

PIN-FAST INSTALLATION

worden.

INDEX

<u>HARDWARE</u>	<u>PAGE 3-4</u>
<u>TOOLS REQUIRED</u>	<u>PAGE 4</u>
<u>WARNING</u>	<u>PAGE 5</u>
<u>SINGLE-FACED SHELVING</u>	<u>PAGE 6-7</u>
<u>DOUBLE-FACED SHELVING</u>	<u>PAGE 8-9</u>
<u>MAGAZINE SHELVING</u>	<u>PAGE 10-12</u>
<u>PICTURE BOOK SHELVING</u>	<u>PAGE 13-14</u>
<u>NEWSPAPER SHELVING</u>	<u>PAGE 15-16</u>
<u>SLIDING GLASS DOOR SHELVING</u>	<u>PAGE 17-18</u>
<u>FIELD MODIFIABLE SHELVING</u>	<u>PAGE 19-20</u>
<u>CORNER FILLERS</u>	<u>PAGE 21</u>
<u>DOUBLE CORNER FILLERS</u>	<u>PAGE 22</u>

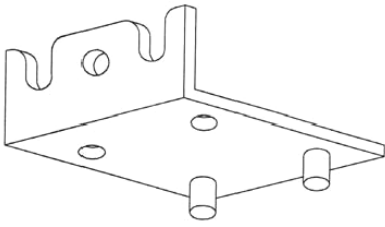
- **SCOPE OF WORK**

This Worden installation manual includes adequate information to allow an installer to correctly identify parts and hardware, with instructions on the most efficient manner in which to install Pin-Fast® shelving. Failure to follow directions may invalidate Worden's warranty.

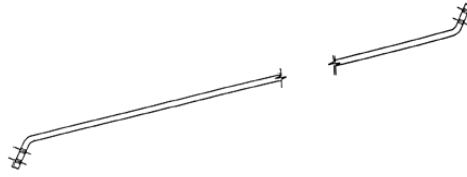
- **QUALIFIED PERSON**

All installation work should be performed by qualified personnel using appropriate tools.

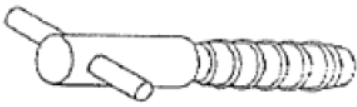
HARDWARE



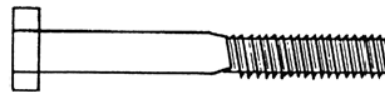
PIN-FAST[®] BRACKET



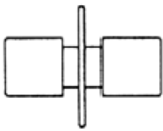
SWAY BRACE



LOCKING SHELF PIN



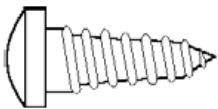
1/4-20 X 2" HEX HEAD BOLT



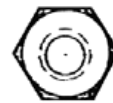
SHELF PIN



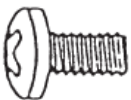
8-32 HEX HEAD NUT



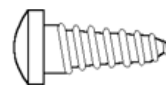
#12 X 5/8 PAN HEAD WOOD SCREW



1/4-20 HEX HEAD NUT



M-6 BOLT

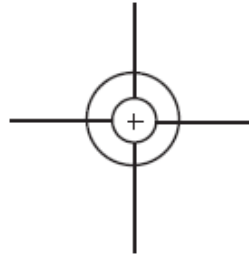


#8 X 5/8 PAN HEAD WOOD SCREW

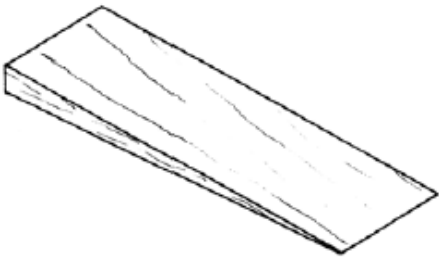
HARDWARE



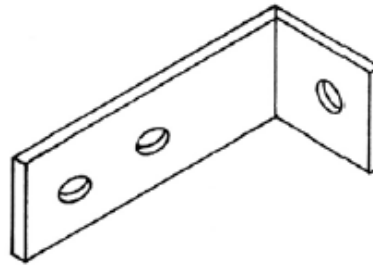
8-32 X 1-3/4 TRUSS HEAD BOLT



3/16" FLAT WASHER



WOOD SHIM



WALL BRACKET



#10 X 2-1/2" FLAT HEAD WOOD SCREW

TOOLS REQUIRED

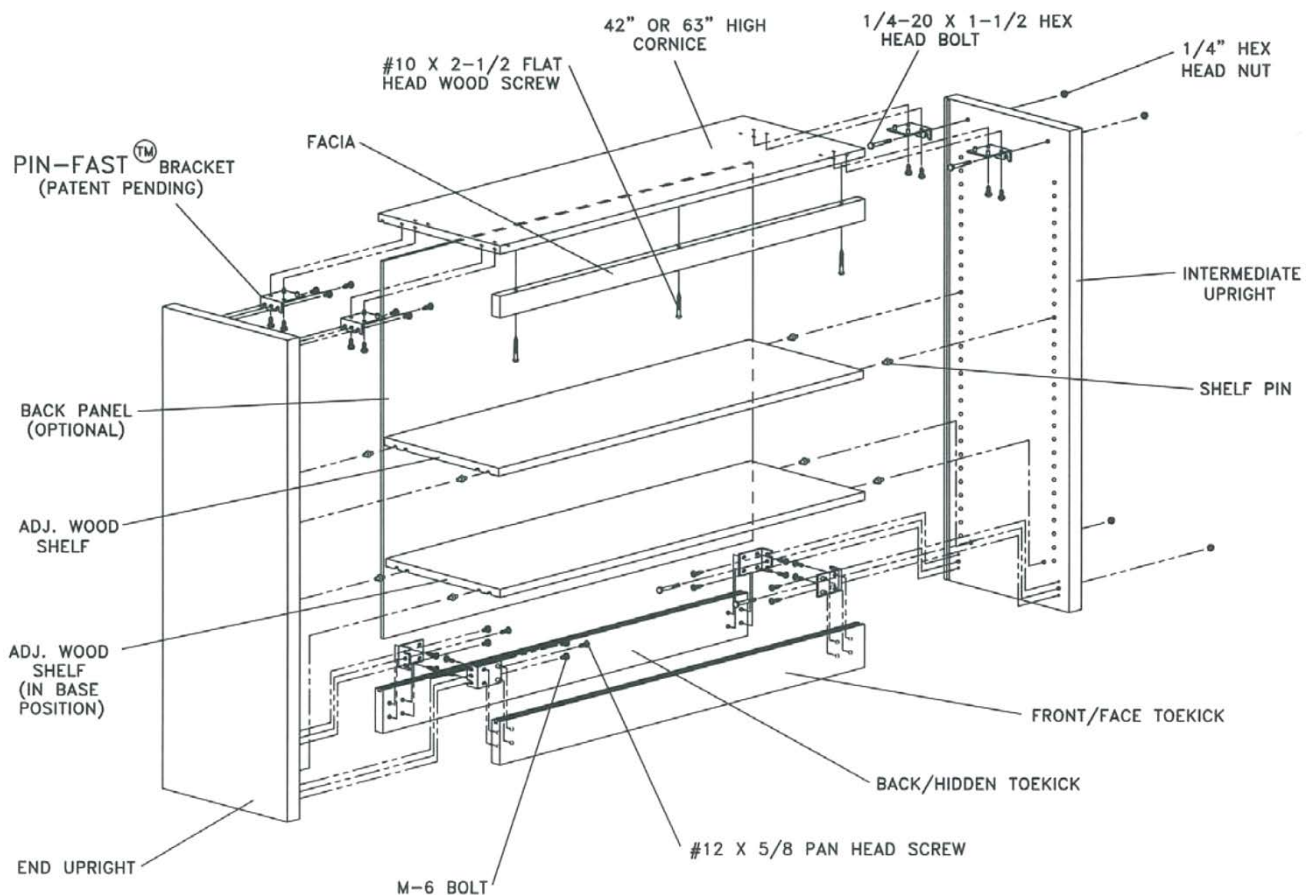
- A) #2 OR #3 bit Philips screw driver
 - B) (2) 1/2" open end or box end wrenches
 - C) Carpenter square and level
 - D) Rubber mallet
 - E) Hammer
 - F) Optional items; power drill with bits, ratchet with 1/2" socket
- NOTE:** See the list of tools required for Field Modifiable Shelving on page 20

