



INSTALL CW

INSTALLATION - CASEWORK

Wood Casework Installation Guide

INTRODUCTION

We are pleased that you have chosen Diversified Casework for your new equipment, and it is our aim to give you the best available products. However, only proper installation will assure your complete satisfaction. Therefore, we have prepared this guide to aid you in the installation of your equipment.

These instructions are for the installation of wood laboratory furniture assemblies. Please note the instructions contained in this booklet are basic guide-lines and are not meant to cover every situation you may be faced with during the installation process. There will be project specific conditions, which will have to be addressed as they occur. In these instances please feel free to contact us and we will provide assistance as necessary to allow you to complete your installation.

If there are any questions concerning installation or shipping problems, please contact the Installation or Customer Service Department of your local dealer.

Figure 1 shows an exploded view of a typical wood item of laboratory equipment. Figure 2 is the assembled view of the same wood item

Study these views carefully to fully acquaint yourself with the general scheme of laboratory equipment construction and method of joining the units together to make up a complete item of laboratory equipment.

TYPICAL WOOD WALL AND FUME HOOD ASSEMBLY

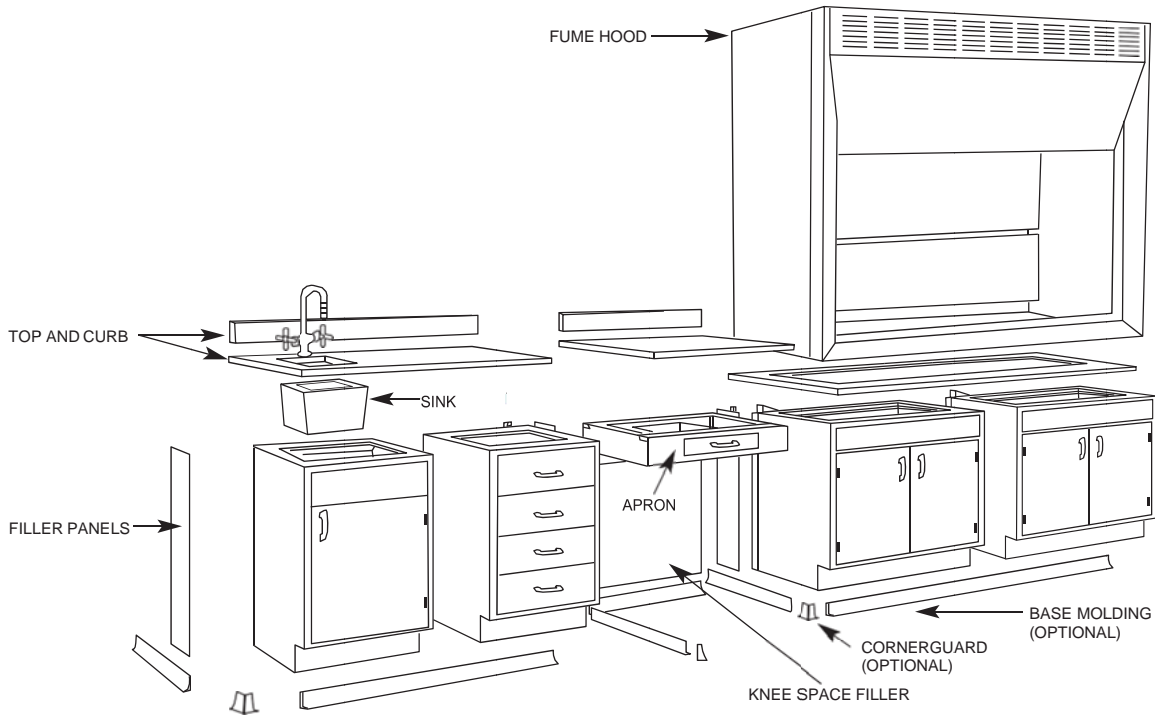


FIG.1

Exploded view of a typical wood wall and fume hood assembly showing the various parts required to make a complete laboratory furniture assembly. (Figure 1)

Installation instructions for fume hoods are not included in this installation booklet, since specific installation instructions are included with each hood type shipped.

