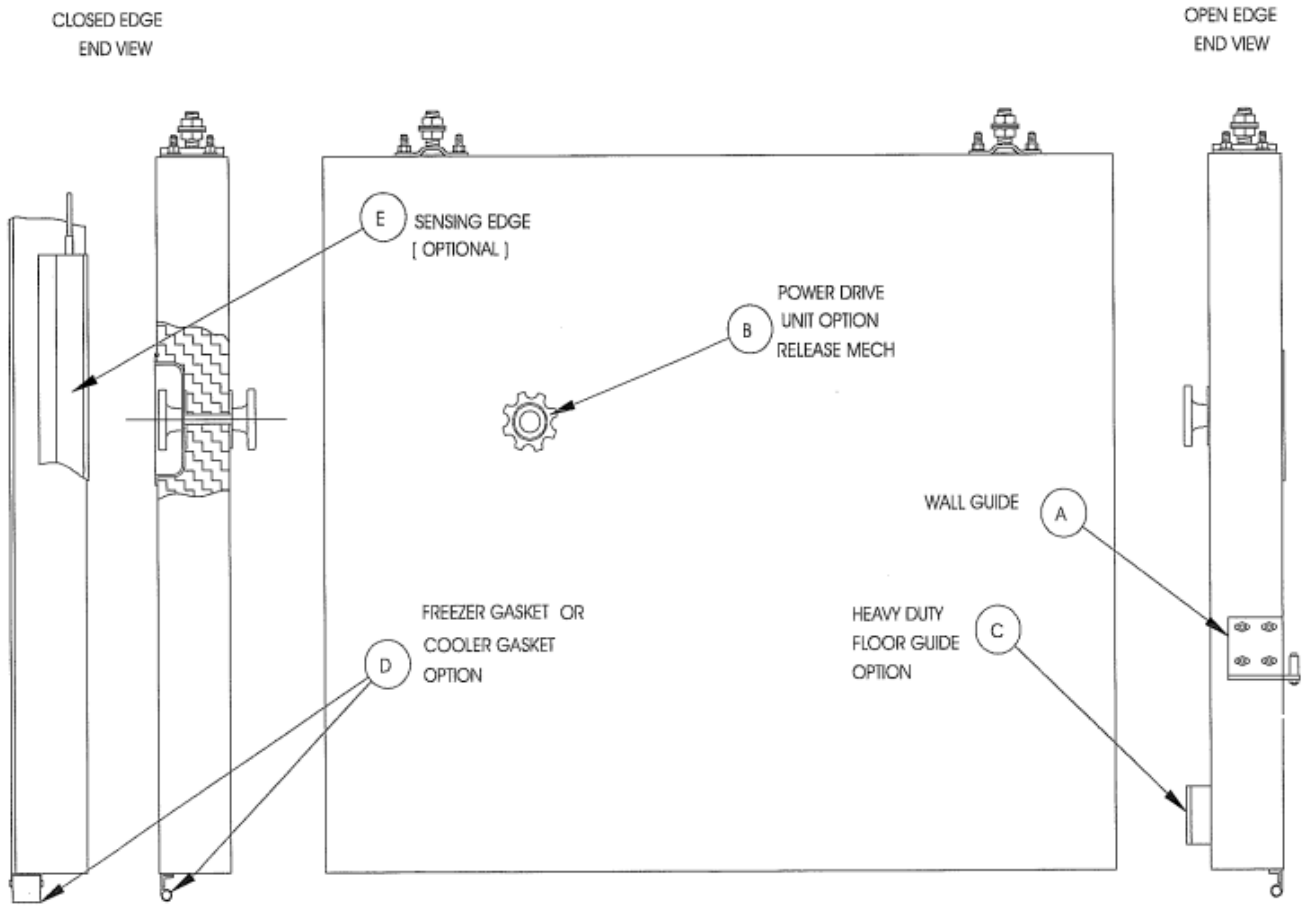
1. Prior to completing door any chosen doorware options should be installed.
2. Installation instructions for most common options are listed below and shown in Fig. 5.

A	IS-8000-18	Wall Guide, R.H.
B	This Document	Power Drive Release Mech
C	IS-8500-11	Heavy-Duty Floor Guide
D	IS-8600-34	Cooler and Freezer Gasket
E	IS-8600EZ-200	Power Drive Unit Sensing Edge

Notes

- Any other user selected options and features not listed above should be incorporated at this time
- Door manufacturer must ship door installers a copy of the installation instructions for any option and feature that requires job site installation
- Door manufacturer must ship door installers the nuts and washers for door hangers that are supplied with kit
- Door manufacturer must furnish door installers the bolts or studs and nuts for attaching structure to walls

FIG. 5



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HEADER PREPARATION

A. Rail Preparation - Mounting Holes

1. Locate and drill 13/32" dia. rail mounting holes along length of rail as shown in Fig. 6-A

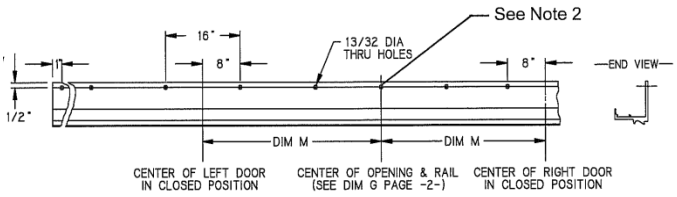
Attention:

- To avoid an interference condition when installing a power drive unit, mounting holes must be located 8" either side of center line of each closed door, determine Dim. M
- When door is used with bulb gasket;
  M = C / 2 + F + 1/2" = _____
- When door is used with sensing edge;
  M = C / 2 + F + 3/4"= _____
- Dimensions necessary to detennine Dim. M;
  Dim. C _____ and Dim. F _____ are found on page 2

B. Rail Preparation - Track and Ramp Placement

1. Measure and mark center line ofrail (see Dim. G, page 2) and (Fig. 6-B and Fig. 6-C below)
2. Position ramps as shown in Fig. 6-B below with "A" Ramp on left side of rail center and "B" ramp on right, slide into rail slot so that low portion of both ramps are nearest to the center line of rail.
   Note: Assembly can be made easier by spraying WD40 on rail before installing ramp or track.
3. Locate and drill 11/64" holes and fasten both center ramps in location as shown in Fig. 6-B below using No. 10 x 1/2" screws supplied.
4. Find and orient intermediate tracks (shorter pieces) as shown in Fig. 6-B, slide track into rail slot.
   Note: Raised portion of ramps must engage track.
5. Slide second ramp in each end oriented the same as other ramp on that side as shown in Fig. 6-B.
6. Properly orient and insert end tracks into slot at both ends of rail as shown in Fig. 6-B, pushing so that track and ramps abut tightly. Drill hole and fasten using No. 10 x 1/2" screws provided.
7. Locate bridges as shown in Fig.6-B and Fig. 6-C, drill 11/64" holes and fasten using No. 10 x 1/2" screws provided.

