# 8600 Premier Single Doorware System

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-14B (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.

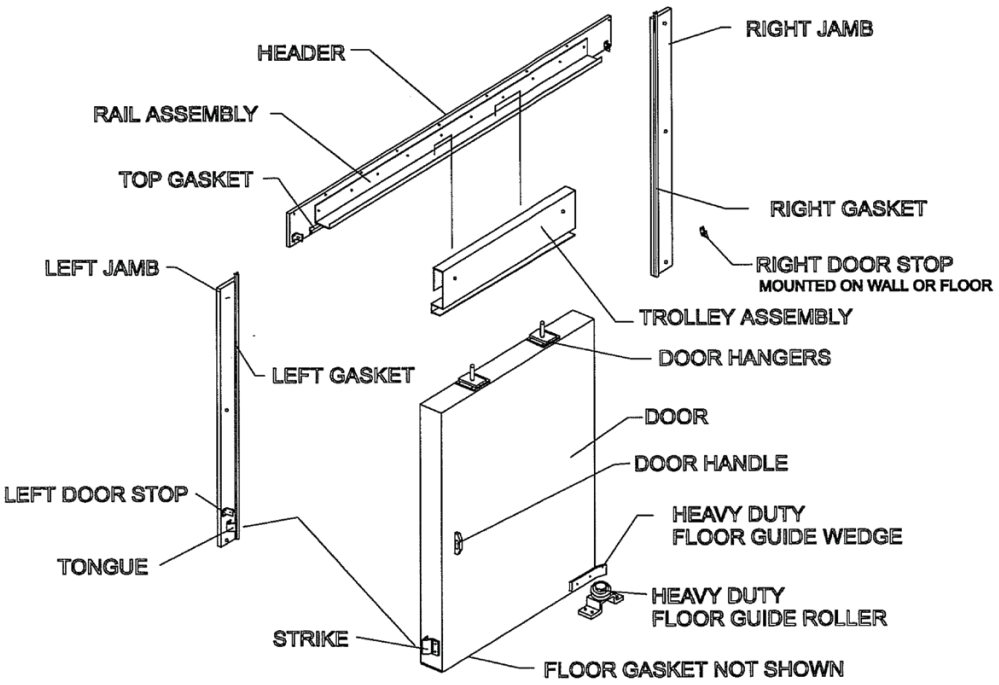
**Special Notices:**

- All standard components are factory sizes based upon use of 2" (two inch) door overlap. Larger overlaps will reduce opening clearance if used at maximum width for system
- Your Kason Heavy-duty Doorware is rated at 440 lbs/200 Kg maximum load

## PREFABRICATION 8600 DOOR SYSTEM

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

**FIG. 1**



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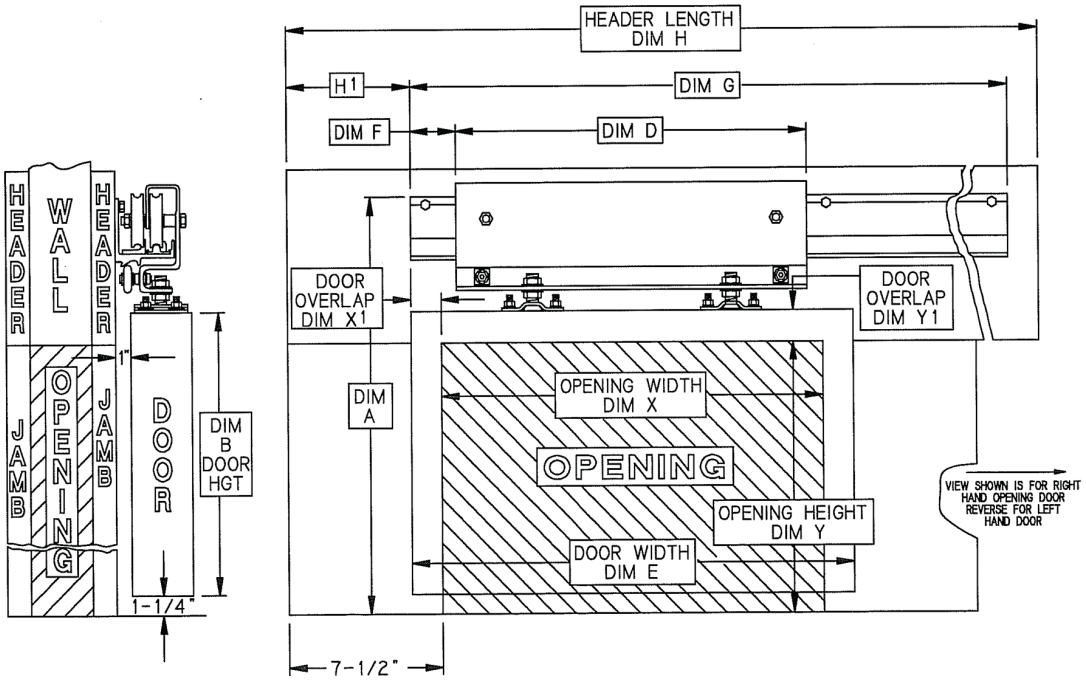
## DETERMINING CRITICAL DIMENSIONS

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" |
| D = | 48" | For 60" Maximum Opening Width System |
| | 60" | For 72" Maximum Opening Width System |
| | 72" | For 96" Maximum Opening Width System |
| | 96" | For 120" Maximum Opening Width System |
| | 120" | For 144" Maximum Opening Width System |
| E = | _____ | X + 2X[1] = Width of Door Plug |
| F = | _____ | (E - D) /2 |
| G = | 120" | For 60" Maximum Opening Width System |
| | 146" | For 72" Maximum Opening Width System |
| | 193" | For 96" Maximum Opening Width System |
| | 236" | For 120" Maximum Opening Width System |
| | 292" | For 144" Maximum Opening Width System (2 piece rail using two 146" lengths) |
| | _____ | D + E + F + 2" (Use only if rail must be shortened for clearance) |
| H = | _____ | G + 10" Manual Door |
| H = | _____ | G + 28" Power Door |
| H[1] = | _____ | Flush with outer jamb edge fro manual door, closed door side only<br>10" For Power Unit, Idler End<br>18" For Power Unit , Motor End |

