

R Y T E C

Pharma-Swing[®]

Installation & Owner's Manual



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WARRANTY

The Pharma-Swing[®] door purchased by you (Buyer) should not be installed or operated before you read all associated product manuals explaining the proper method of installing, operating, and maintaining the equipment.

Rytec Corporation (Seller) warrants that the Pharma-Swing door (Product) sold to the Buyer will be free of defects in materials and workmanship under normal use for a period of twelve (12) months from the date of shipment of the Product from the Seller's plant. If within the applicable period any Products shall be proved to the Seller's satisfaction to be defective, such Products shall be repaired or replaced at the Seller's option. Such repair or replacement shall be the Seller's sole obligation and the Buyer's exclusive remedy hereunder and shall be conditioned upon the Seller receiving written notice of any alleged defect within ten (10) days after its discovery and, at the Seller's option, return of such Product to the Seller, f.o.b. its factory. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER REPRESENTATION AND WARRANTIES, EXPRESS OR IMPLIED, AND THE SELLER EXPRESSLY DISCLAIMS AND EXCLUDES ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE.

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Any description of the Product, whether in writing or made orally by the Seller or the Seller's agents, specifications, samples, models, bulletins, drawings, diagrams, engineering or similar materials used in connection with the Buyer's order, are for the sole purpose of identifying the Product and shall not be construed as an express warranty. Any suggestions by the Seller or the Seller's agents regarding the use, application, or suitability of the Product shall not be construed as an express warranty unless confirmed to be such in writing by the Seller.

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This warranty shall be void in its entirety if the failure of any product shall be caused by any installation, operation, or maintenance of the Product which does not conform with the requirements set forth by the Seller in the applicable product manuals or is the result of any cause other than a defect in the material or workmanship of the Product.

TABLE OF CONTENTS

	PAGE
INTRODUCTION.....	1
HOW TO USE MANUAL	1
INSTALLATION	1
TOOLS AND EQUIPMENT REQUIRED	1
BASIC JOB REQUIREMENTS	1
Labor and Site Requirements.....	1
ELECTRICIAN'S RESPONSIBILITIES	2
GENERAL ARRANGEMENT OF DOOR PARTS	2
ANCHORING METHODS	2
Concrete and Existing Masonry.....	2
Steel	3
Block.....	3
Steel Core.....	3
Wrapped Wall.....	3
DELIVERY, UNCRATING, AND HANDLING.....	4
DOOR GUIDE.....	4
INSTALLATION AND TROUBLESHOOTING.....	4
IMPROPER DOOR/FRAME CLEARANCE	4
TWISTED FRAME.....	5
FRAME SET OUT OF SQUARE	5
Properly Set Frame	6
Improperly Set Frame (A)	7
Improperly Set Frame (B)	8
Improperly Set Frame (C)	9
FRAME WITH RABBETS TOED IN OR OUT	10
LOCK FITS LOOSE IN STRIKE	11
Proper Strike	11
Rim Exit Devices	11
LOCK FITS TOO TIGHT IN STRIKE.....	12
Proper Strike	12

MITER NOT CLOSED ON FRAME	12
CLEARANCE AT BOTTOM OF DOOR TOO SMALL.....	12
FRAME AND DOOR HINGE MISALIGNMENT.....	13
FRAME LOOSE ON DRYWALL	14
Welded/Snap-In Steel or Wood Stud Anchors	14
Drywall Frames with Compression Anchors	14
GLAZED WINDOW UNITS	16
LABEL MISSING FROM FIRE RATED FRAME	16
LABEL MISSING FROM FIRE RATED DOOR.....	17
INSTALLATION	17
ONE-PIECE DOOR FRAME	17
THREE-PIECE DOOR FRAME.....	18
DOOR PANEL	18
DOOR SEAL	19
OPERATOR.....	20
KICK PANEL	20
FINAL CHECKS	20
PLANNED MAINTENANCE	21
RECOMMENDED SCHEDULE.....	21
DAILY INSPECTION	21
Damage Inspection	21
Door Operation	21
Material Inspection/Window.....	21
QUARTERLY INSPECTION	21
Mounting Hardware Inspection	21
Seal Inspection	21
Door Operator and Push-Button Control Station Inspection	21
Electrical Connection Inspection.....	21
REPLACEMENT PROCEDURES.....	21
SEAL	21
DOOR OPERATOR.....	21

PARTS LIST	.21
ORDERING INFORMATION	.21
How to Order Parts	.21
Substitute Parts	.21
Return of Parts	.21
ONE-PIECE DOOR FRAME	.22
THREE-PIECE DOOR FRAME	.24

INTRODUCTION

The information in this manual will allow you to install, operate, and maintain your Rytec Pharma-Swing® door in a manner which helps ensure maximum life and trouble-free operation.

Any unauthorized changes in procedure, or failure to follow the steps as outlined in this manual, will automatically void the warranty. Any changes in the working parts, assemblies, or specifications as written that are not authorized by Rytec Corporation will also cancel the warranty. The responsibility for the successful operation and performance of this door lies with the owner of the door.

DO NOT INSTALL, OPERATE, OR PERFORM MAINTENANCE ON THIS DOOR UNTIL YOU READ AND UNDERSTAND THE INSTRUCTIONS CONTAINED IN THIS MANUAL.

If you have any questions, contact your Rytec representative or call the Rytec Customer Support Department at 800-628-1909. Always refer to the serial number of the door when calling the representative or Customer Support. The serial number plate is located inside one of the side columns.

HOW TO USE MANUAL

Throughout this manual, the following key words are used to alert the reader of potentially hazardous situations, or situations where additional information to successfully perform the procedure is presented:



WARNING is used to indicate the potential for personal injury, if the procedure is not performed as described.



CAUTION is used to indicate the potential for damage to the product or property damage, if the procedure is not followed as described.

IMPORTANT: *IMPORTANT* is used to relay information that is **CRITICAL** to the successful completion of the procedure.

NOTE: *NOTE* is used to provide additional information to aid in the performance of the procedure or operation of the door, but not necessarily safety related.

INSTALLATION

TOOLS AND EQUIPMENT REQUIRED

1. Threaded rod, concrete anchor bolts, and other various wall anchor hardware and material. (See “ANCHORING METHODS” on page 2.)
2. Socket and wrench set.
3. Two ladders (taller than the door opening height).
4. Carpenter's level (4-ft. minimum length).
5. Carpenter's square.
6. Hammer drill.
7. Various sizes and types of drill bits.
8. Three or four foot-long bar clamps.
9. Hammer and mallets.
10. Crowbar or prybar.
11. Assorted hand tools (pliers, tape measure, etc.).
12. Assorted shim stock.
13. Water level, line level, or transit.

BASIC JOB REQUIREMENTS

Labor and Site Requirements

1. Two installers are required.
2. The customer must guarantee 100% access to the door opening during the installation. No traffic should be allowed through the door during the installation.
3. A licensed electrician is required for making all electrical connections.

NOTE: *One installer must be a qualified electrical technician to install the optional powered equipment. All electrical work must be performed in accordance with local, state, and federal building codes.*

INSTALLATION—ELECTRICIAN'S RESPONSIBILITIES

ELECTRICIAN'S RESPONSIBILITIES

Your Rytec Pharma-Swing door has a host of options that are available or made available for your custom installation. A licensed electrician is required for all electrical connections.

NOTE: *The fusible disconnect and any electrical access control system should be installed prior to the start of the door installation.*

Provide, mount, and run power lines for any electrical door options:

- Door operators.
- Activation devices
- Power supplies.
- Electric strike panels.
- Magnetic lock.
- Swipe card lock.

GENERAL ARRANGEMENT OF DOOR PARTS

Figure 1 shows the location of major components of your Pharma-Swing door. This illustration should be used as reference only and should not be used as part of the installation instructions.

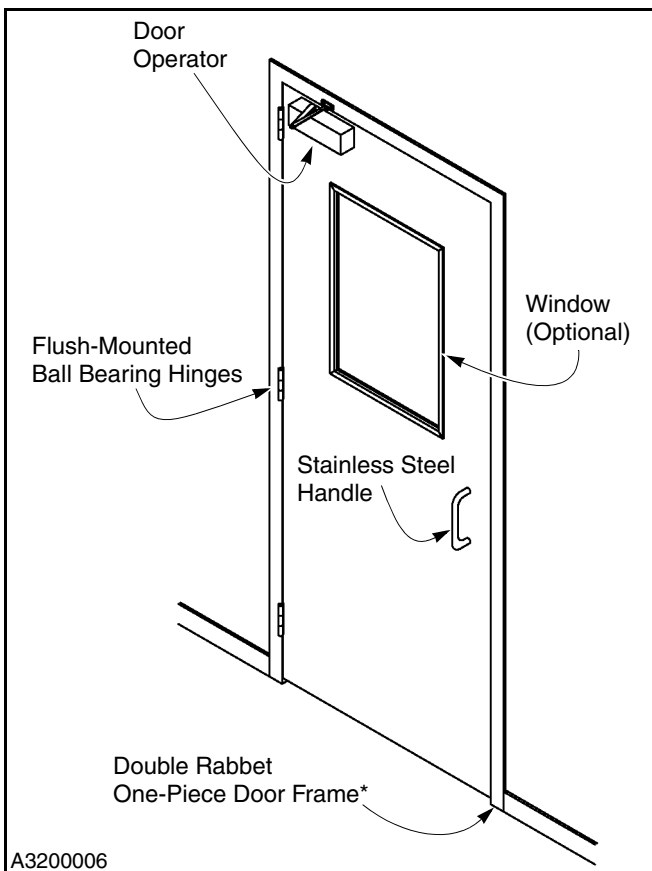


Figure 1

**Single rabbet, three-piece frame, and hospital stops are available options.*

NOTE: *Figure 1 shows the front side of the door. Left and right are determined when viewing the front side of the door.*

ANCHORING METHODS

Correct anchoring of the frame to the wall and the floor is important for the smooth and safe operation of the door. The wall material should be strong enough to support the weight of the door and all wall anchors.

Figure 2 through Figure 6 show anchoring methods for various types of walls. Use the method that is best suited for your particular installation site.

All necessary anchoring hardware and material required for the installation of this door are the responsibility of the door owner. If you have any questions, call your Rytec representative or the Rytec Customer Support Department at 800-628-1909.



Determine where on the wall the door operator will be mounted to ensure that the area of the wall is properly prepared for the weight of the door operator.