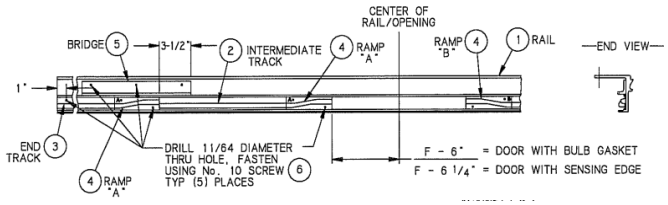
FIG. 6-A



Notes

- Rail for 143", 167" and 192" systems are two piece rails. The rail sections can be aligned using a short piece of track. Track can be removed after mounting to header
- On two piece rails, DO NOT place fastener in rail joint. Offset 3/4" to 1" from end of each rail section. Check for interference with trolley roller

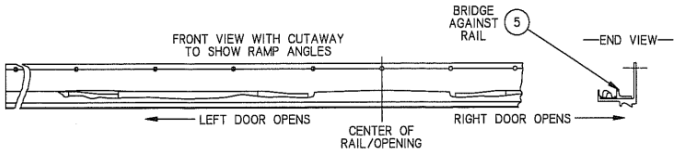
FIG. 6-B



Notes

- Cut excess track overhanging end of rail
- Bridge must be against rail rib

FIG. 6-C



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Note: Header should be fabricated using 2" x 12" lumber.

C. Determining Header Dimensions

Note: Dimensions necessary to prefab the header shown below are found on page 2.

- Dim. G _____, Dim. H _____, Dim. H[1] _____, Dim. X _____
- Gasket Channel length is equal to door opening width: Dim. X + 3/4" = _____

D. Header Assembly

1. Rail is attached to header as shown in Fig. 7 using 3/8" fasteners. Use of 3/8" carriage bolts through the header is recommended. The bolt end must be flush with the nut.
2. Door stops are attached to header as shown in Fig. 7 using 3/8" fasteners.

FIG. 7

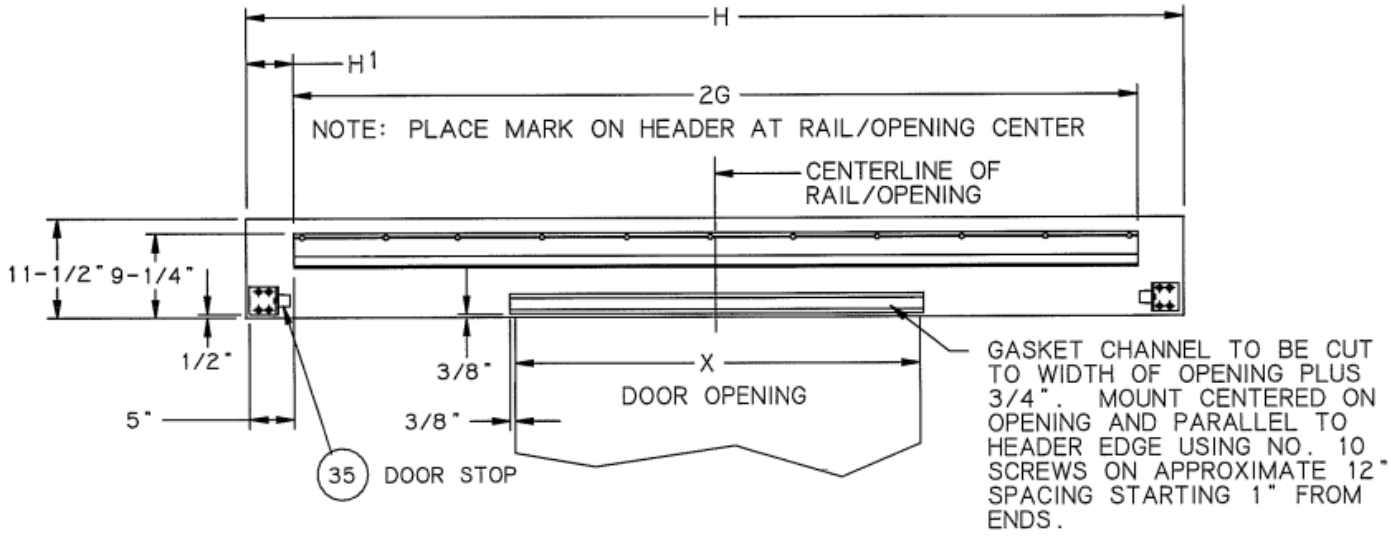

Fig. 7 shows a completed Header Assembly of a Manual Bi-part Door System

Notes:

- For installation of gaskets see instruction sheets18500/NST3 for Cooler Gaskets and 18500/NST4 for Freezer Gaskets. Fig. No. 1 in both instruction sheets shows shape to cut gasket for fitting header gasket over jamb gasket for proper sealing
- When installing large, heavy doors an inside and outside header and jamb system is recommended to sandwich wall

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JAMB PREPARATION

Note: Jamb should be fabricated using 2″ x 6″ lumber.

A. Determining Jamb Dimensions

Note: Dimensions necessary to prefab the jambs as shown below are found on page 2.

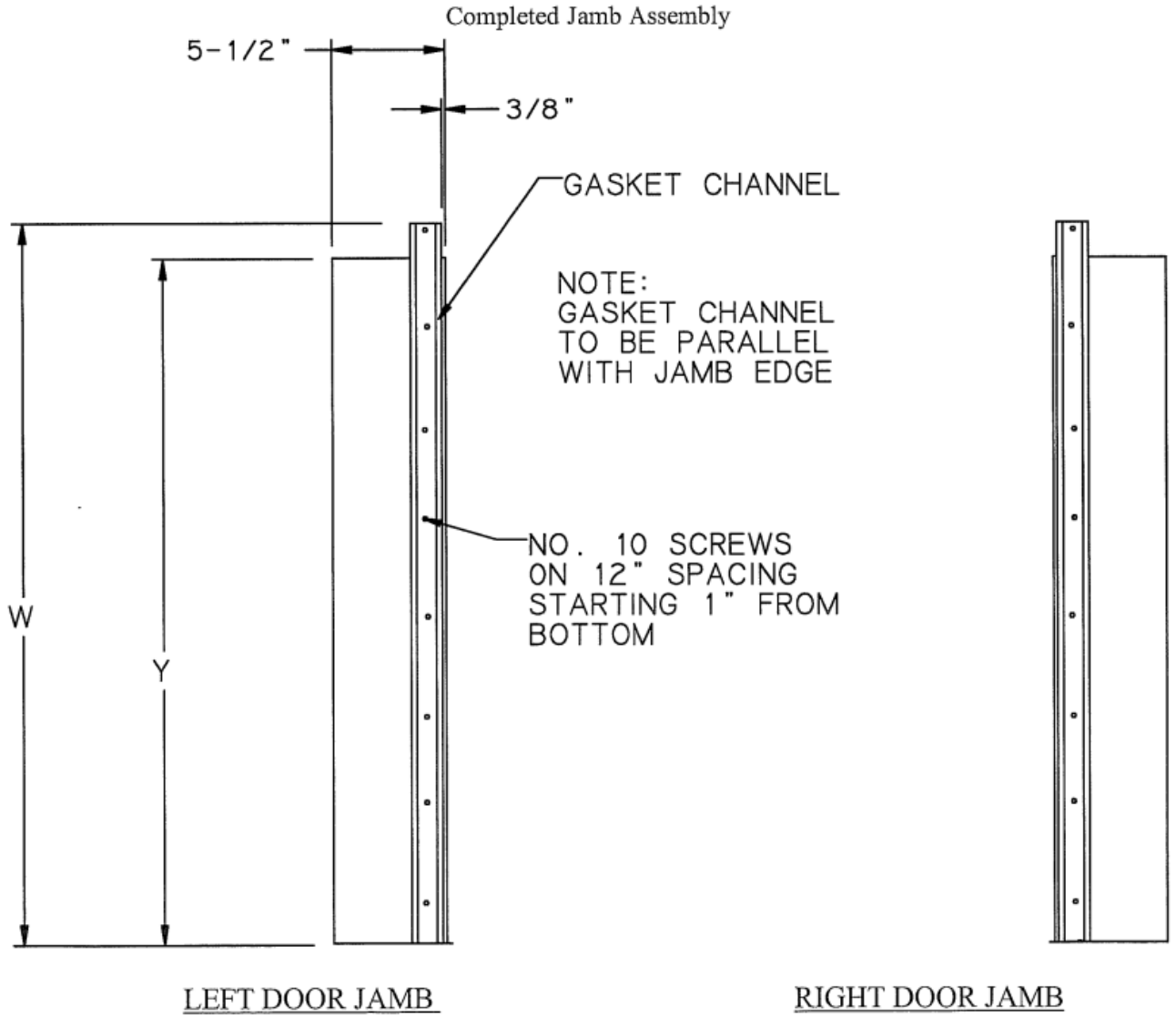
Dim. Y _____ and Dim. Y^1 _____.