**FIG. 2**



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## DOOR PREPARATION

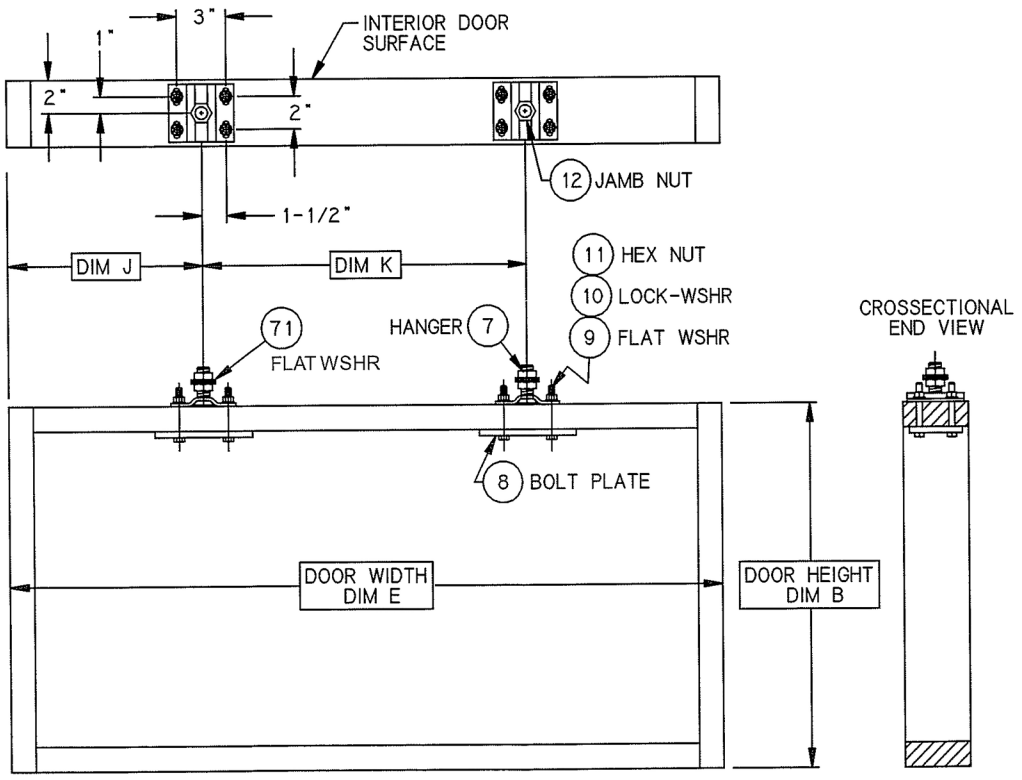
1. Determining Door Dimensions

### 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 |
| Dim J | _____ | = F + 6″ | Door Edge to Center Line of Hanger |
| Dim K | _____ | = D - 12″ | Center to Center Distance of Door Hangers |

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

**FIG. 3**



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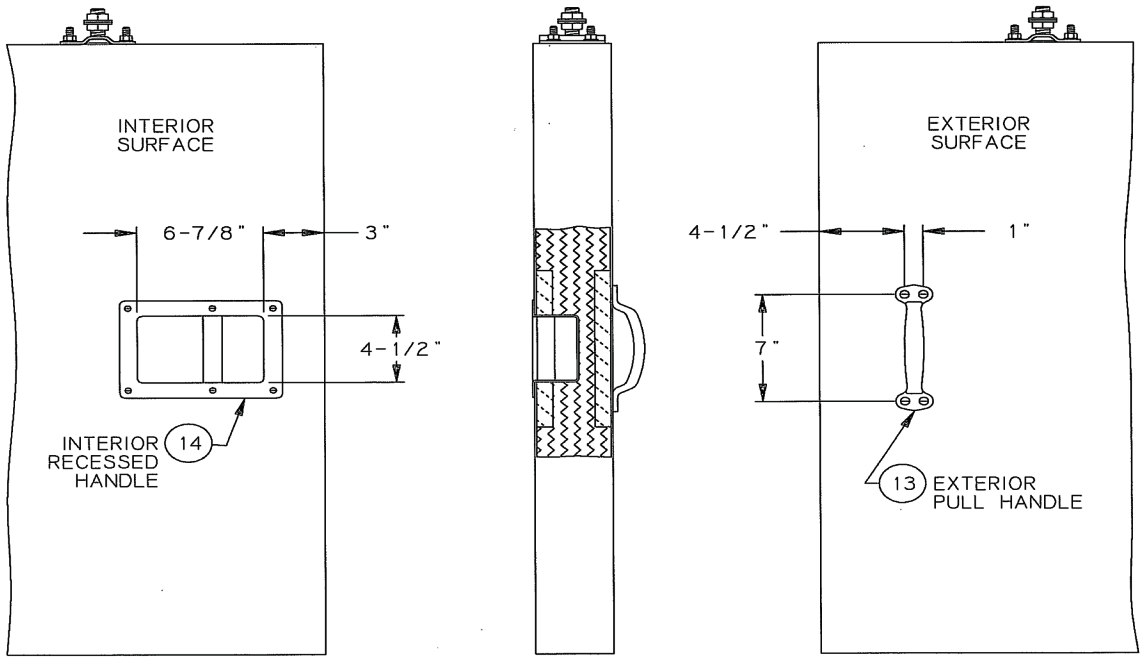
**Notes:**

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

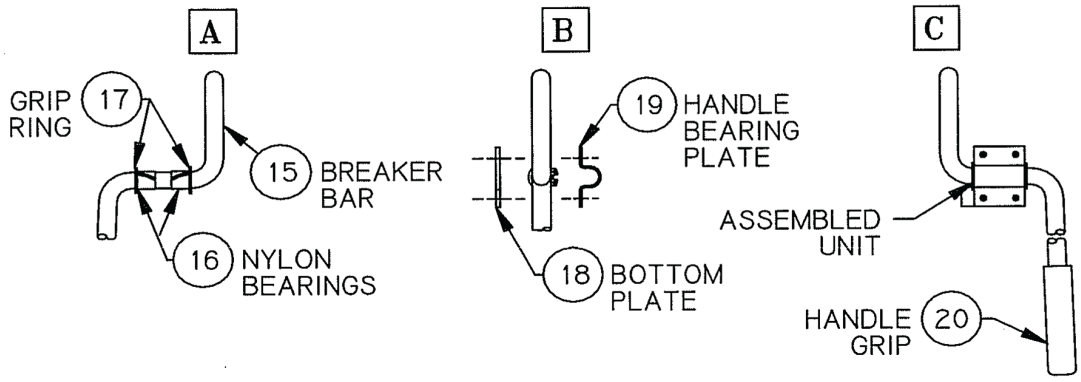
3. Mounting Exterior and Interior Handles
   - Exterior Handle
     - Determine desirable handle height on door's exterior surface
     - Place handle 4-1/2" from door edge as seen in Fig. 4 below (right hand view)
     - Locate mounting holes using handle as template; punch and drill holes for 1/4" flat head screws
     - Fasten handle securely in place
   - Interior Handle
     - Cut hole 6-7/8" x 4-1/2" to 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 handles as template
     - Fasten handle securely in place

**FIG. 4**



4. Outside Lever Handle
   - Assembling Handle
     - Assemble nylon bearing to breaker bar by spreading bearing and snapping over bar between factory installed grip rings as shown in Fig. 5-A below
     - Sandwich breaker bar/nylon bearing assembly between bottom plate and handle bearing plate as seen in Fig. 5-B below
     - Install handle grip on breaker bar, see Fig. 5-C below

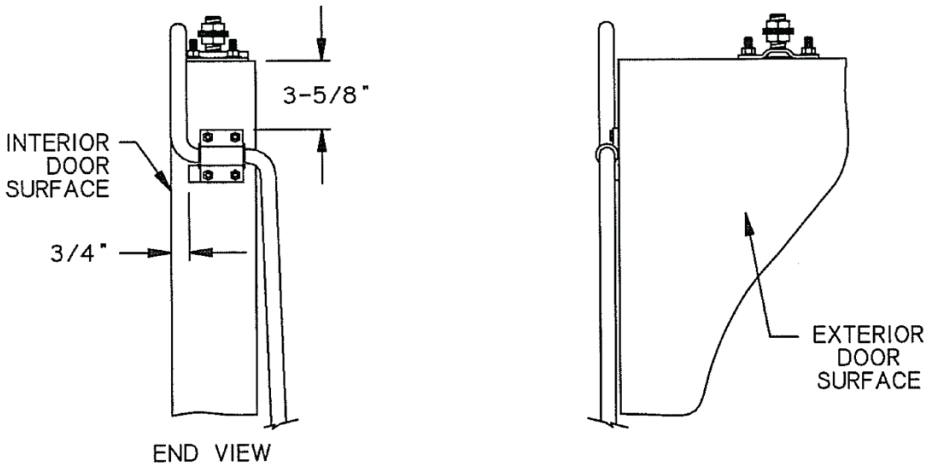
**FIG. 5**




**Notes:**

- Drawing depicts right hand opening door; for left hand application locate items for opposite door edge
- Outside Lever Handle mounting areas must be adequately reinforced
- Mounting Outside Lever Handle
  - Position handle assembly on closed door edge as shown in Fig. 6 below
    **Note:** On very tall doors the handle should be lowered to be within easy reach.
  - Locate mounting holes using handle assembly as guide; drill holes and fasten assembly to door edge