Concrete and Existing Masonry

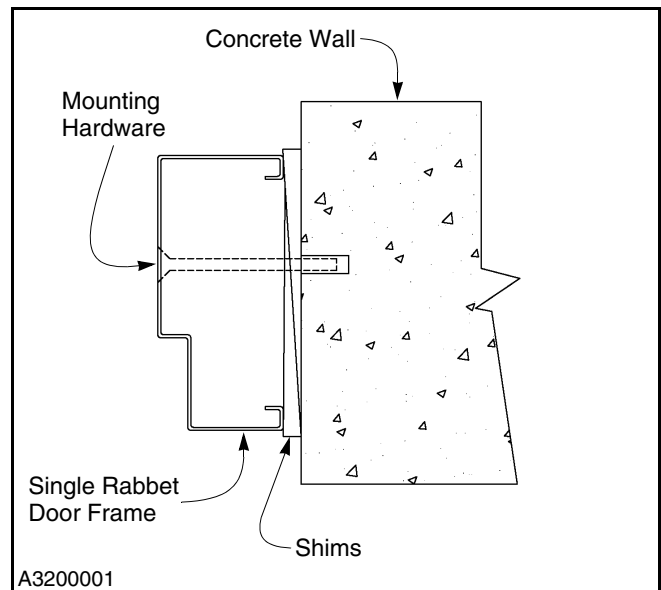


Figure 2

Steel

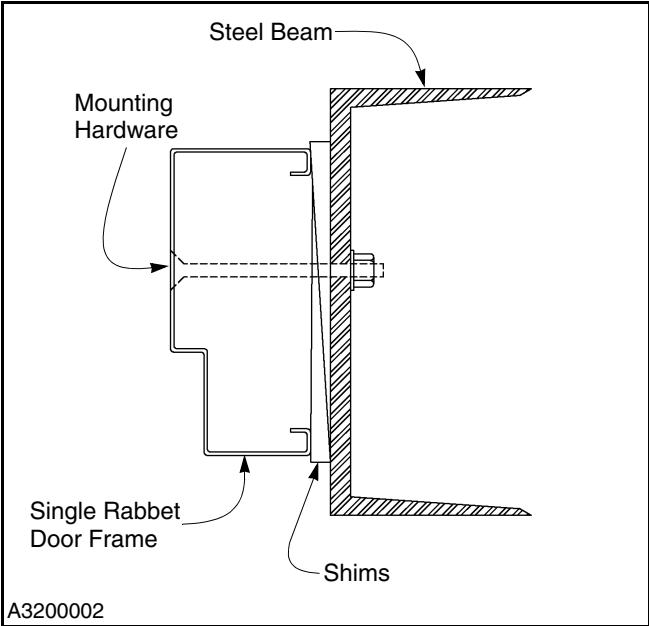


Figure 3

Steel Core

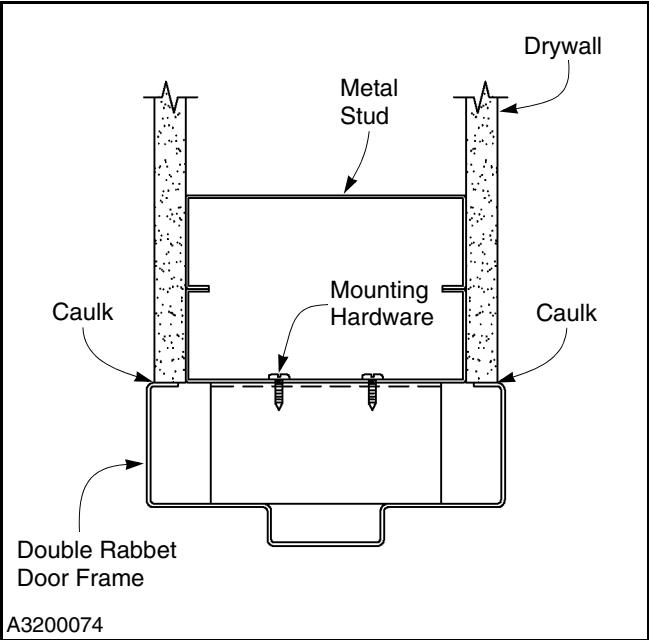


Figure 5

Block

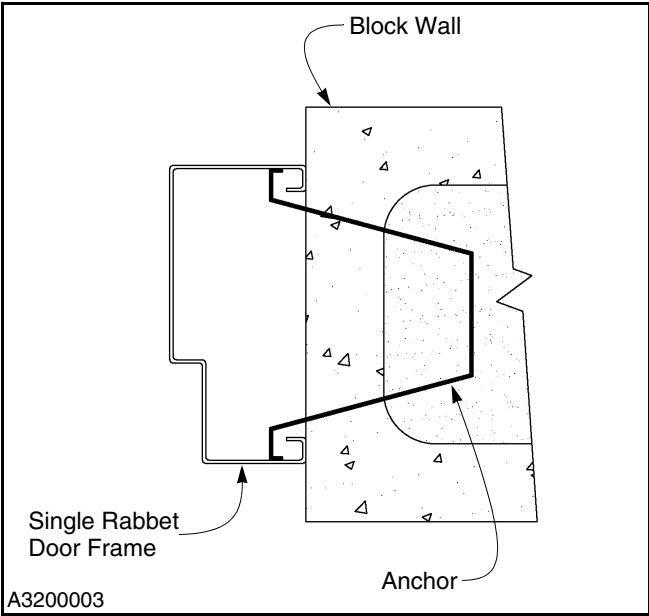


Figure 4

Wrapped Wall

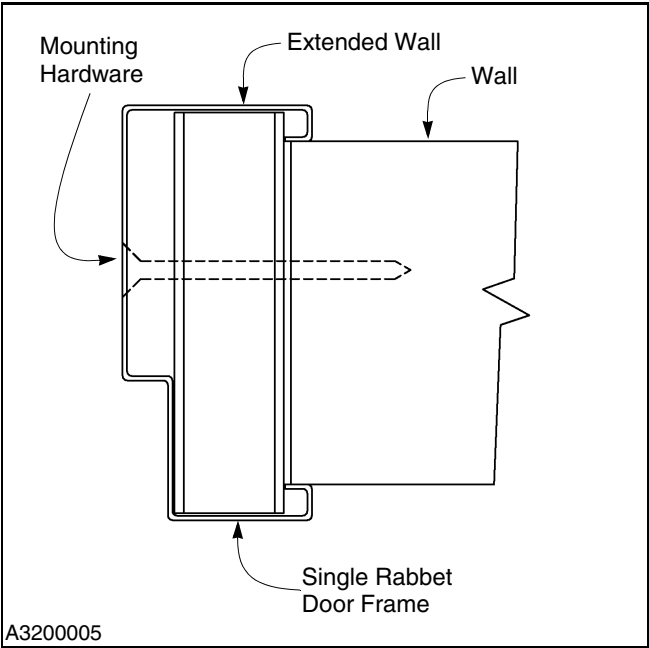


Figure 6

DELIVERY, UNCRATING, AND HANDLING

The Pharma-Swing is a high-quality door, and for the customer to receive the best product available, special care of the door has been taken. The door panel and frame assemblies may be shipped separately as they are manufactured. Therefore, depending on your wall configuration, the door may arrive in various stages as just a frame assembly, a door panel, or a complete door and frame assembly.

The Pharma-Swing door frame may require some prep work prior to installation. On the one-piece frame assembly (without door), the bottom panel will be a breakaway item. This panel was installed for shipping purposes only and will need to be removed. The door panel seals are a highly sensitive item and should be given high regard when uncrating. Any rips, tears, or damage of any type will impair the operation of the door. For the door to operate at optimum level and for its intended purpose, the seals should be replaced immediately or prior to putting the door into service.

DOOR GUIDE

INSTALLATION AND TROUBLESHOOTING

The intent of this document is to cover field installation problems most commonly experienced with standard steel door and frame installations. **It should be understood that most problems encountered are because of inappropriate application of the product and/or improper installation.**

The suggested method of repair requires only basic hand tools and relatively little time. It should be understood that more complex problems or compound problems could exist which warrant extensive field repairs and modification to products. These types of field installation problems are not intended to be covered in this document and should not be made without first consulting Rytec Customer Support.

IMPROPER DOOR/FRAME CLEARANCE

To ensure proper door and frame function, the clearance between the door and frame must be properly maintained. All standard steel door and frame manufacturers closely hold tolerances that result in a nominal clearance between the door and frame of $\frac{1}{8}$ inch. If this clearance is not maintained, interference and hardware misalignment will occur. Proper installation is extremely important in establishing clearances and preventing a multitude of potential problems.

(See Figure 7 and Figure 8.)

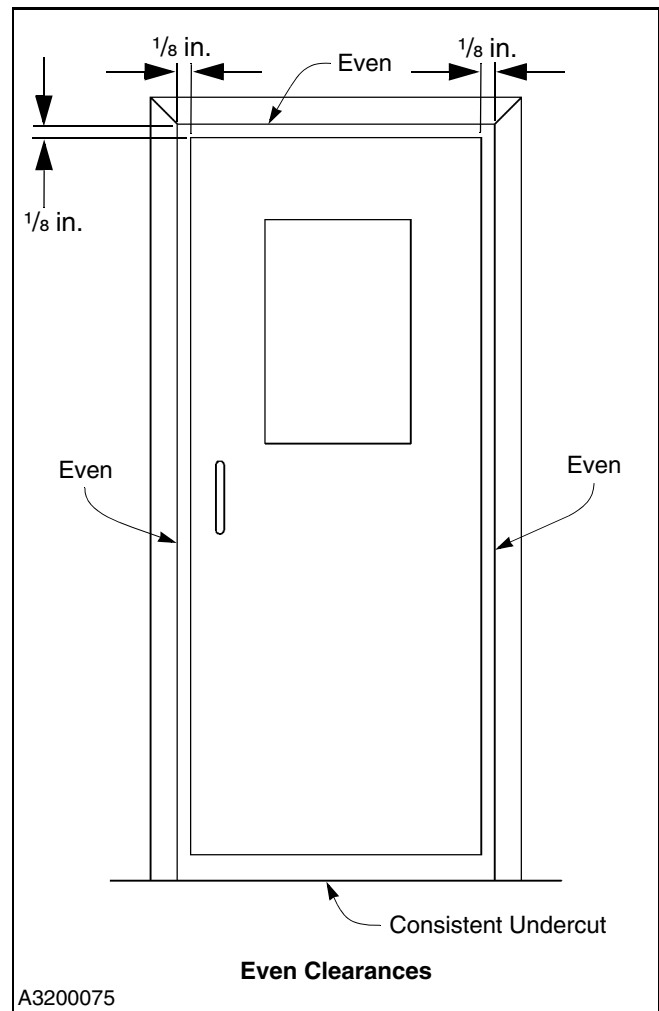


Figure 7

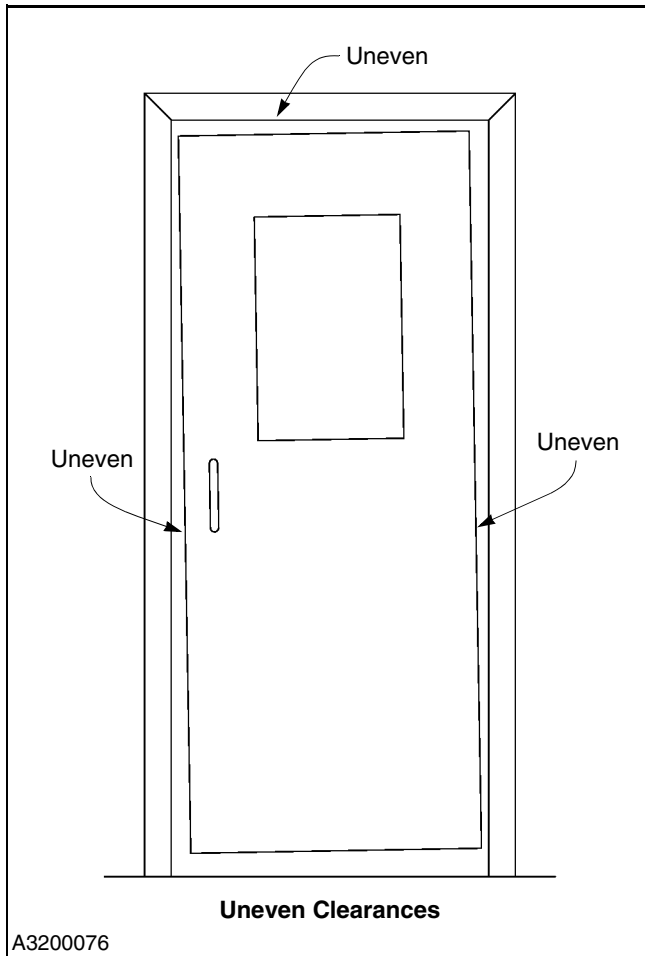


Figure 8

TWISTED FRAME

Wall conditions and anchoring methods can cause the frame to be “twisted” in the opening. The jamb (hinge and strike) faces are not in the same imaginary plane, as discussed in the twisted door section. This can be checked by using a level and/or plumb bob. Frames do not have adjustments when it comes to “twist.”

The “twist” condition is generally caused by the wall conditions. The frame jamb faces are prevented from being set in the same plane because the walls are out of plane to begin with.

The options available to correct this problem depend to a large extent on the wall construction. (See Figure 9.)

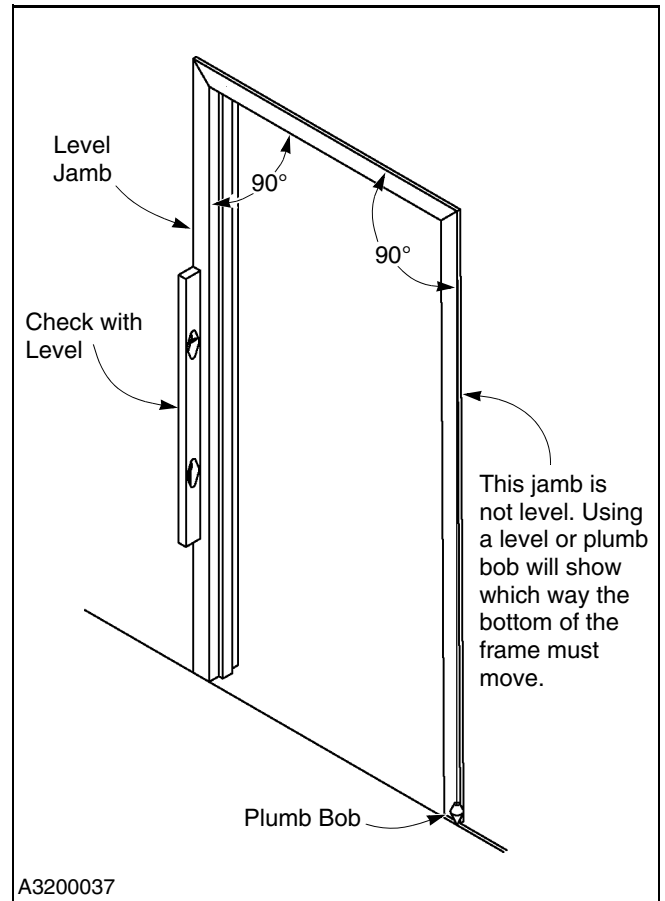


Figure 9

FRAME SET OUT OF SQUARE

Proper frame installation cannot be overemphasized. In the majority of wall constructions (slip-on drywall type frames being the major exception), quick or easy field fixes are limited. Improperly set frames that are drastically out of square will cause severe door and hardware problems. These types of situations would require extensive field repair and may result in having to remove frames from walls to gain access to frame anchoring.

If the out-of-square condition is slight, some adjustment can be made by shimming and/or adjusting anchors, particularly if the frame being worked on is a slip-on drywall type.

The most versatile frame to work with in correcting this type of condition is the slip-on drywall frame. The manufacturer’s instructions should be referenced, but generally most slip-on drywall frames have a sill anchor at the bottom of the jamb and a compression anchor between the top hinge and the header. (See Figure 10 and Figure 11.)

IMPROPER DOOR/FRAME CLEARANCE—FRAME SET OUT OF SQUARE

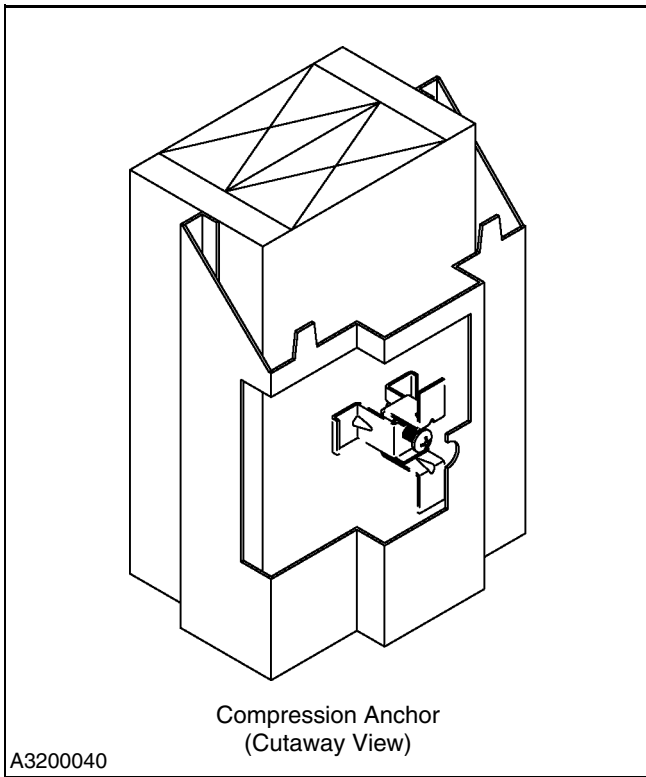


Figure 10

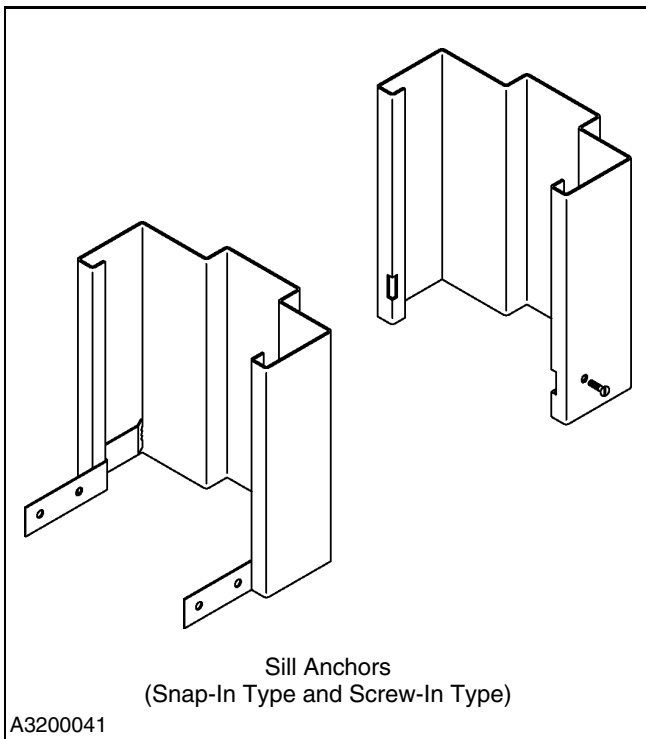


Figure 11

Also, most jambs have corner clips that have a hole to accept a screw. The corner clip and hole align with a hole in the header. The adjustment of slip on drywall frames can be made using these anchors or corner clips. (See Figure 12.)

