



THE MURPHY DOOR

— THE BI-FOLDING BOOKSHELF DOOR —



MURPHY DOOR DIY HARDWARE INSTALLATION MANUAL

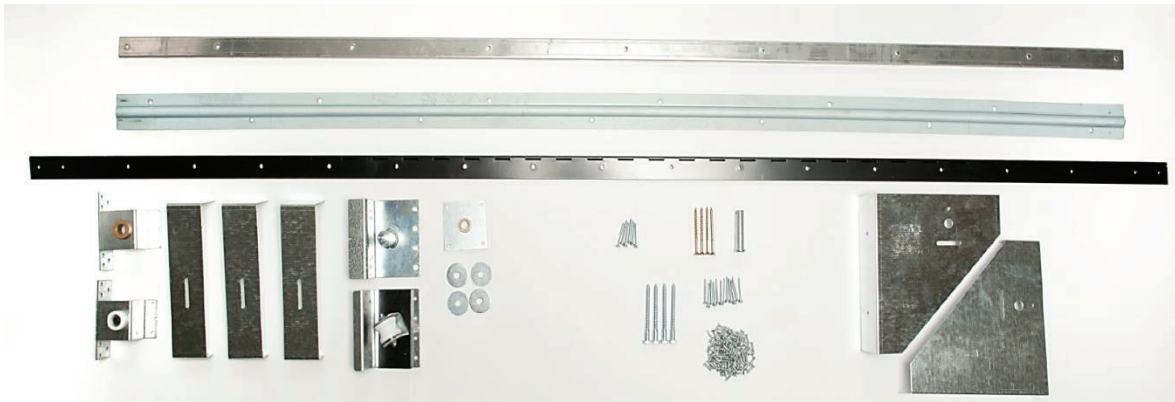
The Murphy Door Bi-Folding Bookshelf was designed to install IN FRONT of existing door ways, replacing the door or doors while concealing the door way. In MOST cases no retrofitting of existing door jambs, base moldings or casing is required, but due to the variable thicknesses of molding as well as the inconsistency of plumb walls in most of our homes, casings and molding may need to be removed for proper door function.

Successful installation requires reading this entire booklet before assembling The Murphy Door hardware. This will ensure quality and longevity of intended function.

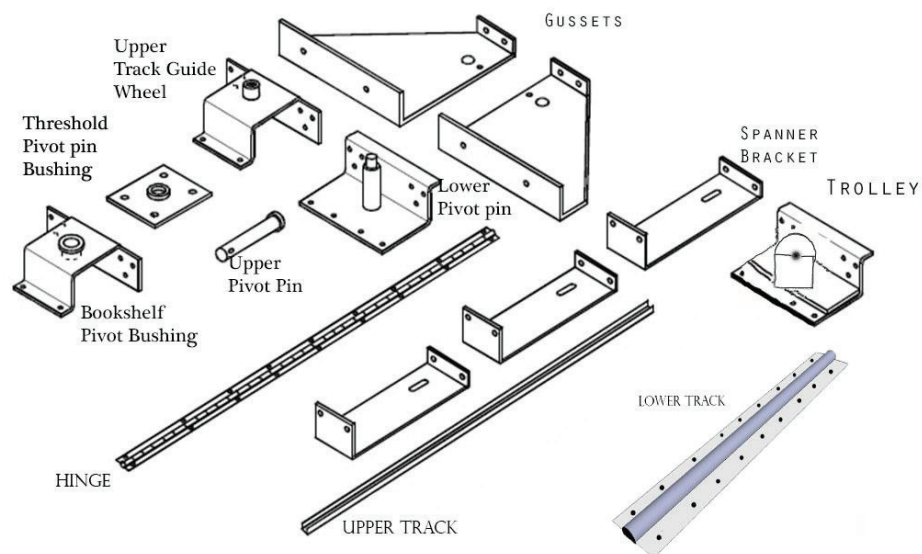
Hardware kits are shipped in one large package, inside the box you will find (1) “U” channel, (1) Lower track with a half round, (1) piano hinge and a small box containing the rest of the hardware components. There is a large void section which serves only as structural support for the box in shipping. Every effort has been made to ensure that each piece is protected and comes to you undamaged.