**FIG. 6**

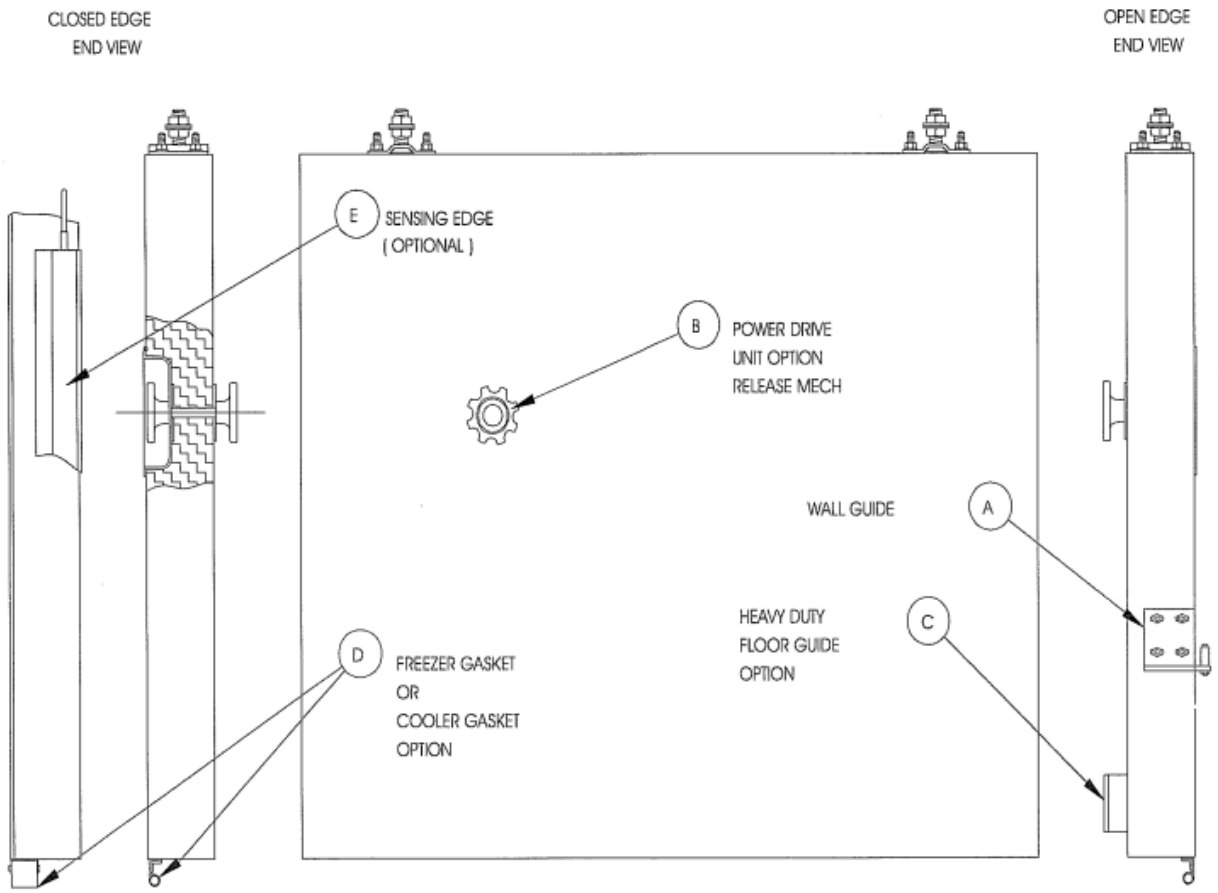


5. Mounting Optional Doorware
   - Prior to completing door any chose doorware options should be installed.
   - Installation instructions for most common options are listed below and shown in Fig. 7.
     - IS-800-18: Wall Guide, R.H.
     - This Document: Power Drive Release Mech.
     - IS-8500-11: Heavy-duty Floor Guide
     - IS-8600-34: Cooler and Freezer Gasket
     - IS-8600EZ-200: Power Drive Unit Sensing Edge
     - IS-8600-12: Inside Lever (not shown)

**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 require 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. 7**



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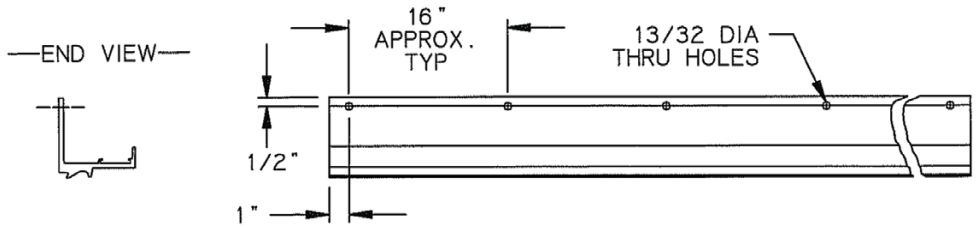
## HEADER PREPARATION

**Note:**

- Illustrations below show part positioning for a right hand opening door; for left hand opening doors locate parts from opposite end of rail.

1. Rail Preparation - Mounting Holes
   - Locate and drill 13/32" dia. rail mounting holes along length of rail as shown in Fig. 8-A (below)

**FIG. 8-A**




**Note:** Rail for 144" system is two piece rail. The track is used to align both sections.

2. Rail Preparation - Track and Ramp Placement
   - Working from door closed end of rail, slide ramp into rail slot, this will be a "B" ramp if application is for right opening door, "A" ramp if for left hand application (See Fig. 8-B and Fig. 8-C)
   - Find and orient intermediate track as shown in Fig. 8-B , slide track into rail slot
     - **Note:** Assembly can be made easier by spraying WD40 on rail before installing ramp or track. Raised portion of ramps must engage track
   - Slide matching ramp into slot as shown in Fig. 8-B
   - Position ramp as in Fig. 8-B, drilling 11/64" holes and securing with No. 10 x 1/2" screws provided
   - Properly orient and insert end track into slot at opposite end of rail as shown in Fig. 8-B, pushing so that track and ramps abut tightly. Drill hole and fasten using No. 10 x 1/2" screws provided
   - Locate bridge as shown in Fig. 8-B and Fig. 8-C, drill 11/64" holes and fasten using No. 10 x 1/2" screws provided

**FIG. 8-B**

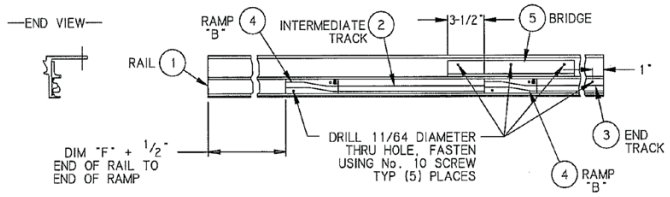
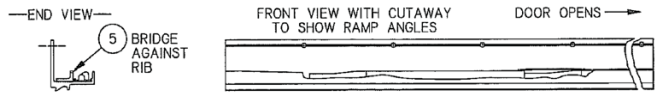



**FIG. 8-C**




**Notes:**

- Intermediate track is the shortest track on all systems except for the 144" wide doorware which is a 111" long piece
- The end track for 144" doorware is a two piece track
- Cut excess track overhanging end of rail
- Bridge must be against rail rib

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**Note:**

- Header should be fabricated using 2″ x 12″ lumber.

3. Determining Header Dimensions
   - Notice: Dimensions necessary to prefab the header shown below are found on page 2.
     - Dim G _____, DIM H _____, DIM H1 _____ DIM X _____ DIM X1 _____
   - Gasket Channel length is equal to door opening width DIM X + 3/4″ = _____
4. Header Assembly
   - Rail is attached to header as shown in Fig. 9 using 3/8″ fasteners. Use of 3/8″ carriage bolts through the header is recommended. The bolt end must be flush with nut
   - Door stops are attached to header as shown in Fig. 9 using 3/8″ fasteners

**Note:**

- Relocate closed side door stop downward by same distance, if lever handle has been relocated downward.