1. Gasket Channel length Dim. W as shown in Fig. 8 is Y + Y^1 - 3/8″.

   Dim. W = _____ + _____ - 3/8″ = _____.

2. Gasket channels are attached to jambs as shown in Fig. 8 using No. 10 screws.

FIG. 8



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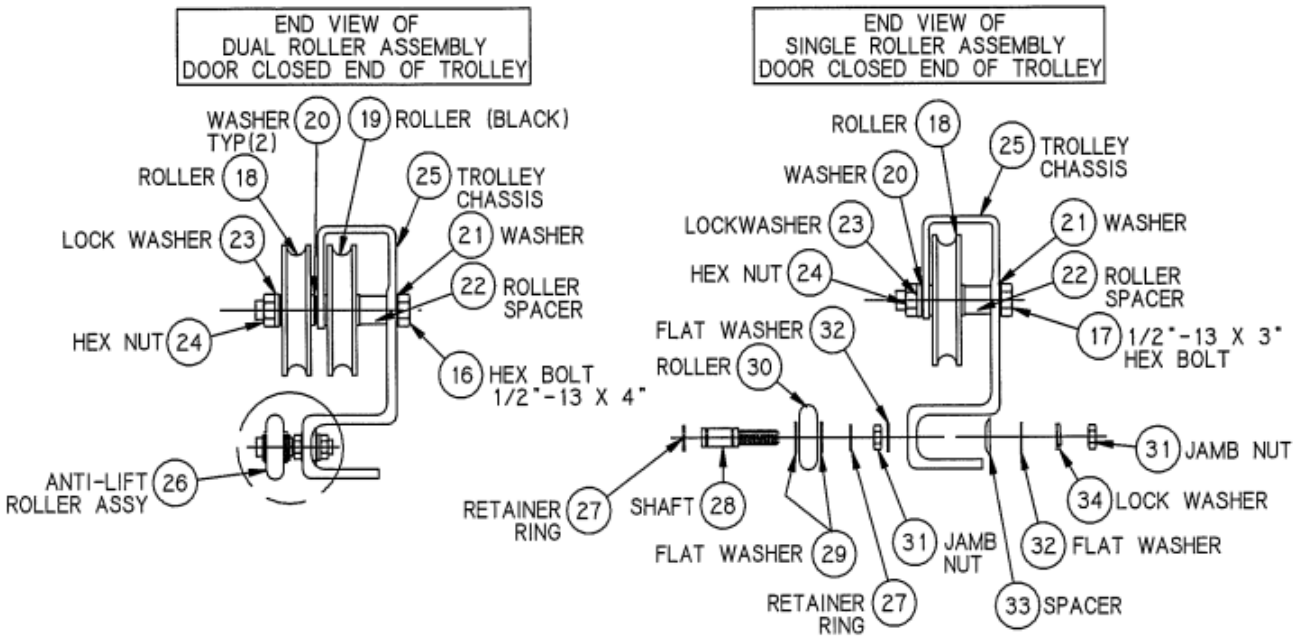
TROLLEY ASSEMBLY

A. Trolley

1. Trolleys come factory assembled for both right and left doors. Note that the dual and single rollers as shown in Fig. 9-A below are positioned differently on the two trolleys.

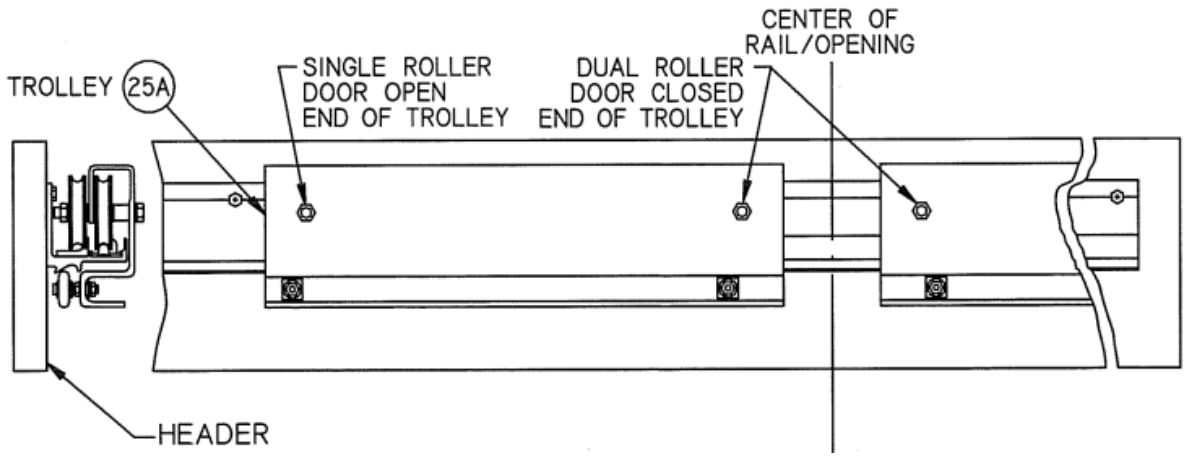
FIG. 9-A



2. Roll trolleys onto track at end of rail, so dual rollers are nearest the center of the rail as shown in Fig. 9-B.

Note: Both trolley wheels must set at bottom of incline surface on each ramp when trolleys are in the closed position. If they do not, check rail, ramp, and track assembly.

FIG. 9-B



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8600 POWER DRIVE UNIT ASSEMBLY (Optional Section, Not Required for Manual Door Systems)

Note: Door builders must provide appropriate hookup and operation instructions to installers.

I. Installing Power Components

The power drive unit may be installed on either end of the rail where the most space is available.