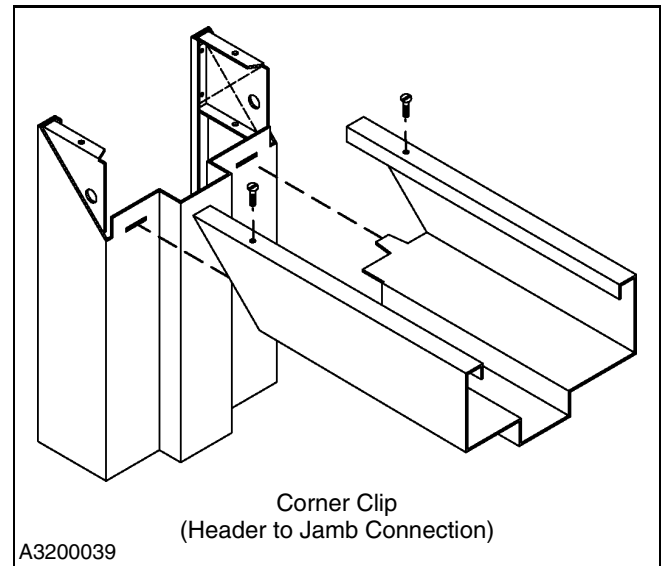


Figure 12

Properly Set Frame

All corners are 90°. The dimension taken at point A is equal to the dimension checked at point B. Both hinge and strike jambs are plumb and level. (See Figure 13.)

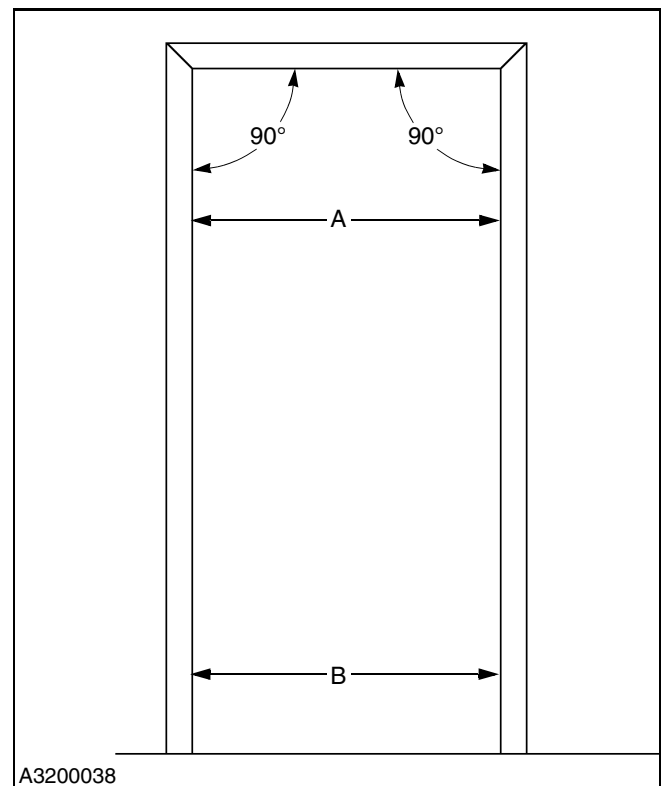


Figure 13

Improperly Set Frame (A)

One corner is greater than 90°, and one corner is less than 90°. The miters do not properly align with one another, and gaps are created in the miters which are opposite of one another. The dimension taken at point A would remain the same when checked at point B if the 90° corners are out of square an equal number of degrees. (See Figure 14.)

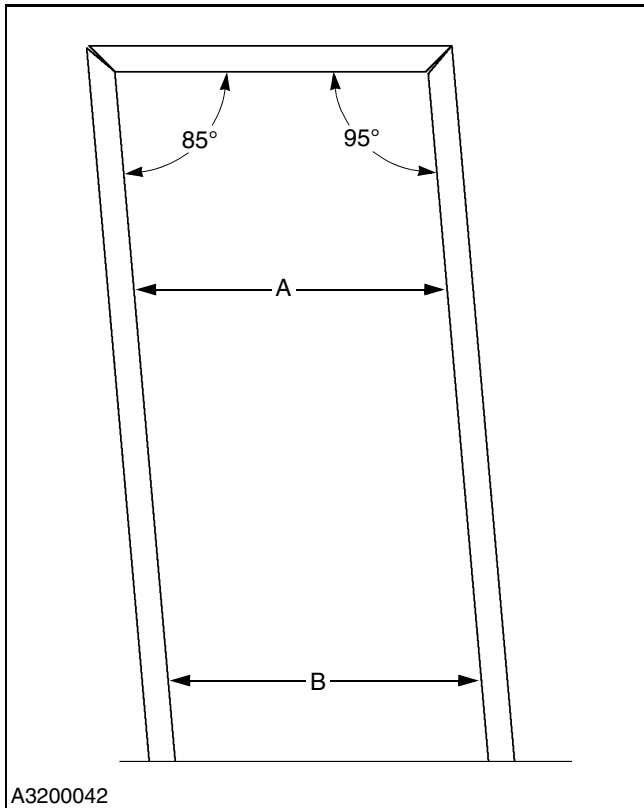


Figure 14

This condition can be corrected by adjusting the compression anchors in and/or out of each jamb as required. Loosen the corner clip screws if the frame is so equipped before making adjustments; retighten when finished. (See Figure 15.)

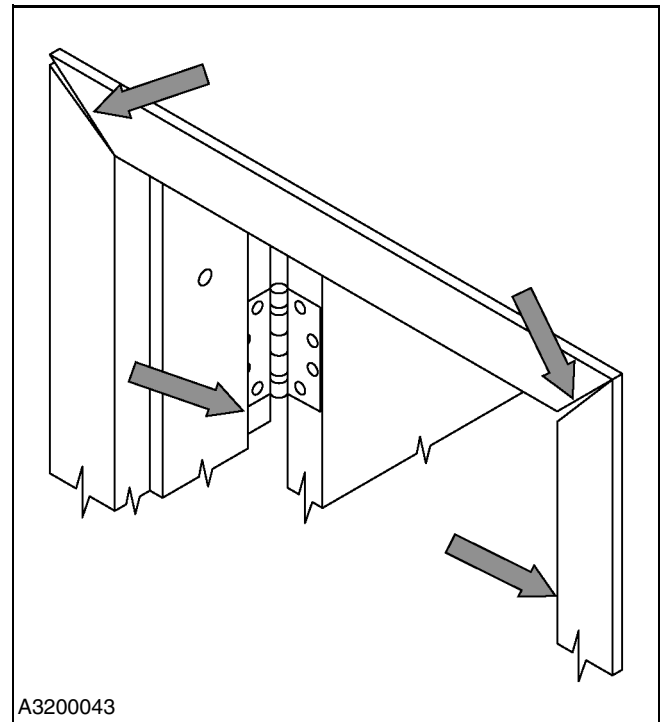


Figure 15

For the illustration shown, the strike jamb compression anchor screw must be turned counterclockwise to retract the compression anchor and give room for the frame to be moved back into position using the hinge jamb compression anchor. The hinge jamb compression anchor screw must then be turned clockwise to advance the anchor and push the frame toward the room made at the strike jamb. The frame should be brought into square with the header and the hinge jamb compression anchor. Once this is done, the strike jamb compression anchor screw can be turned clockwise, advancing the anchor snug against the stud. The corner slip screws should then be retightened. (See Figure 16.)

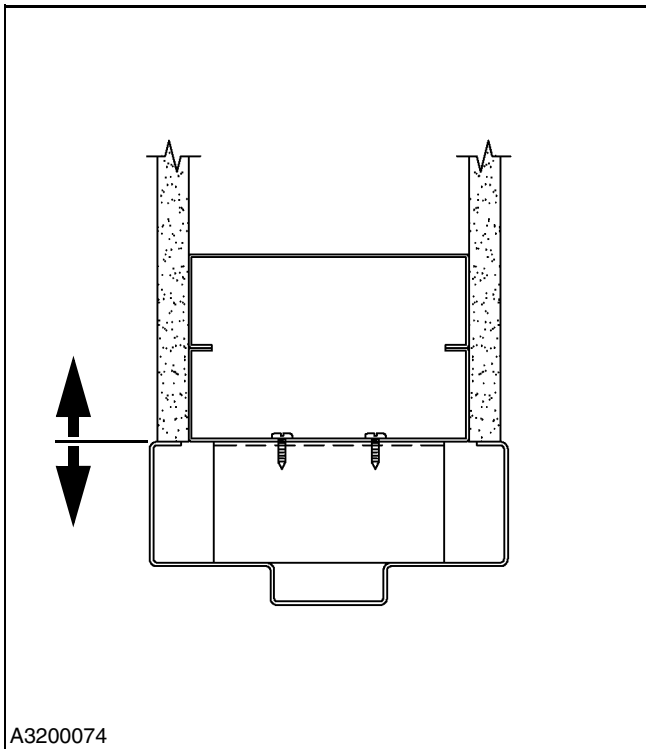


Figure 16

Improperly Set Frame (B)

The corners are both greater than or less than 90° . The miters do not properly align with one another. When the corner is less than 90° , the miter will have a gap which increases as it goes toward the return. When the corner is greater than 90° , the miter will have a gap, which increases as it goes toward the rabbet. Dimensions taken at points A and B will not be equal. This condition will always result in dimension B being either greater than or less than the nominal opening dimension which would be obtained if checked between jambs along the header.

To correct this condition, the sill anchors must be loosened to allow the bottom of each jamb to be moved in and/or out. In the case of the snap-in type sill anchor, the baseboard trim might have to be removed to gain access to the anchors. This type of anchor is generally used because it can be hidden by covering it with the baseboard trim.

If the jambs are toed in at the sills, the compression anchors might have to be retracted slightly so the sill (base) of the jambs can be pushed out. The jambs should be plumb and square with the header and leveled as they are pushed out into their proper position. The sill anchors should be reset, and the compression anchors should be adjusted and retightened. (See Figure 17.)

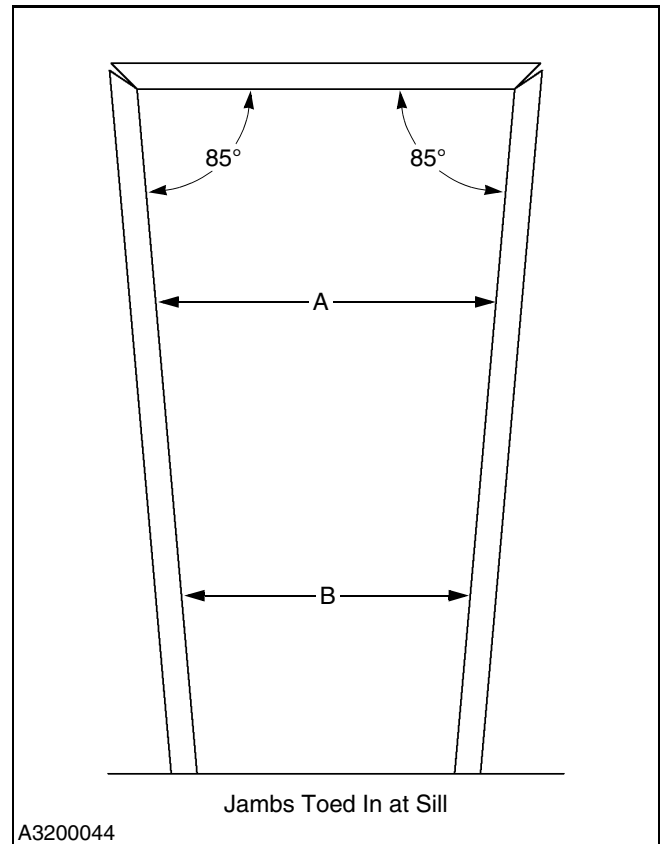


Figure 17

A similar procedure should be used if the jambs are toed out at the sills. The sill (base) of the jambs should be pushed in toward the opening. The jambs should be plumb and square with the header and leveled as they are pushed into their proper position. The sill anchors should be reset, and the compression anchors should be adjusted (extended) and retightened. The baseboard trim should be reattached to the wall if it had been removed.

(See Figure 18.)