**FIG. 9**

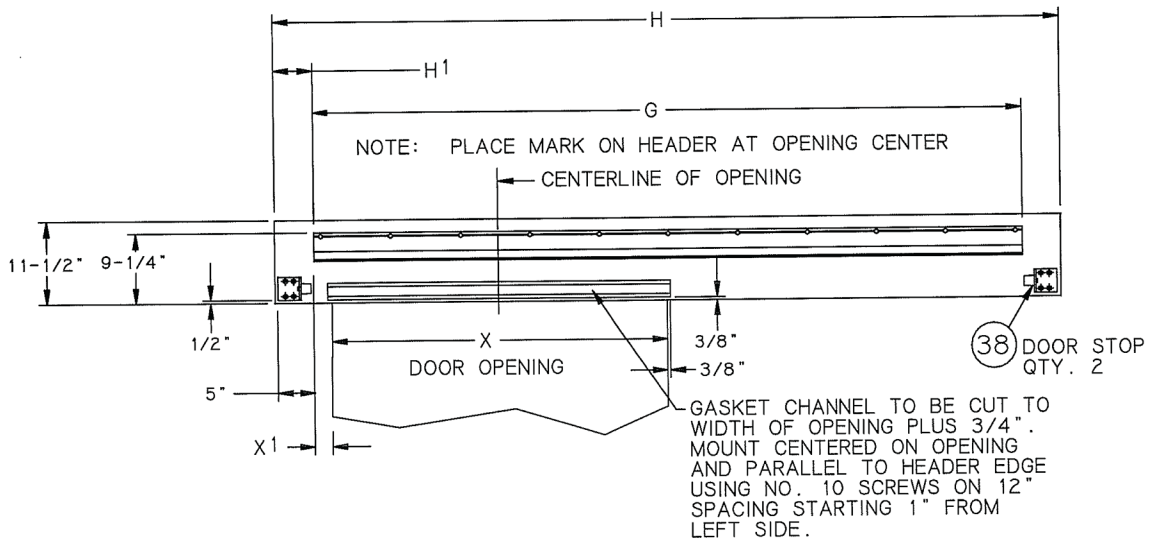


Fig. 9 shows a completed Header Assembly of a Manual Single Doorware System

**Notes:**

For installation of gaskets see instruction sheets 18500INST3 for Cooler Gaskets and 18500INST4 for Freezer Gaskets. Figure No. 1 in both instruction sheets shows shape to cut gasket for fitting header gasket over jamb gasket for proper sealing.

When installing a large heavy door 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 8 " lumber.

1. Determining Basic Dimensions
   - Notice: Dimensions necessary to prefab the jambs as shown below are found on page 2
     - DIM Y _____ and DIM Y[1] _____
   - Gasket Channel Length DIM W as shown below in Fig. 10 is Y + Y[1] - 3/8"
     - DIM W = _____ + _____ -3/8" = _____
   - Gasket channels are attached to jambs as shown in Fig. 10 using No. 10 screws
   - Door stop is attached to left jamb as shown below in Fig. 10 using 3/8" fasteners

**FIG. 10**

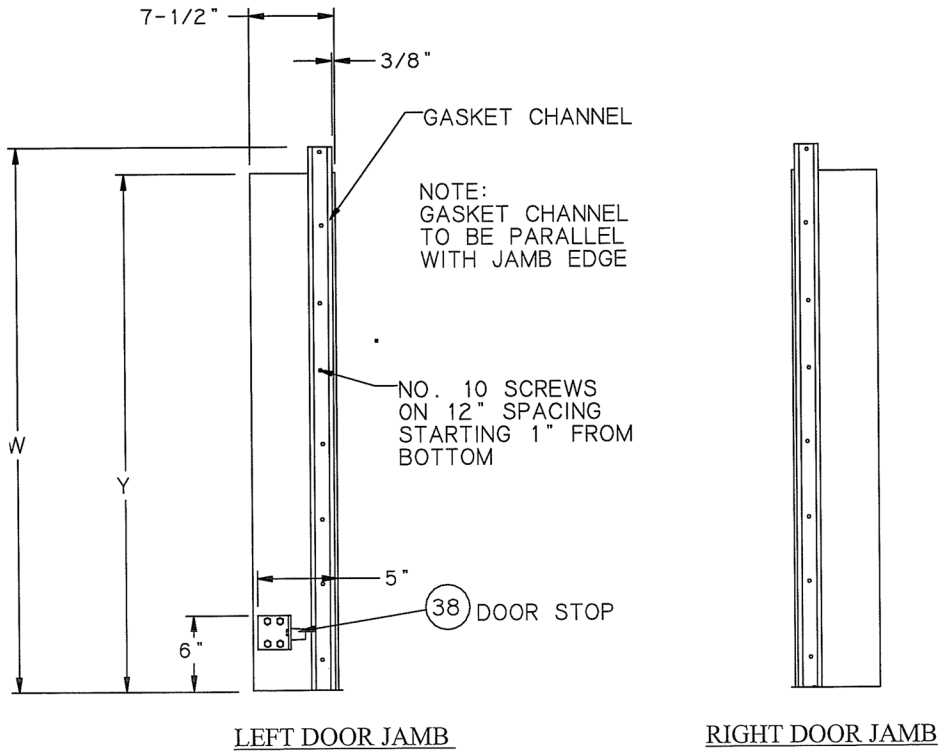



Fig. 10 Completed Jamb Assembly

**Note:**

- For installation of gaskets see instruction sheets 18500INST3 for Cooler Gaskets and 18500INST4 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.

## TROLLEY ASSEMBLY

1. Trolley
   - Trolleys come factory assembled for right opening doors. If left hand opening is needed, reverse the single and dual roller assemblies keeping black roller inside the trolley on dual roller set. See Fig. 11-A below.
   - Roll trolley onto track at end of rail, positioned with rollers as shown in Fig. 11-B.

**Note:**

- Trolley wheels must set at bottom of incline surface on each ramp when trolley is in the closed position. If they do not, check rail, ramp and track assembly.