A. Mounting Motor Bracket to Header

1. Locate motor mount as shown in Fig. 10. Using mount as a template, center punch holes, drill for 3/8" bolts. Use of carriage bolts through back of header with nuts is recommended.
2. After pre-drilling holes, mount motor to bracket using (4) 5/16" hex head bolts and (4) lock washers provided. Refer to Fig. 10.
3. Install sprocket onto motor shaft (DO NOT HAMMER ON SHAFT!) and install assembly onto header using 3/8" fasteners.
4. Adjust chain sprocket so that the edge of sproket is located 3/4" from header, tighten set screws. See Fig. 11-A.
5. Place idler mount located above rail top as shown in Fig. 10 below, center punch holes, drill for 1/4" bolts, and fasten securely.

FIG. 10

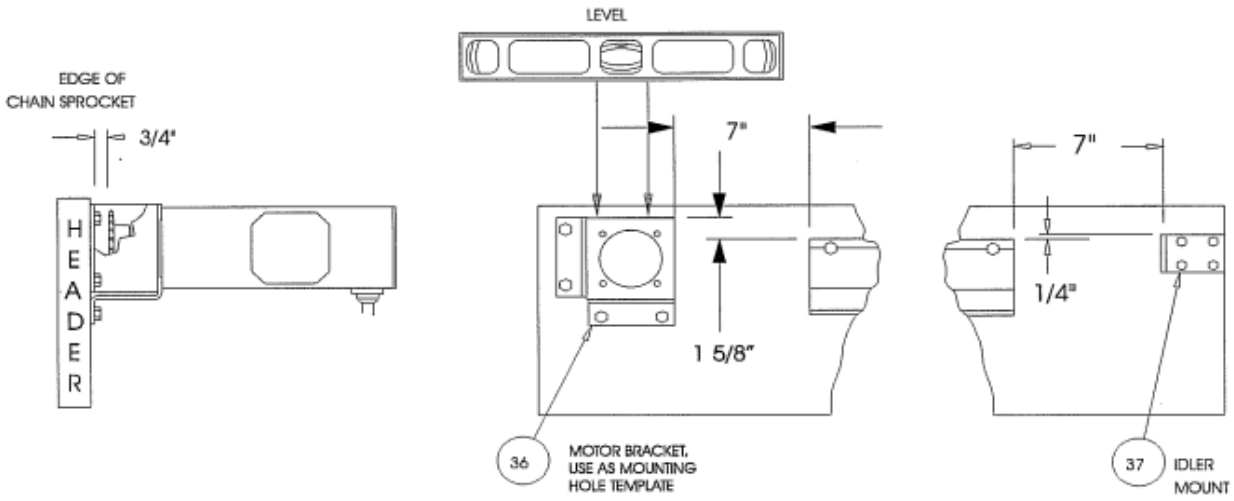
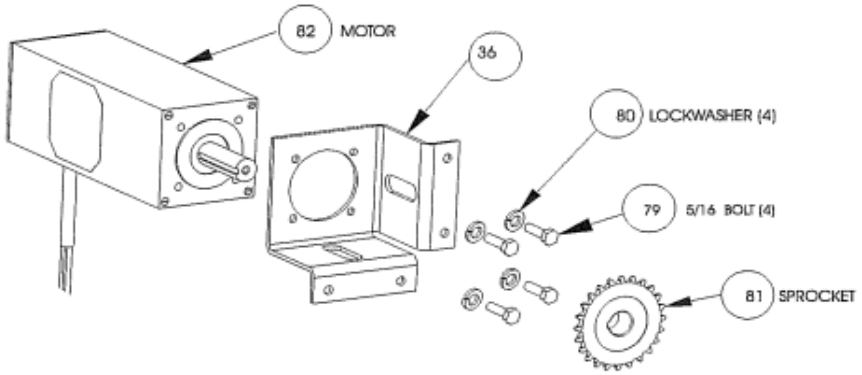


FIG. 11-A (Final Adjustment)



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B. Installation of Idler

1. Remove hex nut, washer and spring from carriage bolt.
2. Idler is assembled by inserting carriage bolt through idler mount on header as shown in Fig. 11-B and Fig. 11-C.
   Note: Washers and Cotter Pinface outward.
3. Slide spring onto protruding end of carriage bolt.
4. Add flat washer and start elastic hex locknut onto thread, **DO NOT** tighten at this time.

FIG. 11-B

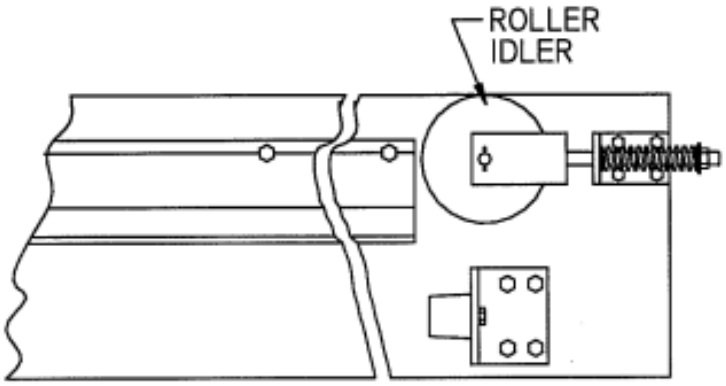
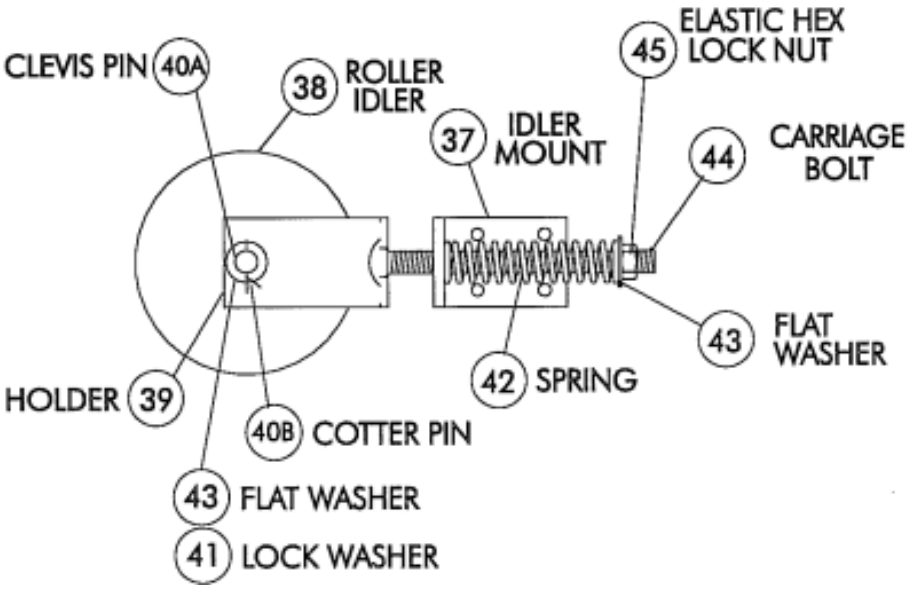