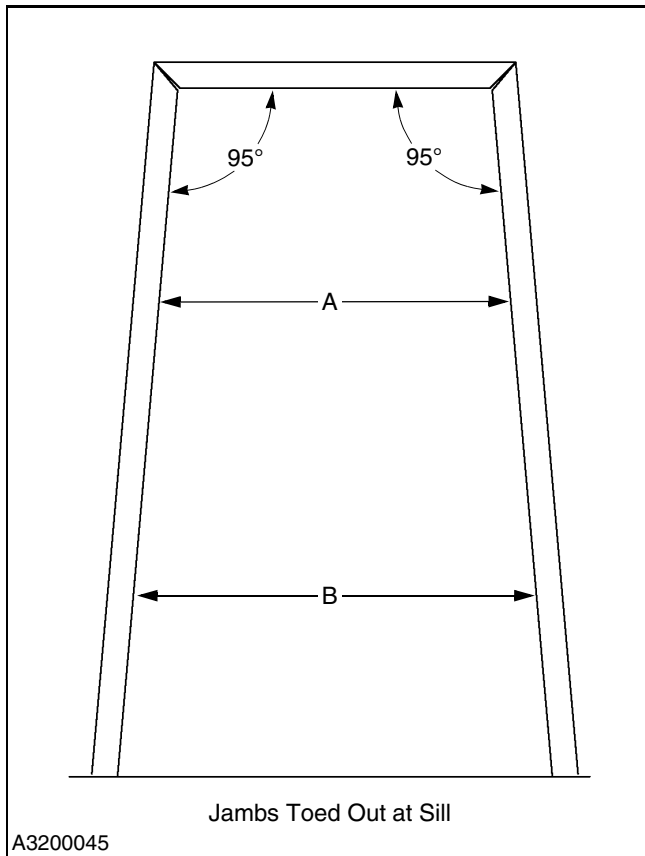


Figure 18

Improperly Set Frame (C)

One corner is properly set at 90° while the other corner is greater or less than 90°. The dimension taken at point A will constantly change when checked at various points going toward point B. The corner miter will not properly align between the header and jamb that is not set at 90°.

The jamb that is not 90° to the header must be moved. To correct this condition, the sill anchor must be loosened to allow the bottom of the jamb to be moved in or out as required. In the case of the snap-in type sill anchor, the baseboard trim may have to be removed to gain access to the anchor. (See Figure 19.)

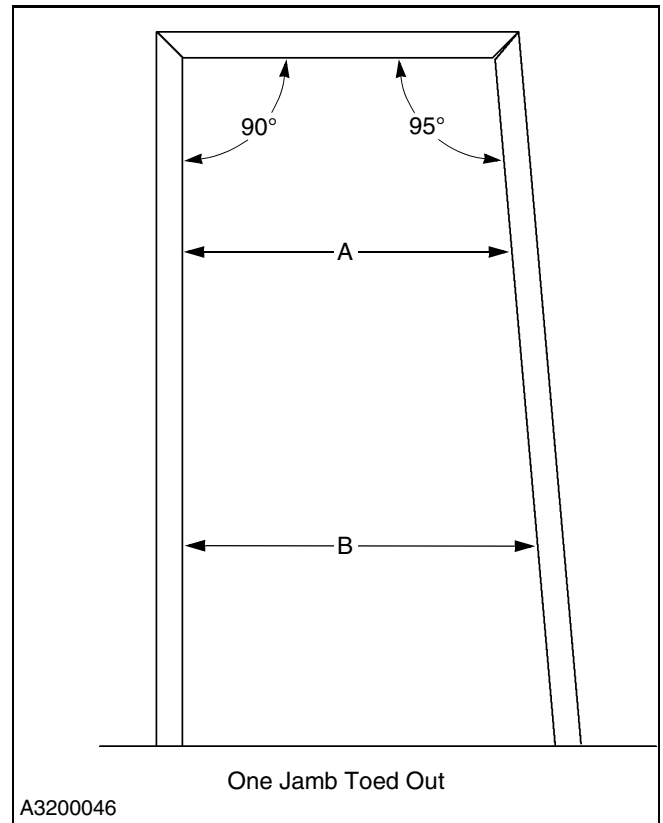


Figure 19

If the jamb is toed in at the sill, the compression anchor may have to be retracted slightly so the sill (base) of the jamb can be pushed out. The jamb should be plumb and square with the header and leveled as it is being pushed out into its proper position. The sill anchor should be reset, the compression anchor adjusted and retightened. The baseboard trim should be reattached to the wall if it had been removed.

A similar procedure should be used when the jamb is toed out at the sill. The sill (base) of the jamb should be pushed in towards the opening. the jamb should be plumb and square with the header and leveled as it is pushed into its proper position. The sill anchor should be reset, the compression anchor adjusted (fastened) and retightened. The baseboard trim should be reattached to the wall if it had been removed. (See Figure 20.)

IMPROPER DOOR/FRAME CLEARANCE—FRAME WITH RABBETS TOED IN OR OUT

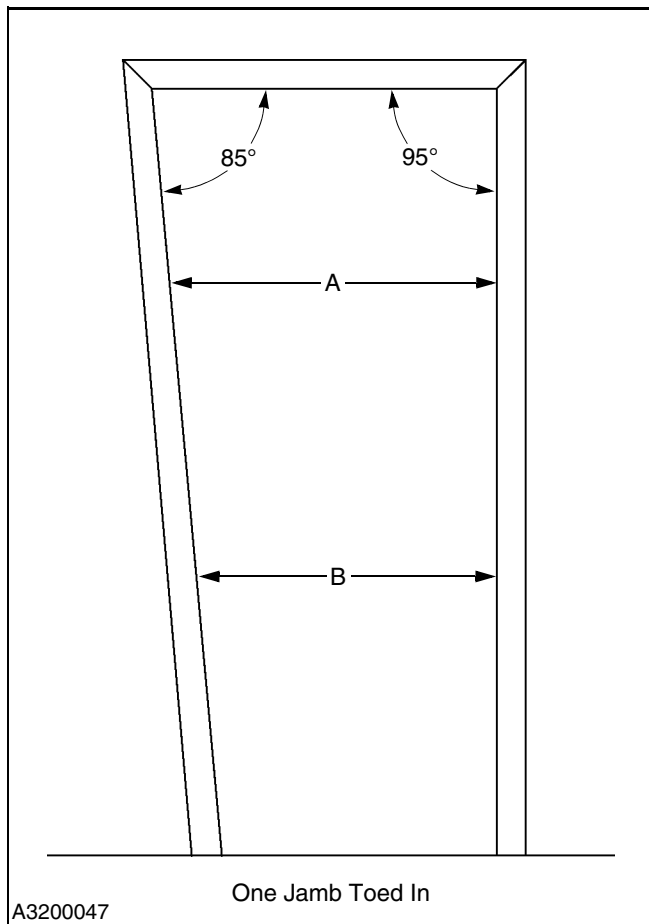


Figure 20

FRAME WITH RABBETS TOED IN OR OUT

The importance of proper initial frame installation is evident in this condition. In the majority of wall constructions, except for the slip-on drywall type frames, quick and easy field fixes are limited. Improperly set frames that have the rabbets drastically toed in or out would require extensive field repair, and most cases require that the wall be entered to gain access to frame anchoring.

The toed in or out condition is worse near the floor. The header prevents the upper portion of the jambs from toeing in or out, but as they move away from the header toward the floor, the jambs have greater potential to be toed in or out during installation.

The only frame with this condition which can be corrected with little difficulty is the slip-on drywall frame. Since the slip-on drywall frame uses only compression anchors near the head, and sill anchors near the bottom of the jambs, this condition is easily corrected. (See Figure 21.)

NOTE: The rabbet surfaces are not 90° to the plane of the wall. This can be checked by placing a straightedge across the face of both jambs. The straightedge should set flat across both faces at the same time. If the jambs are twisted, a gap will be created as shown in Figure 21.

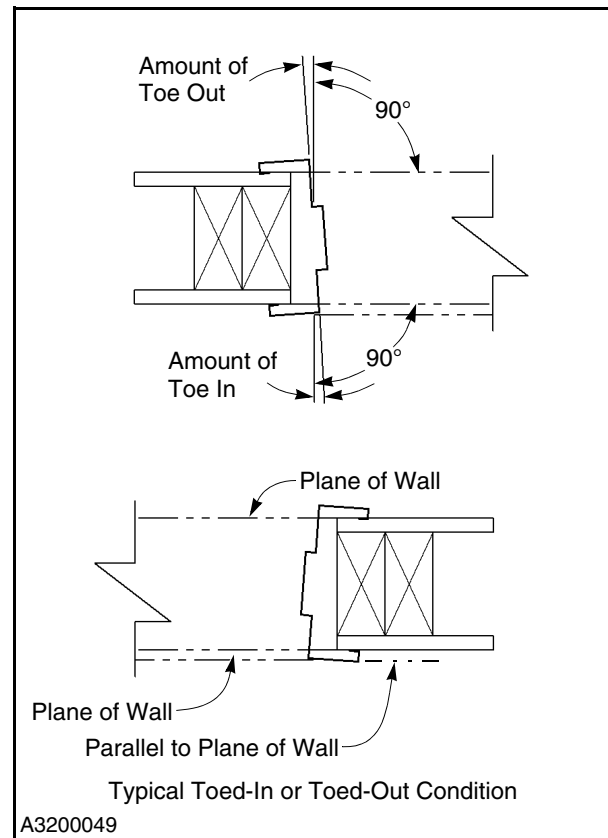


Figure 21

Figure 22 shows the two typical types of sill anchors used on the slip-on drywall frame.

“A” shows an anchor which will be covered up by the baseboard trim. To gain access to this anchor, the baseboard trim must be removed. Next, the nails must be removed. This will loosen the jamb and allow it to be squared in the opening.

“B” illustrates a screw going through the face of the frame into the wall. This holds the sill of the frame in position. This screw is exposed and is readily accessible. Removing the screw will loosen the jamb and allow it to be squared up in the opening. If both jambs are toed in or out, they both should be squared up.

This can be checked by taking measurements as shown in Figure 23. Both A and B dimensions will be the same when the frames are properly set. However, the frame jambs must be plumb, level, and square with the head of the frame.

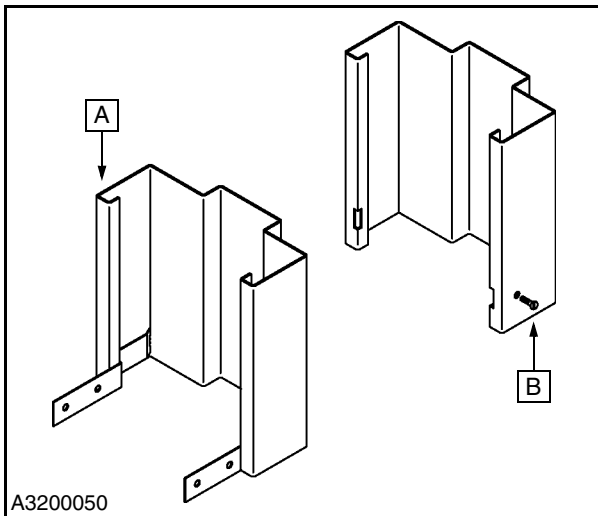


Figure 22

If both jambs are toed in or out they both should be squared up. This can be checked by taking measurements as shown above. Both the “A” and “B” dimensions will be the same when the frames are properly set. (See Figure 23.)

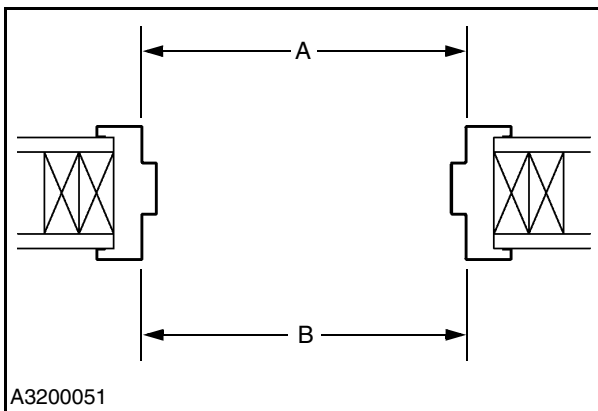


Figure 23

Figure 24 shows a condition that can give the impression that the frame is properly installed. Dimension A and Dimension B will be equal, but the frame will not be square in the opening. Both jambs can be twisted to create a parallelogram. This can be checked by placing a straightedge across the face of both jambs the straight edge is represented by the dotted line. The straightedge should set flat across both faces at the same time. If the jambs are twisted, a gap will be created, as shown in the illustration. The gaps will be on the same side if a parallelogram was created. The gaps could also be on opposite sides as shown in the “Typical Toed In or Out Condition” in Figure 24.

This condition can be corrected as outlined for the other toe-out or toe-in examples.

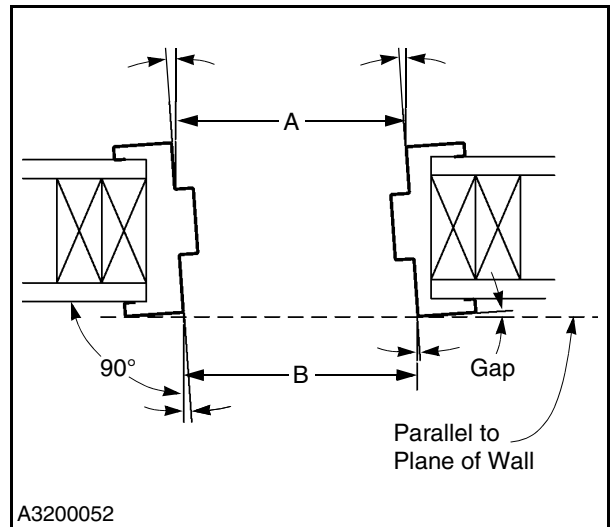


Figure 24

LOCK FITS LOOSE IN STRIKE

This condition cannot be caused by an improperly set door and/or frame. If the lockset on the door was not properly aligned with the strike on the frame, interference would occur or the latch bolt would bind in the strike. Since this is not the case, the cause is something other than improper installation. The following should be checked:

Proper Strike

Is the proper strike plate attached to the frame?
(See Figure 25.)