WARNING

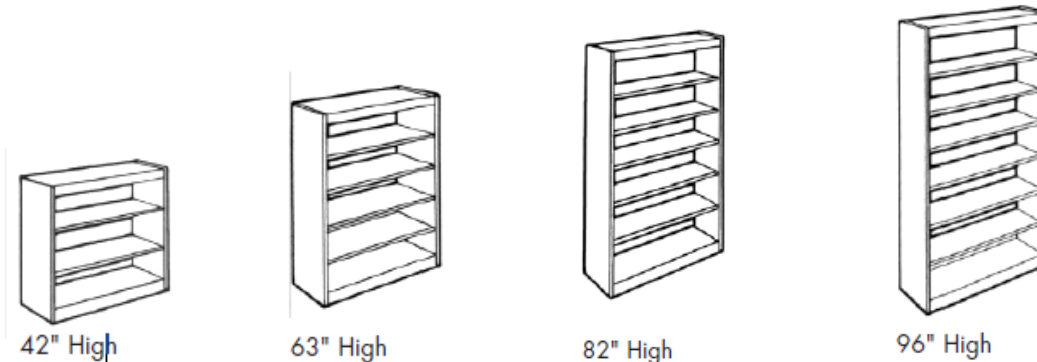
Worden will not warrant Pin-Fast® shelving, 82" high and over, that does not utilize the locking shelf bracket. If locking brackets are not utilized, the uprights could start to bow.

SINGLE-FACED (S.F.) SHELVING

(42" OR 63" HIGH WOOD SINGLE-FACED SHELVING SHOWN)
SINGLE-FACED SHELVING



SINGLE-FACED (S.F.) SHELVING



- 1. SORT SHELVING COMPONENTS** – Initial uprights for single-faced shelving are furnished right and left hand and have holes only on one side. They also have threaded dowel inserts on inside face. Intermediate uprights are furnished with all holes bored through. Single-faced island shelving is banded on back side of end and intermediate uprights and cornices.
- 2. PRE-ASSEMBLE ALL TOE KICKS** – Attach two (2) Pin-Fast® brackets on each toekicks. Use rubber mallet to pound formed pins into holes on toekicks. Lock in place with two (2) #12 x 5/8 PH screws for each Pin-Fast® bracket. **BASE:** The panel shall be ¾" thick x 4" wide veneer core construction with select Grade "B" oak or maple veneer on the exposed face and any sound veneer on the back face. Internal or back toe kicks will be particleboard construction
- 3. PRE-ASSEMBLE ALL CORNICES** – Attach four (4) Pin-Fast® brackets on each cornice in the same method as described above.
- 4. ATTACH ASSEMBLED TOEKICK TO END UPRIGHT** – Partially install M-6 bolts in bottom inserts on end uprights, then slide assembled toekick onto M-6 bolts and tighten. Secure in place with one (1) #12 x 5/8 PH screw in center hole. **NOTE:** Move shelving to final position. Attach corner filler at this time. See page 21 and 22 for instructions.
- 5. ATTACH INTERMEDIATE UPRIGHTS TO THE REMAINING SET OF TOEKICKS** – Pre-install #12 x 5/8 PH screws on the bottom of each side of intermediate upright. Slide assembled toekick onto upright and tighten. Build entire range by repeating this method, then secure in place with ¼-20 x 2" hex head bolt, ¼" flat washers and ¼" hex head nut through center hole. **NOTE:** Be sure back panel grooves on toekick and upright align before tightening.
- 6. ATTACH END UPRIGHTS** – Repeat step 4. **NOTE:** Make all final position adjustments now.
- 7. INSERT SHELVING BACK PANEL** – Insert back panel into grooves in upright approximately 30" to 36" from floor and slide down into groove of toekick. **NOTE:** Back panels are finished on one side only.

- 8. ATTACH ASSEMBLED CORNICE TO RANGE** – Partially install M-6 bolts in top inserts on end up-rights, except on 82" or 96" high shelving with back panels, which must be done while cornice is held in place. Slide cornice subassembly onto M-6 and tighten. Insert one (1) ¼-20 x 2" hex head bolt with ¼" washer through the center hole on each bracket and ½ way through the holes on the intermediate upright. Line up the next cornice and push the bolt all the way through each bracket locking in place with a ¼" washer and ¼" hex head nut. Repeat procedure for each assembled cornice. When tightening bolts, tops should be set down approximately 1/8" from top of upright. 42" high shelving has an HPL surfaced cornice.
- 9. WALL AND FLOOR ANCHORING** – Worden provides wall brackets and #8 x 5/8 pan head wood screws for attachment to shelving. Installer is to provide hardware for securing bracket to wall. It is suggested that every other section be secured. All island shelving must be floor anchored. Installer must provide floor anchoring device.
- 10. ATTACH FACIA** – Attach fascia with three (3) #10 x 2-1/2 flat head wood screw.
- 11. ASSEMBLY INSTRUCTIONS FOR 82" AND 96" HIGH SHELVING** – To assemble 82" and 96" high shelving, repeat steps 1-9. The procedure is the same for these shelving units except they have an inverted cornice top. When attaching the cornice, line up top of fascia with the top edge of upright. Fascia is attached in step 3.

The locking shelf pin **must be** used to lock a shelf at mid-height of the shelving unit. For a wood adjustable shelf, the retention pin is vertical and for a steel adjustable shelf, the retention pin is horizontal. See drawing of the retention pin on the locking pin on page 3.