FIG. 11-C



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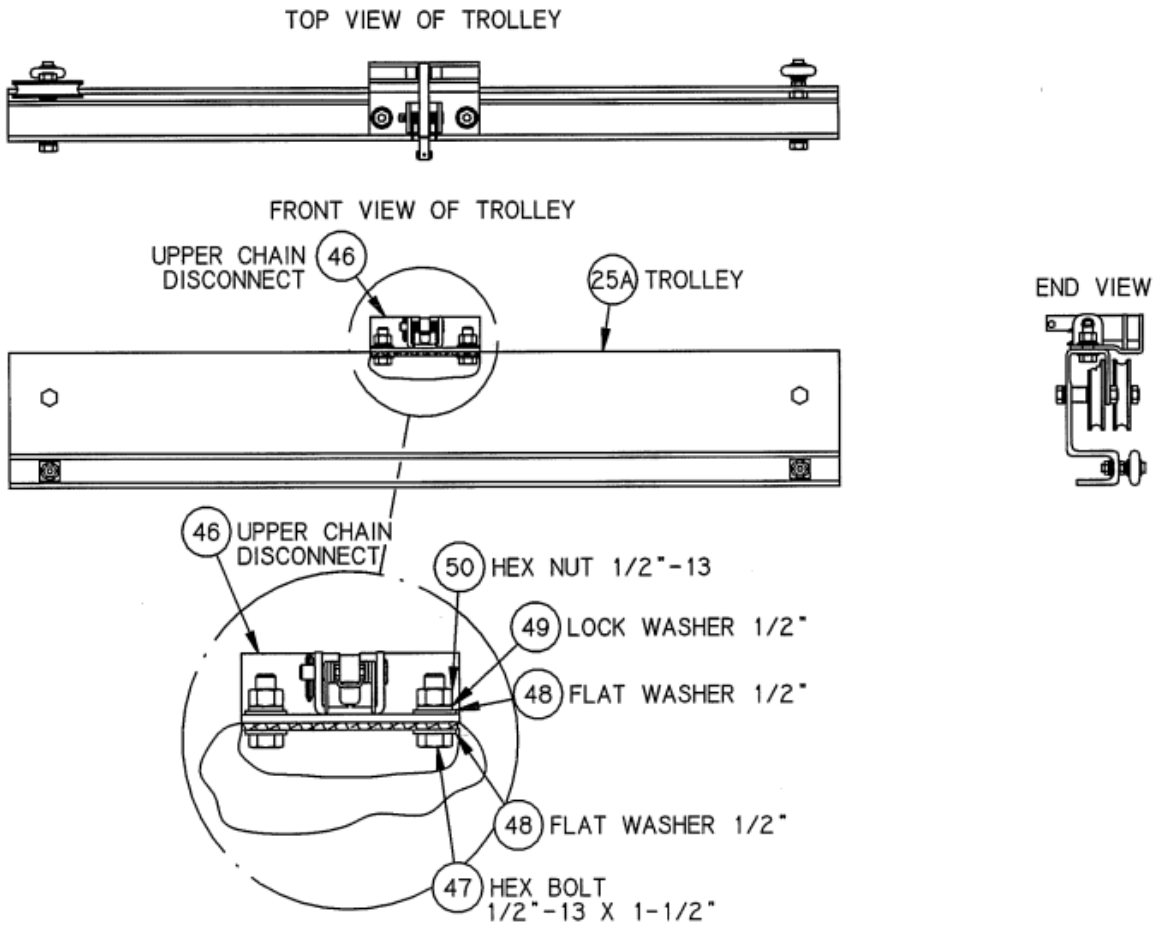
C. Installation of Upper Chain Disconnect

1. Bolt the Upper Chain Disconnect to one Trolley using 1/2" bolts as shown in Fig. 12. Be certain to use all mounting hardware supplied, assemble as shown in the enlarged view below and tighten.
2. Fig. 13-B, page 13, shows component parts of chain disconnect.

FIG. 12



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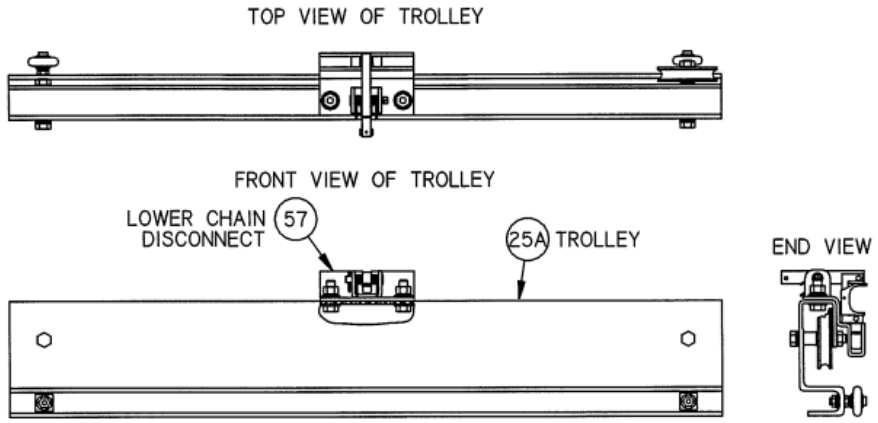
D. Installing Lower Chain Disconnect for Bi-Parting Doors

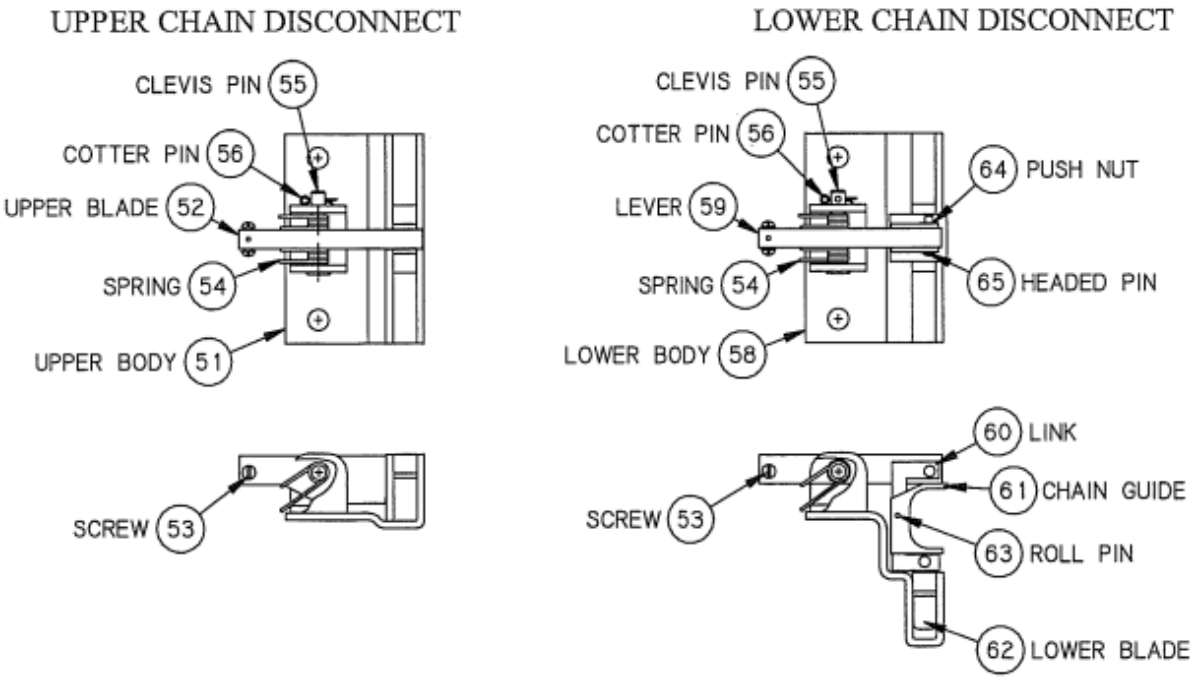
1. Bolt the Lower Chain Disconnect to the other Trolley using 1/2" bolts and all mounting hardware as shown in Fig. 13 and Fig. 13-B below and described in Fig. 12 on page 12.