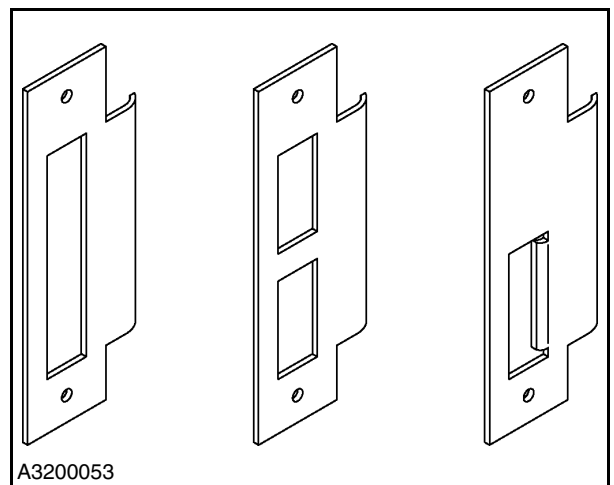


Figure 25

Rim Exit Devices

If an adjustable strike plate is used, is the strike plate properly adjusted to provide and secure latching?
(See Figure 26.)

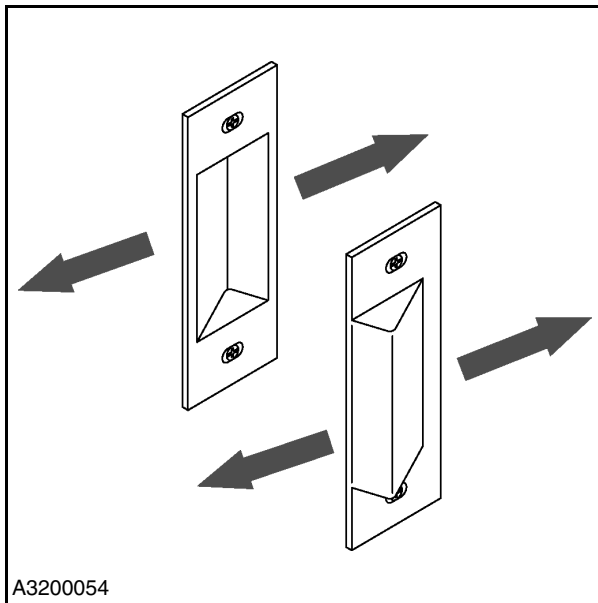


Figure 26

LOCK FITS TOO TIGHT IN STRIKE

Proper installation of the door and frame is essential. If the door and frame are not properly aligned, the latch bolt could bind in the strike. The following item should be checked:

Proper Strike

Is the proper strike plate attached to the frame?

The previously mentioned item should be checked and any problems corrected. If the latch continues to tightly engage the strike, additional clearance can be created by filing the strike or bending the latch bolt lip. However, this should only be done as a final option.

MITER NOT CLOSED ON FRAME

The major cause of miters not properly lining up and closing is incorrect installation. The effects of improper installation on miter seams are covered under the section “FRAME SET OUT OF SQUARE” on page 5. This section should be referenced for detailed explanations of conditions which could occur, and solutions for correcting the problems. (See Figure 27.)

This condition could also be caused by conditions as explained in “FRAME LOOSE ON DRYWALL” on page 14.

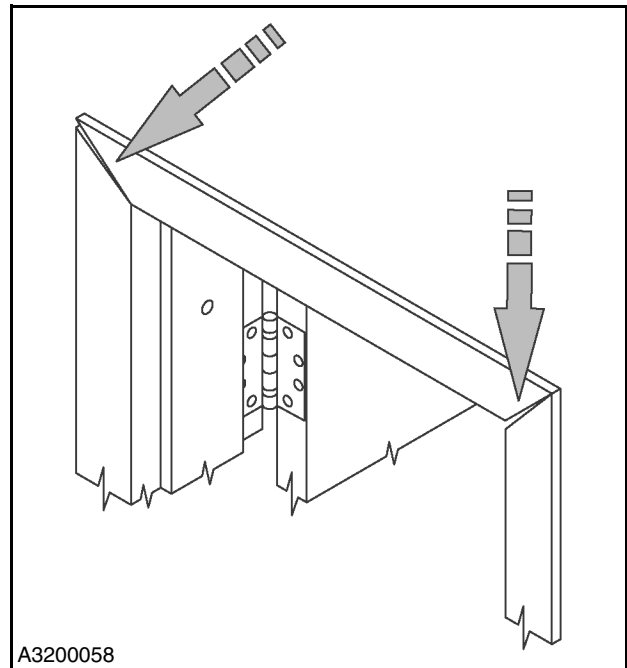


Figure 27

CLEARANCE AT BOTTOM OF DOOR TOO SMALL

The available options for correcting this problem are limited. Frames that are permanently anchored to the wall construction (such as masonry or steel stud) leave few alternatives. The only available fix is to trim the bottom of the door, if the door's construction will permit trimming. As shown in Figure 28, the nominal sill clearance should be $\frac{3}{4}$ in. The sill clearance is the dimension from the bottom of the door to the bottom of the frame jambs, and $\frac{3}{4}$ in. is a standard industry-wide dimension.

The frame jambs should be set at floor level, which then results in $\frac{3}{4}$ in. between the bottom of the door and the floor.

The $\frac{3}{4}$ in. also provides enough room to allow the installation of a raised sill, which is a type of flat threshold. If a raised sill is used, the $\frac{3}{4}$ in. clearance is decreased to $\frac{3}{4}$ in.

Before any alterations are made, the door height dimensions should be checked. The door height is determined by taking a measurement represented by dimension A in Figure 28. If the door height is oversize, the clearance at the bottom will be too small.

The frame jamb height (which is the same as the opening height) is determined by taking a measurement represented by dimension B. If the jamb height is undersize, the clearance at the bottom will be too small.

IMPROPER DOOR/FRAME CLEARANCE—FRAME AND DOOR HINGE MISALIGNMENT

The bottom of the frame jams should be set on the floor not, in the door. In some special cases the jams can be set in the floor, but this requires special design consideration and adjustments in door height and jamb heights. If this was not compensated for in the designed heights, the clearance at the bottom could be too small.

By taking these dimensions, you can confirm what element of the opening is in error. If trimming the bottom of the door is considered, you must make sure that the door's design will allow such a modification to be made. It is best to contact the distributor or the manufacturer to determine if and how much the door can be trimmed. These types of trimming modifications can be relatively simple or more extensive, depending on door design. (See Figure 28.)

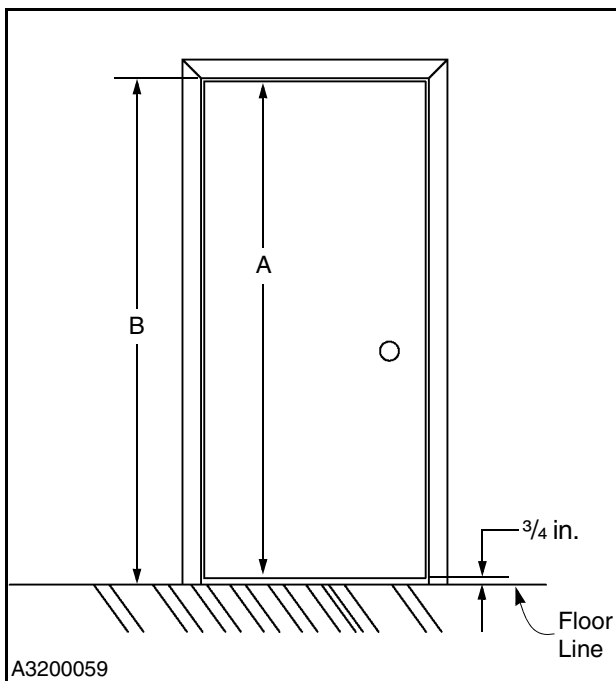


Figure 28

IMPORTANT: UNDER NO CIRCUMSTANCES SHOULD MODIFICATIONS BE MADE TO FIRE RATED LABELED DOORS AND FRAMES.

FRAME AND DOOR HINGE MISALIGNMENT

Frame and door hinge misalignment can cause a variety of problems. When misalignment occurs, either the door's hinge locations or frame's hinge locations are slightly off. This can apply to retrofitting existing openings where the door or frame is being replaced, but not both. When new doors and frames are provided from a single manufacturer, this problem does not exist.

Figure 29 reflects the dropping of the hinge leaf which attaches to the door from its relationship to the hinge leaf on the frame. However, by removing material from the opposite end of the knuckles, the door hinge leaf could be raised as well. The frame hinge leaf can also be relocated in similar fashion.

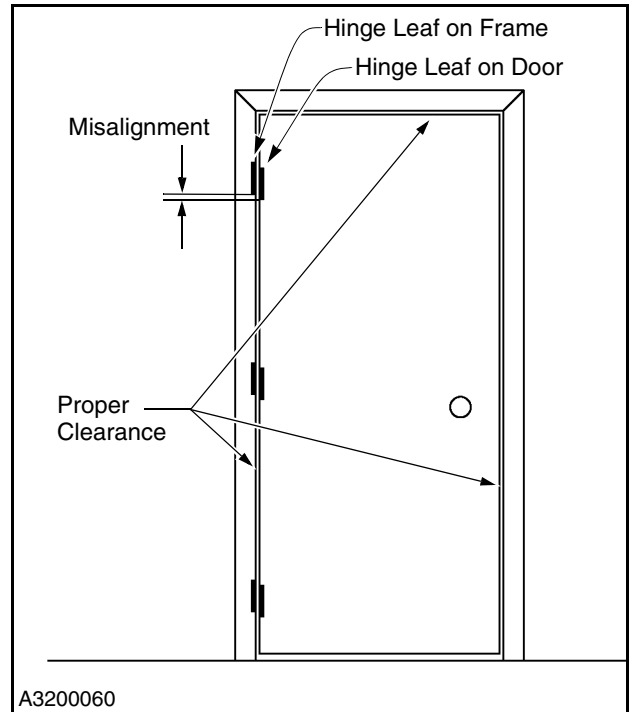


Figure 29

NOTE: Since the hinge leaf on the door must move down, material must be taken off the knuckles as shown. Mark the amount to be removed equal to the misalignment. (See Figure 30.)

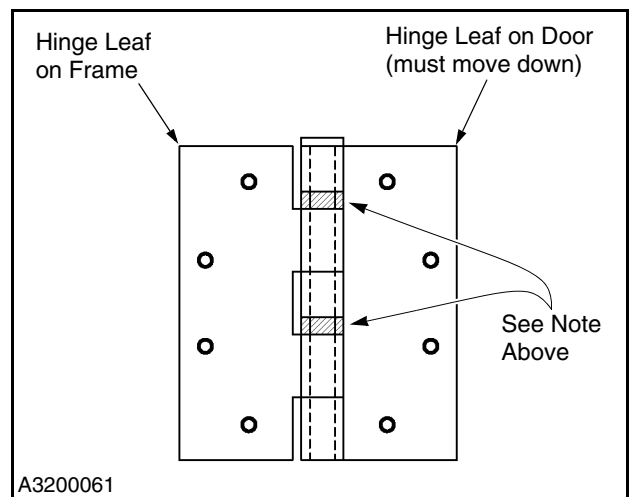


Figure 30

IMPROPER DOOR/FRAME CLEARANCE—FRAME LOOSE ON DRYWALL

NOTE: Disassemble hinge. Remove material on knuckles equal to the misalignment. (See Figure 31.)

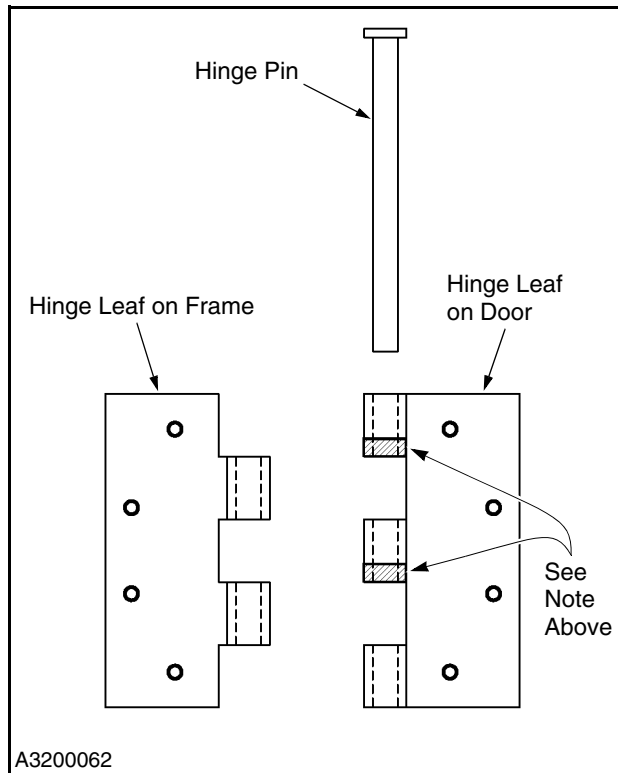


Figure 31

Reassemble hinge leaves and insert hinge pin.

NOTE: Gaps will now exist between the knuckles in the areas shown. Flat washers of proper thickness and diameter can be placed in these areas during hinge assembly. (See Figure 32.)

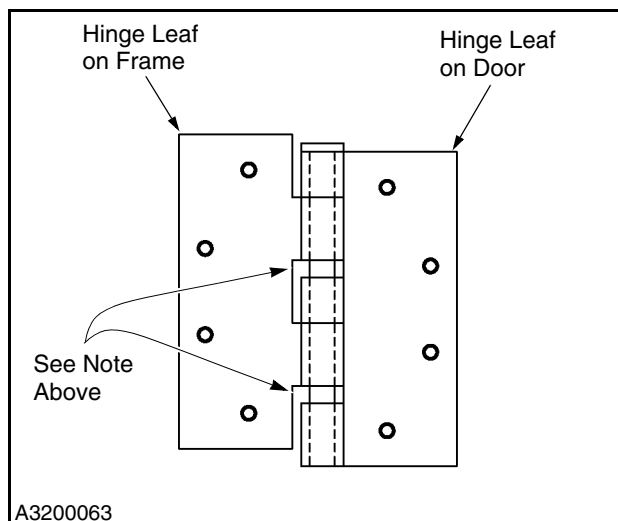


Figure 32

FRAME LOOSE ON DRYWALL

Frame manufacturers closely control the dimensions to which their frames are manufactured. Since automated equipment is used, these dimensions are easily repeated from piece to piece. The majority of cases where frames are loose on drywall will reveal that the overall wall thickness had not been properly maintained. Wall thickness conditions can vary from undersize to oversize. The thickness should be checked, if possible, to verify the wall's compliance with the job specification.