PREPARATION

INVENTORY ALL HARDWARE COMPONENTS



Actual Hardware Image



NOTE: All tracks are shipped at a 65" length you will need to cut your rails up to 8" short of your desired width. IE: 49" Door can be cut down to 41" a 61" Door can be cut down to 54" and the 73" Door will use the 65" rail. This same procedure will be used for the upper channel as well.

MURPHY DOOR HARDWARE INSTALLATION

Tools required to complete install of hardware

- ☐ Rubber hammer
- ☐ 5/8"-3/4" Forstner bit or spade bit
- ☐ Power screwdriver or Philips screwdriver
- ☐ Measuring tape
- ☐ Pencil
- ☐ Level (minimum 4' level preferred)
- ☐ Screw Gun (drill)
- ☐ Hack Saw
- ☐ Plumb BOB (not required but nice to line up your pivot points.)

ACCIDENTS AND SERIOUS INJURY COULD RESULT BY FAILURE TO FOLLOW THIS ASSEMBLY MANUAL.

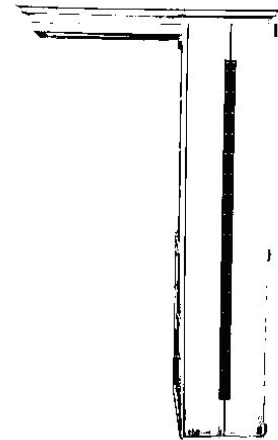
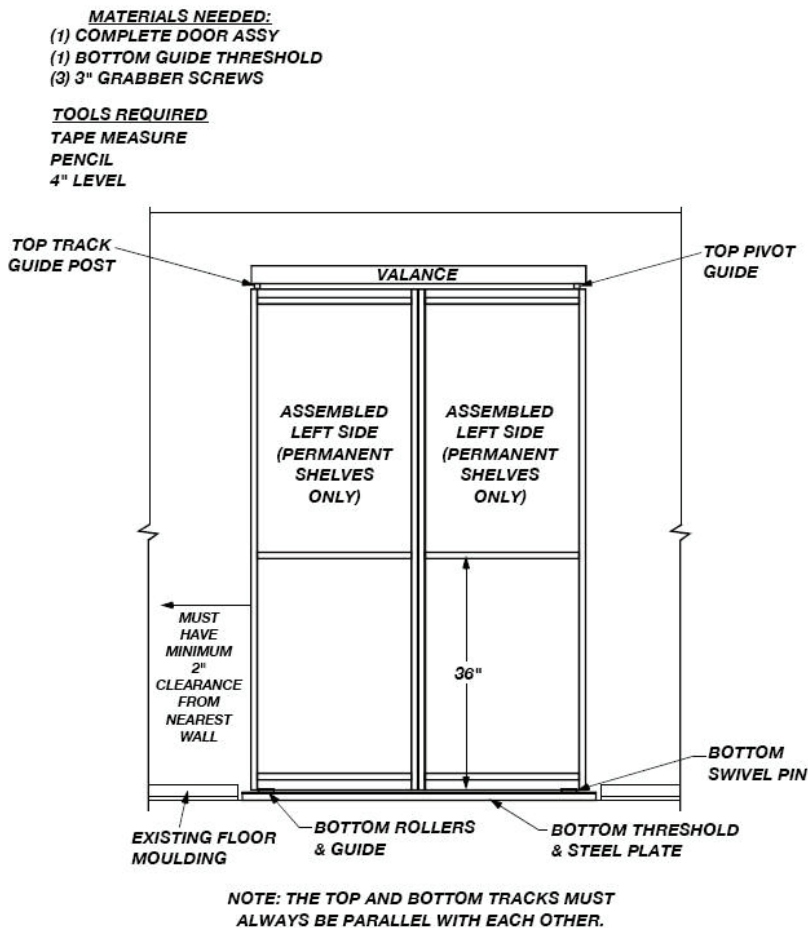
Carefully follow the steps in order. Every effort has been made in the manual to guide you systematically through the installation resulting in your ability to completely assemble your own Murphy Door System. Pay special attention to all critical measurements and alignments. We cannot guarantee the product if you fail to follow these procedures.

PREPARATION

Decide Fixed and Moving side. You need to decide which side you want the door to move to. We will use the terms left hand and right hand swing. For this job we will say a left hand swing means the door swings from the left so you will open the right side of the door and the bookcase will fold to the left side of the door. A right hand swing will be just the opposite. You will open the left side of the door and the bookcase will stack on the right. Here is an example of a right hand unit.