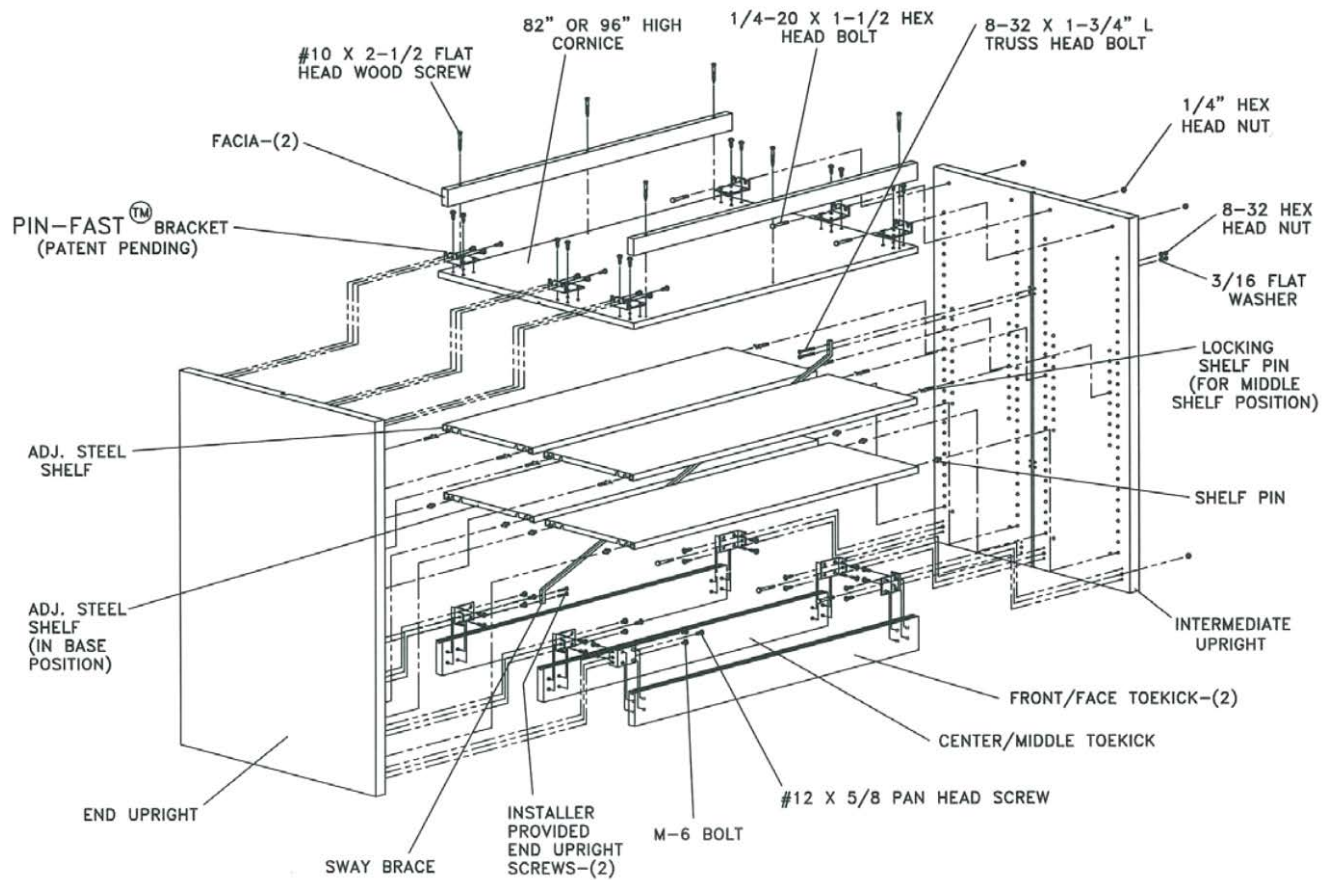
NOTE: Be sure the locking pin is inserted straight into the hole.

- 12. INSTALL BASE SHELF** – Base shelves are installed the same way as adjustable shelves.
- Wood base shelves use bottom inside holes.
 - Steel base shelves use bottom outside hole.
- 13. Dimensions given below will provide as close to equal spacing of shelves as possible. Measurements are to be made from top of base shelf to the hole for the shelf pins. All measurements are from the base shelf up.**
- A. 42" high shelving
Adjustable shelf pins – 11" and 22-1/4".
 - B. 63" high shelving
Adjustable shelf pins – 11", 22-1/4", 33-3/4" and 45".
 - C. *82" high shelving
Adjustable shelf pins – 12-1/4", 24-3/4", 37-1/2", 50" and 62-1/2".
 - D. *96" high shelving
Adjustable shelf pins – 12-1/4", 24-3/4", 37-1/2", 50", 62-1/2" and 75-1/4".

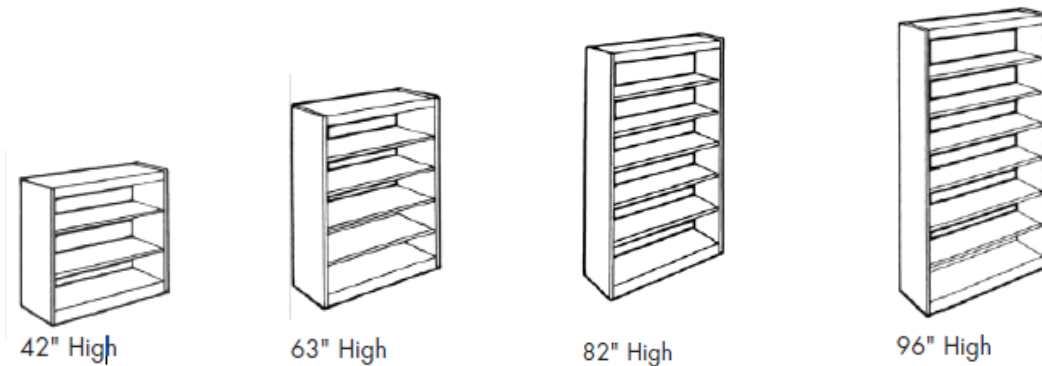
DOUBLE-FACED (D.F.) SHELVING

(82" OR 96" HIGH STEEL DOUBLE-FACED SHELVING SHOWN)

DOUBLE-FACED SHELVING



DOUBLE-FACED (D.F.) SHELVING



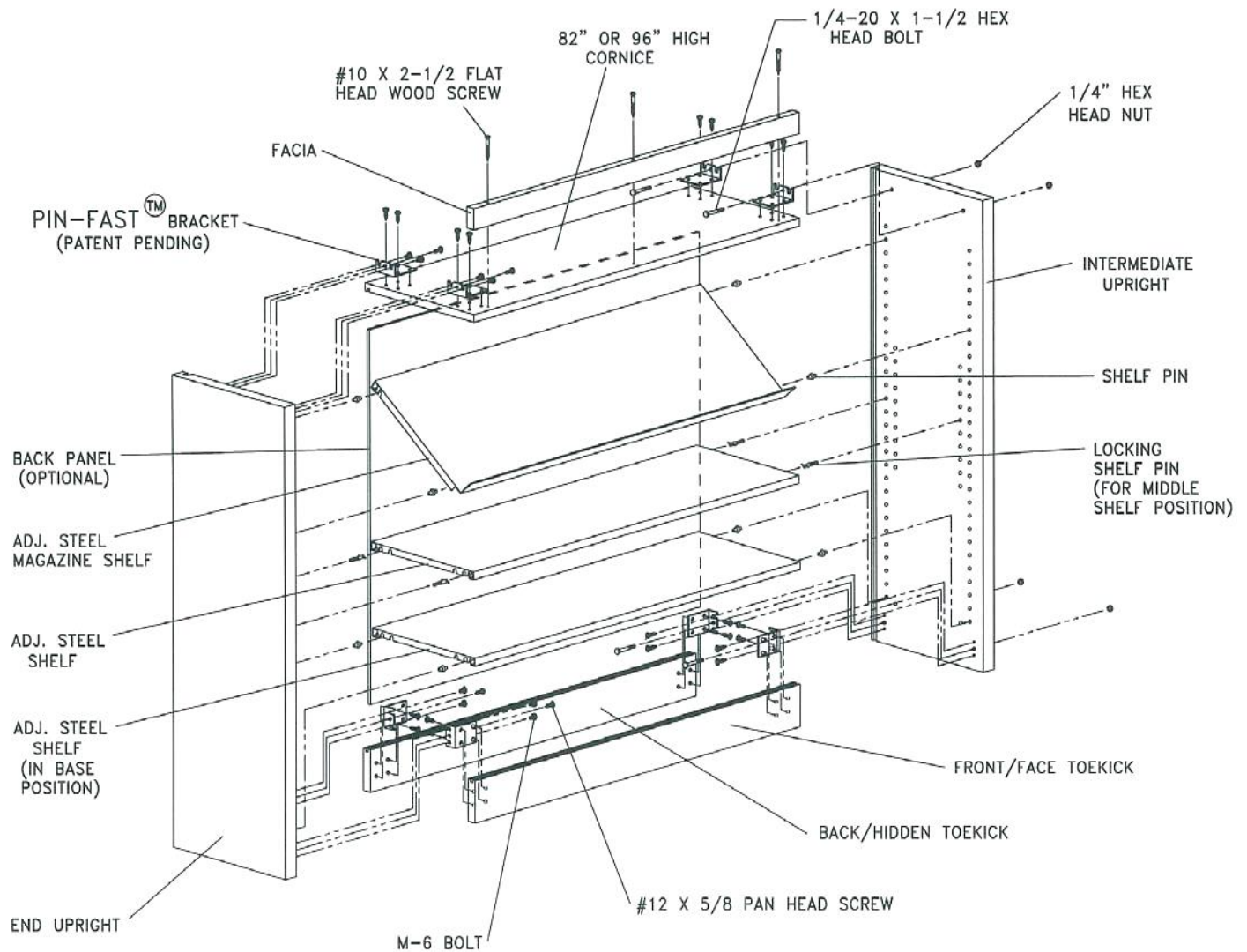
14. Three (3) toekicks are required. Finished oak or maple toekicks are for both front/face sides and the particleboard toekicks are for the center/middle.
Be sure the back panel grooves on center/middle toekick and upright align before tightening.
15. Cornices are provided with two (2) fascias and six (6) Pin-Fast® brackets.
16. If optional back panels are required they will be finished on both sides. If back panels have not been ordered, then sway braces will be provided (two (2) per range) for 63", 82" and 96" high DF shelving. Intermediate uprights have been predrilled for sway braces. Bolt through using two (2) 8-32 x 1-3/4 truss head bolts, 3/16" washer and 8-32 nut on each end. Sway braces are to be used between intermediates uprights. If sway braces are used in an initial unit, predrill pilot holes and use installer provided screws (#10 x 1" pan head screws are recommended).
17. It is recommended that all 20" deep as well as 24" deep x 82" high and higher double faced shelving must be floor anchored. Installer must provide floor anchoring device.
18. Dimensions given below will provide as close to equal spacing of shelves as possible. Measurements are to be made from top of base shelf to the hole for the shelf pins. All measurements are from the base shelf up.
- E. 42" high shelving
Adjustable shelf pins – 11" and 22-1/4".
 - F. 63" high shelving
Adjustable shelf pins – 11", 22-1/4", 33-3/4" and 45".
 - G. *82" high shelving
Adjustable shelf pins – 12-1/4", 24-3/4", 37-1/2", 50" and 62-1/2".
 - H. *96" high shelving
Adjustable shelf pins – 12-1/4", 24-3/4", 37-1/2", 50", 62-1/2" and 75-1/4".

