Assembly and installation instructions for the PRL

Accordion Bi-Fold door system

These installation instructions are generic in nature but specific to the PRL accordion bi-fold door systems. Because each project will have differing conditions, each project should have job specific drawings prepared by journeymen drafters or engineers who are familiar with accordion bi-fold door systems and have an intimate understanding of PRL's accordion bi-fold door and how to integrate it into the construction details specific to the project it is being used on. The shop drawings will take precedence over these instructions as they are project specific. You may refer to PRL's test reports for further familiarity with construction details of the accordion bi-fold door. When in doubt contact your PRL technical representative.

Engineering calculations and shop drawing review should be performed by a professional engineer. We cannot recommend enough the need to properly engineer the doors beam/lintel. In addition to supporting the door, it must also support the wall above the door and the roof as well as other induced loads. It is imperative that the lintel be strong enough and not deflect due to live, static or other loads beyond 1/16".

We sell only to bona fide professional glazing contractors and we expect that you employ seasoned journeymen who have apprenticed and been trained in all aspects of fenestration construction and assembly. We expect that you are familiar with, and have installed products of same and similar type.

You should be aware of local building codes and practices and be sure to comply with them. PRL has no ability to ensure you are complying and practicing in accordance with them and assumes no responsibility for your compliance.

Coordinate with your sealant supplier to be sure you are using the correct sealants. Coordinate with the sealant supplier to be sure of compatibility and adhesion with all accordion bi-fold door and building components. Have your sealant supplier test for compatibility and adhesion with all accordion bi-fold door and building components on each project you perform and give you a written report stating that all materials conform.

These installation and assembly instructions refer you to areas where caulking seals are required. In each case you must fully clean the surface that the caulking is to adhere to. You will clean using sealant manufactures recommended solvents. You will use any adhesion primers or adhesion promoters that the sealant supplier recommends to you.

These instructions show one of many acceptable steps to fabricate and install the accordion bi-fold door system. It is not always necessary to follow these instructions in the exact order we have suggested but you should be familiar enough with the construction of PRL's accordion bi-fold door should you decide to deviate and specify an alternate order of fabrication and assembly. When in doubt contact your PRL technical representative.

Isolate and separate aluminum products from steel, masonry and cementitious materials. We recommend a heavy coat of bituminous paint.

We recommend that after each opening of the project has been completed a water test be performed in accordance with AAMA-501.2.

Check all shipments from PRL immediately upon receipt thereof. Check for damage, count and quality. Inform your PRL service representative immediately of errors, omissions, questionable quality or damage.

PRL's products are constantly being refined, improved and expanded. Check for latest bulletins and publications.

If in doubt of any item or procedure contact your PRL technical representative.

Documents applicable and supplemental to these installation instructions include but are not limited to the following. We expect that you, the professional glazier are familiar and compliant with them all.

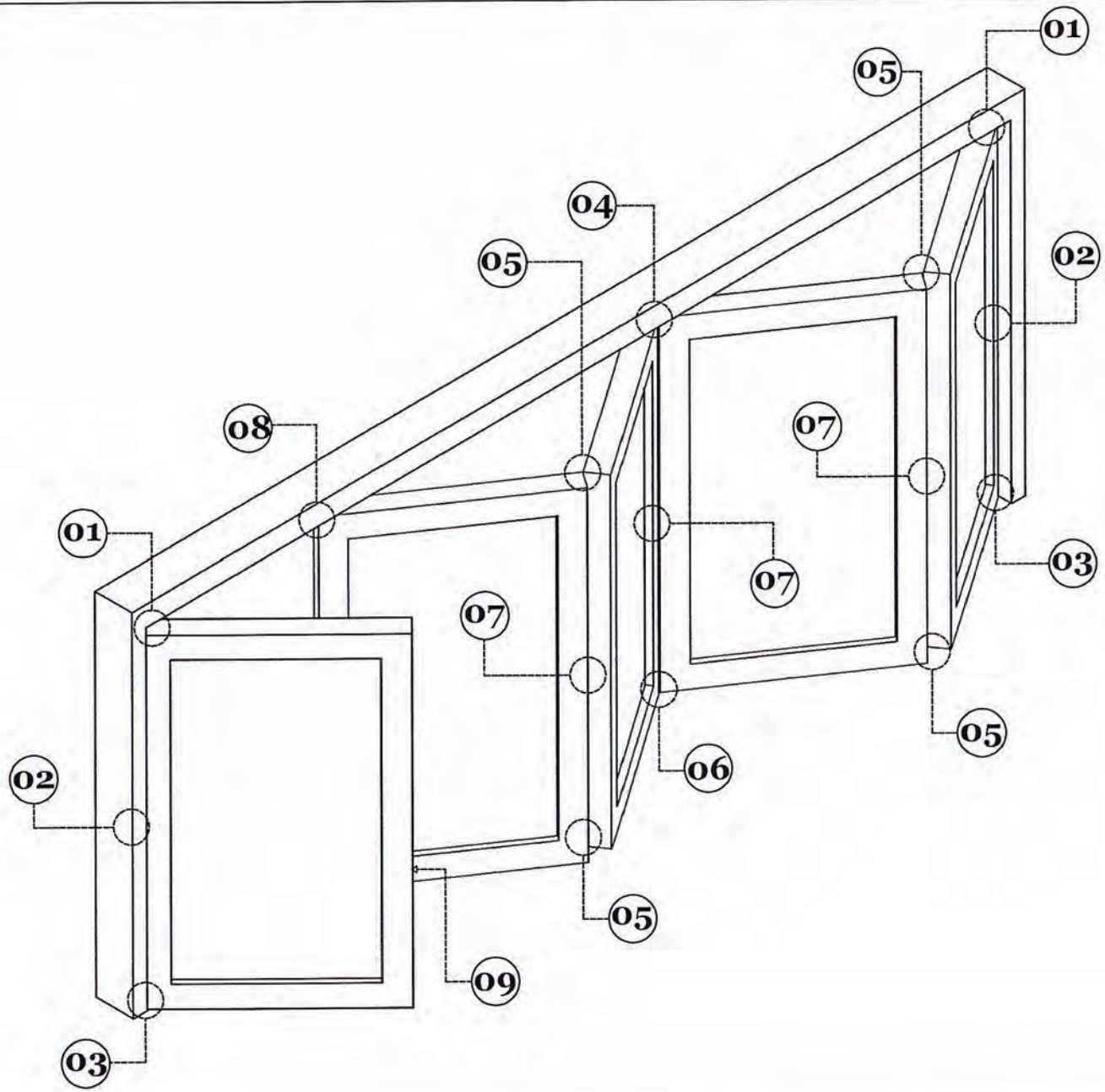
AAMA 501.2-09	Quality Assurance and Diagnostic Water Leakage Field Check of Installed Storefronts, Curtain Walls, and Sloped Glazing Systems.
AAMA 501-05	methods of test for exterior walls.
AAMA 502-08	Voluntary specifications for field testing of newly installed fenestration products.
AAMA 503-08	Voluntary Specification for Field Testing of Newly Installed Storefronts, Curtain Walls and Sloped Glazing Systems
AAMA 609 & 610-09	cleaning and maintenance guide for architecturally finished aluminum.
AAMA 851-09	fenestration sealants guide for windows, window walls and curtain walls
AAMA AFPA-91	Anodic Finishes/Painted Aluminum
AAMA CW 10-04	Care and Handling of Architectural Aluminum from Shop to Site
AAMA CW-13-85	structural sealant glazing systems
AAMA CWG-1-89	Installation of Aluminum Curtain Walls
AAMA 609 & 610	Cleaning and Maintenance Guide for Architecturally Finished Aluminum
AAMA TIR A9-91	metal curtain wall fasteners
AAMA TIR A14-10	fenestration anchorage guidelines
GANA	Glazing manual (50th anniversary edition)
GANA 2008	sealant manual
GANA 2009	laminated glazing reference manual
IGMA TM-3000-90	NORTH AMERICAN GLAZING GUIDELINES FOR SEALED INSULATING GLASS UNITS FOR COMMERCIAL & RESIDENTIAL USE

PRL

BI-FOLD DOORS

INSTALLATION INSTRUCTIONS

BF-HARDWARE LOCATION

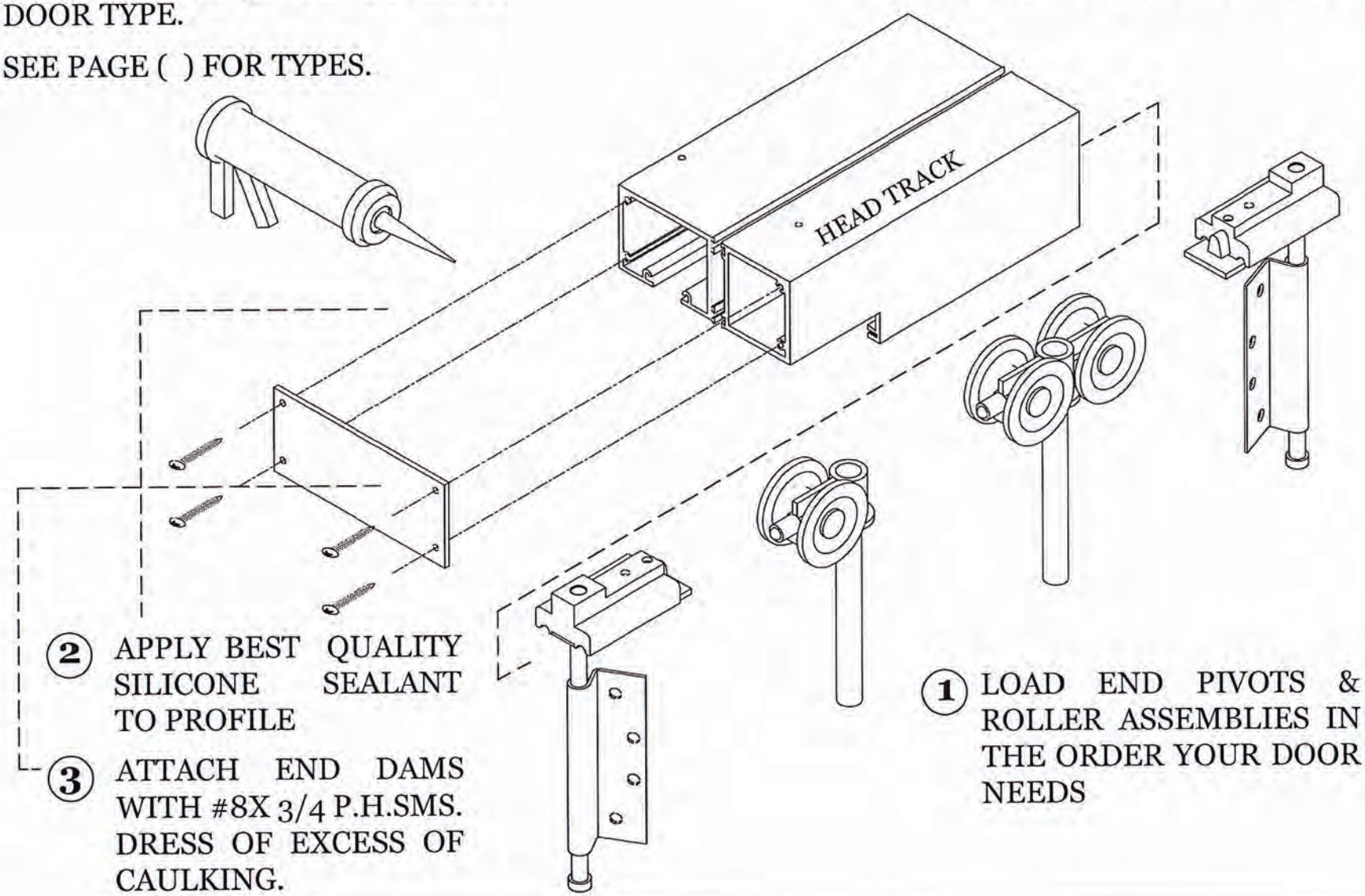


STANDARD HEAD ASSEMBLY

LOAD END PIVOTS & ROLLER ASSEMBLIES IN EXACT ORDER AS THEY ARE REQUIRED BY YOUR DOOR TYPE.