Right Hand Doors Shown Below.

Opened Right Hand Door.

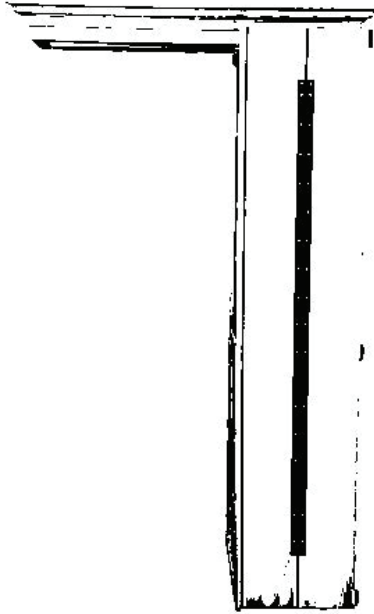


Hardware Location Example above on a Right Hand Door.

Illustration (above right) depicts right hand door in the fully opened position.

STEP 1

INSTALLING PIANO HINGE:



- 1.1 Locate piano hinge in hardware set. This hinge ships at 68" +/-.
- 1.2 Lay both fully assembled bookcase units on the ground. Preferably on a piece of carpet to protect your finish.
- 1.3 Our preferred method is to fasten the hinge to the back of the doors. This minimizes the spacing between the two bookcases when they are closed. But this is completely optional to the builder the other way is shown above.
- 1.4 Once your desired placement has been chosen sides or back, center the knuckle of the hinge with the gap between the two doors, (BE SURE YOU HAVE TESTED AND YOU KNOW WHICH WAY IT OPENS) it is recommended to have two people to do this so the hinge does not move.
- 1.5 Place two screws on one end of the hinge, then move up to where your partner is helping and place 2 more screws. It is essential that the hinge stays straight, this is a critical component of a smooth operating finished product.

STEP 2

INSTALLING LOWER PIVOT PIN

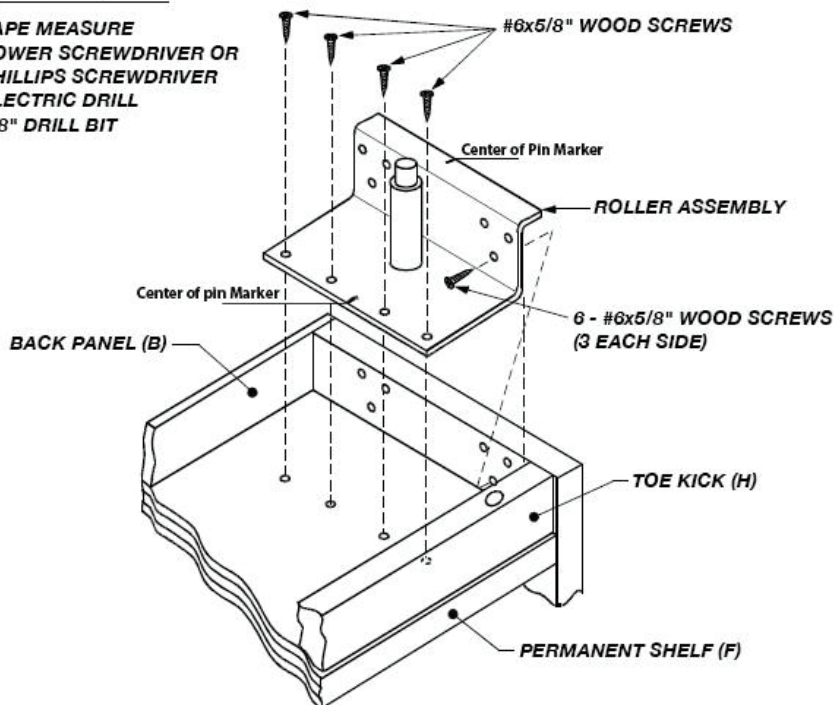
MATERIALS NEEDED:

- (1) COMPLETE DOOR ASSEMBLY
- (1) BOTTOM PIVOT BRACKET
- (10) #6x5/8" WOOD SCREWS

***THESE INSTRUCTIONS ARE FOR
A TYPICAL RIGHT HAND SWING DOOR
ALL PARTS MOVE TO OPPOSITE SIDE
FOR A LEFT HAND SWING DOOR**