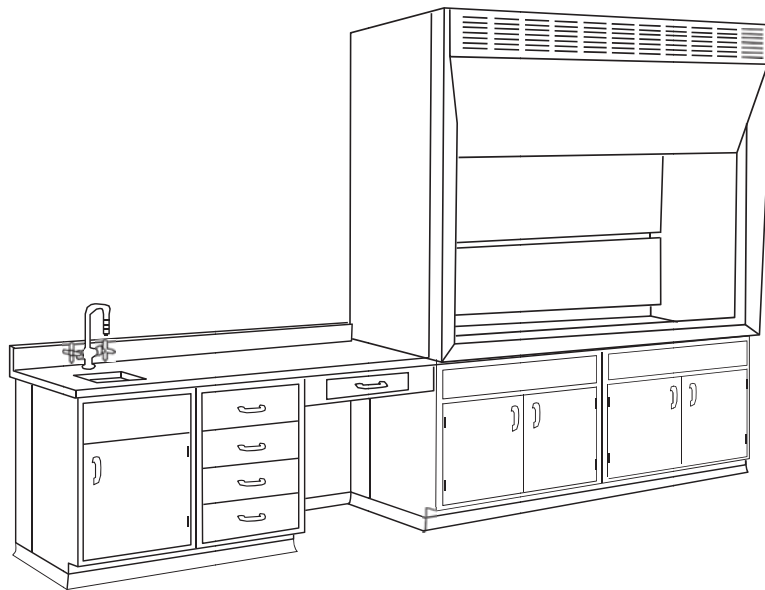


FIG. 2

Completed wood wall and fume hood assembly shown as an exploded view above. (Figure 2)

DAMAGES IN SHIPMENT

IMPORTANT! PLEASE CHECK YOUR FURNITURE IMMEDIATELY UPON ARRIVAL!

Your furniture was accepted by the carrier in good condition and we urge you to inspect each carton for obvious damage to the contents before accepting it. If damage is found, insist that the driver note the damages on the freight bill and sign it. If, after uncrating the furniture, you find concealed damage which was not apparent while the furniture was crated and the driver was on the premises, contact the delivering carrier and request that they send a representative to make an inspection and prepare a concealed damage report. **The inspection must be made and a concealed damage report filed within five (5) days after equipment is delivered.** If the furniture is stored for period of time and then damage is discovered, trucking companies will not make or honor inspection reports.

NET F.O.B. FACTORY OR COLLECT SHIPMENTS - Customer is responsible for filing any claim for damage.

NET F.O.B. DESTINATION OR DELIVERED, INSTALLED JOBS - Shipper is responsible for filing claim; however, proper documents must be forwarded to accomplish this.

PLEASE NOTE: We cannot make “No Charge” replacement on Prepaid Shipment without proper damage documentation, i.e. Freight Bills, Concealed Damage Reports, Inspection Reports, etc.

A. If the damage is such that it can be repaired on the job, we recommend that you have the damage repaired and file your claim with the delivering carrier.

B. If the damage cannot be repaired locally, forward the noted freight bill or the concealed damage report to Diversified Casework, along with information giving the Item and Section Number of the part that is damaged. Please refer to installation prints for Item and Section Numbers for each piece.

C. Damaged Tops: If damage occurs to tops, handle the same as damage to furniture. A packing list covering the top material shipped to you is included in crate No. 1 of the original shipment from the manufacturer. It will enable you to refer to the crate needed for each item. We realize that different items are sometimes packed in one crate, but like sizes force us to do this to reduce crating expense. Please refer to installation prints for piece marking if breakage or damage occurs.

INSTALLATION

Your furniture is designed to make installation as easy as possible. All necessary scribe strips, fillers and other parts are furnished as ordered to allow you to achieve a complete and finished laboratory installation. Be sure to study your prints and packing lists carefully before starting installation of any furniture. This Installation Manual should also be read thoroughly before installation begins.

To aid you in segregating the units required to make up a complete item, each piece of furniture is identified with the Order Number, Part Number, Room and Elevation Number. Hardware and plumbing fixtures are cartoned and the carton number can be found on the packing list. We recommend that you check the contents of each carton against the packing list and report any discrepancies to your local Diversified Casework dealer promptly. We also

recommend that the hardware and plumbing fixtures be locked up until installed. Much time and effort can be saved if the units are segregated as they are unpacked and moved to the approximate location where they are to be installed. The packing lists should be carefully checked during the unpacking process to prevent loose items from being thrown away with the packing material. Any discrepancies between packing slip and material actually received must be reported to Diversified Casework within five(5) working days from receipt of shipment.

Each piece of furniture is identified with the Order Number, Part Number, Room and Elevation Number. On lower cabinets and apron sections, the identification will be on top of the unit or on a tag attached to the cabinet back.