SEE PAGE ( ) FOR TYPES.

NOTE: FAILURE TO GET IT RIGHT AT THIS STAGE WILL RESULT IN YOUR UNINSTALLING THE DOOR.

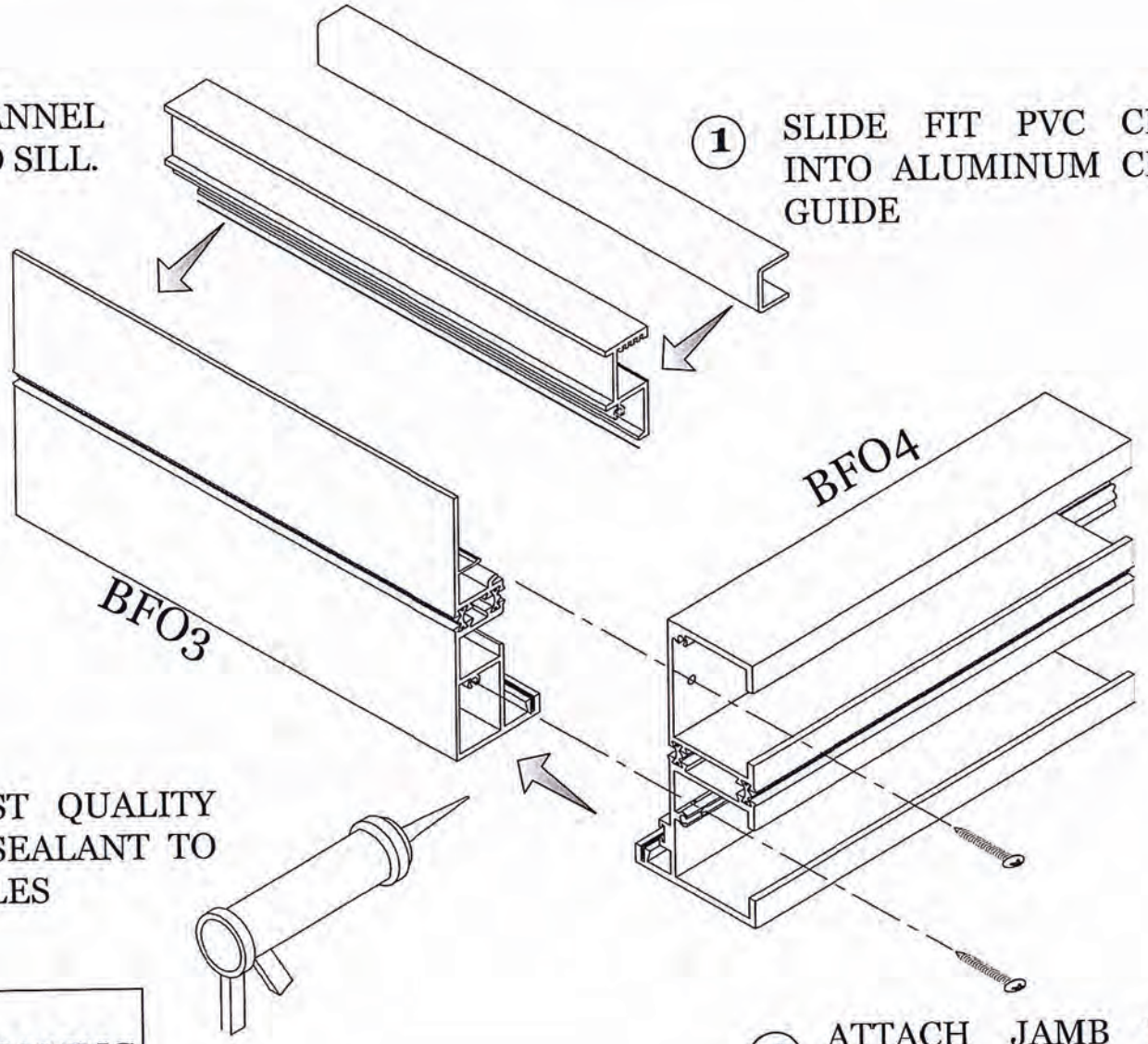


(2) APPLY BEST QUALITY SILICONE SEALANT TO PROFILE

(3) ATTACH END DAMS WITH #8X 3/4 P.H.SMS. DRESS OF EXCESS OF CAULKING.

(1) LOAD END PIVOTS & ROLLER ASSEMBLIES IN THE ORDER YOUR DOOR NEEDS

STANDARD SILL ASSEMBLY



(2) SNAP CHANNEL GUIDE INTO SILL.

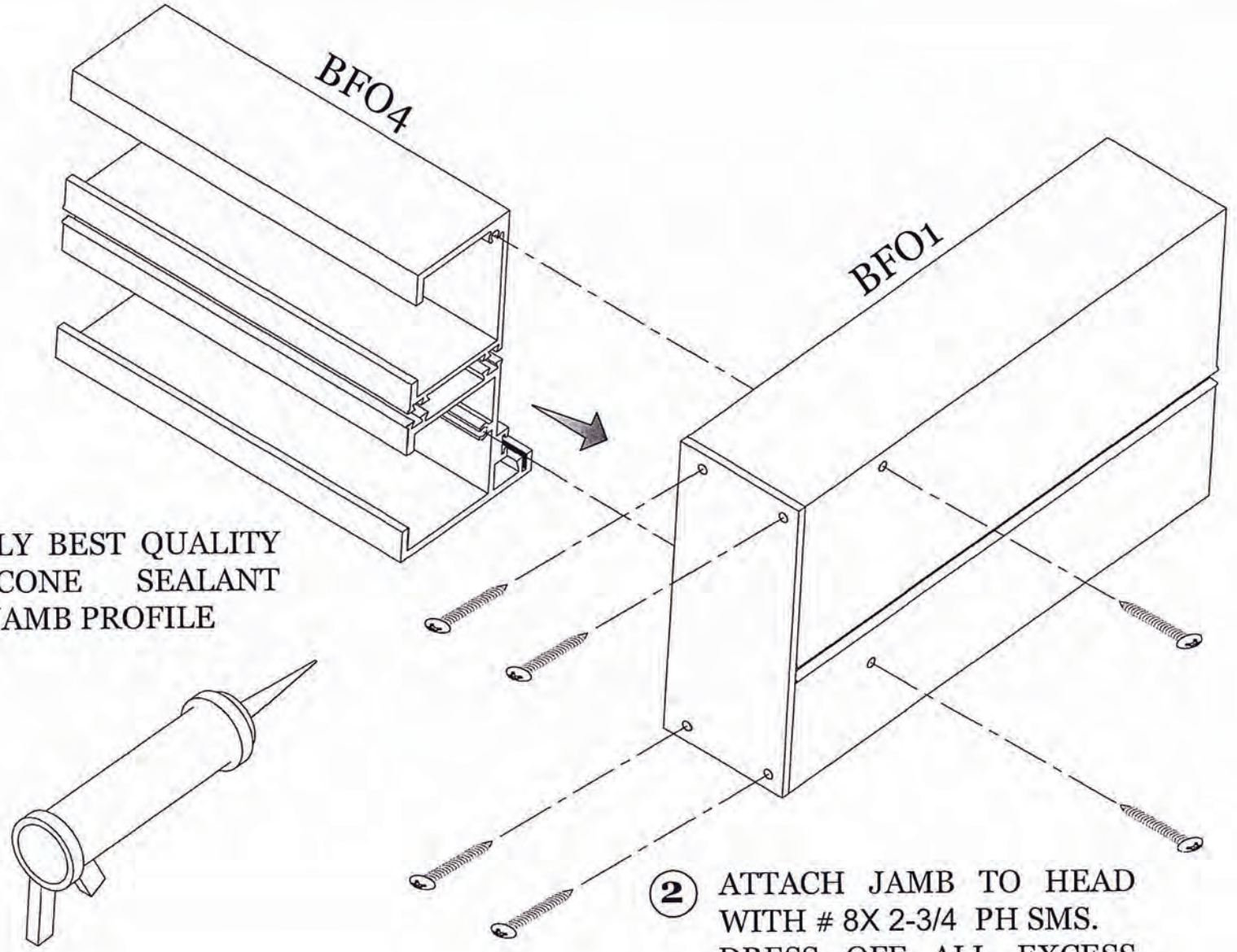
(1) SLIDE FIT PVC CHANNEL INTO ALUMINUM CHANNEL GUIDE

(3) APPLY BEST QUALITY SILICONE SEALANT TO ALL PROFILES

NOTE:
CRITICAL SEALING

(4) ATTACH JAMB TO SILL WITH #8X1 PH SMS.
DRESS OFF EXCESS CAULK

HEAD & JAMB ASSEMBLY



(1) APPLY BEST QUALITY SILICONE SEALANT TO JAMB PROFILE

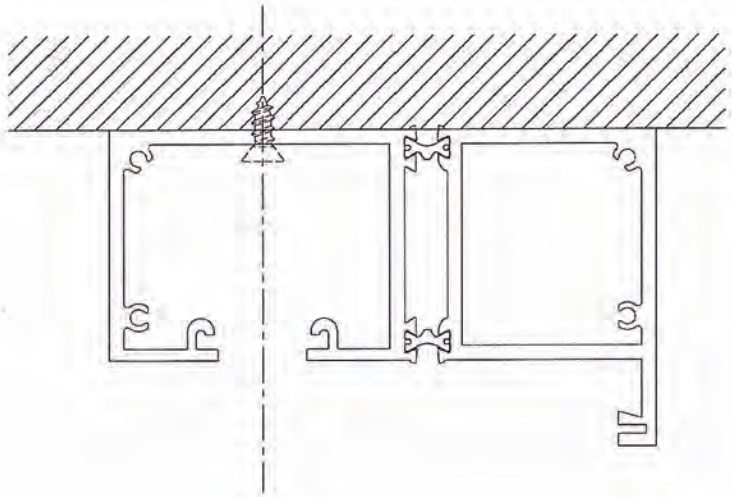
(2) ATTACH JAMB TO HEAD WITH # 8X 2-3/4 PH SMS. DRESS OFF ALL EXCESS SEALANT.