* The locking shelf pin **must be** used to lock a shelf at mid-height of the shelving unit. For a wood adjustable shelf, the retention pin is vertical and for a steel adjustable shelf, the retention pin is horizontal. See drawing of the retention pin on the locking pin on page 3.

NOTE: Be sure the locking pin is inserted straight into the hole.

MAGAZINE SHELVING

(82" OR 96" HIGH STEEL SINGLE-FACED SHELVING SHOWN)
MAGAZINE SHELVING



MAGAZINE SHELVING



42" High



63" High



82" High

12" DEEP MAGAZINE SHELVING

1. FOLLOW ASSEMBLY INSTRUCTIONS FOR STANDARD BOOK SHELVING, EXCEPT AS NOTED BELOW.

2. POSITION ADJUSTABLE SHELVES

Magazine shelves are positioned with standard adjustable shelf pins. Use the dimensions below to locate adjustable shelf pins for the various heights units. Measurements to be made from top of base shelf up.

A. 42" high

Adjustable shelf pin – 17-1/4"

Rear/pivot adjustable shelf pin – 12", 29-3/4"

Front/magazine adjustable shelf pin – 3-1/4", 23-1/2"

B. 63" high

Adjustable shelf pin – 13-1/2", 27-1/4", 41-1/4"

Rear/pivot adjustable shelf pin – 11", 24-3/4", 38-3/4", 52-1/2"

Front/magazine adjustable shelf pin – 2", 16", 30", 43-3/4"

C. 82" high

Adjustable shelf pin – 14-3/4", 29-3/4", 45", 60"

Rear/pivot adjustable shelf pin – 12-1/4", 27-1/4", 42-1/2", 57-1/2", 72-3/4"

Front/magazine adjustable shelf pin – 3-1/2", 18-1/2", 33-3/4", 48-3/4", 64"

D. The locking shelf pin **must be used to lock a shelf at mid-height of the shelving unit. For a wood adjustable shelf, the retention pin is vertical and for a steel adjustable shelf, the retention pin is horizontal. See drawing of the retention pin on the locking pin on page 3.**

NOTE: Be sure the locking pin is inserted straight into the hole.

MAGAZINE SHELVING

16" DEEP MAGAZINE SHELVING

1. FOLLOW ASSEMBLY INSTRUCTIONS FOR STANDARD BOOK SHELVING, EXCEPT AS NOTED BELOW.

2. LOCATE UPRIGHTS

Locate special uprights bored for 16" magazine shelf hinge.

3. ATTACH MAGAZINE SHELVES

Use seven (7) #8 x 5/8" pan head screws to attach each hinge to uprights and shelf (see drawing below).

4. POSITION ADJUSTABLE SHELVES

Adjustable shelves are positioned with standard adjustable shelf pins. Use the dimensions below to locate adjustable shelf pins for the adjustable shelves. Measurements are to be made from top of base shelf up.

A. 63" high

Adjustable shelf pins – 12-1/4", 28-1/2", 43-3/4"

B. 82" high

Adjustable shelf pins – 14-1/2", 29-3/4", 45", 60"

C. The locking shelf pin **must be** used to lock a shelf at mid-height of the shelving unit. For a wood adjustable shelf, the retention pin is vertical and for a steel adjustable shelf, the retention pin is horizontal. See drawing of the retention pin on the locking pin on page 3.

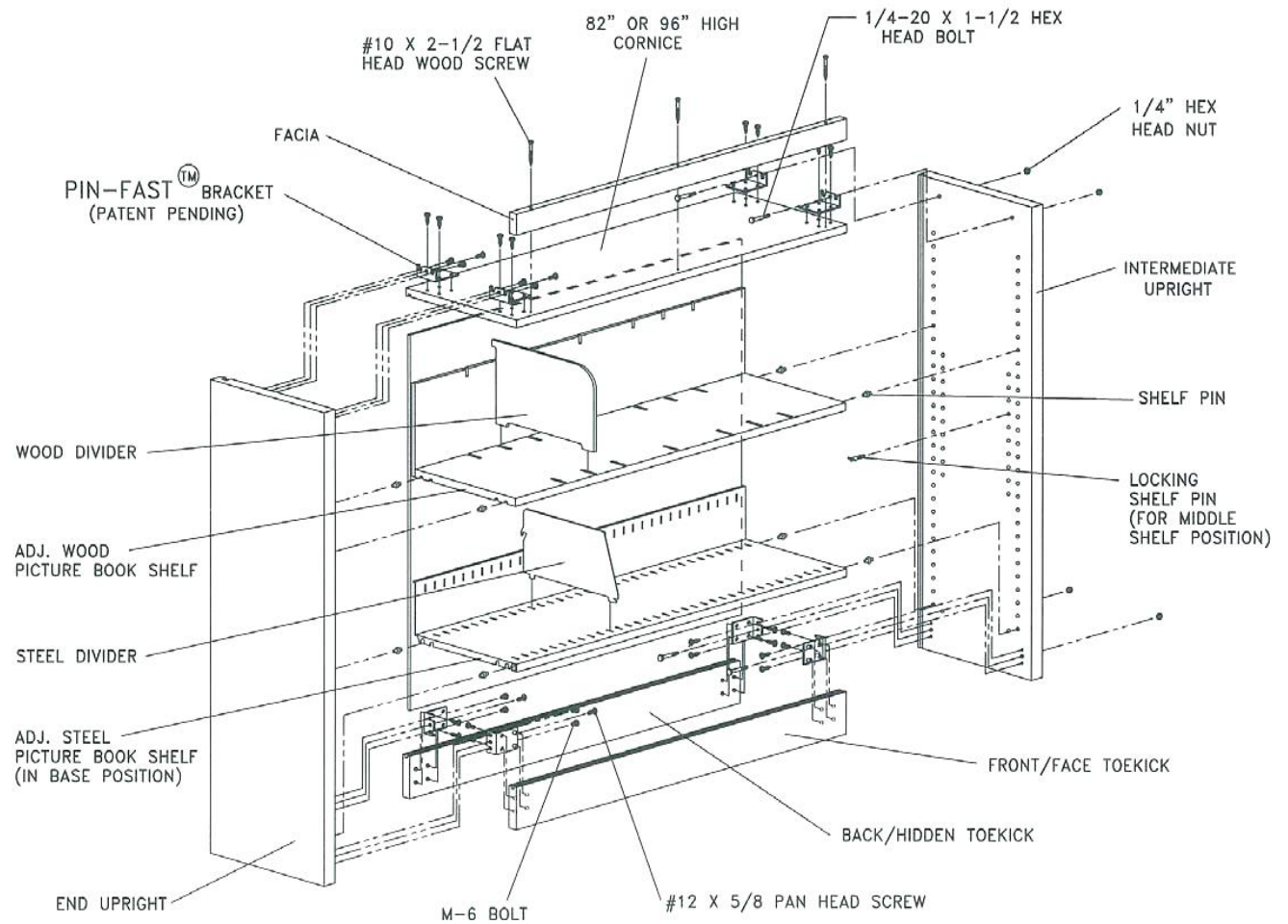
NOTE: Be sure the locking pin is inserted straight into the hole.