On other pieces, a tag will be attached or the Part Number shown on an exposed place on the part. Refer to the installation prints and find the corresponding section or cabinet number and place the cabinets in their approximate final location.

NOTE: Wood table tops are subject to warpage and end checking if stored improperly prior to installation. They should be stored in a dry place on a level surface. Place wood strips between tops, at intervals of not more than four feet along the length of the top and crossway to the grain of the top. Cover tops with a protective covering to minimize damage.

NOTE: Before starting the actual casework installation, check the scribe and filler type you have against the trim section of this booklet, as it is necessary for some types of trim to be installed prior to setting cabinetry.

UNPACKING

To remove the unit from the shipping protection, slice up the back of the cabinet to cut through the shrink wrap. Be careful not to damage the back of the unit. The foam wrapping should be folded and saved to be used for protecting the tops and fronts of cabinets after installation.

LAYOUT

When the units that form a complete item have been placed in the approximate location where they are to be installed, arrange the units according to the installation drawings. Once this has been done, locate the high point in the floor by leveling across the tops of the units. When the high point has been determined, level to the starting point to determine the height the first unit must be set to maintain the level of the highest unit.

WALL MOUNTED STORAGE CABINET INSTALLATION

Wall cabinets are hung by first attaching wood cleats to the wall and then securing the cabinets to the cleats with screws.

Determine the exact location of the cabinet and mark the desired location of the top left corner on the wall. Locate the cleats as shown in Figure 03. If more than one cabinet is to be installed in a row, make a chalk line on wall to line up the top of cleats. Make sure chalk line is level.

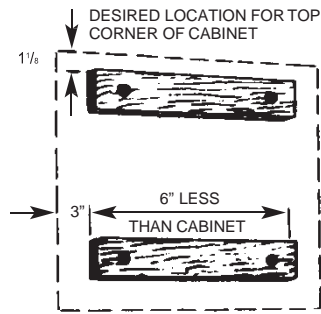


FIG. 03
Mounting Cleats on the Wall

Wood cleats (not supplied) should be 3" to 4" wide and $\frac{3}{4}$ " thick. Cut them 6" less in length than the length of the cabinet. Mount the cleats as shown with heads of fasteners recessed flush with the face of the fronts of the cleats. Check the face of the cleats for plumb and, if necessary, insert shims between the cleat and the wall to bring to plumb. Wood cleats should be secured to the wall using appropriate fasteners as dictated by wall construction. (Due to varying wall material, fasteners are not furnished with the equipment).

Drill $\frac{9}{32}$ " hole in the back of the cabinet approximately 4" from each side of the cabinet and on the centerline of each cleat (4 holes). Set the cabinet in place, allowing the top rear rail to rest on the tops of the wood cleats. Fasten it to the wood cleats using #12 x 1- $\frac{1}{4}$ " oval head screws with #12 countersunk washers.

If more than one wall cabinet is to be installed in a row, first install all cleats on the wall in the same manner as described above. The cleat fronts should all lie in a straight line. High spots in the wall should be leveled and low spots shimmed out to bring cleat fronts straight. (Check with straight edge). Improperly aligned cleats will cause misalignment on the face of the cabinets.

Screw the first wall-mounted storage cabinet to the cleats as described above. Next, place the second cabinet into position. Fasten it to the first cabinet making sure the fronts and edges are in a straight line and the units are plumb. Then secure the cabinet to the wall cleats. Continue this process until all cabinets have been installed.

Diversified Casework wall cabinets may be mounted directly to the wall using the mounting strips attached to the cabinets. Using appropriate mounting hardware, assure that the wall units are plumb and square then pre-drill mounting holes through both upper and lower mounting strips. Attach cabinet to wall via these pre-drilled locations.

BASE CABINET INSTALLATION

When cabinets are located next to an adjacent wall, refer to the filler installation section before setting the first cabinet. If the first item is an apron, refer to apron installation. In a wall- to-wall configuration, both ends of the assembly must be addressed.

Move the first cabinet into its final location and bring it to the proper level. If the cabinet is wood, bring to level with shims as shown in Figure 4. Where more than 10 shims are required to bring the cabinet up to level, use a piece of crating lumber as the bottom shim, and make final adjustments by placing shims on top of the crating lumber. If a wood shim is not allowed, cut short lengths of metal unistrut channel and use instead.