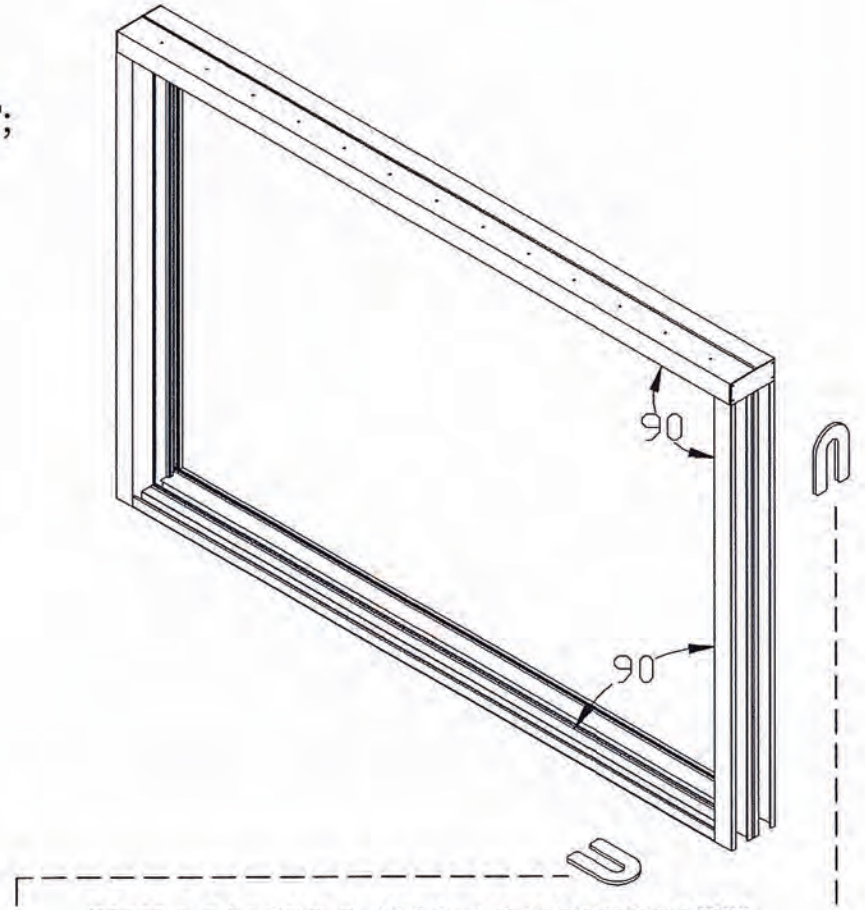
FRAME INSTALLATION

THE INSTALLATION OF YOUR HEAD TRACK IS A CRITICAL ITEM & THE PERFORMANCE & OPERATION OF YOUR DOORS IS DEPENDANT ON THIS.

TAKE EXTRA TIME & MAKE SURE :

- THE HEAD TRACK IS PERFECTLY LEVEL;
- THE HEAD TRACK IS PERFECTLY STRAIGHT;
- THE HEAD TRACK IS PERFECTLY PLUMB.



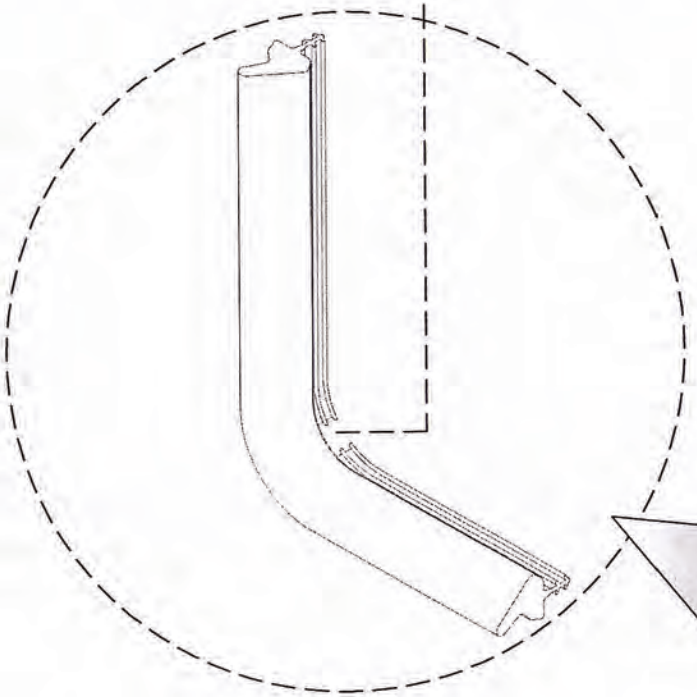


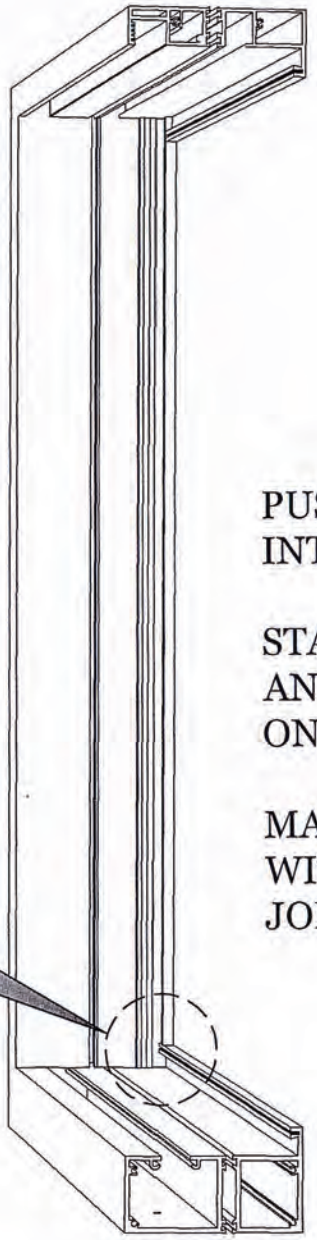
INSTALLATION FASTENERS AS CALLED OUT BY YOUR STRUCTURAL ENGINEER TO SUIT YOUR SPECIFIC APPLICATION, BUT NO LESS THAN #12 SCREW @ 8" CENTERS.

FRAME INSTALLATION

SMALL CUT IN RIGID BACKER
OF WEATHER SEAL.
ALLOW IT TO TURN CORNER

USE SMALL JOINT SEALANT
AT CORNER.





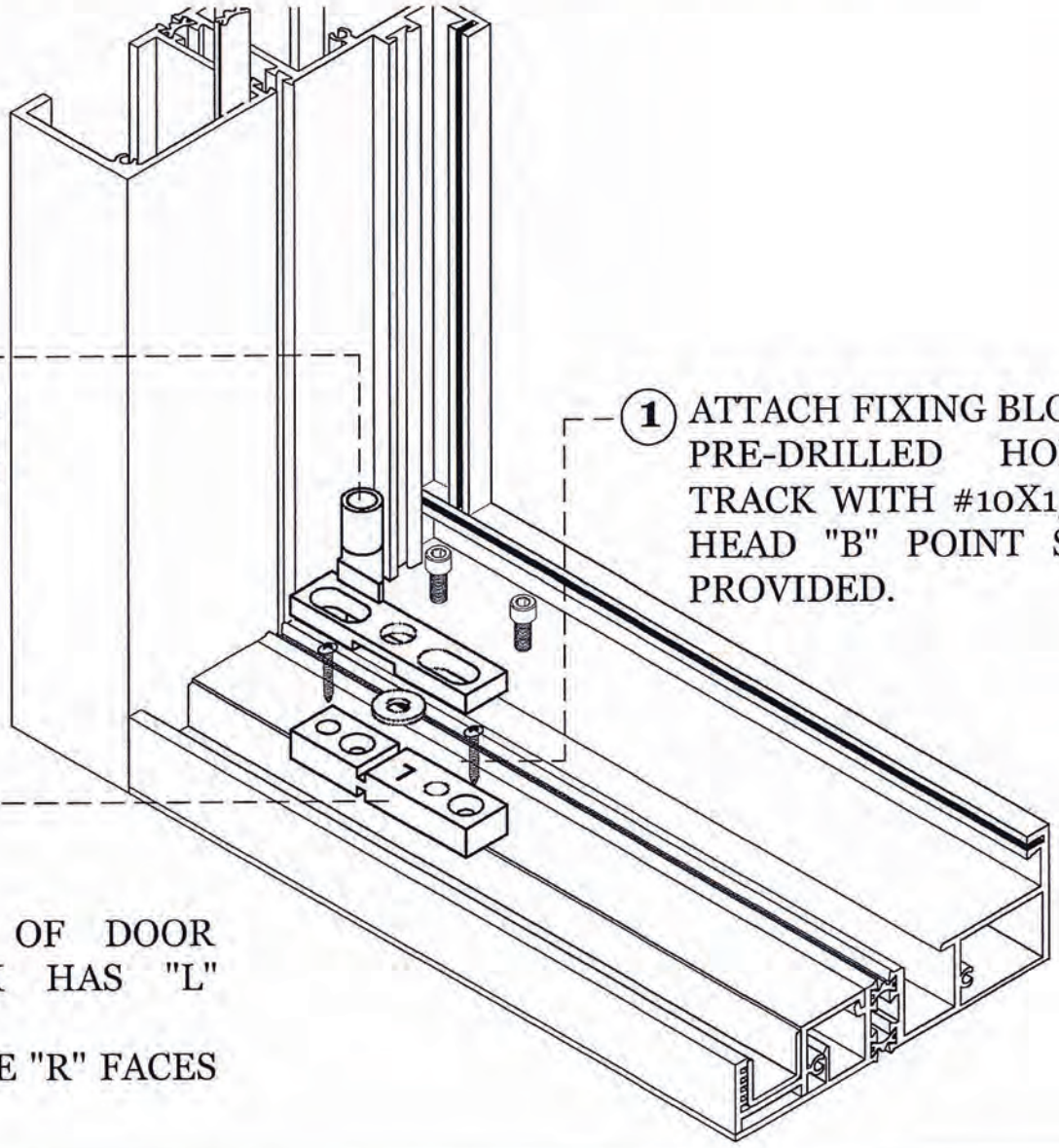
PUSH FIT WEATHER SEAL # 12300
INTO THE GROVE IN THE REBATE.

START IN THE CENTER OF HEAD AND CONTINUE ALL AROUND IN ONE CONTINUOUS PIECE.

MAKE JOINT IN WEATHER SEAL WITH SCHNEE-MOREHEAD SMALL JOINT SEALER.