Frames installed in walls made of drywall can use two different anchoring methods.

Welded/Snap-In Steel or Wood Stud Anchors

Some frames use welded, snap in steel anchors or wood stud anchors. These frames are installed before the drywall material is attached to the studs. The drywall can either be butted up against the return of the frame or be tucked in behind the return of the frame. Only in the installation where the drywall is tucked in behind the return can there be a condition where the frame is loose on the drywall. This gap could be uniform along the entire length (height) of the jamb or it could be very irregular. Since the frame cannot be removed, the only available options are to caulk the gap or cover it with trim.

Drywall Frames with Compression Anchors

These frames are intended to be installed after the wall construction is complete. The anchoring methods that are used allow the removal of the frame if so desired. The manufacturer's installation instructions should be followed anytime the frame is removed and reinstalled. Three conditions could exist for drywall slip on frames that are loose on the wall.

1. The first condition is a uniform gap along the entire length (height) of the frame jambs. The frame should be removed from the opening and the wall thickness checked at numerous places around the opening. These measurements should be compared to the job specifications. If the wall thickness is undersize, two options are available:
 - If the gap is relatively small, caulk or trim can be used to cover the gap when the frame is installed.
 - If the gap is larger, spacers can be used to offset the undersize wall thickness. The use of spacers requires that the frame be removed from the opening, the spacer(s) attached, and the frame reinstalled. The spacers can be used on either one or both of the frame returns, which would result in spacers on either one side or both sides of the wall. Spacers are available from the frame manufacturer. (See Figure 33.)

IMPORTANT: *Spacers are not to be used on labeled fire door frames.*

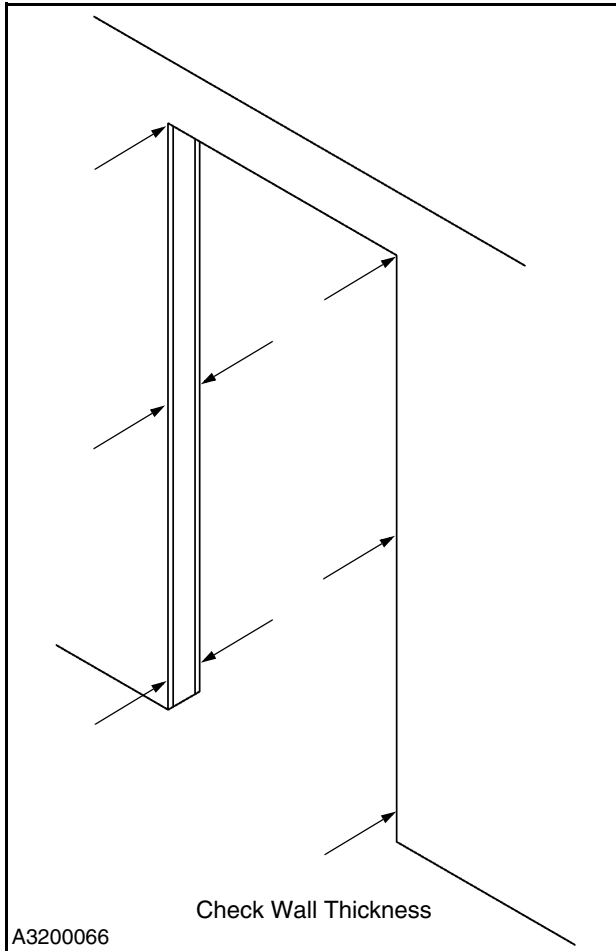


Figure 33

- The second condition is a gap that varies along the length (height) of the jamb. This condition is generally found in steel stud construction and results in overly thick walls in the upper corners of the opening. This is usually a direct result of how the steel stud headers were attached to the vertical steel studs to form the opening. When the wall is oversize (in this area), it forces the header and jamb miters to spread apart and actually open up the throat dimensions to accept the oversize wall. This causes the corners of the frame to be extremely tight on the wall. A gap develops farther down the jamb and it then gradually disappears closer to the floor. (See Figure 34 and Figure 35.)

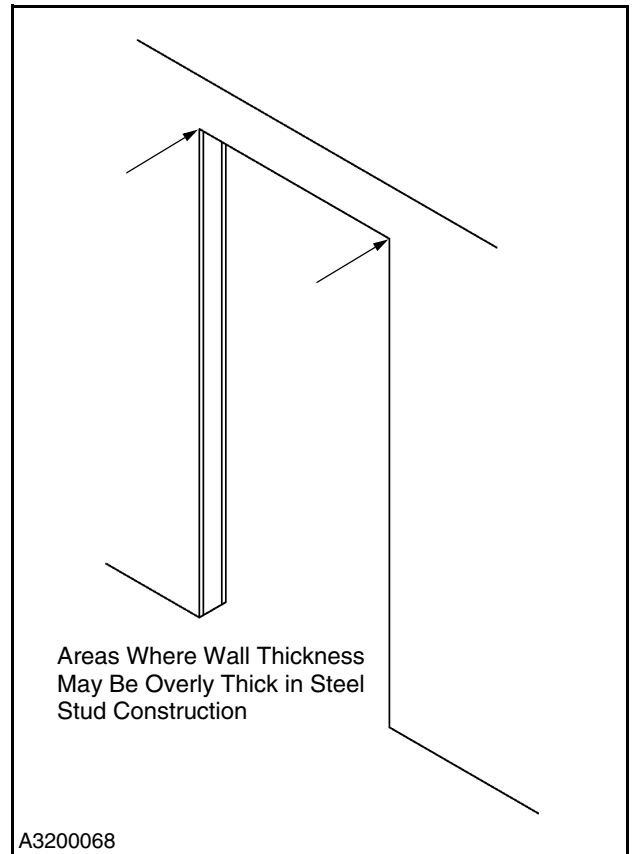


Figure 34

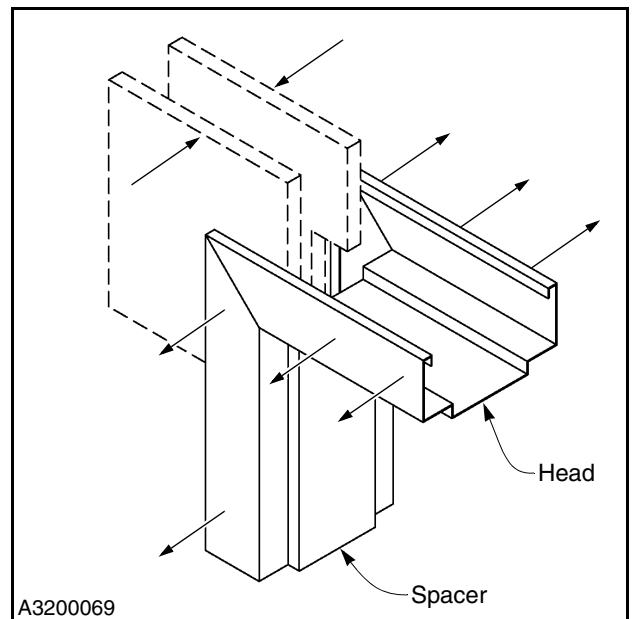


Figure 35

IMPROPER DOOR/FRAME CLEARANCE—GLAZED WINDOW UNITS

This condition should be reported to the appropriate job site personnel. The condition can be corrected by putting a bearing plate on each side of the corner and compressing the internal steel studs with a clamp. However, the responsibility for correcting this condition belongs to the subcontractor responsible for the actual wall construction.

3. The third condition is different from the first two, which address the fit of the frame over the wall thickness. The cause of this condition is compression anchors that have not been tightened. The drywall frame would then be loose across the width of the opening and move from side to side against the rough opening.

The frame should be plumbed, squared, and secured in the opening by properly adjusting the compression anchors following the manufacturing instructions. (See Figure 36.)

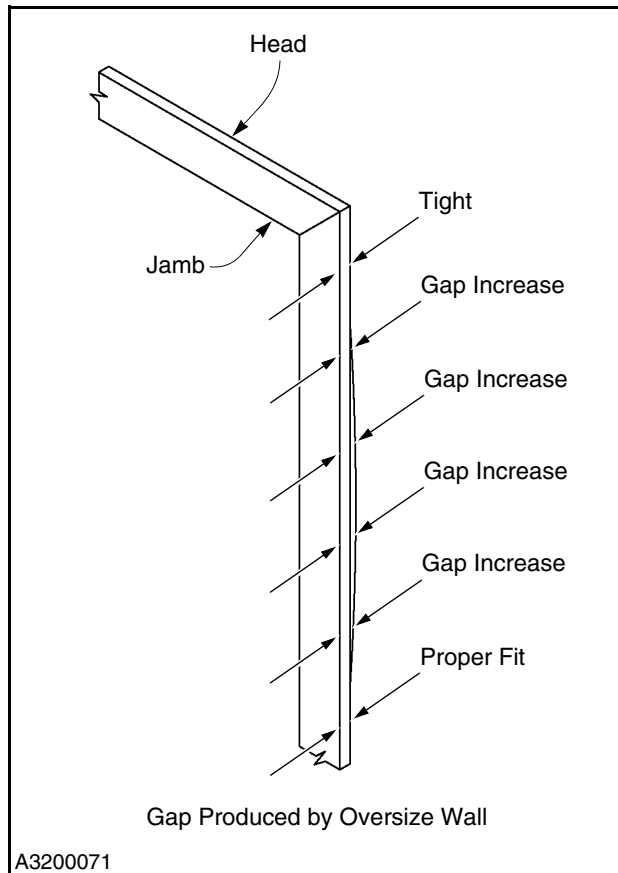


Figure 36

GLAZED WINDOW UNITS

Hollow metal frames for borrowed lites, transom and sidelites are an excellent choice for exterior openings due to their design flexibility, thermal performance, and security. These types of frames are not factory sealed to prevent water infiltration; the contractor/installer must seal all joints that are exposed to the elements after the frame assembly is installed.

LABEL MISSING FROM FIRE RATED FRAME

Like doors, fire rated frames are an important element of compliance with building codes and fire protection standards. Consequently, proper control of the labels that are attached to the frame is a top priority for the manufacturer, code official, and labeling agency. (The manufacturer must account for every label used, and the label can only be applied at the manufacturer's facility or at an authorized labeling distributor of the manufacturer.) Once the product is in the field, whether it is installed or not, no one, including the manufacturer, is permitted to attach labels unless a representative of the manufacturer's labeling agency has inspected the product for compliance with the manufacturer's procedures. Only authorized individuals can be in possession of and attach labels to fire rated products in the field. Anything else is **ILLEGAL!**

All labels on fire rated frames are located on the hinge jamb between the top and middle hinges. It should be noted that some frames have an embossed label, rather than a surface-attached label. The embossed label is stamped into the frame rabbet and can be painted over. (See Figure 37.)

If the label or embossment is not present, the frame distributor should be contacted.

NOTE: Borrowed light frames may have labels applied to soffit of frame due to glass and glazing bead location.

Frames incorporating continuous hinges may have labels applied to soffit or frame head.

See manufacturer's procedures.

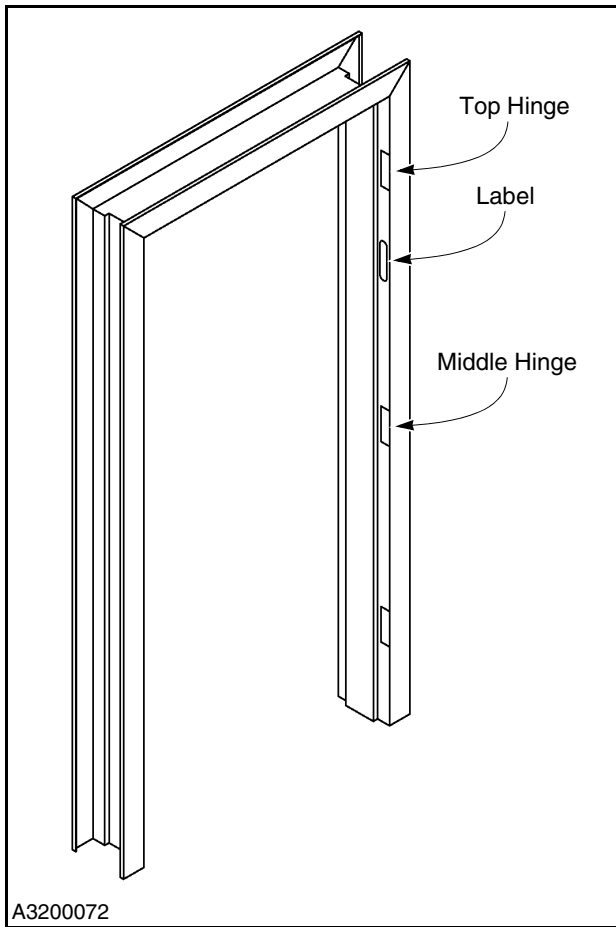


Figure 37

LABEL MISSING FROM FIRE RATED DOOR

Fire rated doors are an important element of compliance with building codes and fire protection standards. Consequently, proper control of the label is a top priority for the manufacturer, code official, and labeling agency. (The manufacturer must account for every label used, and the label can only be applied at the manufacturer's facility or at an authorized labeling distributor of the manufacturer.) Once the product is in the field, whether it is installed or not, no one, including the manufacturer, is permitted to attach labels unless a representative of the manufacturer's labeling agency has inspected the product for compliance with the manufacturer's labeling procedures. Only authorized individuals may be in possession of and attach labels to fire rated products in the field. Anything else is **ILLEGAL!**

Labels on fire rated doors are located in one of two places, either between the top and middle hinges or on the top channel. Be sure to look for the label in the correct location. (See Figure 38.)

If the label is not present, the door distributor should be contacted.

NOTE: Labeled doors incorporating continuous hinges may have labels placed on top channel of the door. Check with the individual manufacturer to determine location of label.

Labeled hollow metal transom panels may need to be removed to verify labeling if fully enclosed by a fixed hollow metal frame.

See manufacturer's procedures.