TOOLS REQUIRED

**TAPE MEASURE
POWER SCREWDRIVER OR
PHILLIPS SCREWDRIVER
ELECTRIC DRILL
1/8" DRILL BIT**



ALL HARDWARE CENTER MARKERS SHOULD BE PLACED AT 4 1/8" from the Backside of the back panel (or furthest point on back of shelf)

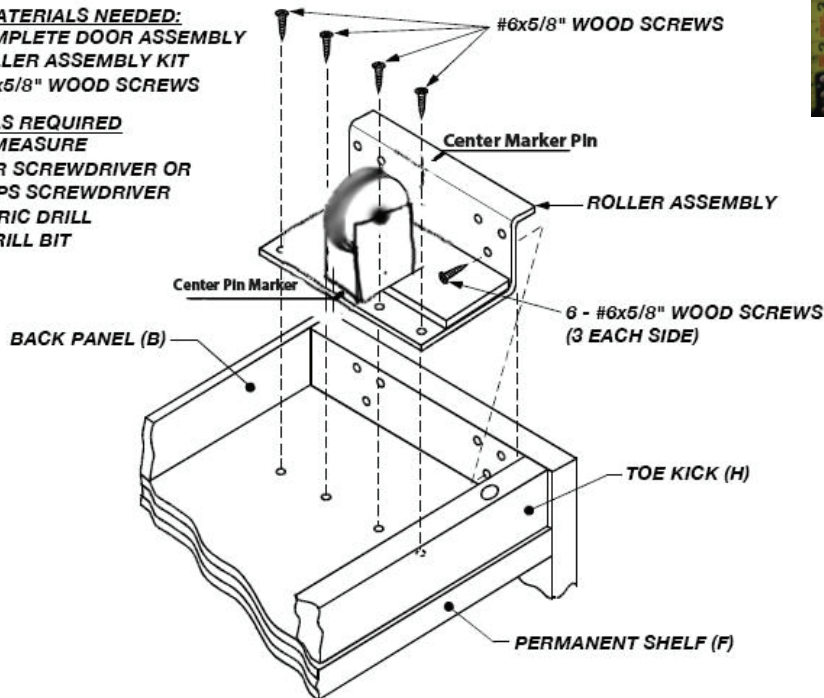
- 2.1 After deciding your swing, locate the Pivot pin portion of the hardware, this piece should look like the piece shown above.
- 2.2 Locate the bottom corner of your cabinet that you would like to be the pivoting side of the door (Fixed Side.)
- 2.3 Locate the center pin marker on the pivot pin hardware. This is a cut out located the center of pin. As shown on drawing above.
- 2.4 Measure 4-1/8" from the back of the book shelf, this will be the outside edge of the bookshelf not on the inside edge. Be sure it is from the furthest point.
- 2.5 Fasten hardware so the marker is centered on the 4 1/8" mark from back of bookshelf.

STEP 3

INSTALLING LOWER TROLLEY

MATERIALS NEEDED:
(1) COMPLETE DOOR ASSEMBLY
(1) ROLLER ASSEMBLY KIT
(10) #6x5/8" WOOD SCREWS

TOOLS REQUIRED
TAPE MEASURE
POWER SCREWDRIVER OR
PHILLIPS SCREWDRIVER
ELECTRIC DRILL
1/8" DRILL BIT



Center Marker on all Bookshelf Hardware to be set a 4 1/8" from back of bookshelf.

- 3.1 Locate lower roller assembly, as shown above.
- 3.2 Place Roller Assembly on bottom of bookshelf, (on the moving side of the bookshelf).
- 3.3 Measure 4-1/8" from the back of the bookshelf, place a mark where the center mark on the hardware should go.
- 3.4 Take hardware set and mark the location of the bolt located on the bottom of the roller assembly, on the bookshelf. (Tap with hammer lightly to leave mark. While holding in the correct spot.)
- 3.5 Take the appropriate size forstner bit and drill out a spot for the bolt head to rest into the bottom of bookshelf, take caution not to over drill and go through the bottom shelf.
- 3.6 Place hardware center marker on 4 1/8" mark. Set all screws as indicated above.