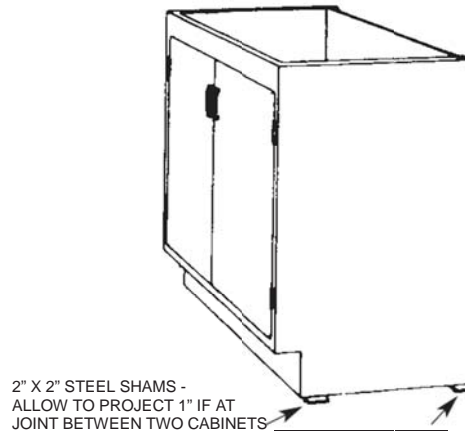


FIG. 4

Figure for placement of wood shims

Set the next cabinet in place and level in the same manner. Fasten the second cabinet to the first, using screws provided.

Repeat the above process until all cabinets for the assembly have been installed. Be sure to check the alignment of the cabinet fronts and tops as you proceed to make sure they are flush and level. (See Figure 5 below).

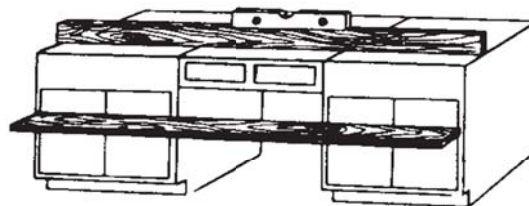


FIG.5

Checking Alignments of Cabinets Fronts and
the Leveling of Cabinets

INSTALLING COUNTER MOUNTED STORAGE CABINETS

1. Counter mounted storage cabinets sit on top of a laboratory work top, and are secured to the wall at the top with cleats similar to these used in wall mounted cabinet installation.

2. First position and level the base cabinet(s) and work surface(s). Determine the exact location of the cabinet(s), and mark the desired location of the top left corner on the wall. Locate wood cleat 2" below and 3" to the right of this mark (see Figure 6).

3. Wood cleat length should be 6" less than case length; width should be 3" to 4" and thickness not less than 3/4". The cleats should be secured to the wall using fasteners as appropriate for the existing wall construction. Holes for the fasteners should be countersunk or counterbored to make heads flush with face of cleat. (Due to various wall constructions, fastening devices are not included.) Wood cleats should be level and plumb. High spots in the walls should be leveled and low spots shimmed out to make the cleats straight (check with straight edge and level vertically and horizontally).

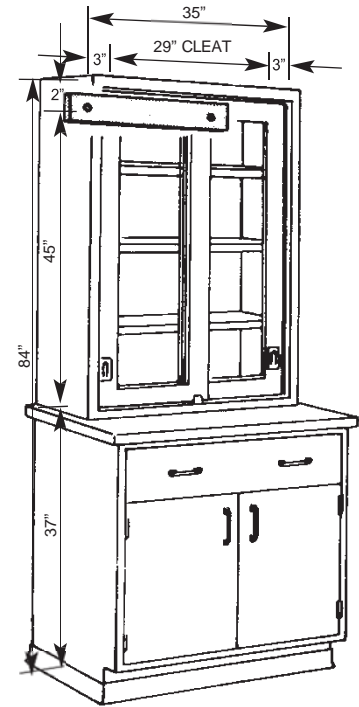


FIG. 6

4. If more cabinets are to be installed in a row, make a chalk line on wall to line up tops of wood cleats. Then, install all cleats on the wall in the same manner as described above.

5. Remove sliding doors from cabinet(s). Drill enough 9/32" holes in back of cabinets to provide for securing to wood cleats at approximately 12" intervals along case length, locating the holes from the wood cleat positions.

6. Set the first cabinet in position on top of the laboratory work top and fasten it to the wood cleat using #12 x 1-1/4" oval head wood screws and #12 countersunk washers. Then, place the second cabinet in position and fasten it to the first cabinet making sure the fronts and edges of the cabinets are in a straight line. Then, screw the second cabinet to the wall cleat. Continue to proceed in this manner until all cabinets have been installed.

7. Install adjustable shelves in cabinets. Three adjustable shelves along with 12 shelf clips are provided. Normally, shelves are installed to provide four approximately equal height compartments, but can be spaced as desired.

8. Clean glass on glazed doors.

9. Replace sliding doors in cabinets.

INSTALLING FULL HEIGHT STORAGE CABINETS

1. Full height storage cabinets should be leveled at the floor line and secured to the wall at the top. Precise leveling is necessary to assure cabinet is plumb and functions properly.

2. Determine the exact location of cabinet and mark the desired location of the top left corner of the cabinet on the wall. Locate wood cleats 3" below and 2" to the right of this mark (see Figure 7).