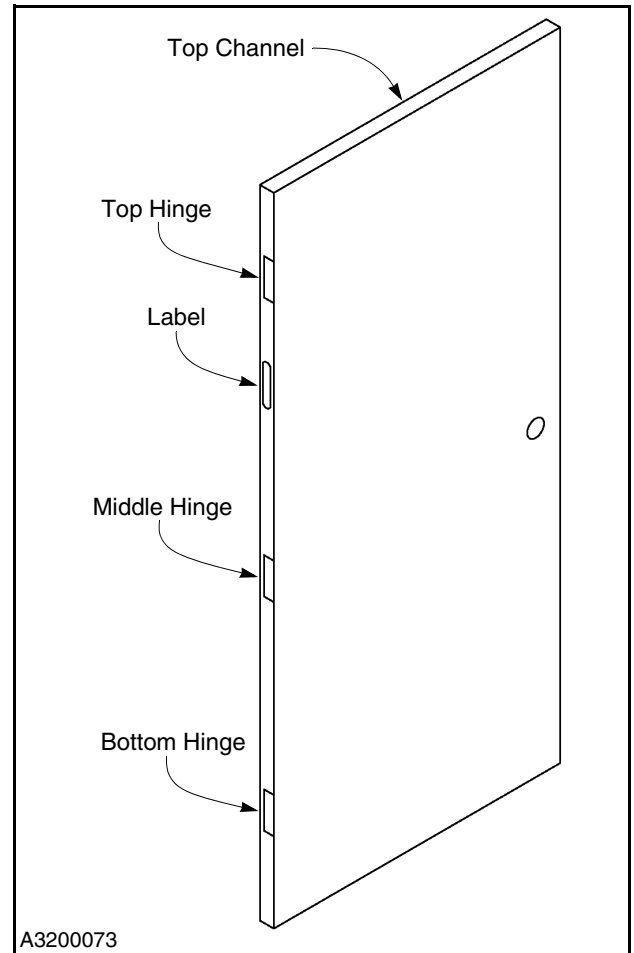


Figure 38

INSTALLATION

ONE-PIECE DOOR FRAME

1. Prep the mounting surface. Surface should be level, square, and ready for frame installation.

NOTE: All electrical connections should have been made prior to frame installation.

2. Carefully uncrate frame assembly. Check for any damage that may have occurred during shipment.

INSTALLATION—THREE-PIECE DOOR FRAME

3. Prior to installation, confirm the size of the door frame with the door opening.
4. Install frame using the appropriate anchor method for your style of wall. (See Figure 39.) (See “ANCHORING METHODS” on page 2.)

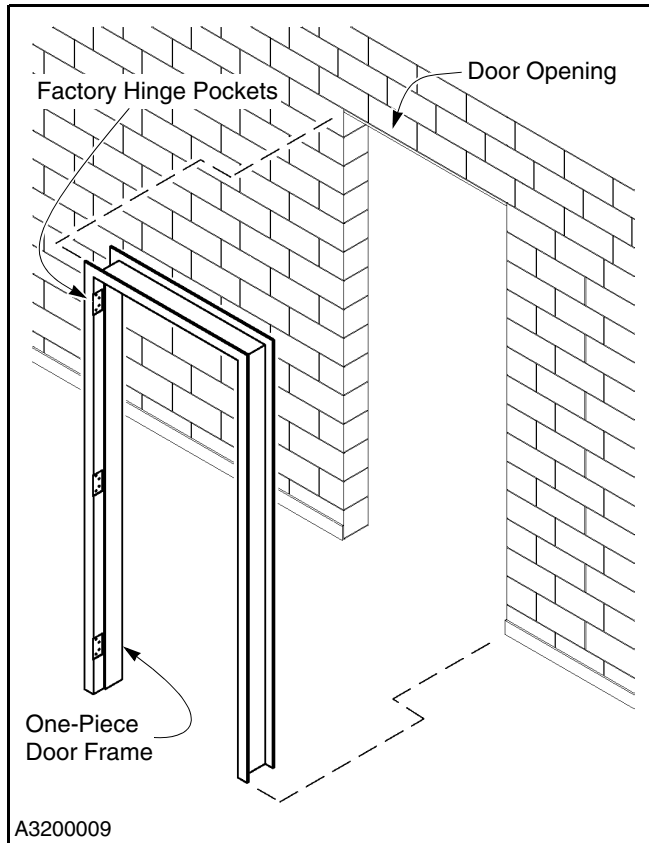


Figure 39

NOTE: Notice which side of the frame the pre-drilled holes for the door hinges are on.

Door frame may require caulking to attain a proper airtight seal. The purchaser or installer is responsible for supplying caulk.

5. Install door hinges with hardware provided in the parts carton.

NOTE: Door frame is predrilled and backing plate is for the door hinge installed at the factory.

THREE-PIECE DOOR FRAME

1. Prep the mounting surface. Surface should be square and ready for frame installation.

NOTE: All electrical connections should have been made prior to frame installation.

2. Uncrate frame pieces. Check for any damage that may have occurred during shipping.
3. Prior to installation, confirm the size of the top piece

of the door frame with the door opening.

4. Install the top door frame. (See Figure 40.) (See “ANCHORING METHODS” on page 2.)
5. Install side door frames. (See Figure 40.) (See “ANCHORING METHODS” on page 2.)

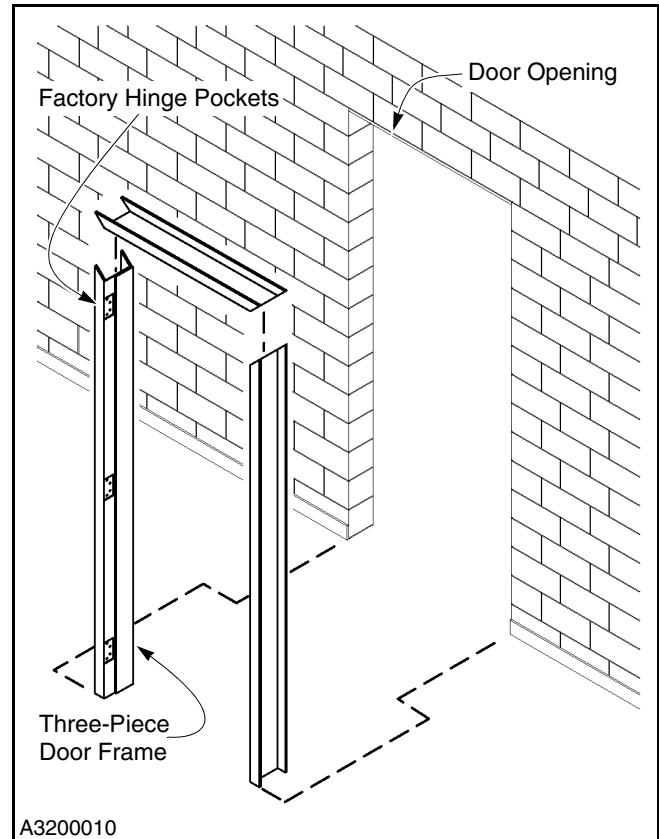


Figure 40

NOTE: Notice which side of the frame the pre-drilled holes for the door hinges are on.

Door frame may require caulking to attain a proper airtight seal. The purchaser or installer is responsible for supplying caulk.

6. Install door hinges with hardware provided in the parts carton.

NOTE: Door frame is predrilled and backing plate for the door hinge is installed at the factory.

DOOR PANEL

1. Uncrate door panel.
2. Align door panel with hinges and install hardware. (See Figure 41.)

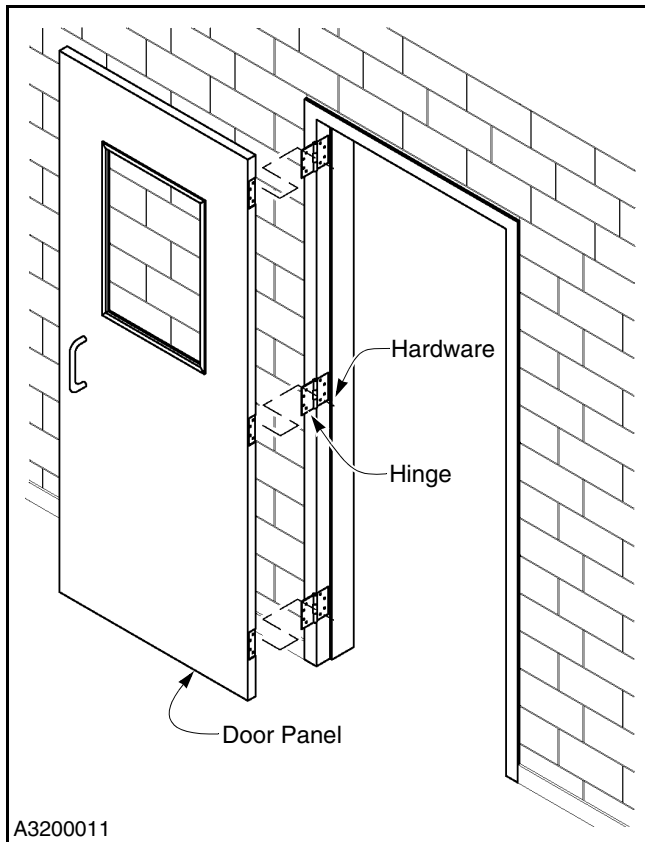


Figure 41

DOOR SEAL

The door seal is a bulb gasket in the form of a tear drop, with an adhesive on one side. The seal is attached around the perimeter of the door frame where the door panel will rest. When the seal is adhered, it performs two functions: it creates a seal and it dampens the sound when the door closes.

1. Measure the inside of the horizontal door frame (rabbet to rabbet).
2. Cut seal to desired length and trim end pieces to a 45° angle.
3. Remove adhesive backing from the seal and adhere to door frame. (See Figure 42.)

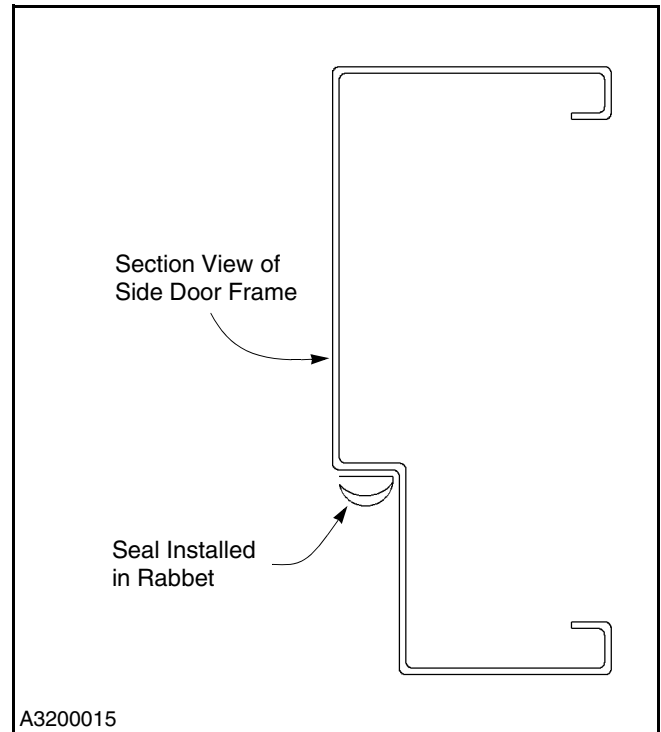


Figure 42

4. Measure the inside of a vertical door frame (rabbet to floor).

NOTE: If a kick plate is being installed, the measurement should be from the inside of the rabbet to the top of the kick plate.

5. Cut seal to desired length and trim one end of the piece to a 45° angle. This angle should correlate to one of the 45° cuts on the horizontal seal.
6. Repeat procedure for the seal on the opposite side.

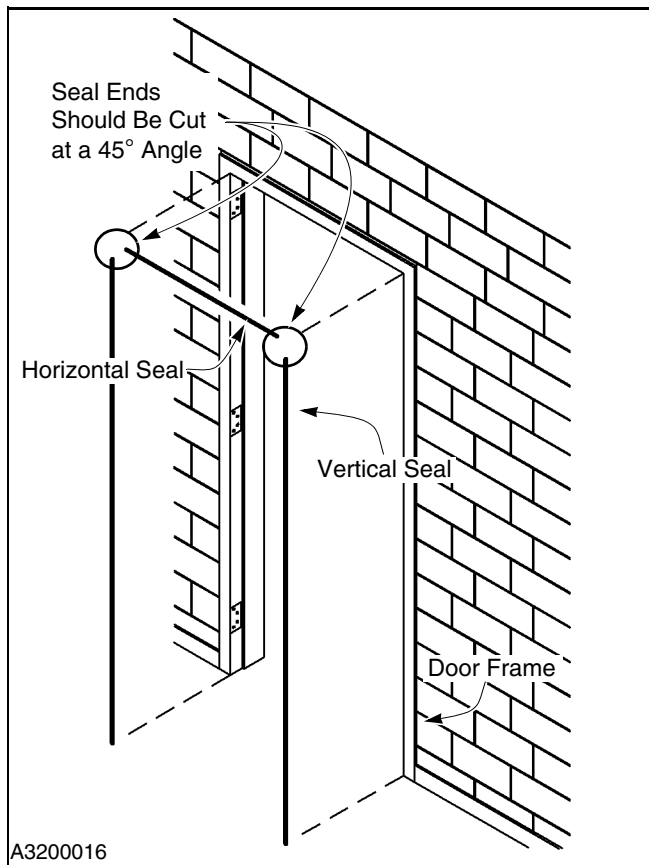


Figure 43

OPERATOR

The door can be provided with any type of manual closure device. Each closure device includes a template for mounting it on the door assembly. If the door is ordered with an electric operator, the operator will come with instructions for installation. The electric operators and manual closers are shipped separately.

KICK PANEL

An aluminum or stainless steel kick panel is an optional item intended for highly sensitive areas. The kick panel provides extra security against germs, dirt, and other foreign material. The door frame can be ordered with a standard size 10 or 24 in. kick panel. However, any size kick panel can be custom ordered.

1. Apply double-sided tape to both edges of the kick panel.
2. Align the kick panel with the door frame.
3. Adhere one end of the panel to the door frame.
4. Swing kick panel into place and carefully adhere opposite end to door panel. (See Figure 44.)