5. APPLY RUBBER STOPS

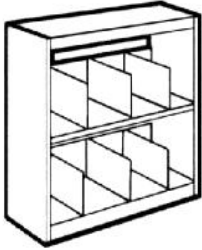
Apply rubber stops to uprights in holes provided by factory, 13" from front edge.

PICTURE BOOK SHELVING

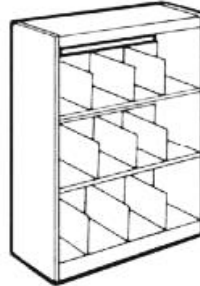
42" & 63" HIGH SINGLE-FACED SHELVING SHOWN



PICTURE BOOK SHELVING



42" High



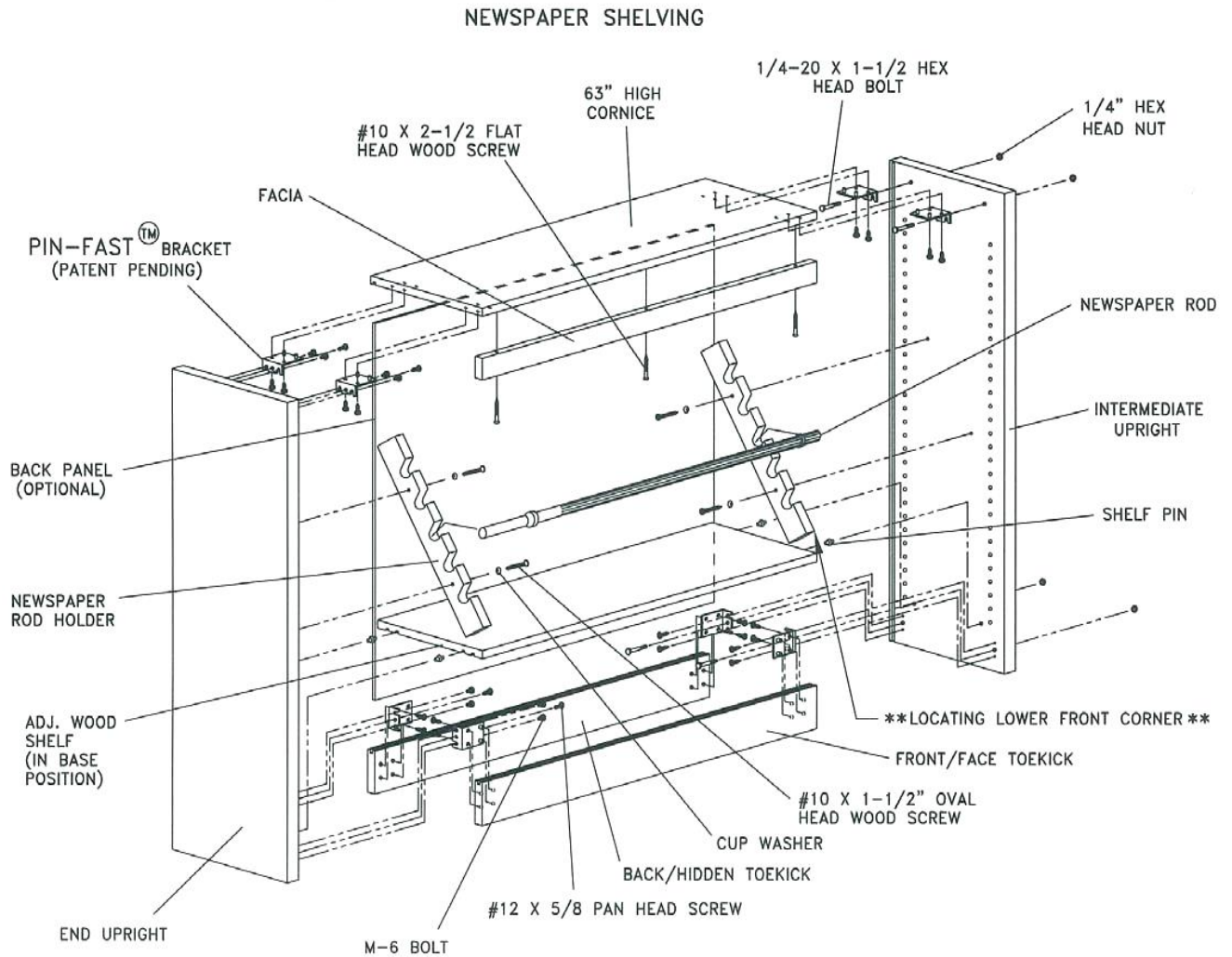
63" High

12" DEEP PICTURE BOOK SHELVING

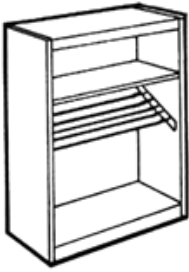
1. **FOLLOW ASSEMBLY INSTRUCTIONS FOR STANDARD BOOK SHELVING, EXCEPT AS NOTED BELOW.**
2. **PICTURE BOOK SHELVING**
Picture book shelves are positioned with standard adjustable shelf pins. Each shelf is supplied with three (3) dividers.
3. **LOCATE ADJUSTABLE SHELF POSITIONS**
Use the dimensions below to locate adjustable shelf pins for the various height units. Measurements are to be made from top of base shelf up.
 - A. 42" high. Adjustable shelf pin – 17-1/4"
 - B. 63" high. Adjustable shelf pin – 18-1/2" and 37-1/2"

NEWSPAPER SHELVING

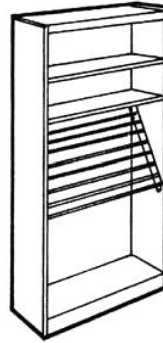
63" & 82" HIGH WOOD SINGLE-FACED SHELVING SHOWN