HINGE PREP

FOR DOORS THAT PIVOT OFF THE JAMB



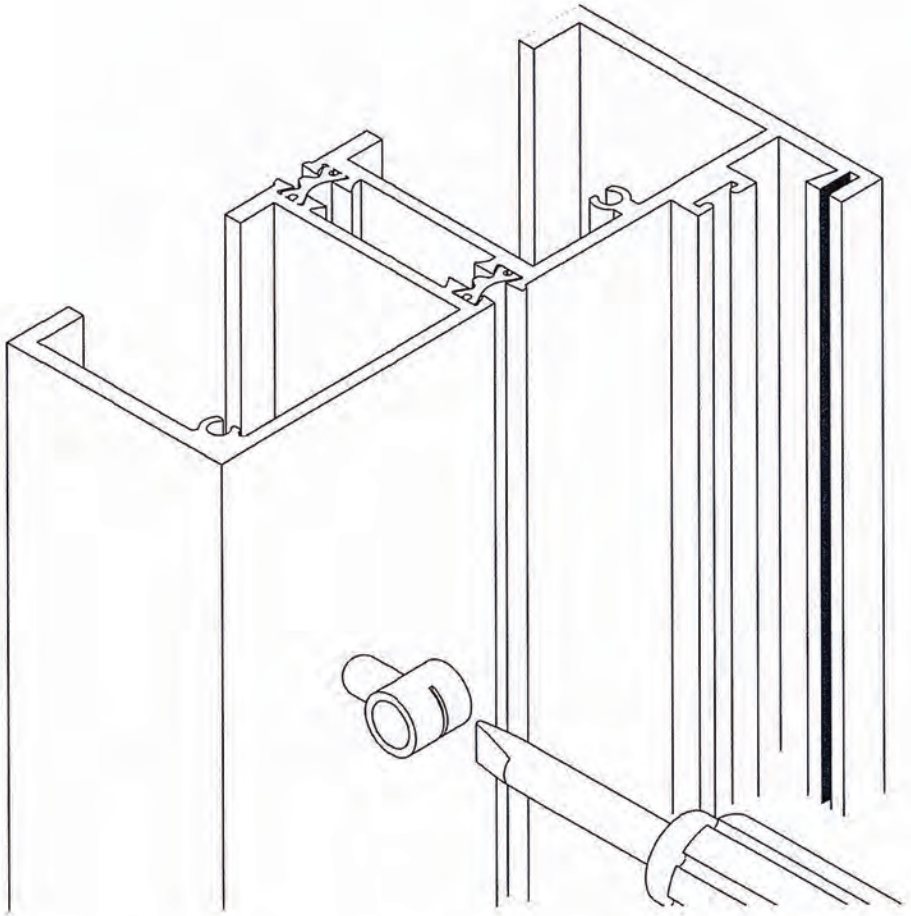
(2) ASSEMBLE BOTTOM PIVOT SHOE AS SHOWN WITH SCREWS PROVIDED

(1) ATTACH FIXING BLOCKS TO PRE-DRILLED HOLE IN TRACK WITH #10X1/2 FLAT HEAD "B" POINT SCREWS PROVIDED.

NOTE:
ON LEFT SIDE OF DOOR OPENING BLOCK HAS "L" FACE UP.
ON OPPOSITE SIDE "R" FACES UP.

HINGE PREP

FOR DOORS THAT PIVOT OFF THE JAMB
(OPTIONAL FOR OVERSIZE DOORS ONLY)

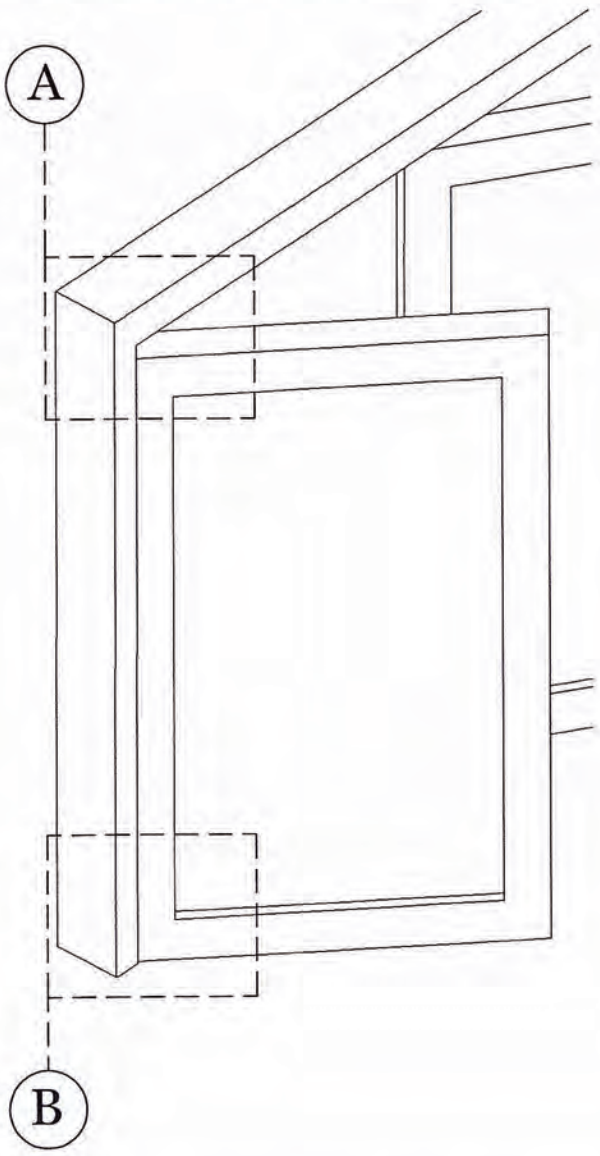


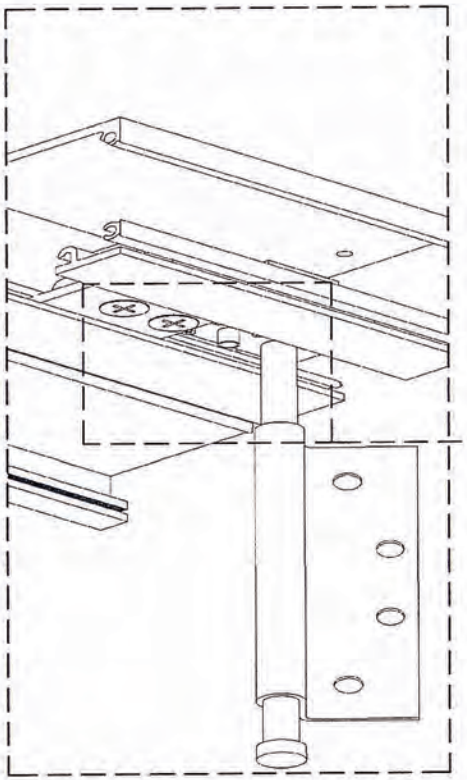
INSERT JAMB PIVOT BOLT INTO THREADED HOLE AT CENTER OF THE JAMB.

FINAL ADJUSTMENT WILL BE MADE LATER.

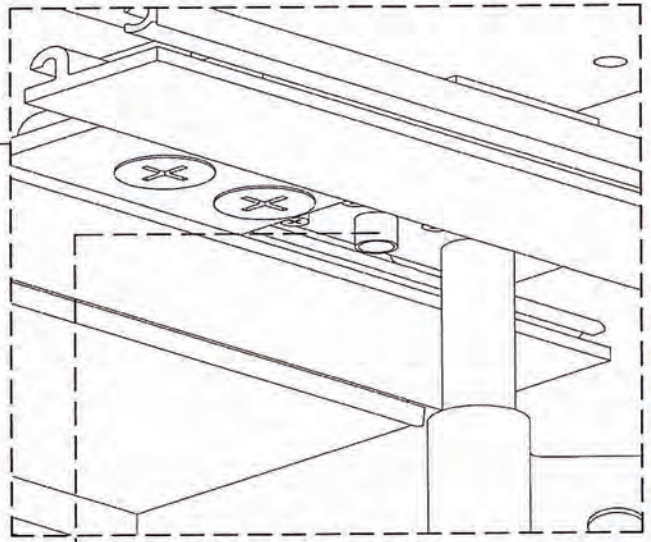
HANGING PANELS

BRING FIRST LEAF TO TOP PIVOT.



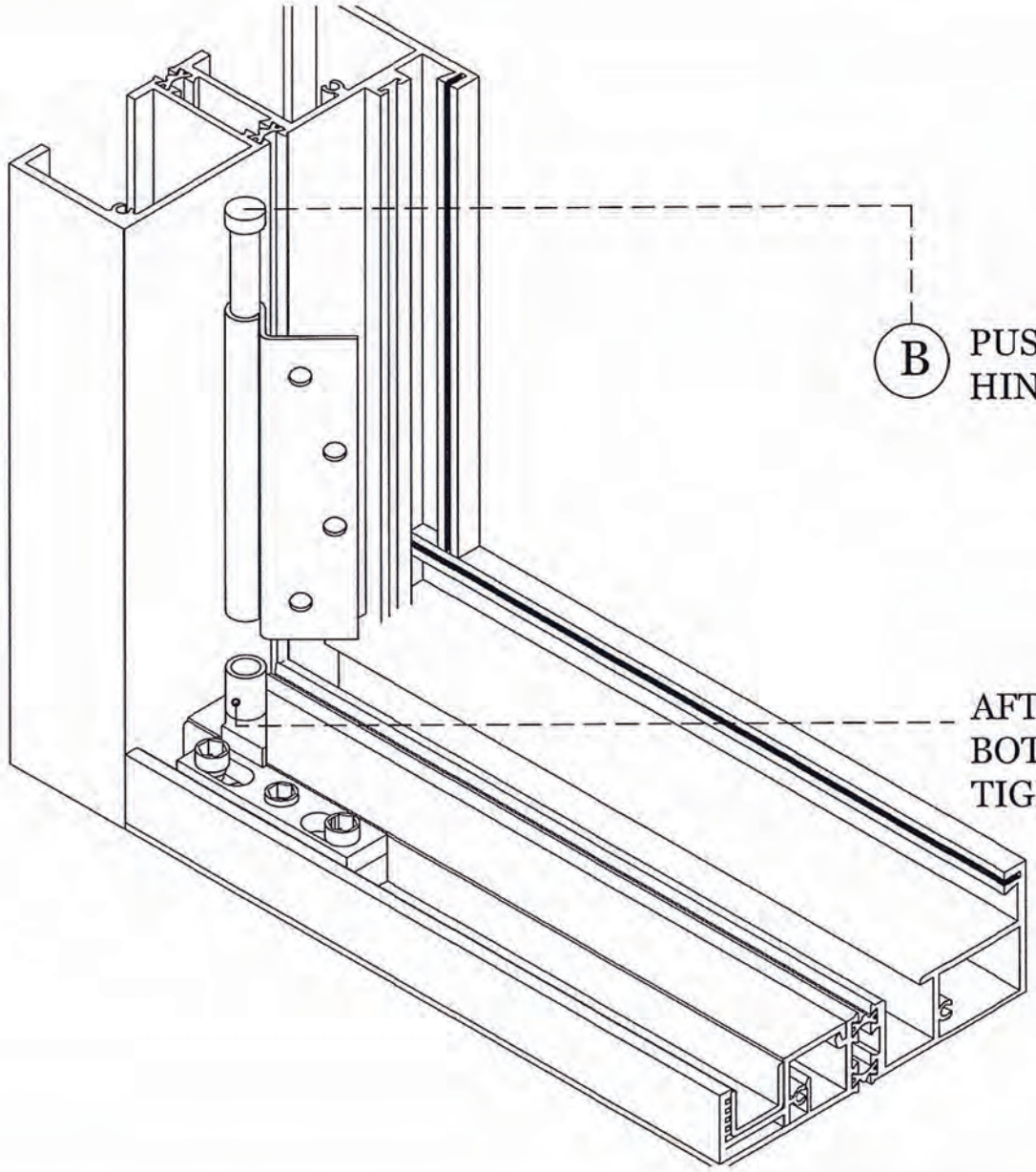


(A) PUSH HINGE PIN THROUGH HINGE & INTO PIVOT.