**FIG. 11-A**

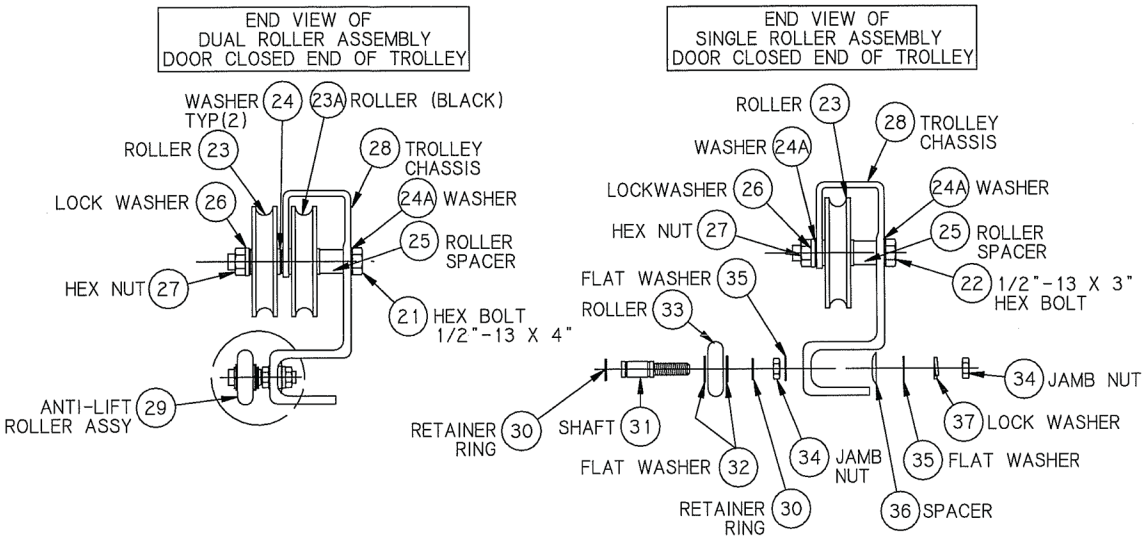
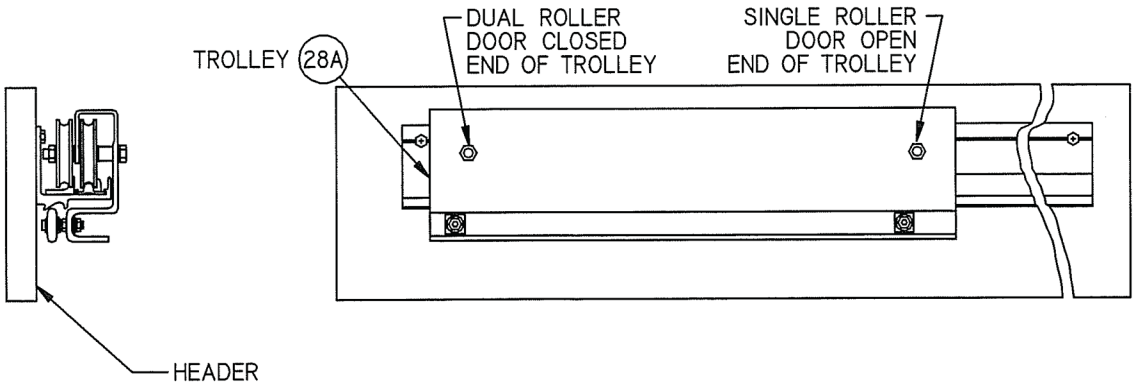



**FIG. 11-B**



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

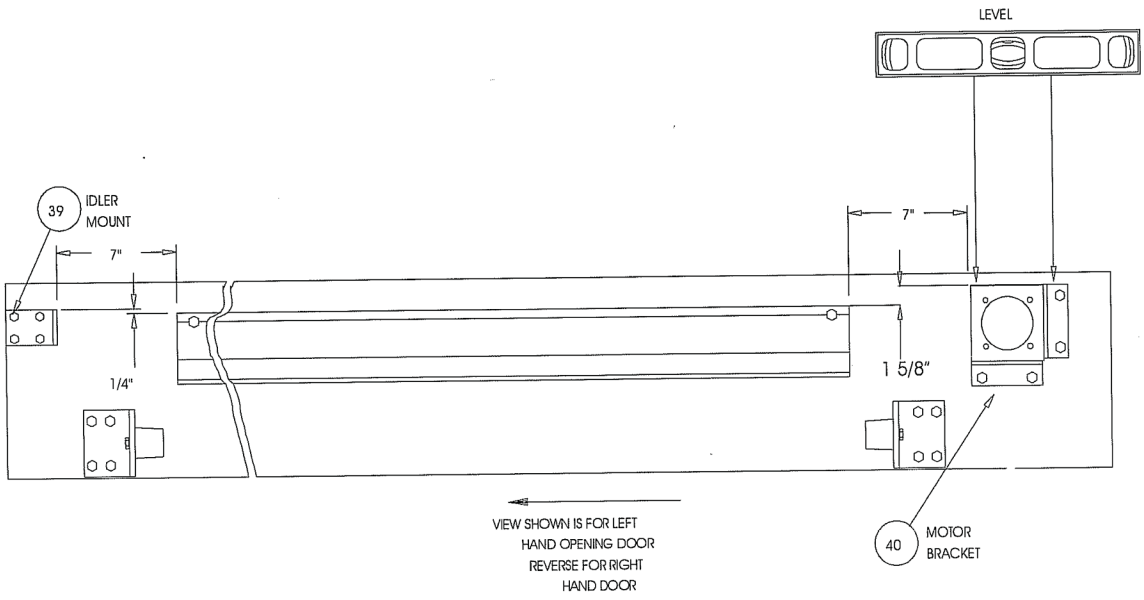
Door builders must provide appropriate hookup and operation instructions to installers.

**Installing Power Components**

- The power drive unit is normally mounted at the door closed end of the rail as pictured below. If necessary it can be installed on the door open side but control wiring will be longer.

1. Mounting Brakcets to Header
   - Locate motor mount as shown in Fig. 12 below. Using mount as template, center punch holes, drill for 3/8" bolts. Use of carriage bolts through back of header with nuts is recommended
   - After pre-drilling holes, mount motor to bracket using (4) 5/16" hex head bolts and (4) lockwashers, provided
   - Install sprocket onto motor shaft **(DO NOT HAMMER ON SHAFT!)** and install assembly onto header using 3/8" fasteners
   - Place idler mount located above rail top as shown in Fig. 12 below, center punch holes, drill for 1/4" bolts, and fasten securely

**FIG. 12**



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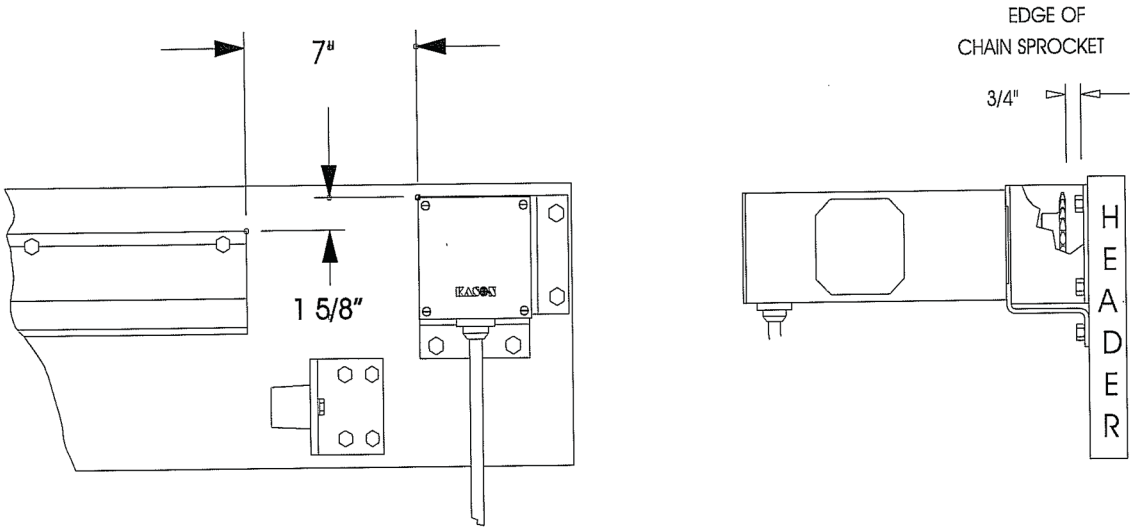
## ⚠ WARNING

Motor unit is heavy, take adequate precautions when lifting.