NEWSPAPER SHELVING



63" High



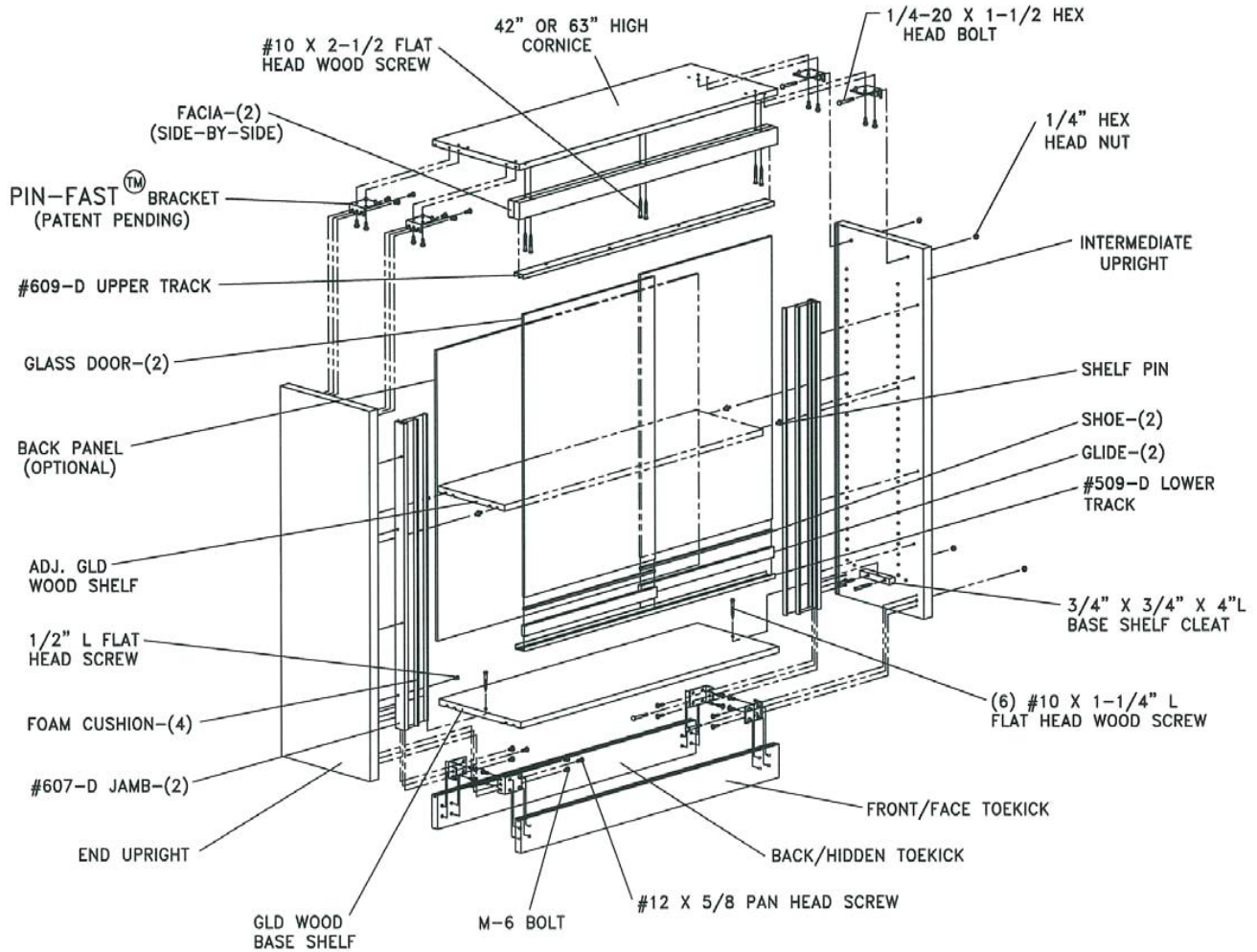
82" High

12" DEEP PICTURE BOOK SHELVING

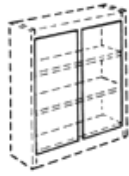
1. **FOLLOW ASSEMBLY INSTRUCTIONS FOR ASSEMBLY OF STANDARD BOOK SHELVING, EXCEPT AS NOTED. 63" HIGH NEWSPAPER SHELVING HAS 5 STOCKS AND 82" HIGH HAS 8 STICKS.**
2. **INSTALL NEWSPAPER ROD HOLDERS**
Install newspaper rod holders by: ****locating lower front corner**** (see drawing above) 13" above the base shelf and 1/8" front the front edge of upright, slide the top back edge of the newspaper holder to the back panel or to the front edge of the back panel groove, hold in place and install #10 x 1-1/2" oval head wood screws (bronze) with cup washers. Repeat for both right and left side.
3. **LOCATE ADJUSTABLE SHELVES**
Locate adjustable shelves at owners discretion.

SLIDING GLASS DOOR SHELVING

(42" OR 63" HIGH WOOD SINGLE-FACED SHELVING SHOWN)
SLIDING GLASS DOOR SHELVING



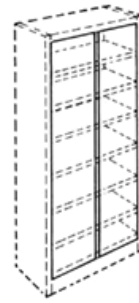
SHELVING WITH GLASS DOORS



42" High



63" High



82" High

1. FOLLOW INSTRUCTIONS FOR ASSEMBLY OF STANDARD BOOK SHELVING, EXCEPT AS NOTED BELOW.

2. BORING ON UPRIGHTS

Uprights for shelving with glass doors are bored differently than standard uprights to accommodate the doors. The front shelf holes are 3-1/2" from the front edge instead of 1-1/2".

3. ADJUSTABLE BOOK SHELVES

The adjustable book shelves are also a different depth than standard depth. 12" deep shelving use 9" deep shelves. 10" deep shelving use 7" deep shelves.) * The locking shelf pin **must be** used to lock a shelf at mid-height of the shelving unit. For a wood adjustable shelf, the retention pin is vertical and for a steel adjustable shelf, the retention pin is horizontal. See drawing of the retention pin on the locking pin on page 3. **NOTE:** Be sure the locking pin is inserted straight into the hole.

4. ATTACH BASE SHELF CLEATS

Attach base shelf cleats to uprights and secure base shelf to cleats using #10 x 1-1/4" flat head wood screws. **NOTE:** All base shelves for GLD shelving are wood. For wood/steel Pin-Fast® shelving, wood base shelves are painted to match the steel shelves.

5. ATTACH DOOR JAMBS

Attach door jambs #607-D to uprights approximately 1/2" from front of uprights with screws provided. **NOTE:** remove neoprene bumper to get access to mounting holes. Secure bumper to jamb by removing protective film.

6. ATTACH UPPER TRACK

Attach upper track #609-D to cornice on 82" high shelving. On 63" or 42" high shelving, attach to side by side fascia with screws provided. **NOTE:** One (1) fascia will need to be cut to length to fit.

7. ATTACH LOWER TRACK

Attach lower track #594-D to base shelf. **NOTE:** Be sure upper and lower tracks align with door jams.

8. ASSEMBLE GLASS DOORS

Attach rubber shoe and seat glide over the bottom edge of the glass using a rubber mallet. Be sure glides are fully seated.