YOU WILL NEED TO PUSH & HOLD THIS BUTTON TO ALLOW YOU TO SCREW THE HINGE PIN INTO THE PIVOT.

HANGING PANELS

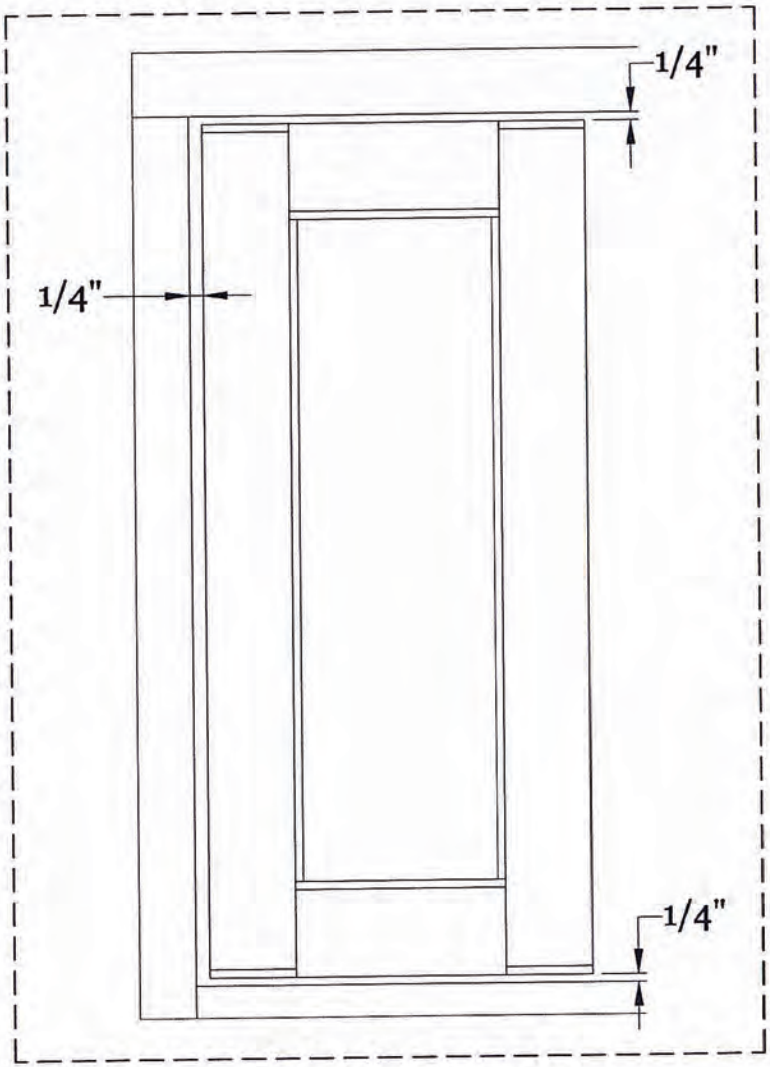


B PUSH HINGE PIN THROUGH HINGE & INTO BOTTOM PIVOT.

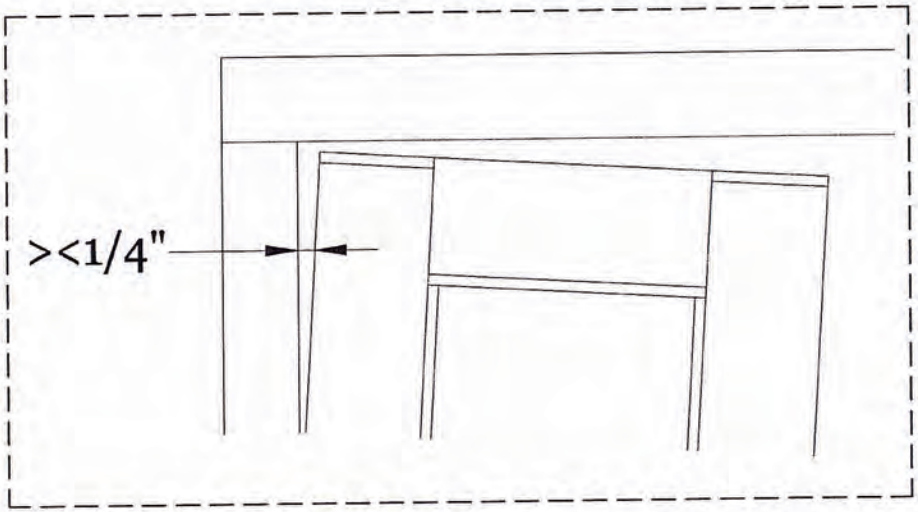
AFTER HINGE PIN IS IN THE BOTTOM PIVOT, SECURE BY TIGHTENING THE SET SCREW.

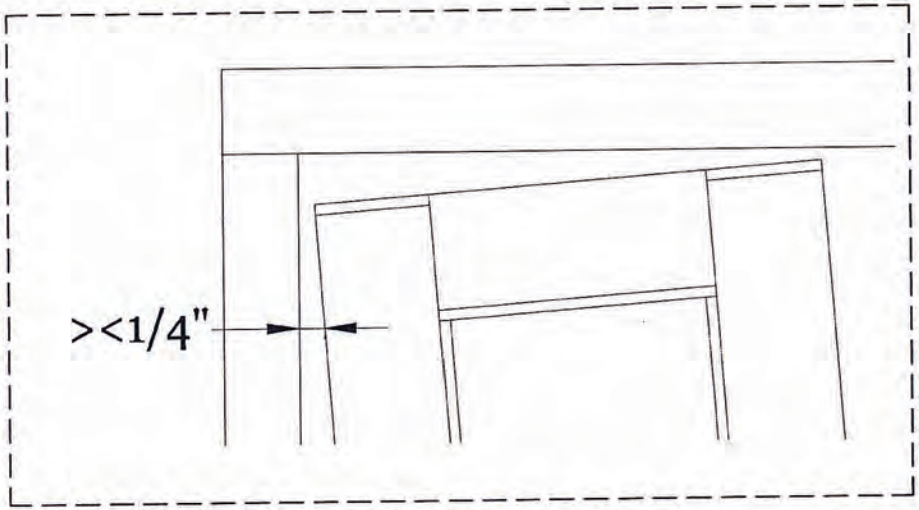
ADJUST DOOR LEAF

THE DOOR SHOULD HAVE THE FOLLOWING MARGINS:

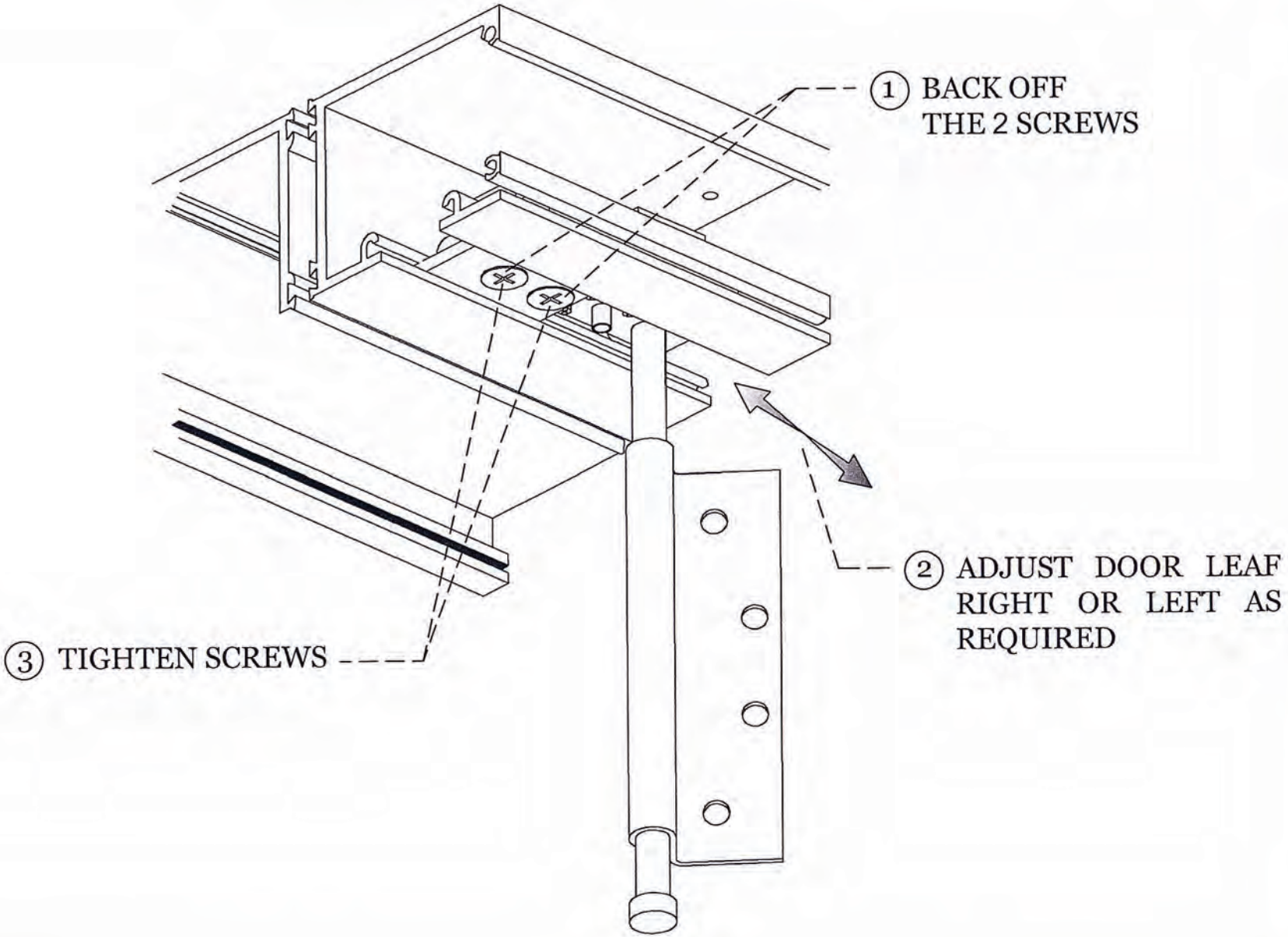


IF THE TOP OF YOUR DOOR IS MORE OR LESS THAN 1/4" @ JAMB, ADJUST TOP PIVOT PER PAGE 12.