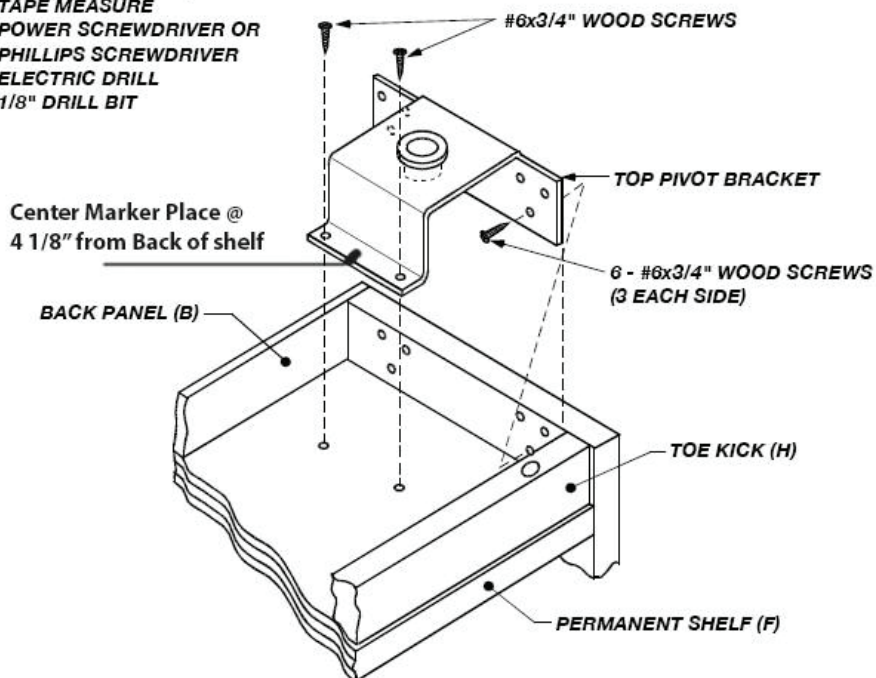
STEP 4

INSTALLING UPPER BRASS BUSHING

MATERIALS NEEDED:
(1) COMPLETE DOOR ASSEMBLY
(1) TOP PIVOT BRACKET
(8) #6x3/4" WOOD SCREWS

***THESE INSTRUCTIONS ARE FOR
A TYPICAL RIGHT HAND SWING DOOR
ALL PARTS MOVE TO OPPOSITE SIDE
FOR A LEFT HAND SWING DOOR**

TOOLS REQUIRED
TAPE MEASURE
POWER SCREWDRIVER OR
PHILLIPS SCREWDRIVER
ELECTRIC DRILL
1/8" DRILL BIT



Verify That center Marker on Hardware is 4 1/8" from back of book shelf.



Step 4.1 Locate Upper brass bushing hardware assembly.

Step 4.2 Locate upper portion of the fixed or pivoting side of the cabinet.

Step 4.3 Measure from the back of the bookshelf into the bookcase 4-1/8"

Step 4.4 Place Center marker on the 4-1/8".

Step 4.5 Set all screws as shown above.

STEP 5

INSTALLING UPPER TRACK GUIDE WHEEL

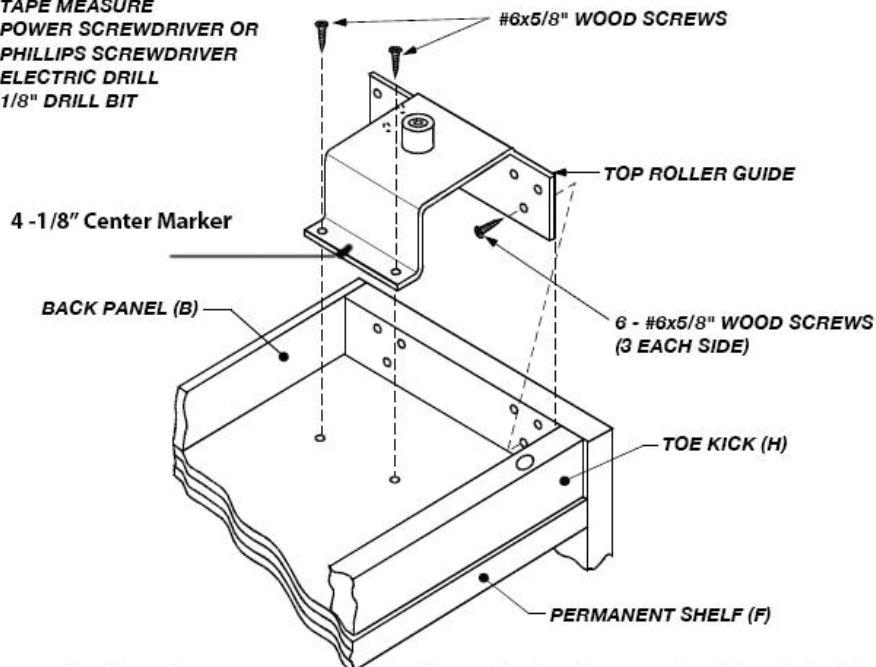
MATERIALS NEEDED:

- (1) COMPLETE DOOR ASSEMBLY
- (1) TOP PIVOT BRACKET
- (8) #6x5/8" WOOD SCREWS

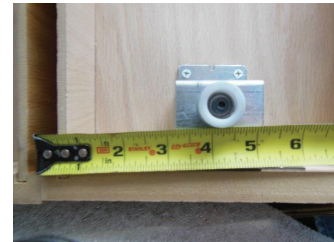
***THESE INSTRUCTIONS ARE FOR
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ALL PARTS MOVE TO OPPOSITE SIDE
FOR A LEFT HAND SWING DOOR**

TOOLS REQUIRED

- TAPE MEASURE
- POWER SCREWDRIVER OR
PHILLIPS SCREWDRIVER
- ELECTRIC DRILL
- 1/8" DRILL BIT



Verify All Hardware is set at 4 1/8" from the furthest Back of bookshelf to center marker on hardware



Step 5.1 Locate Upper track wheel hardware assembly.

Step 5.2 Locate upper portion of the fixed or pivoting side of the cabinet.

Step 5.3 Measure from the back of the bookshelf into the bookcase 4-1/8".

Step 5.4 Place Center marker on the 4-1/8".

Step 5.5 Set all screws as shown above.

STEP 6

INSTALLING THRESHOLD PIVOT PIN BUSHING

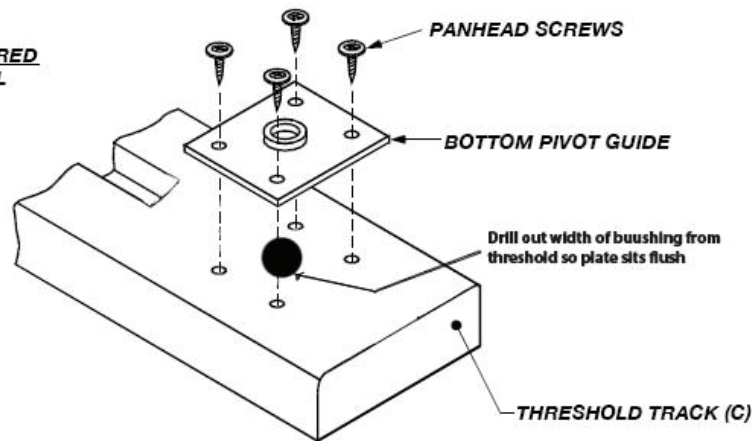


MATERIALS NEEDED:

- (1) THRESHOLD TRACK
- (1) BOTTOM PIVOT GUIDE
- (4) PANHEAD SCREWS

TOOLS REQUIRED

- ELECTRIC DRILL
- PENCIL
- 1/8" DRILL BIT



(FOR EXACT WIDTH, LENGTH AND DEPTH, SEE CUT SHEET)

- 6.1 Locate Wood component "C" and 2"x2" brass bushing.
- 6.2 Mark center of threshold and measure width of center track.
- 6.3 Dado 3/16" Deep x width of track x length of threshold - 5".
- 6.4 Measure in 1" from non-dado side of threshold, mark edge of 2"x2" mark, measure center of track and center of 2x2 for bushing, use a forstner or spade type bit to clear out space for bushing.
- 6.5 Fasten 2"x2" to threshold, verify that the center of track is matches center of bushing.