2. Installing Motor
   - Carefully mount the motor onto position as shown in Fig. 13-A below
   - Secure the motor in place using supplied mounting bolts, washers and nuts. Adjust sprocket so that the edge of the chain sprocket is located 3/4" from the header as shown in Fig. 13-A below, tighten set screws securely

**FIG. 13-A**




3. Installation Of Idler
   - Remove hex nut, washer and spring from carriage bolt
   - Idler is assembled by inserting carriage bolt through idler mount on header as shown in Fig. 13-B and Fig. 13-C
     **Note:** Washers and Cotter Pin face outward
   - Slide spring onto protruding end of carriage bolt
   - Add flat washer and start elastic hex locknut onto thread, do not tighten as this time

**FIG. 13-B**

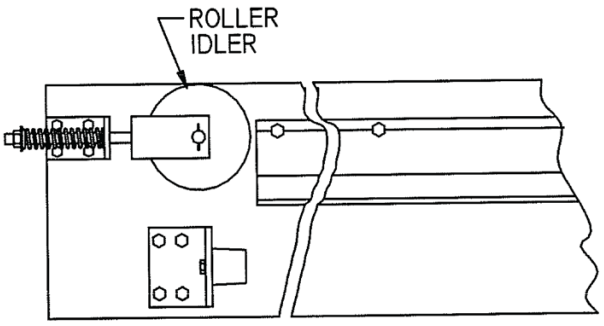
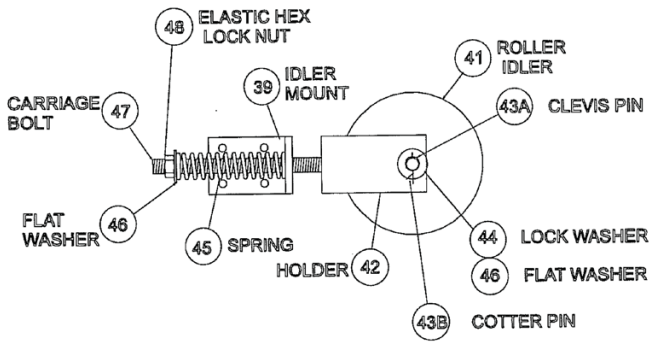


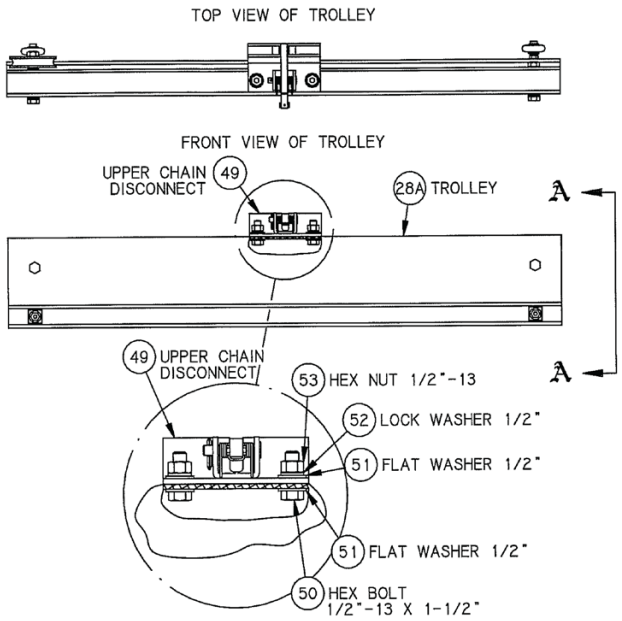

**FIG. 13-C**



4. Installation of Upper Chain Disconnect
   - Bolt the Upper Chain Disconnect to the Trolley using 1/2" bolts as shown in Fig. 14-A below. Be certain to use all mounting hardware supplied, assemble as shown in the enlarged view below and tighten securely
   - Fig. 14- B shows component parts of chain disconnect

**FIG. 14-A**



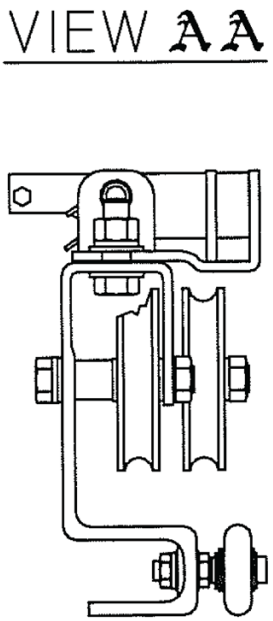
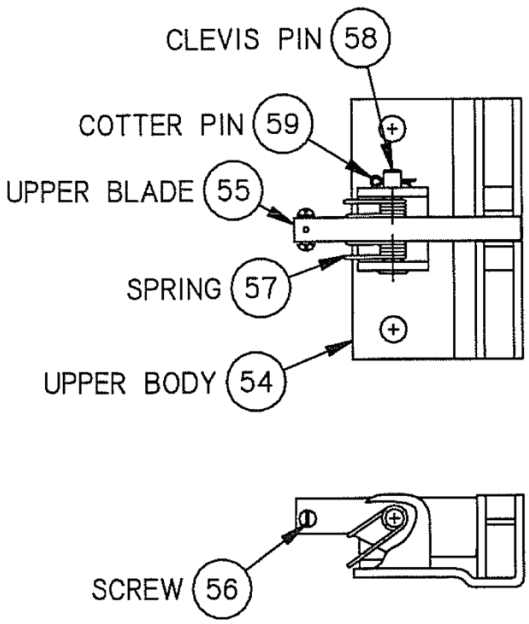




**FIG. 14-B**



5. Door Preparation for Recessed Housing and Inside Release Knob

**Note:**
Know should be mounted so that i 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.

- Starting at the doors exterior surfaced drill a 1/2" through hole, ,be certain to drill square to the door face as shown in Fig. 15-A below (STEP No. 1).
- 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. 15-A below **(STEP No. 2)**
- Hollow out the insulation within the cut-out area to the 1-5/8th depth. Hole will accept recessed housing as shown in Fig. 15-B below.
- Check the fit by placing recessed housing in large hole on interior side of door aligning center hole with 1/2" through hole.

**FIG. 15-A**

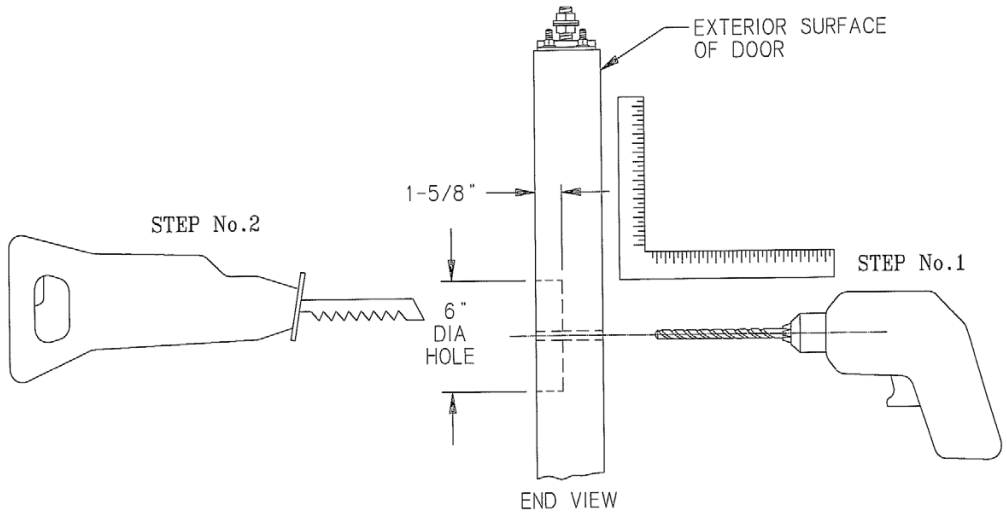
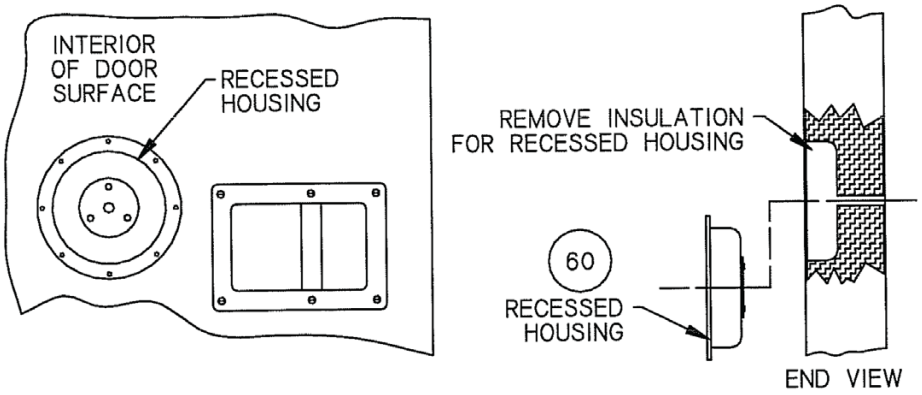