FIG. 13-A



Note: Upper and Lower Chain Disconnects shown below are supplied assembled. Retain this instruction sheet for future refererence. Replacement parts can be ordered by matching encircled numbers on drawing with those of attached parts list on page 18.

FIG. 13-B



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E. Installation of Recessed Housing for Inside Release and Exterior Release Knob

Note: Knob should be mounted so that it can be turned with one hand while grasping the door handle with the other. Check interior of door to be sure recessed housing will not interfere with recessed handle.

1. Starting at the doors exterior surface drill a 1/2" through hole, be certain to drill square to the door face as shown in Fig. 14-A (Step No. 1).
2. Moving to the interior surface of the door cut a 6" diameter hole located on center of the 1/2" through hole, cut only to a depth of 1-5/8" as shown in Fig. 14-A (Step No. 2).
3. Hollow out the insulation within the cut-out area to the 1-5/8" depth. Hole will accept recessed housing as shown in Fig. 14-B.
4. Check the fit by placing recessed housing in large hole on interior side of door aligning center hole with 1/2" through hole.

FIG. 14-A

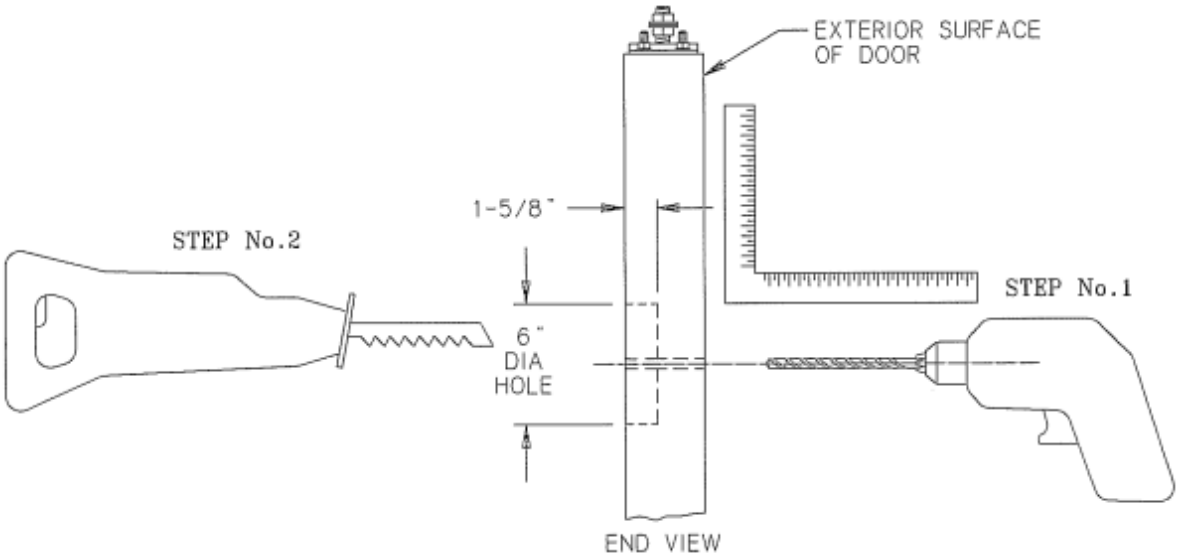
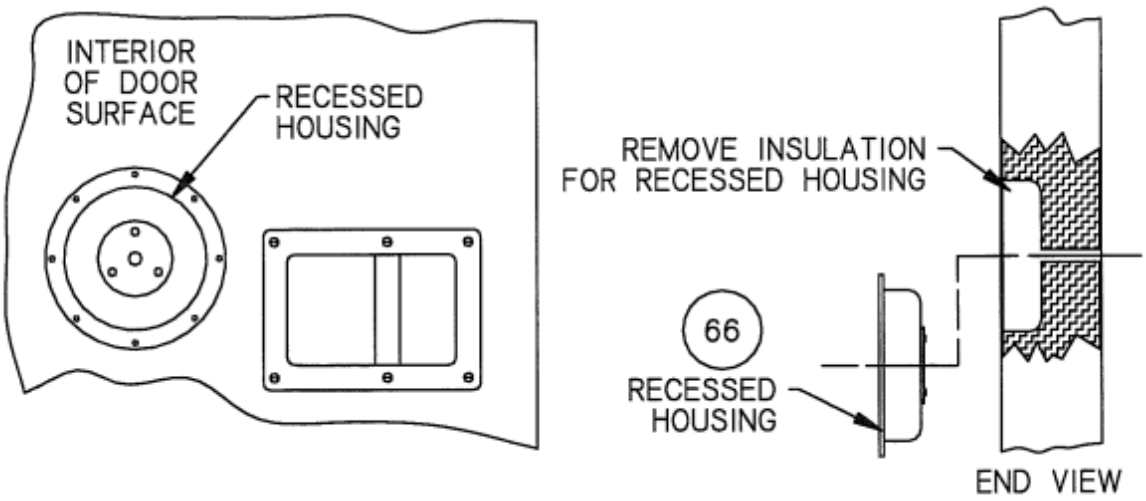


FIG. 14-B



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F. Installation of Inside Release Knob Assembly

1. Place recessed housing in large hole on interior side of door aligning center hole with 1/2" through hole as shown below in Fig. 15-A (Step 1). Do not fasten in place at this time
2. Insert knob/rod into center hole in recessed housing pushing until rod end comes through exterior door face, place flange over rod as shown below in Fig. 15-A (Step 2)
3. With parts positioned to rotate freely fasten recessed housing and flange with No. 10 pan head screws to door faces as shown below in Fig. 15-A (Step 3)
4. Place exterior knob onto rod as shown below in Fig. 15-B (Step 4), while holding inside knob drill 3/16" hole through small hole in knob
5. Insert cable stud through hole so that square of stud can be held with a wrench, tighten lock nut so stud just protrudes as shown below in Fig. 15-B (Step 5)