9. ADJUST CORNICE

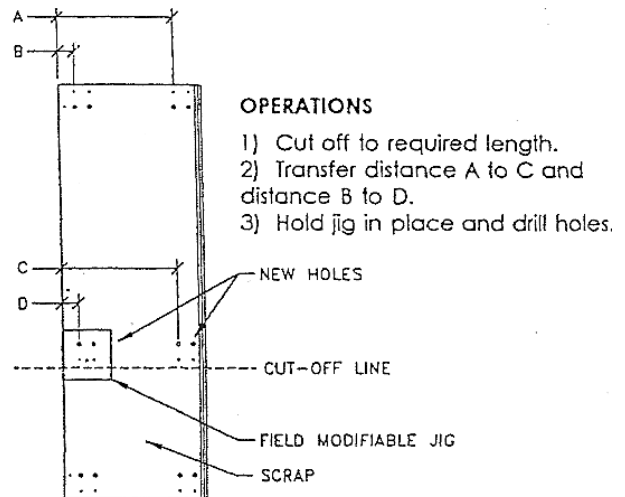
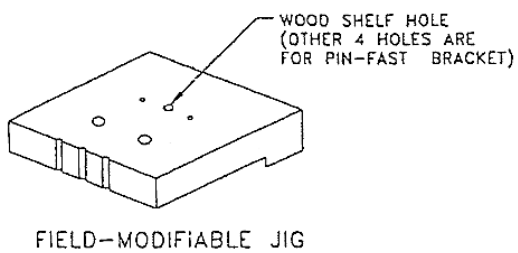
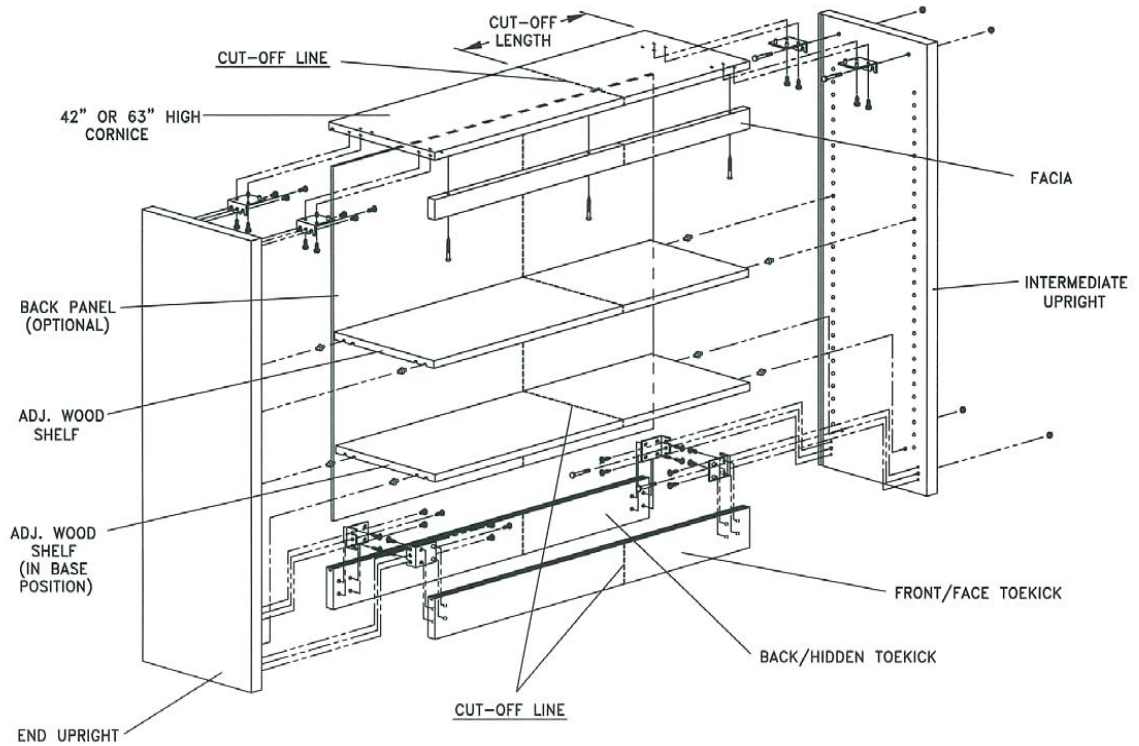
Loosen cornice bolts and move cornice as high as possible to slide doors up into top track and set down in corresponding bottom track. Make sure that finger pulls are to the outside.

10. RE-ADJUST CORNICE

Re-adjust cornice and tighten bolts.

FIELD MODIFIABLE SHELVING

(42" OR 63" HIGH WOOD SINGLE-FACED SHELVING SHOWN)
FIELD-MODIFIABLE SHELVING



FIELD-MODIFIED CORNICE

FIELD MODIFIABLE SHELVING

TOOLS REQUIRED FOR FIELD MODIFICATION

- | | |
|----------------------------|---------------------------------------------------------------|
| 1. Field modifiable jig | 8. Wood saw blade (a new carbide tipped blade is recommended) |
| 2. Circular saw | 9. Tape measure |
| 3. Steel saw blade | 10. Saw guide |
| 4. 5/16" diameter drill | 11. Clamps |
| 5. 1/8" diameter drill bit | 12. Flat steel file |
| 6. 1/4" diameter drill bit | 13. Masking tape |
| 7. Power drill | |

NOTE: Field modifiable jig must be purchased from The Worden Company. The catalog number is W-JIG-SET

1. IDENTIFY PARTS

Identify the parts that must be cut down. Possible parts are: cornice, fascia, toekicks, wood or steel shelves and back panel.

2. DETERMINE LENGTH TO BE CUT OFF

Determine the length that is going to be cut off.

3. CUT PARTS DOWN

NOTE: 1) Always use masking tape on the cut-off line to prevent chipping.

2) Always measure the amount to be cut off and not the amount needed. This will keep the shelf and back panel tolerance accurate.

3) It is recommended to use a saw guide to ensure a straight cut.

4) On steel shelves, use a steel saw blade, then file to remove burrs and slide end insert into the cut end.

4. MEASURE AND DRILL

Measure and drill 1/8" diameter and 5/16" diameter x 1/2" deep holes in the cornice and toekicks and 1/4" diameter x 1/2" deep holes in the wood shelves using the field modifiable jig. (see drawing below)

5. ASSEMBLE SHELVING

Follow assembly instructions for standard book shelving.

NOTE: 1) Only single-faced and double-faced book shelving may be modified.

2) For 82" and 96" high steel shelving, locate the field modified unit in the center of the shelving range. This will allow the end units middle shelf to be locked in place.

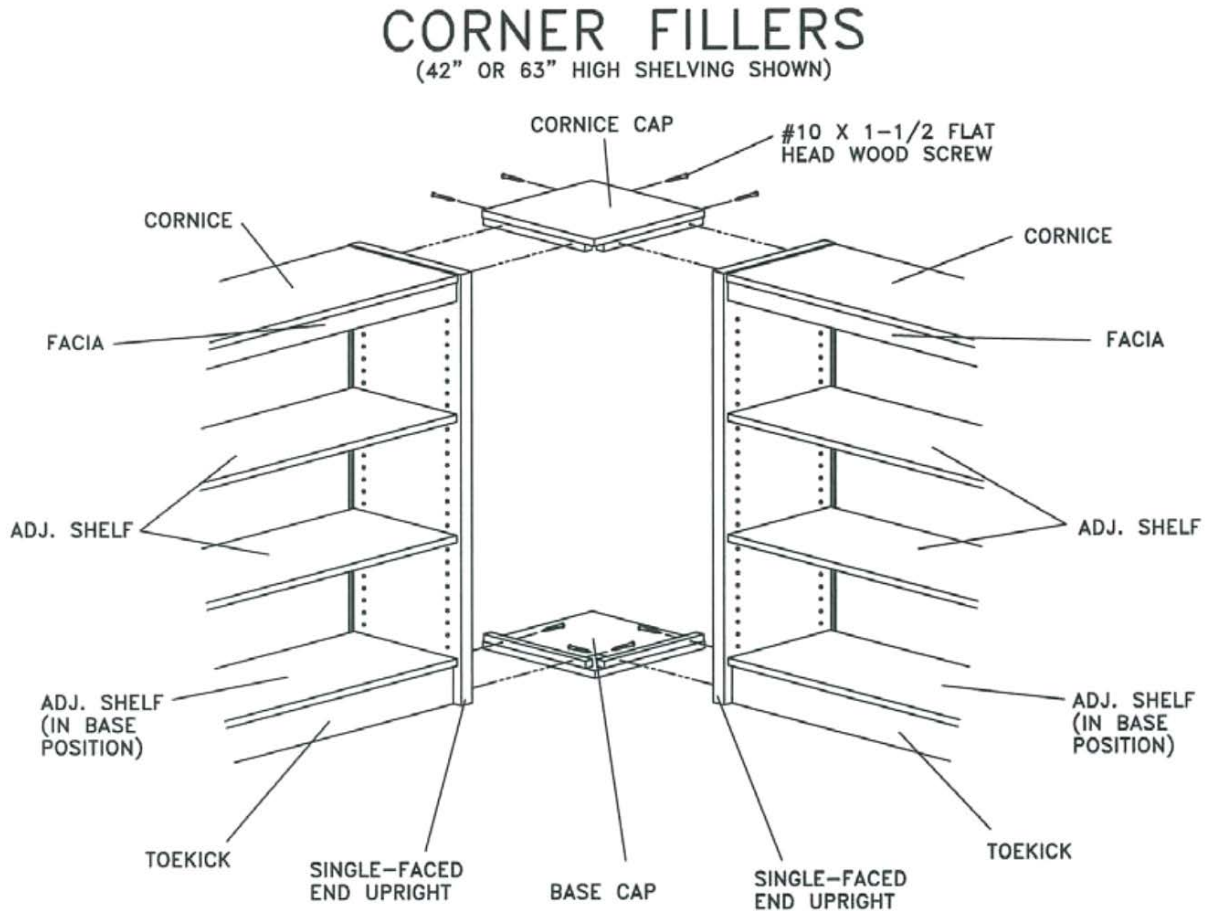
3) The locking shelf pin **must be** used to lock a shelf at mid-height of the shelving unit. For a wood adjustable shelf, the retention pin is vertical and for a steel adjustable shelf, the retention pin is horizontal. See drawing of the retention pin on the locking pin on page 3.