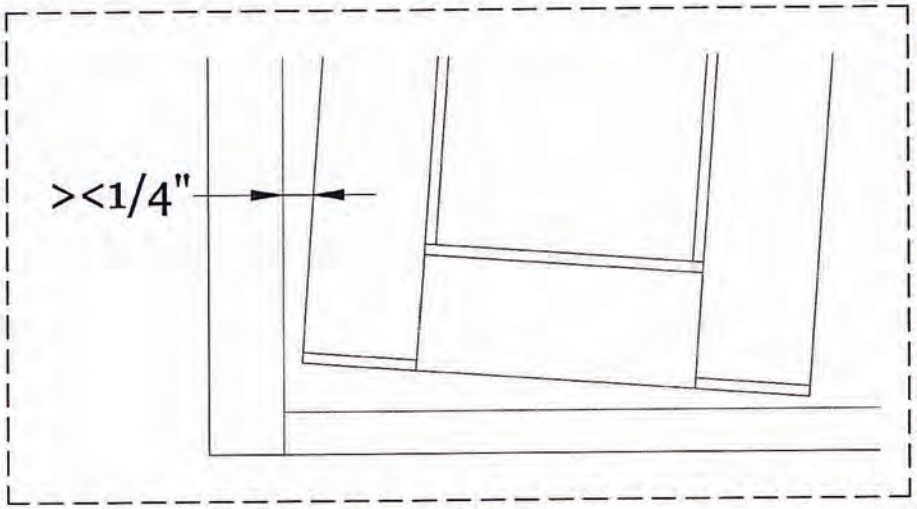


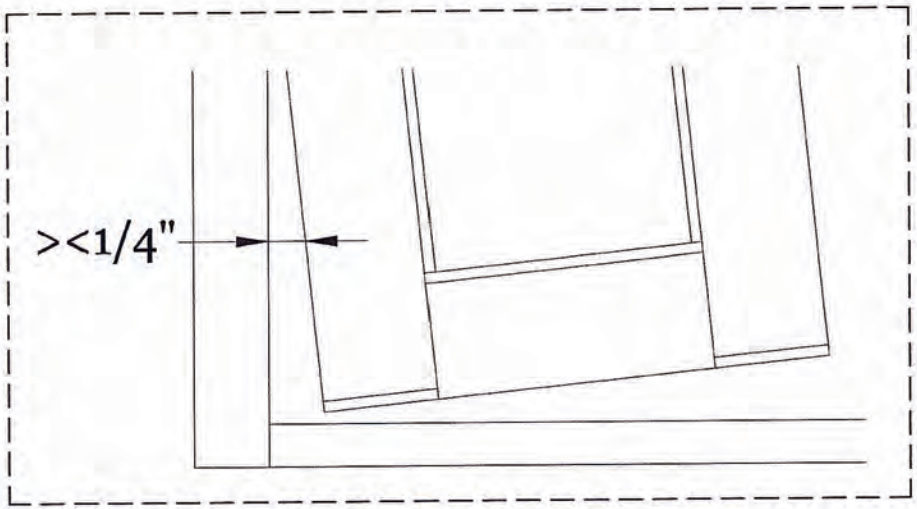
FRAME INSTALLATION



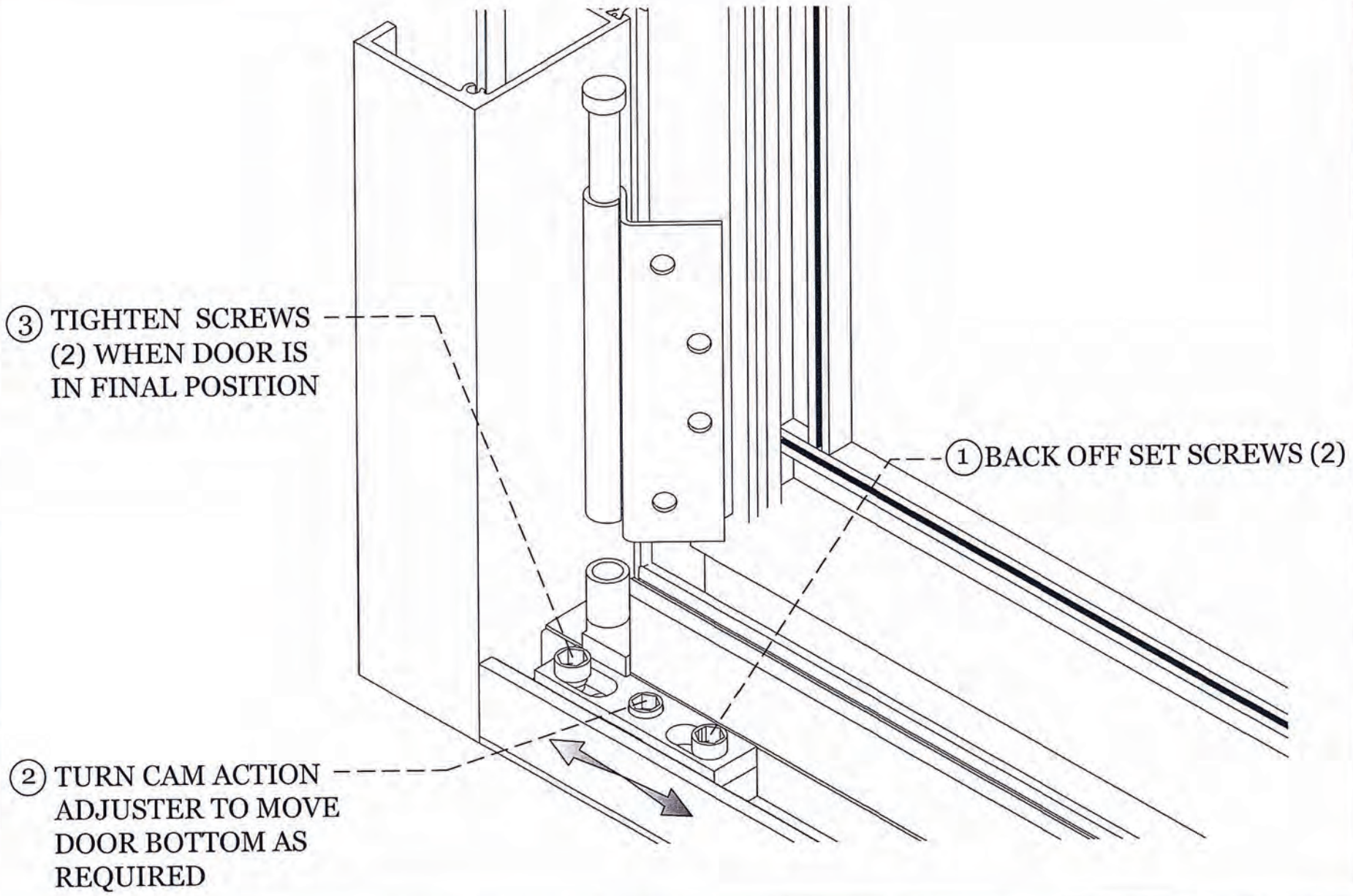
ADJUSTING DOOR LEAF

IF THE BOTTOM OF YOUR DOOR IS MORE OR LESS THAN 1/4" @ JAMB, ADJUST TOP PIVOT PER PAGE 14.