FIG. 15-A

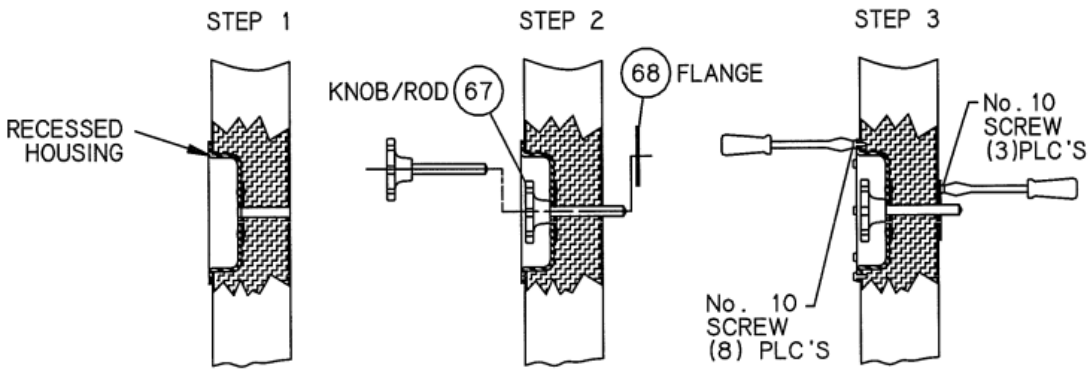
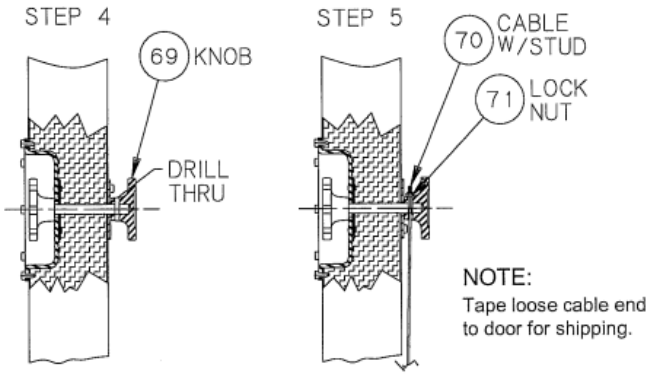


FIG. 15-B



Notes:

- A bipart door system is supplied with a pull cable for the second door. Crimp cable into the ring terminal supplied at stud end and attach to the second door with the screw supplied. A reinforcing plate inside door is recommended.
- Rollup and tape loose cable to door for shipping. Part numbers are not shown, but Part No. 70, 72, and 73 are listed in the Parts List on page 18.
- A second inside release knob kit can be purchased as an option. Please contact your sales representative or distributor and ask for Part No. 986000035

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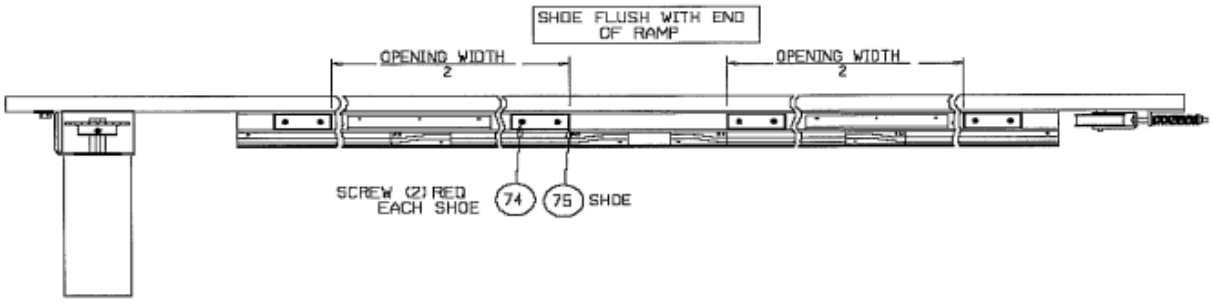
G. Installing Chain Shoes (Bi-Parting Door Units)

1. Locate shoes as shown in Fig. 16-A.
2. Using shoes as a template, drill 11/64" holes and fasten with No. 10 flat head screws provided

Note: Shoes prevent chain from making incidental contact with rail.

FIG. 16-A



H. Determining

1. Locate centerline of the rail and make a mark Dim. P on either side of center. Locate trolleys at these marks. Use appropriate formula below.

   P = _____ (F - 5-1/4") = Trolley in closed door position using kason safety edge

   _____ (F - 5-1/2") = Trolley in closed door position using kason bulb gasket

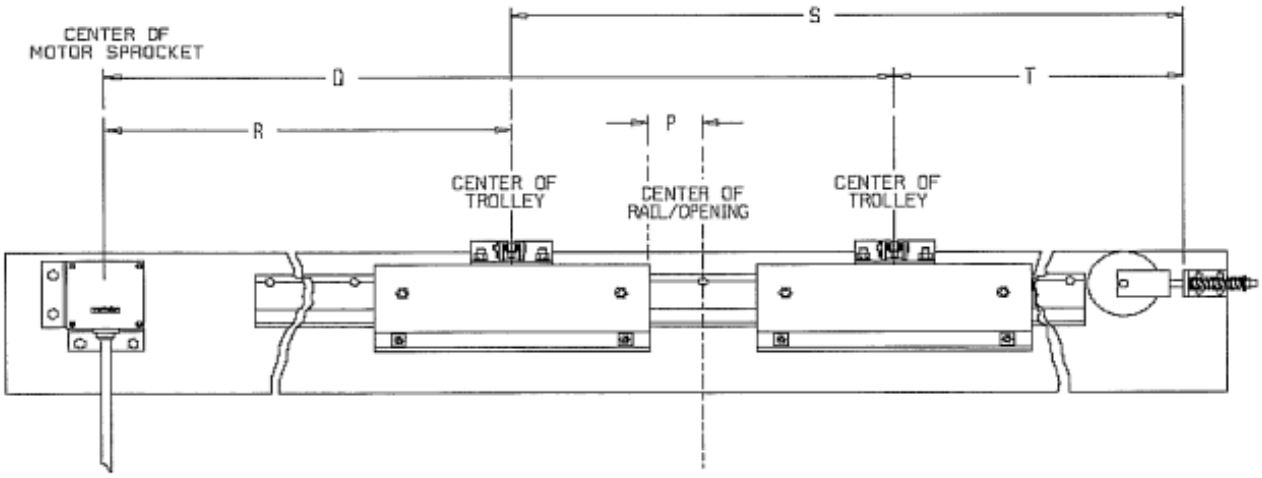
   Dimension necessary to determine Dim. P; Dim. F _____ is found on page 2.

2. Measure Dim. Q _____ Dim. R _____ Dim. S _____ Dim. T _____
3. Calculate fonnula shown below to find chain length for biparting door systems.

   _____ First chain length = Q + R – 7-5/8"

   _____ Second chain length = S + T – 8-5/8"

FIG. 16-B



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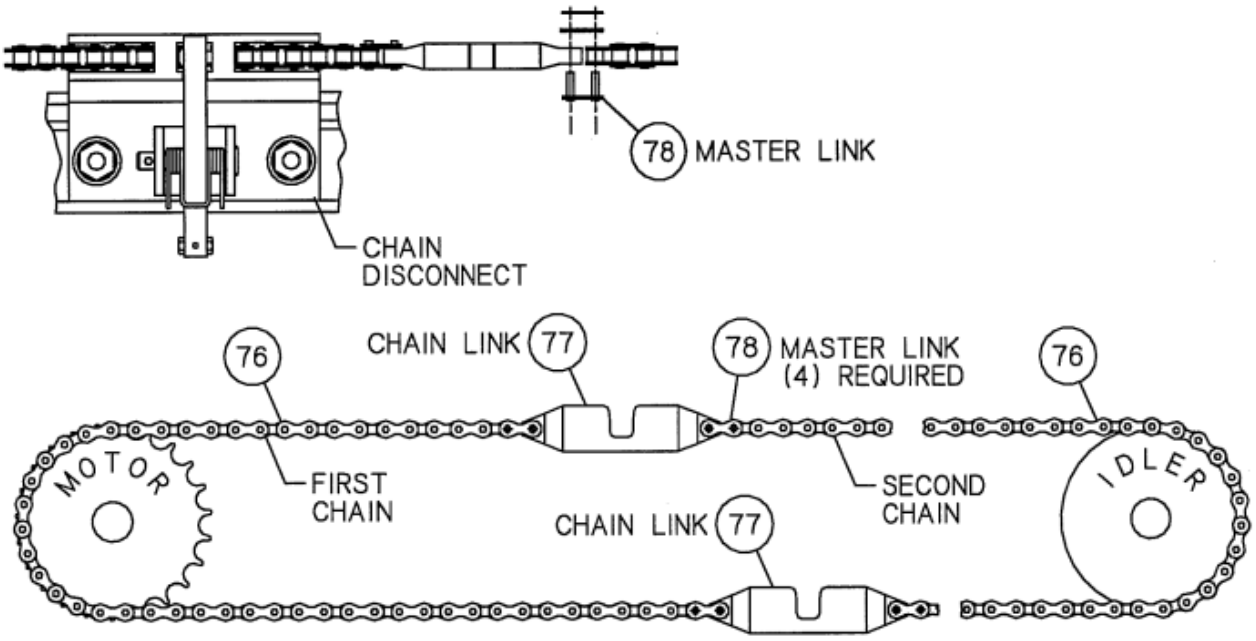
I. Connecting the Chain (Bi-Parting Door Units)