NOTE: Be sure the locking pin is inserted straight into the hole.

OPERATIONS

- 1) Cut off to required length.
- 2) Transfer distance A to C and distance B to D.
- 3) Hold jig in place and drill holes.

CORNER FILLER ASSEMBLY



1. THE ADJOINING UPRIGHTS ARE STANDARD END UPRIGHTS

2. LOCATE CORNER FILLER

Locate corner filler cornice cap and base cap. The cap cleats are bored through for #10 x flat head screws. **NOTE:** 1) Cornice cap is: plastic laminate on 42" high wood and wood/steel shelving.

2) Wood veneer on 63" high wood and wood/steel shelving.

3) Unfinished and inverted on 82" and 96" high shelving. Base cap is unfinished in all cases.

3. BEGIN ASSEMBLY OF RANGE

When range of shelving requires corner fillers, start construction of the range from the corner.

4. ATTACH THE CORNICE CAP

Attach the cornice cap and base cap to the uprights using #10 x 1-1/2" flat head wood screws.

NOTE: 1) Attach caps away from the walls and move to position after assembly

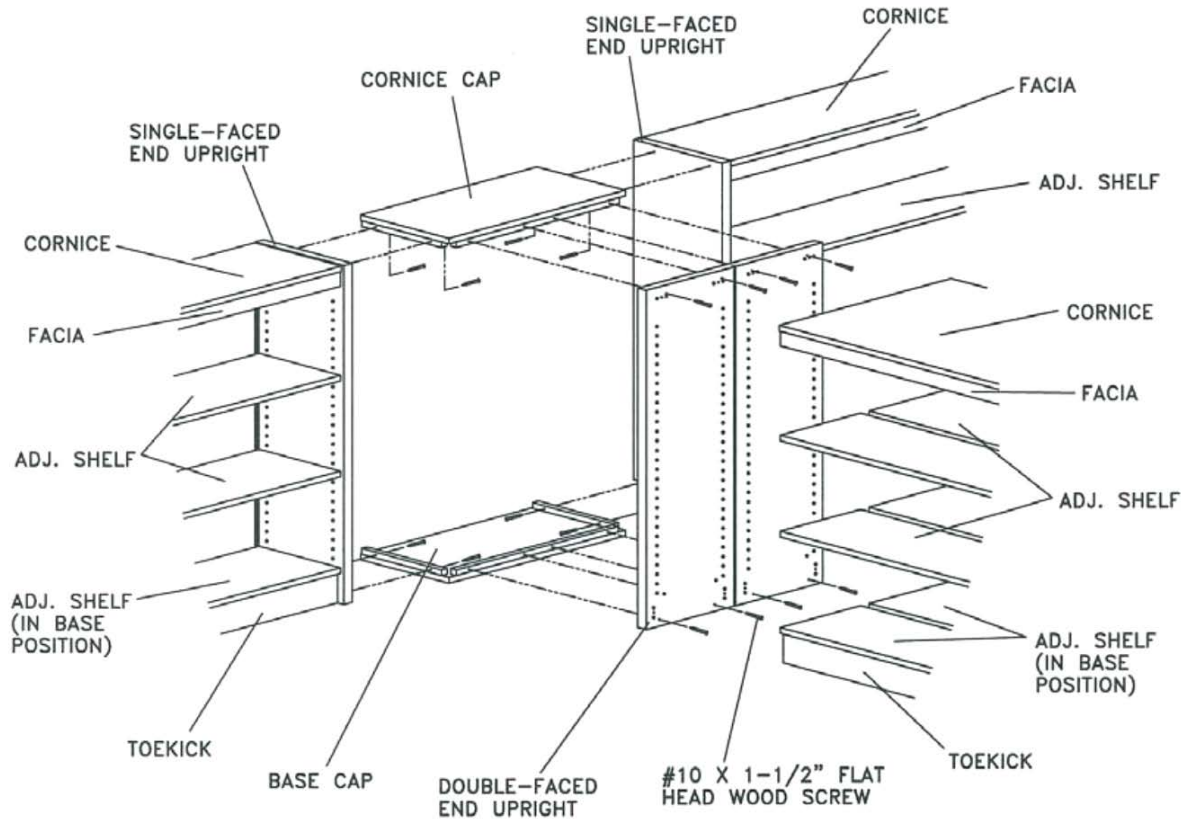
2) Caps are manufactured to allow one of the two uprights to slide behind the other upright 1/4".

3) For 42" or 63" high, locate cornice cap approximately 1/8" below uprights.

5. CONTINUE ASSEMBLY OF SINGLE-FACE UNITS

DOUBLE CORNER FILLERS

(42" OR 63" HIGH SHELVING SHOWN)



1. THE ADJOINING UPRIGHTS ARE STANDARD END UPRIGHTS

There are two (2) single-faced and one (1) double-face uprights required for each DCF assembly.

2. LOCATE DOUBLE CORNER FILLER CAPS

The cap cleats are bored through for #10 flat head wood screws.

NOTE: Cornice cap is: 1) Plastic laminate on 42" high wood and wood/steel shelving.
2) Wood veneer on 63" high wood and wood/steel shelving.
3) Unfinished and inverted on 82" and 96" high shelving.
Base cap is unfinished in all cases.

3. BEGIN ASSEMBLY OF RANGE

When range of shelving is assembled with a double corner filler, start at the SF end of the range and work toward the DCF. When reaching the DCF, attach caps to the single-faced end upright on both sides by using #10 x 1-1/2" flat head wood screws. Continue assembly of the single-face units.

NOTE: For 42" high or 63", locate cornice cap approximately 1/8" below uprights.

4. ATTACH DOUBLE-FACE SHELVING

Hold upright in correct position. Bore and counter-sink eight (8) holes through the uprights and into the DCF. Install eight (8) #10 x 1-1/2" flat head wood screws to secure in place. **NOTE:** Caps are manufactured to allow double-faced upright to set back 1/4" between single-faced uprights.

5. CONTINUE ASSEMBLY OF DOUBLE-FACE UNITS