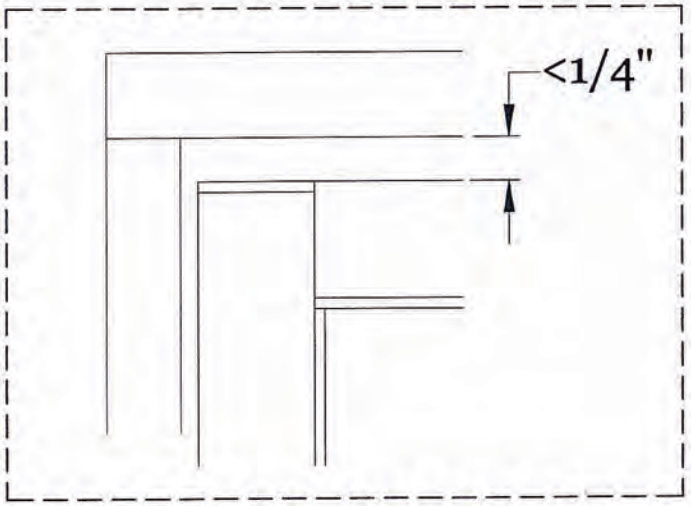


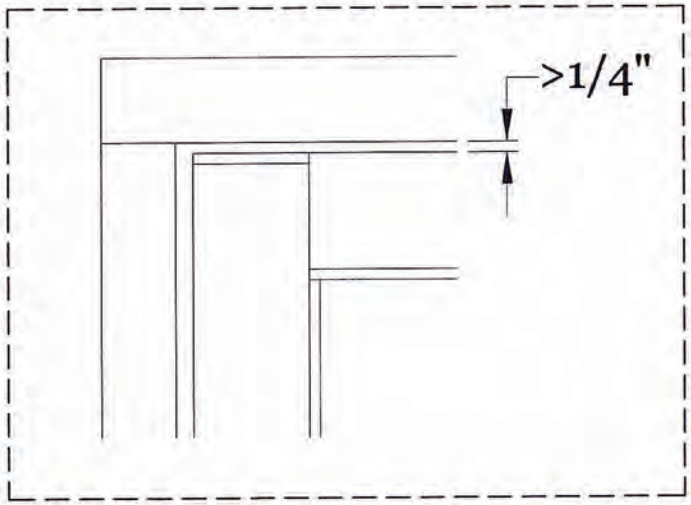
HOW TO ADJUST DOOR BTM JAMB PIVOT

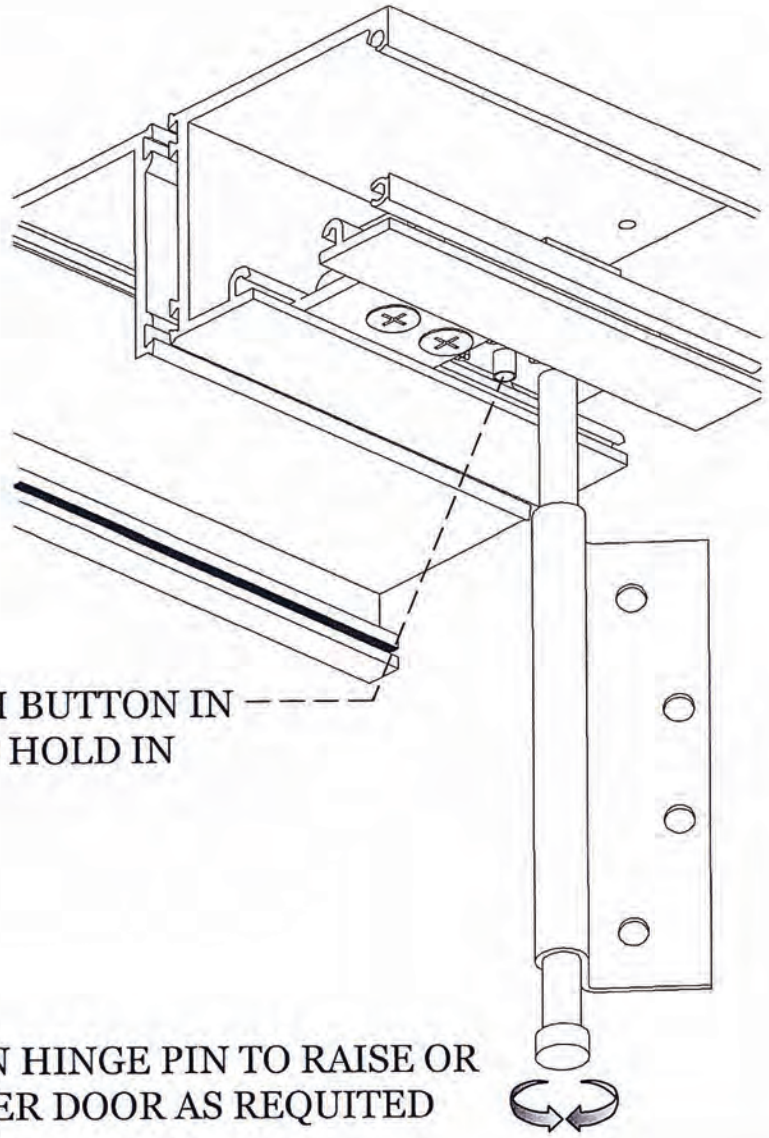


ADJUSTING FOR ELEVATION

IF YOUR DOOR IS TOO HIGH OR TOO LOW, ADJUST HEAD PIVOT.



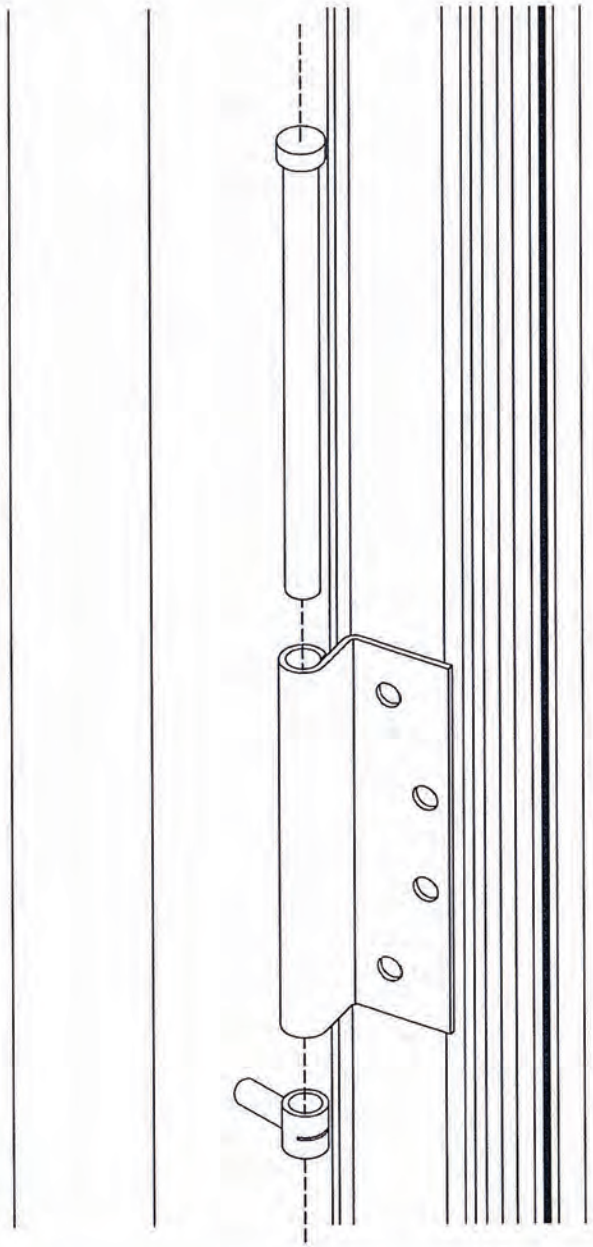




① PUSH BUTTON IN AND HOLD IN

② TURN HINGE PIN TO RAISE OR LOWER DOOR AS REQUITED

ADJUST INTERMEDIATE JAMB PIVOT (IF FITTED)

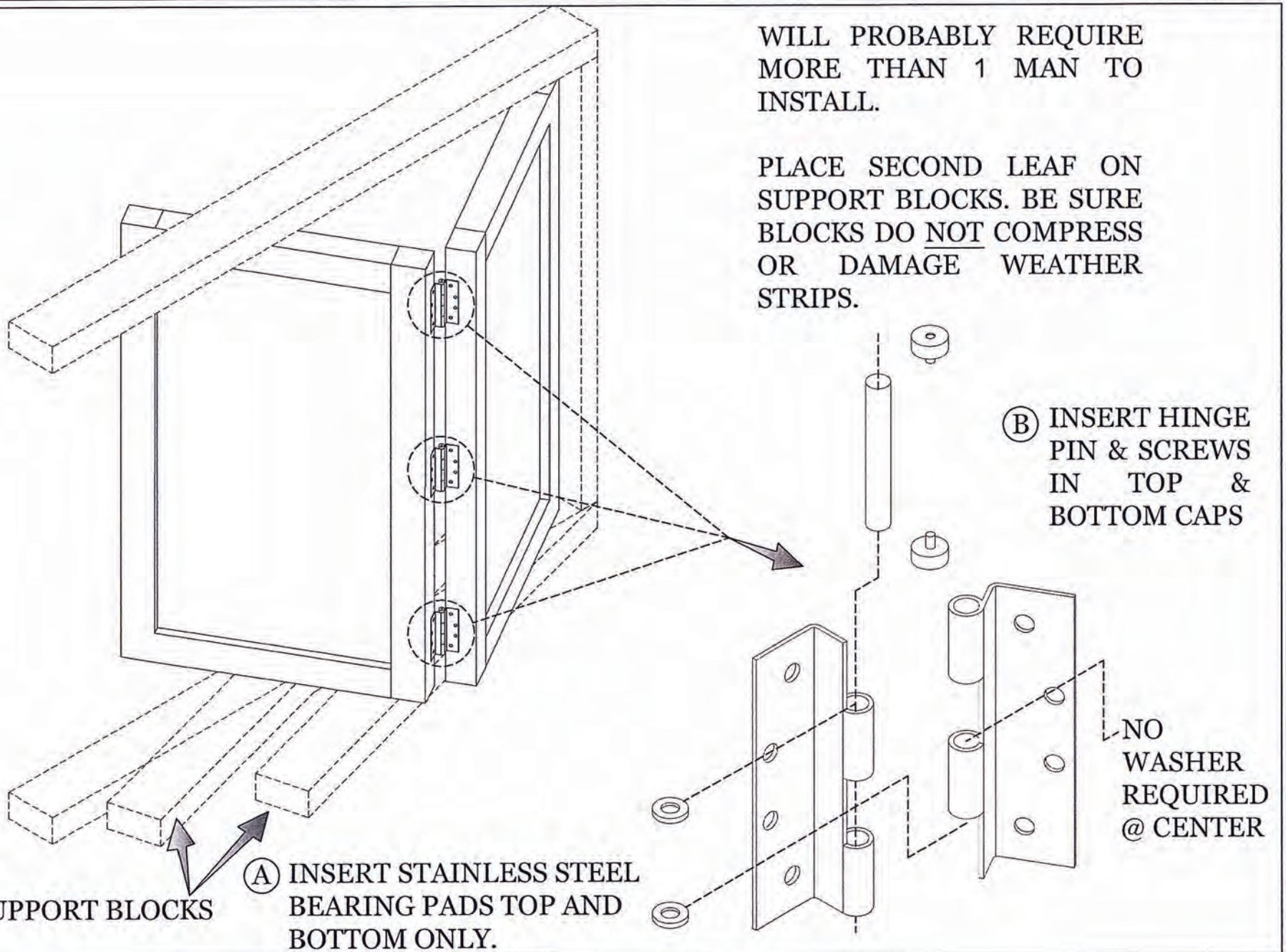


① RAISE DOOR SLIGHTLY

② SCREW HINGE PIVOT IN OR OUT UNTIL IT ALIGNS WITH HINGE.

③ PASS HINGE PIN THROUGH HINGE & SCREW INTO HINGE PIVOT.