1. Trolleys must be placed on rail before proceding to the following steps.
2. The chain is packaged in a large coil, carefully uncoil and cut first and second chain lengths according to the formula shown on page 16. Do not twist chain.
3. Using master links attach one chain link to each end of first chain oriented as shown in Fig. 17.
4. Route lower chain link through lower disconnect and attach second chain using master link.
5. Route upper chain link through upper disconnect pulling second chain around idler.
6. Fasten remaining chain end to chain link in upper disconnect using master link. Position chain link(s) at approximate center of door travel.
7. Pull chain tight placing chain over motor sprocket.
8. Tension chain by tightening nut on threaded rod until spring is compressed so that the space between coils is equal to the thickness of a penny.
9. When in closed position all wheels of both trolleys should be on lower ramp position.

Note: The assembled header with trolley on rail can be operated at prefab by standing and supporting the header on the bottom edge. Use gussets or clamps to keep the header upright. Doors are not required. Wire motor per Hookup Wiring Diagram 8600EZ instructions in installation section.

FIG. 17



8600 Premier Sliding Doorware System for Bi-Parting Doors

Part Number: 8600*

Ref.	Part No.	Description
1	98600003311930	Rail for 95" System
1	98600003312360	Rail for 119" System
1	98600003311460	Rail for 143" System (Two-Piece Rail)
1	98600003311930	Rail for 167" System (Two-Piece Rail)
1	98600003312360	Rail for 95" System (Two-Piece Rail)
2	98600003200330	Intermediate Track 95" System
2	98600003200390	Intermediate Track 119" System
2	98600003200510	Intermediate Track 143" System
2	98600003200630	Intermediate Track 167" System
2	98600003200870	Intermediate Track 192" System
3	98600003200480	Track 95" System
3	98500003200610	Track 119" System
3	98600003200077	Track 143" System
3	98600003200870	Track 167" System
3	98600003201050	Track 192" System
4	98600A09380117	Ramp "A"
4	98600B09380117	Ramp "B
5	98600009260077	Bridge
6	9002119F110500	Screw, Self Tapping No. 10 x 1/2"
7	9860000342	Hanger 3/4" Bolt
8	9850000319	Bolt Plate
9	90138400110062	Flat Washer 3/8"
10	90152370110000	Lock Washer 3/8"
11	9008837C110000	Hex Nut 3/8"
12	9008975C110000	Jamb Nut 3/4"
13	90137780110080	3/4" Flatwasher
14	95001SP004	Exterior Pull Handle
15	9850000036	Interior Flush Pull Handle
16	9000550C114000	Hex Bolt 1/2" x 4"
17	9000550C113000	Hex Bolt 1/2" x 3"
18	9860000095	Roller
19	9850000095	Roller (Black)
20	90138532200049	Washer Brass 1/2"
21	90138531110062	Washer Steel 1/2"
22	98600002410735	Roller Spacer
23	90152500110000	Lockwasher 1/2"
24	9008850C110000	Hex Nut 1/2"
25	98600009240420	Trolley Chassis 42"
25	98600009240480	Trolley Chassis 48"
25	98600009240600	Trolley Chassis 60"
25	98600009240720	Trolley Chassis 72"
25	98600009240960	Trolley Chassis 96"
25A	98600003400420L/R	Trolley Assembly 42"
25A	98600003400480L/R	Trolley Assembly 48"
25A	98600003400600L/R	Trolley Assembly 60"
25A	98600003400720L/R	Trolley Assembly 72"
25A	98600003400960L/R	Trolley Assembly 96"
26	9860000152	Anti-Lift Roller Assembly
27	90101460110050	Retainer Ring
28	98600005620033	Shaft
29	90138532200049	Flat Washer
30	98600003760118	Roller
31	9008937C110000	Jamb Nut 3/8"
32	90137406110031	Flat Washer
33	98600008780027	Spacer
34	90152370110000	Lockwasher 3/8"
35	9850000311	Door Stop
36	18600EZ2980035	Motor Bracket
37	98600004550035K	Idler Mount
38	9860000098	Roller (Idler)
39	98600004760035K	Holder
40A	90107500111750	Clevis Pin
40B	90103120111000	Cotter Pin
41	90152500110000	Lock Washer
42	98600001600167	Spring
43	90138500300062	Flat Washer
44	98600005540037K	Carriage Bolt
45	90088500110000	Elastic Lock Hex Nut
46	9860000345	Upper Chain Disconnect
47	9000550C111500	Hex Bolt 1/2"-13 x 1-1/2"
48	90138531110062	Flat Washer 1/2"
49	90152500110000	Lock Washer 1/2"
50	9008850C110000	Hex Nut 1/2"-13
51	9860000230	Upper Body
52	98600005100037	Upper Blade
53	9000319F110375	Round Head Screw No. 10 x 3/8"
54	98600001620127	Torsion Spring
55	90107370112120	Clevis Pin 3/8"
56	90103120111000	Cotter Pin
57	9860000346	Lower Chain Disconnect
58	9860000229	Lower Body
59	98600005860037	Lever
60	98600002060035	Link
61	98600009250117	Chain Guide
62	98600005400037	Lower Blade
63	90102125301000	Roll Pin
64	90201180120202	Push Nut
65	90533001460093R	Headed Pin 3/16"
66	9048600331	Recessed Housing
67	9850000131	Knob/Rod
68	90048001830035K	Flange
69	98600004930117	Knob
70	9850000322	Cable/Stud
71	2008819C110000	Lock Nut
72	90170250910000	Ring Terminal
73	9002119Fl 10750	Type "A" Screw No. 10 x 3/4"
74	9002619F110625	Flat Head Screw No. 10 x 5/8"
75	98600002400117	Show
76	98600001510010	Chain No. 41 x 44' 6"
77	98600009370037	Chain Link
78	9850000939	Master Link No.41 Chain
79	2066131C110750	Bolt, 5/16 -18 x 3/4
80	20162310110100	Lockwasher, 5/16 Split
81	18600EZ2990035	4" Sprocket w/ Key
82	18600EZ3000010	Motor, NEMA 4, w/ 10' Wire