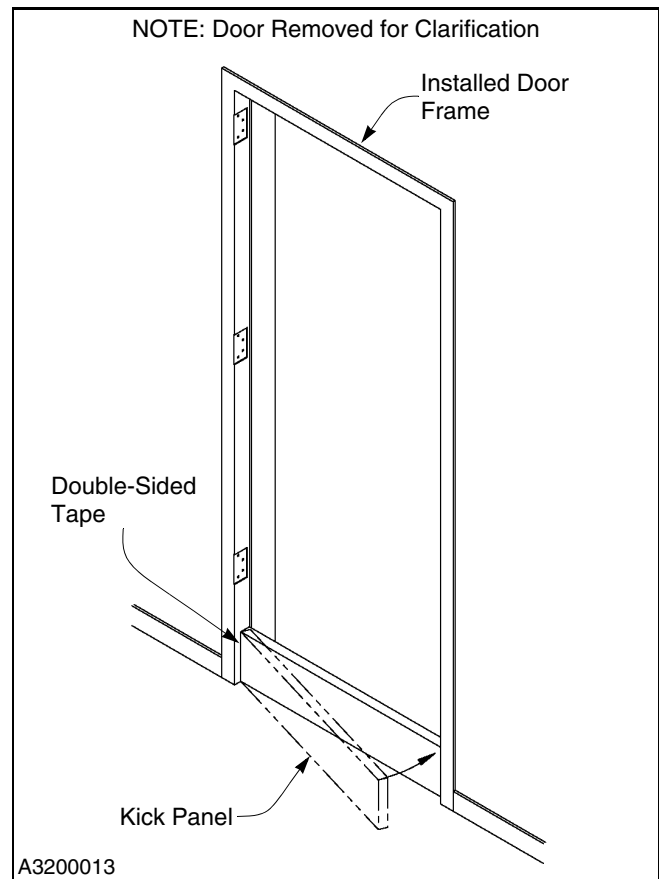


Figure 44

NOTE: Screws may be used in place of the double-sided tape.

FINAL CHECKS

Door Frame Assembly: The door frame is secure and all mounting hardware are tight.

Caulking: If required, make sure the door frame assembly has been caulked where it meets the wall.

Door Panel: The door operates smoothly, is securely mounted, and all hardware is tight.

Door Operator: The door cycles in the proper direction when the control station push buttons are pressed. The door operator is secure, and the mounting hardware is tight.

Kick Panel: The panel is secure to the door frame. If hardware was used, it is tight.

PLANNED MAINTENANCE

RECOMMENDED SCHEDULE

	Daily	Quarterly
Damage Inspection	X	
Door Operation	X	
Material Inspection	X	
Window (Optional)	X	
Mounting Hardware Inspection		X
Seal Inspection		X
Door Operator and Push-Button Control Station Inspection		X
Electrical Connection Inspection	As Required	

DAILY INSPECTION

Damage Inspection

Inspect the door for damaged components such as dinged door panel(s), broken or scratched window, loose or broken door handles, torn seals, loose kick panels and broken door hinges.

Door Operation

Run the door through four or five complete cycles to make sure the door is operating smoothly and efficiently. Also make sure there is no binding or unusual noise.

Material Inspection/Window

If this door is used in a sensitive area, the window, door panel, and frame should be cleaned with a proper cleaning agent.

QUARTERLY INSPECTION

Mounting Hardware Inspection

Check for missing or loose hardware on the door operator, door hinges, etc.

Seal Inspection

Seal condition is very important for the door to operate properly. Inspect and replace any torn or ripped seal(s).

Door Operator and Push-Button Control Station Inspection

1. Inspect all warning/safety labels. All warning labels should be intact and clearly readable. Replace labels as needed.
2. Operate the door five or six complete cycles. Check the push-button control station for proper operation. If an adjustment or a repair is required. Refer to the door operator owner's manual included with the door.

Electrical Connection Inspection

Door operation should be smooth and efficient. If an erratic operation has occurred, inspect electrical connections to the power door operator assembly, push-button control station, or other added electrical options.

REPLACEMENT PROCEDURES

SEAL

1. Remove worn seal from door frame.

NOTE: The door seal is a self adhesive type seal. A scraper type tool may be required to assist in removing the old seal.

2. Clean and prep mounting surface.
3. Install door seal. (See "DOOR SEAL" on page 19.)

DOOR OPERATOR

For repair information on the door operator, refer to the Door Operators owner's manual included with the door.

PARTS LIST

ORDERING INFORMATION

How to Order Parts

1. Identify the parts required by referring to the following pages for part numbers and part descriptions. For parts pertaining to the door operator, refer to the owner's manual that came with the operator.
2. To place an order for all parts, including parts associated with the door operator, contact your local Rytec representative or the Rytec Customer Support Department at 800-628-1909 or 262-677-2058 (fax).
3. Because of the variety of custom door configurations, a customer or end user number will be used to identify the installed door. To ensure the correct parts are shipped, please include this number with the order.

Substitute Parts

Due to special engineering and product enhancement, the actual parts used on your door may be different from those shown in this manual.

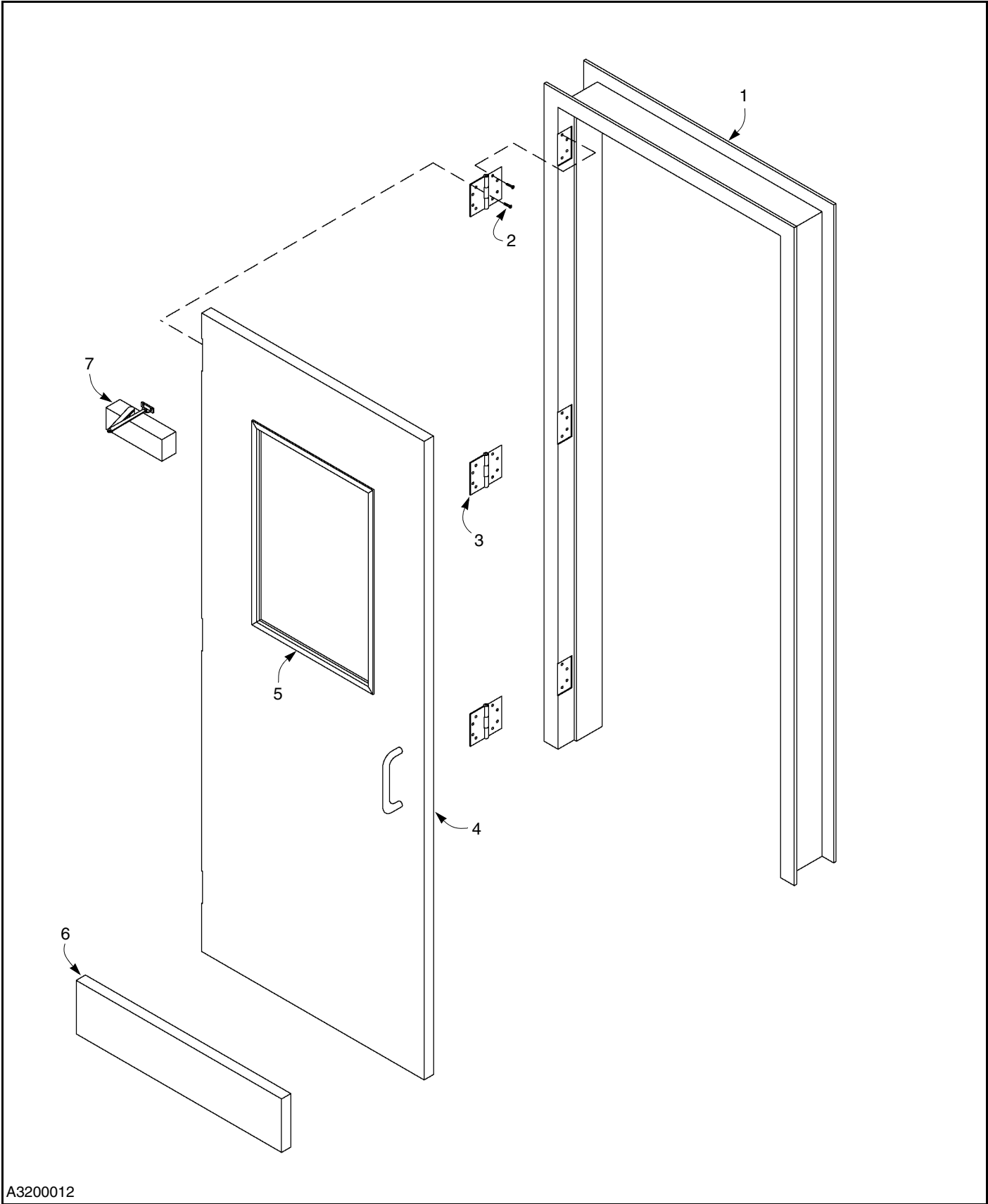
Also, if a part has been improved in design and bears a revised part number, the improved part will be substituted for the part ordered.

Return of Parts

Rytec will not accept the return of any parts unless they are accompanied by a Return Merchandise Authorization (RMA) form. Before returning any parts, you must first contact the Rytec Customer Support Department to obtain authorization and an RMA form.

PARTS LIST—ONE-PIECE DOOR FRAME

ONE-PIECE DOOR FRAME



A3200012

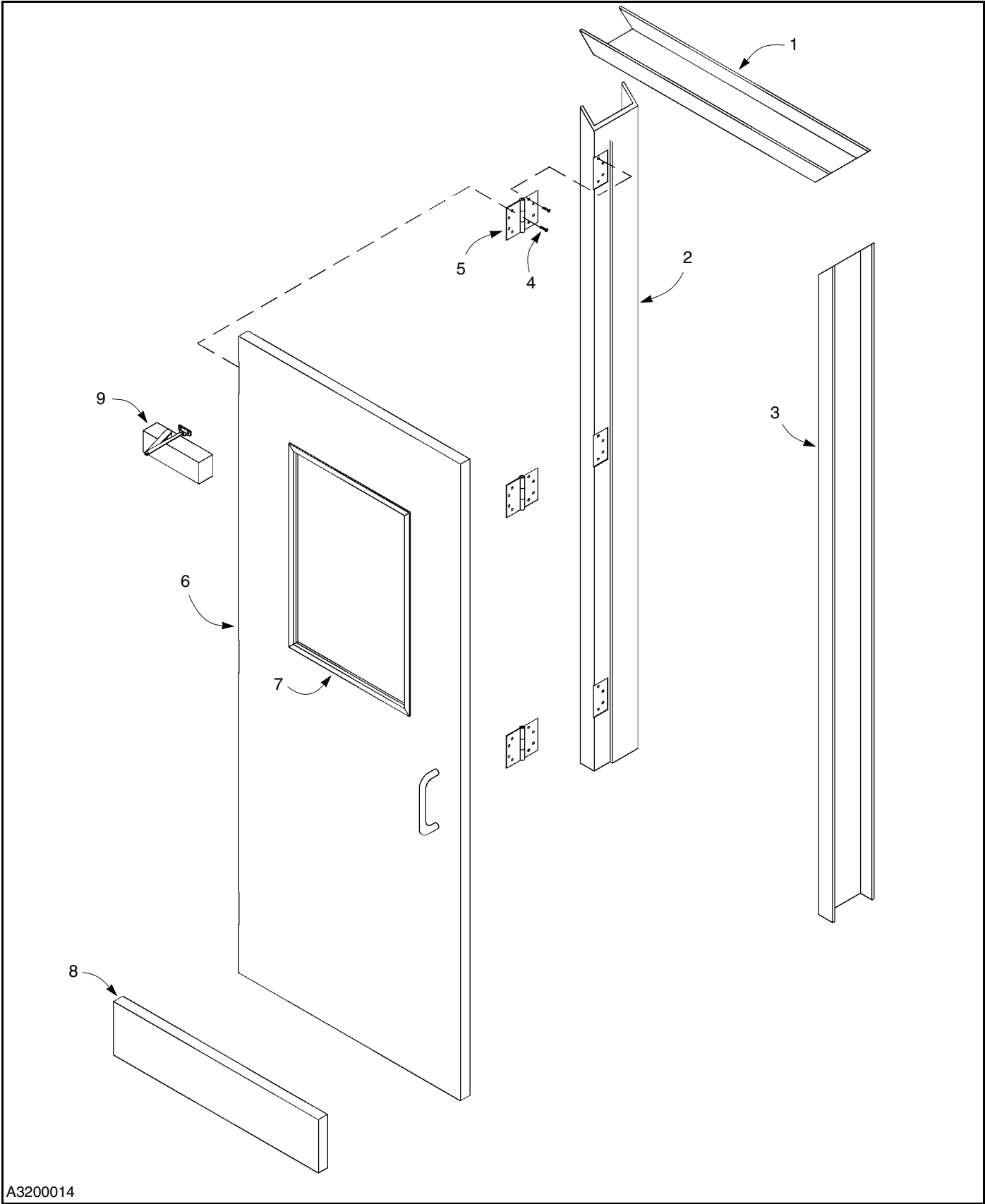
Figure 45

PARTS LIST—ONE-PIECE DOOR FRAME

ITEM	QTY.	PART #	DESCRIPTION
1	1	Consult Factory	Frame, Door 1-Piece
2	24	Consult Factory	Screw
3	3	Consult Factory	Hinge, Door
4	1	Consult Factory	Panel, Door
5	1	Consult Factory	Window
6	1	Consult Factory	Panel, Kick
7	1	Consult Factory	Operator, Door
8	AR	Consult Factory	Seal, Door (Not Shown)

PARTS LIST—THREE-PIECE DOOR FRAME

THREE-PIECE DOOR FRAME



A3200014

Figure 46

PARTS LIST—THREE-PIECE DOOR FRAME

ITEM	QTY.	PART #	DESCRIPTION
1	1	Consult Factory	Frame, Door Top
2	1	Consult Factory	Frame, Door (Hinge Side)
3	1	Consult Factory	Frame, Door (Latch Side)
4	24	Consult Factory	Screw
5	3	Consult Factory	Hinge, Door
6	1	Consult Factory	Panel, Door
7	1	Consult Factory	Window
8	1	Consult Factory	Panel, Kick
9	1	Consult Factory	Operator, Door
10	AR	Consult Factory	Seal, Door (Not Shown)