**FIG. 15-B**



6. Installation of Inside Release Knob Assembly
   - Place recessed housing in large hole on interior side of door aligning center hole with /2" through hole as shown below in Fig. 16-A (STEP 1). Do not fasten in place at this time
   - 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. 16-A (STEP 2)
   - With parts positioned to rotate freely fasten recessed housing and flange with No. 10 pan screws to door faces as shown below in Fig. 16-A (STEP 3)
   - Place exterior knob onto rod as shown below in Fig. 16-B (STEP 4), while holding inside knob droll 3/16" hole through small hole in knob
   - 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. 16-B (STEP 5)

**FIG. 16-A**

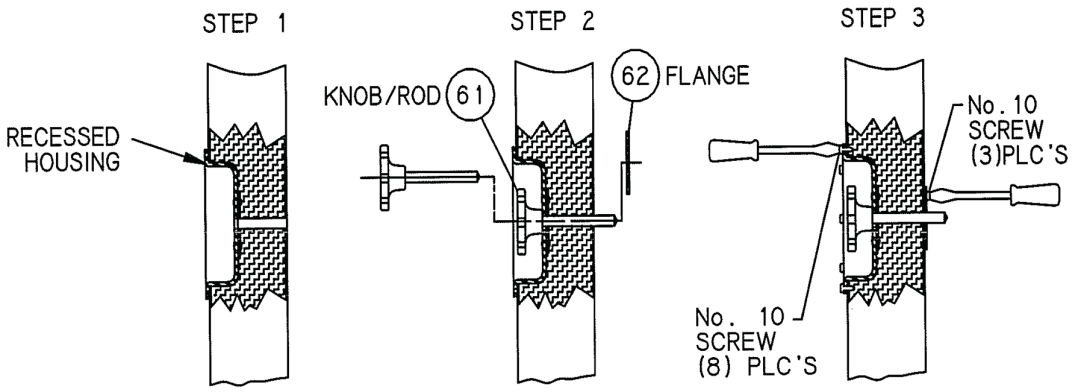
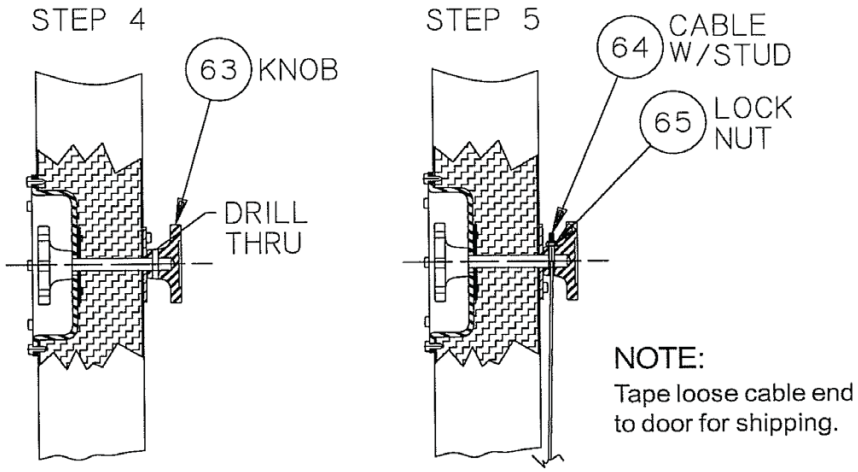



**FIG. 16-B**



7. Installing Chain Shoes (Singe Door Units)
   - Locate shoes as shown in Fig. 17-A below
   - 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.

8. **Determining Chain Length**
   - Locate trolley DIM F from ends of the rail. Use appropriate formula below.
     - DIM F _____ is found on page 2
   - Measure DIM Q _____.
   - Calculate formula shown below to find chain length for single door systems.
     - a. _____ CHAIN LENGTH = 2Q - 7/8″

**FIG. 17-A**

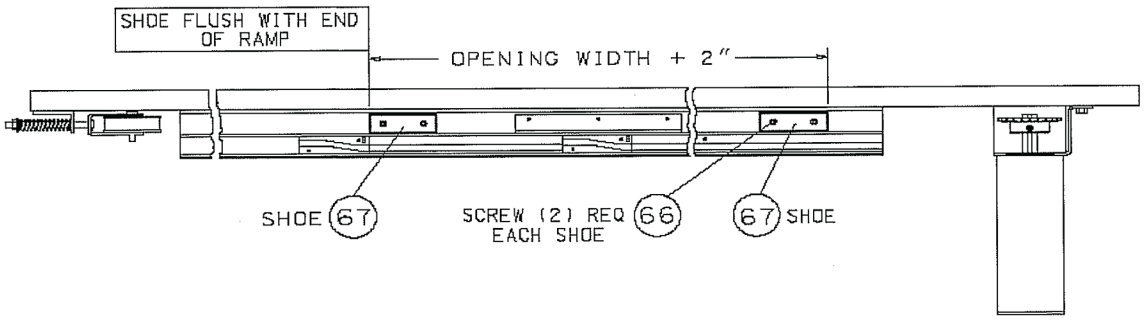
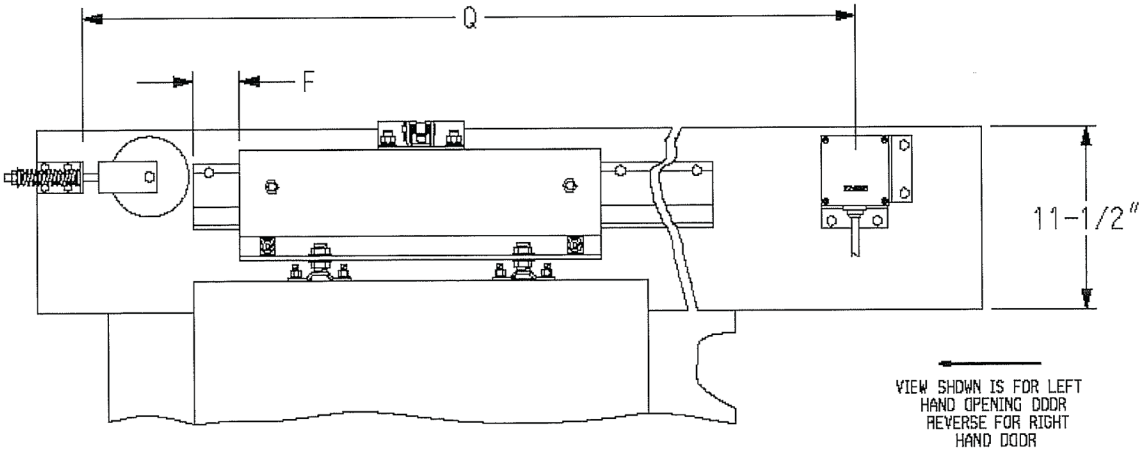