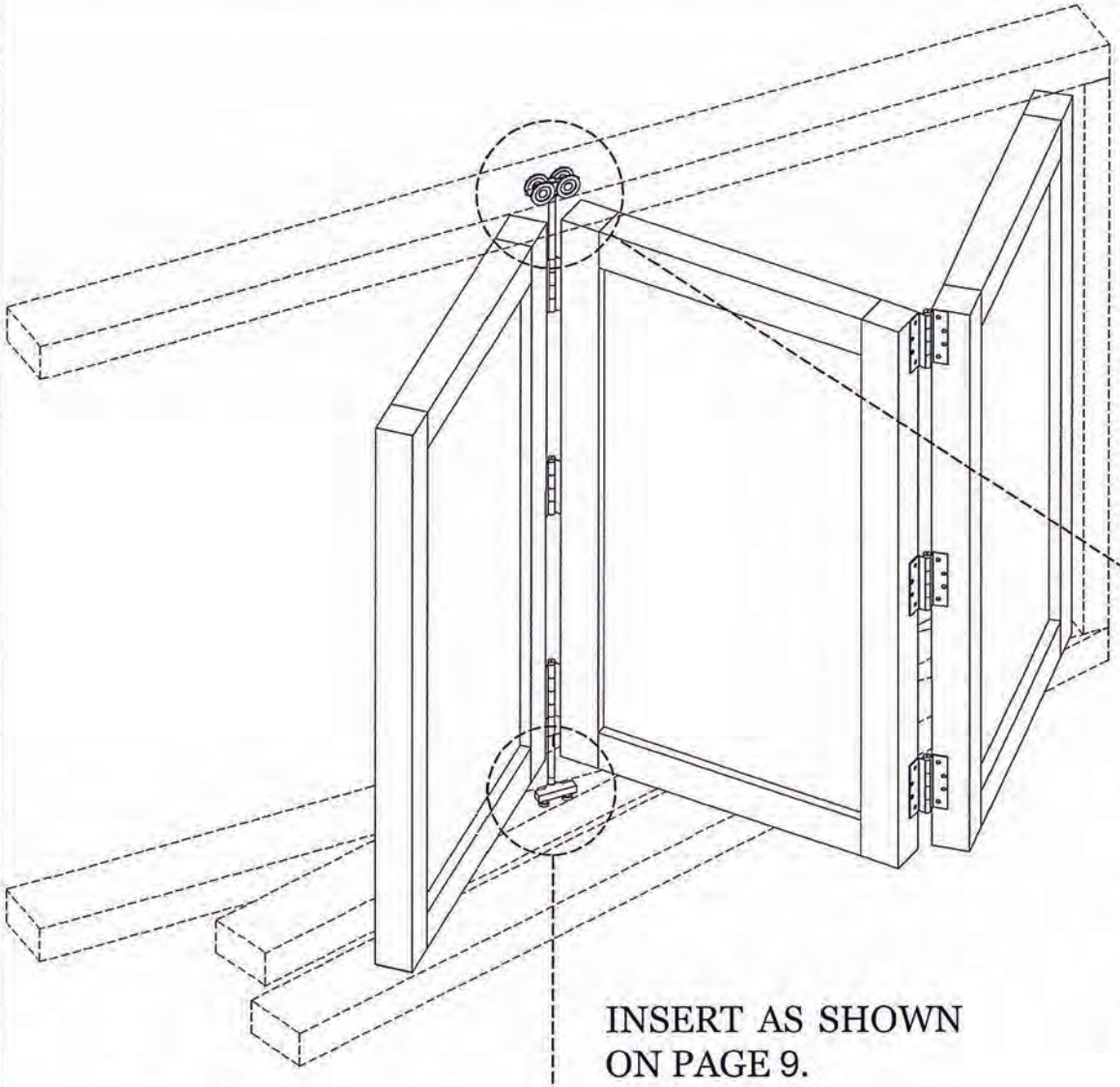
HANGING SECOND LEAF

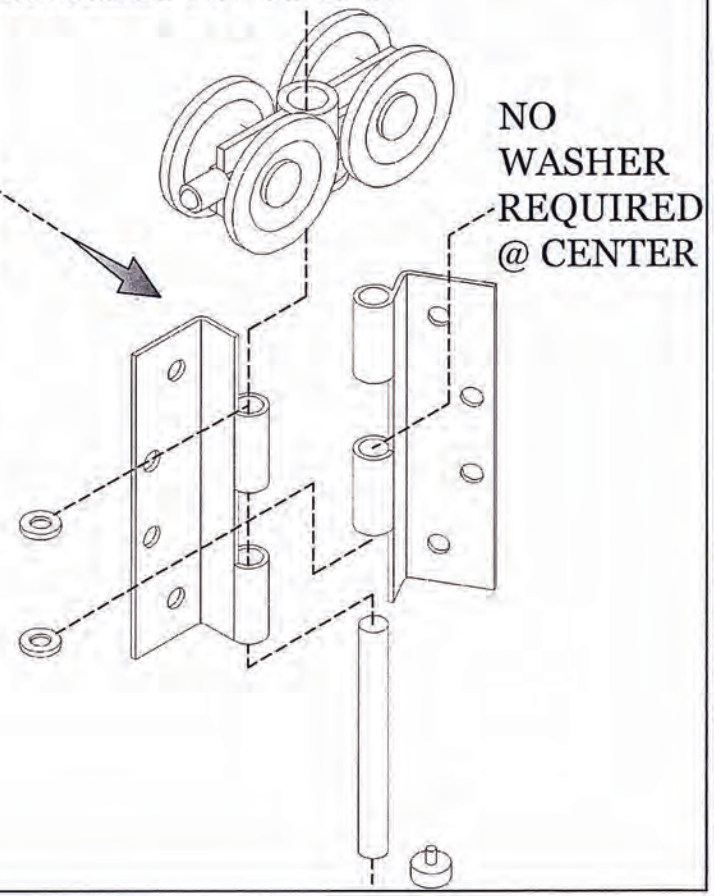


HANGING THIRD LEAF-ATTACH TOP HINGE

PLACE THIRD LEAF ON SUPPORT BLOCKS. BE SURE BLOCKS DO NOT COMPRESS OR DAMAGE WEATHER STRIPS.

THIS PROCEDURE IS SAME FOR JOINING 2 LEAVES WITH A DUAL TROLLEY PIVOT SET OR IF IT IS THE FINAL LEAF WITH A SINGLE TROLLEY PIVOT SET.



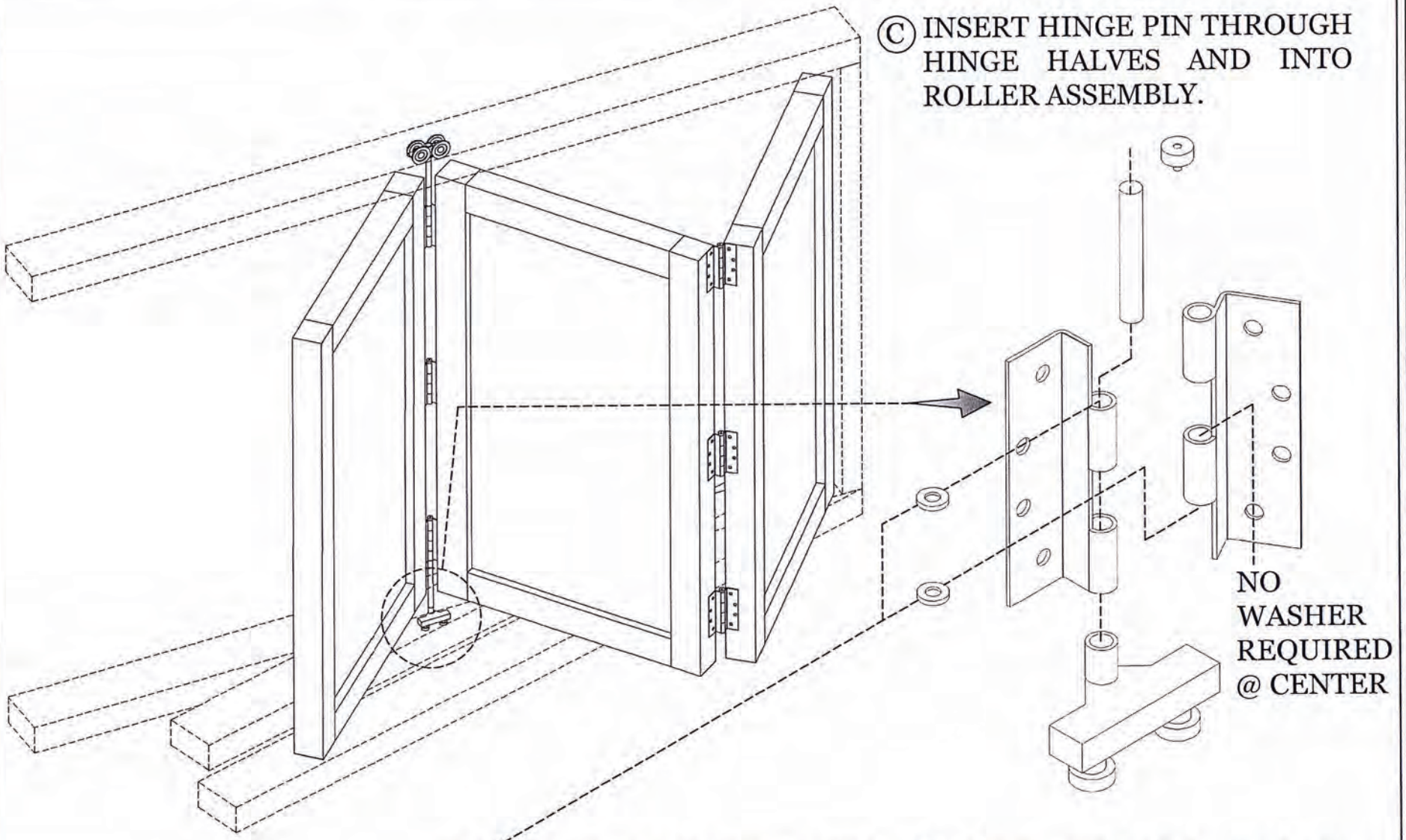


INSERT AS SHOWN ON PAGE 9.

SEE PAGE 19

ADJUST AS SHOWN ON PAGE 12.

ATTACH BOTTOM HINGE



FURTHER DOOR LEAVES WILL BE INSTALLED IN A SIMILAR MANNER TO PREVIOUS.

YOU WILL PROBABLY FIND YOU WILL NEED TO MAKE FINAL ADJUSTMENTS OF THE DOOR LEAVES TO GET THEM SQUARE, TRUE, PLUM AND OPERATING EASILY.

IF YOU CONTINUE TO HAVE PROBLEMS GETTING MULTIPLE LEAVES TO "SQUARE UP" AND OPERATE PROPERLY, IT MAY BE THAT YOUR FRAME ASSEMBLY AND INSTALLATION IS NOT TRUE. CHECK THE FOLLOWING:

- CHECK THE HEAD TRACK IS STRAIGHT;
- THE HEAD TRACK IS LEVEL THE JAMBS;
- SILL ARE SQUARE AND TRUE TO THE HEAD.
- CHECK YOU HAVE SUFFICIENT FASTENERS TO STOP THE FRAME FROM MOVING WHEN DOORS ARE OPERATED.

AFTER EVERYTHING IS WORKING PROPERLY WE RECOMMEND YOU REMOVE ALL FASTENERS, ONE AT A TIME AND APPLY A LITTLE "LOCKTITE" AND THEN REINSTALL THE FASTENER TIGHTLY.

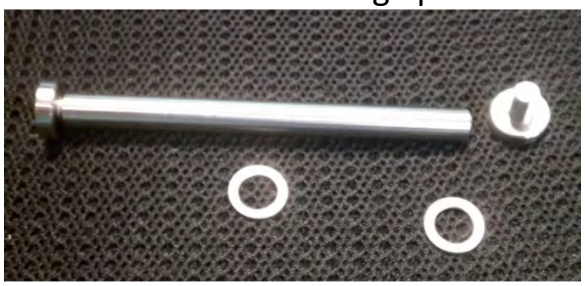
PRL Bi-Fold Hardware

BFH-01 top jamb starter pivot

BFH-04 intermediate roller assembly

BFH-02 intermediate jamb pivot (when used)

BFH-05 intermediate hinge pin

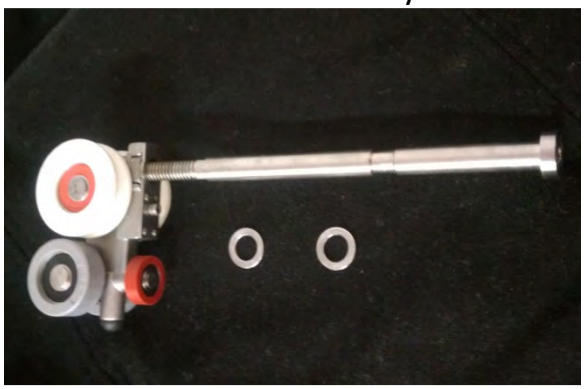


BFH-03 bottom sill jamb pivot

BFH-06 intermediate sill guide

BFH-07 intermediate hinge pin and pull handle

BFH-08 Half roller assembly



BFH-09 Half sill guide assembly