STEP 7

VALANCE HARDWARE INSTALLATION



Figure 7.3.1



Figure 7.3.2



Figure 7.4



Figure 7.5



Figure 7.6

- 7.1 Gather assembled Valance components, gather all necessary valance hardware, 2 Angle Gussets, 3 spanner brackets, 1 upper U channel track and screw packets.
- 7.2 Install all hardware as shown in image.
- 7.3 Depict which side is the fixed side of your valance. Take a $\frac{1}{2}$ " drill and drill hole through the hole in the metal bracket. The center of hole should land center of track at $5 \frac{1}{4}$ ".
- 7.4 Set center of track in dado if this method was used, either way the center of the track should be at $5 \frac{1}{4}$ " from the very back of the valance. Do not cover clevis pin hole. The track can end up to 8" short of the clevis pin hole.
- 7.5 Set spanner brackets next evenly divided throughout valance. On 4' it is only necessary to us 2 spanner brackets.
- 7.6 Verify that the track is not exposed below the bottom of the valance for maximum concealment .

STEP 8

INSTALLING YOUR DOOR - PART 1



- 8.1 The installation of your door will require a minimum of 2 people. Gather your lower track/threshold, locate your pivot side of door.
- 8.2 Set edge of track (non pivot side) flush with the outside edge of door casing for concealment. If your track is already installed on the threshold, remove it. This will allow you to conceal the grabber screws below the track. (Prior to removing the track be sure you mark center of track on threshold for reference)

IMAGE (Enlarged threshold for demonstration only)



- 8.3 Measure from the DRYWALL 5 1/4" to the center of the track mark, insure that your measuring from the drywall not the casing. **THIS IS CRITICAL!!** Then measure the opposing side from the drywall to the center of the brass bushing.



- 8.4 Fasten threshold to floor using the grabber screws provided. Be sure that you are fastening directly to a wood or concrete floor, if you are fastening to concrete you will need to use **NECESSARY** equipment, such as **DRILL CONCRETE DRILL BIT AND CONCRETE ANCHORS**, these are **NOT** provided in your kit. If you have carpet it is **NECESSARY** that you remove the carpet in order for your door to operate as engineered.
- 8.5 Once your threshold is set and fastened properly at 5 1/4" from the drywall to center of track and bushing, use two people to pick up the door. Set the lower pivot pin into the brass bushing. This is a very tight fit, it will take a bit of work to get the pin to slide but it will, raise the door to plumb and level to help facilitate the pin sliding into the bushing.
- 8.6 Set the trolley onto the track.
- 8.7 Using one person holding the door up, move to step 9.

STEP 9

INSTALLING YOUR DOOR - PART 2



- 9.1 Gather valance and (4) $\frac{1}{4}$ " spacers from the scraps when you cut the back of your bookshelf, (4) washers and lag bolts, (1) clevis pin and drill to fasten the lag bolts to the wall.
- 9.2 While 1 person holds the door against the wall, Place (1) $\frac{1}{4}$ " spacer in each corner of the bookcase, set the valance on the (4) spacers. Using a stud finder locate and mark each stud on the valance to help locate proper spot to pre drill.
- 9.3 Bring valance back down and pre drill the holes in the valance where you marked the stud layout. Try to stagger the bolt holes and keep them at a perfect 90 degree angle to insure while fastening 90 degree angled holes will not pull the valance up or down. Pre-start the 4 lag bolts and washers in place to make it easier.

- 9.4 Place valance back on top of spacers, center the 1/2" hole you drilled over the brass bushing in the bookshelf, and drop the clevis pin through the hole.



- 9.5 Verify the upper and lower track wheels are still in the track, as well as check that the lower pin is still seated in bushing. Fasten all lag bolts into place.



- 9.6 Remove all spacers from the bookshelf.
- 9.7 Using dry lithium grease spray, spray the lower track and wheel bearings, upper track and wheel bearings, and wipe door hinge down.

TROUBLE SHOOTING

Problem	Check	Repair	Not resolved
Door rubs valance in center while opening.	Verify the track was recessed 3/16" into threshold.	Add 3/16" in washers to pivot pin on the bottom of shelf.	Check Level on floor & valance. Adjust valance and threshold if necessary.
Door Binds while opening.	Hinge on back of door insure it is perfectly centered between both doors.	Adjust hinge, verifying that it is perfectly centered.	Verify hinge is not installed backwards. Lubricate hinge.
Door Rubs casing or baseboard while opening.	Thickness of casing and baseboard, Check door for plumb, verify 1-1/8" between back of door and wall for full length of door on both sides.	Shim the back of valance and threshold equally enough to avoid base/case.	Remove or modify base and case.