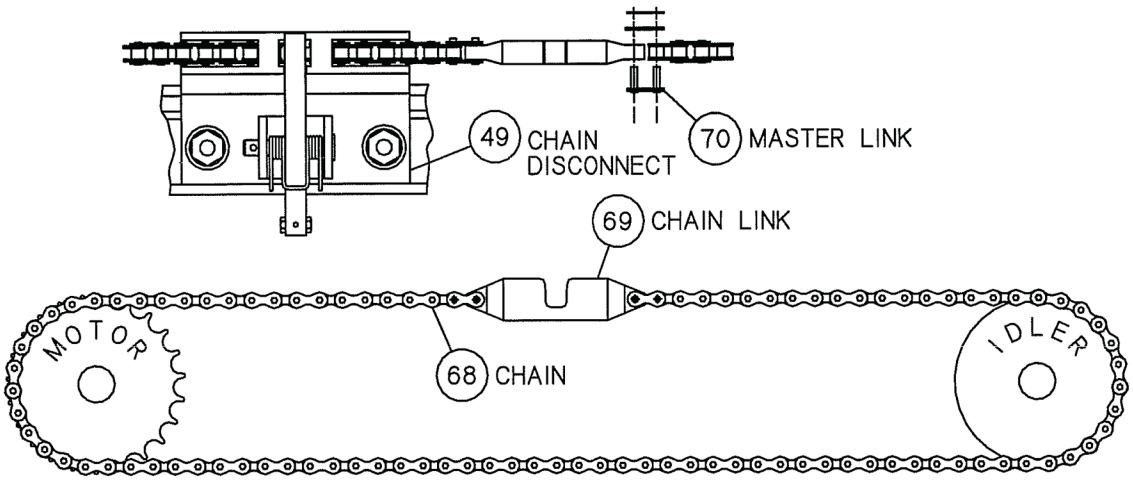

**FIG. 17-B**



9. Connecting the Chain (Single Door Units)
   - Trolley must be placed on rail before proceeding to the following steps
   - The chain is packaged in a large coil, carefully uncoil and cut chain to length according to the formula shown on page 16. Do not twist chain
   - Route chain through chain disconnect and around idler roller as shown in Fig. 18 below
   - Attach each end of chain to chain link using master links as shown
   - With trolley in closed position pull chain so that disconnect engages chain link. Place disconnect and chain in approximate center of door travel
   - Pulling chain tight place chain over motor sprocket
   - Moving back to idler, tension chain by tightening nut on threaded rod until spring is compressed so that the space between coils is equal to the width of a penny
   - When in closed position all wheels of trolley 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. Door is not required. Wire motor per Hookup Wiring Diagram 8600EZ instructions in installation section.

**FIG. 18**



# 8600 Premier Single Doorware System

Part Number: 8600*

| Ref. | Part No. | Description |
|---|---|---|
| 1 | 98600003311200 | Rail for 60" System |
| 1 | 98600003311460 | Rail for 72" System |
| 1 | 98600003311930 | Rail for 96" System |
| 1 | 98600003312360 | Rail for 120" System |
| 1 | 98600003311460 | Rail for 144" System (2-piece rail) |
| 2 | 98600003200390 | Intermediate Track 60" System |
| 2 | 98600003200510 | Intermediate Track 72" System |
| 2 | 98600003200630 | Intermediate Track 96" System |
| 2 | 98600003200870 | Intermediate Track 120" System |
| 2 | 98600003201110 | Intermediate Track 144" System |
| 3 | 98600003200610 | Track 60" System |
| 3 | 98600003200077 | Track 72" System |
| 3 | 98600003201050 | Track 96" System |
| 3 | 98600003201240 | Track 120" System |
| 3 | 98600003200870 | Track 144" System (Piece A) |
| 3 | 98600003200630 | Track 144" System (Piece B) |
| 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 | 95001SP004 | Exterior Pull Handle |
| 14 | 9850000036 | Interior Flush Pull Handle |
| 15 | 98600000130097 | Breaker Bar |
| 16 | 90180750407500 | Nylon Bearing |
| 17 | 90101750400000 | Grip Ring |
| 18 | 98000005300035K | Bottom Plate |
| 19 | 98000004370035K | Handle Bearing Plate |
| 20 | 9850000090 | Handle Grip |
| 21 | 9000550C114000 | Hex Bolt 1/2" x 4" |
| 22 | 9000550C113000 | Hex Bolt 1/2" x 3" |
| 23 | 9860000095 | Roller |
| 23A | 9850000095 | Roller (Black) |
| 24 | 90138532200049 | Washer, Brass, 1/2" |
| 24A | 90138531110062 | Washer, Steel, 1/2" |
| 25 | 98600002410735 | Roller Spacer |
| 26 | 90152500110000 | Lockwasher, 1/2" |
| 27 | 9008850C110000 | Hex Nut, 1/2" |
| 28 | 98600009240480 | Trolley Chassis, 48" |
| 28 | 98600009240600 | Trolley Chassis, 60" |
| 28 | 98600009240720 | Trolley Chassis, 72" |
| 28 | 98600009240960 | Trolley Chassis, 96" |
| 28 | 98600009241200 | Trolley Chassis, 120" |
| 28A | 98600003400480R | Trolley Assembly, 48" |
| 28A | 98600003400600R | Trolley Assembly, 60" |
| 28A | 98600003400720R | Trolley Assembly, 72" |
| 28A | 98600003400960R | Trolley Assembly, 96" |
| 28A | 98600003401200R | Trolley Assembly, 120" |
| 29 | 9860000152 | Anti-Lift Roller Assembly |
| 30 | 90101460110050 | Retainer Ring |
| 31 | 98600005620033 | Shaft |
| 32 | 90138532200049 | Flat Washer |
| 33 | 98600003760118 | Roller |
| 34 | 9008937C110000 | Jamb Nut, 3/8" |
| 35 | 90137406110031 | Flat Washer |
| 36 | 98600008780027 | Spacer |
| 37 | 90152370110000 | Lockwasher, 3/8" |
| 38 | 9850000311 | Door Stop |
| 39 | 98600004550035K | Idler Mount |
| 40 | 18600EZ2980035 | Motor Bracket |
| 41 | 9860000098 | Roller (Idler) |
| 42 | 98600004760035K | Holder |
| 43A | 90107500111750 | Clevis Pin |
| 43B | 90103120111000 | Cotter Pin |
| 44 | 90152500110000 | Lock Washer |
| 45 | 98600001600167 | Spring |
| 46 | 90138500300062 | Flat Washer |
| 47 | 98600005540037K | Carriage Bolt |
| 48 | 90088500110000 | Elastic Lock Hex Nut |
| 49 | 9860000345 | Upper Chain Disconnect |
| 50 | 9000550C111500 | Hex Bolt, 1/2"-13 x 1-1/2" |
| 51 | 90138531110062 | Flat Washer, 1/2" |
| 52 | 90152500110000 | Lock Washer, 1/2" |
| 53 | 9008850C110000 | Hex Nut, 1/2"-13 |
| 54 | 9860000230 | Upper Body |
| 55 | 98600005100037 | Upper Blade |
| 56 | 9000319F110375 | Round Head Screw No. 10 x 3/8" |
| 57 | 98600001620127 | Torsion Spring |
| 58 | 90107370112120 | Clevis Pin, 3/8" |
| 59 | 90103120111000 | Cotter Pin |
| 60 | 9048600331 | Recessed Housing |
| 61 | 9850000131 | Knob/Rod |
| 62 | 90048001830035K | Flange |
| 63 | 98600004930117 | Knob |
| 64 | 9850000322 | Cable/Stud |
| 65 | 2008819C110000 | Lock Nut |
| 66 | 9002619F110625 | Flat Head Screw, No. 10 x 5/8" |
| 67 | 98600002400117 | Shoe |
| 68 | 98600001510010 | Chain No. 41 x 44' 6" |
| 69 | 98600009370037 | Chain Link |
| 70 | 9860000939 | Master Link No. 41 Chain |
| 71 | 90137780110080 | 3/4" Flatwasher |
| 72 | 2006131C110750 | Bolt, 5/16-18 x 3/4 |
| 73 | 20152310110100 | Lockwasher, 5/16 Split |