3. Wood mounting cleat length should be 6" less than cabinet length; width should be 3" to 4" and thickness not less than 3/4". One cleat at the top of a cabinet is generally sufficient to hold it in position. Wood cleats should be secured to the wall using fasteners as required for wall material. (Due to varying wall construction, fastening devices are not included.) Wood cleats should be level and plumb. High spots in the wall should be leveled and low spots shimmed out to make the cleats straight. Check with straight edge and level vertical and horizontally. NOTE: Two small angles can be substituted for wood cleats. Locate the angles on top of the unit approximately 2" in from each side (see Figure 8). Securely fasten angles to both the wall and the top of the cabinet.

4. If more than one full height storage cabinet is to be installed in a row, make a chalk line on wall to line up top of wood cleats. Then install all cleats on the wall in the same manner as described above.

5. If cabinet is sliding door type, remove doors. Drill a 9/32" hole in back of the cabinet(s) 4" from each side and on the center line of the wood cleat (2 holds). Prior to securing the cabinets to the wall, they should be leveled. Start with cabinet located over the highest point of the floor. To plumb, place level on the top of the cabinet end to determine which corner is highest, then shim under the other corners (see Figure 16). Where two cabinets join, let the shims project 1" beyond the sides of the cabinet. Now, place the second cabinet on the projecting shims and level this cabinet by placing shims at the other corners as required. This should be repeated for as many storage cabinets as there are in a row.

6. Fasten the first cabinet to the wood cleat with screws. Then place the second cabinet in position and fasten it to the first cabinet, making sure the cabinets are level and plumb, and the fronts and edges are aligned. Then secure the second cabinet to the wall cleat. Continue to proceed in this manner until all cabinets have been installed.

7 Clean glass in glazed doors.

8 Replace sliding doors in cabinet.

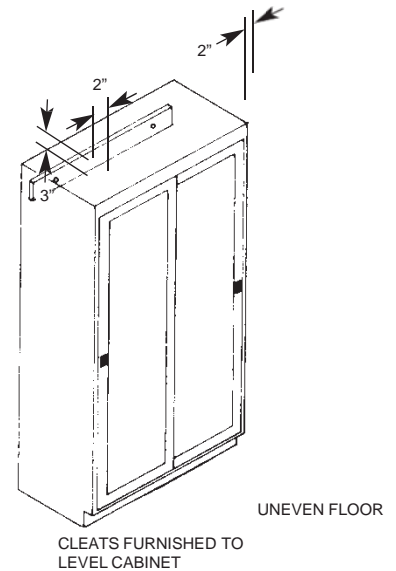


FIG. 7

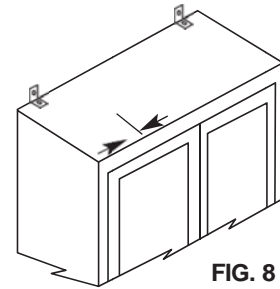


FIG. 8

APRON INSTALLATION

Where an apron section is suspended between two cabinets or between wall and cabinet, fasten the apron to the cabinet. Be sure apron is set back 1/8" from the face of the unit for steel and 1/4" for wood. When an apron is to be fastened to the wall, fasten as shown in Figure 9.

Be sure top of apron is flush and level with adjacent cabinet.

If the apron is supported by a cabinet on one end and legs on the other, install the legs before fastening the apron to the cabinet.

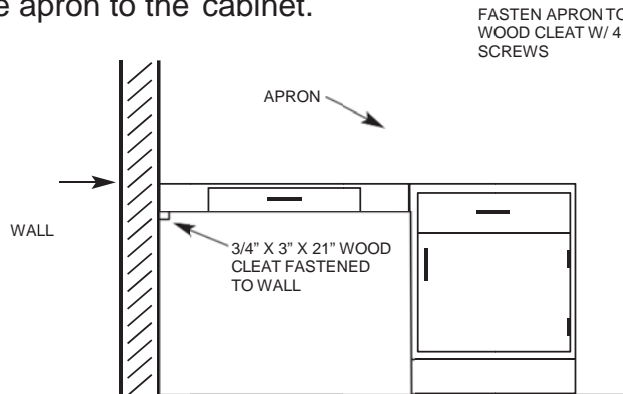


FIG. 9
Apron Installed Between Wall and Cabinet

LEG ASSEMBLY INSTALLATION (WOOD)

Apron legs are shipped knocked down to conserve shipping space and are assembled as shown in Figure 10.

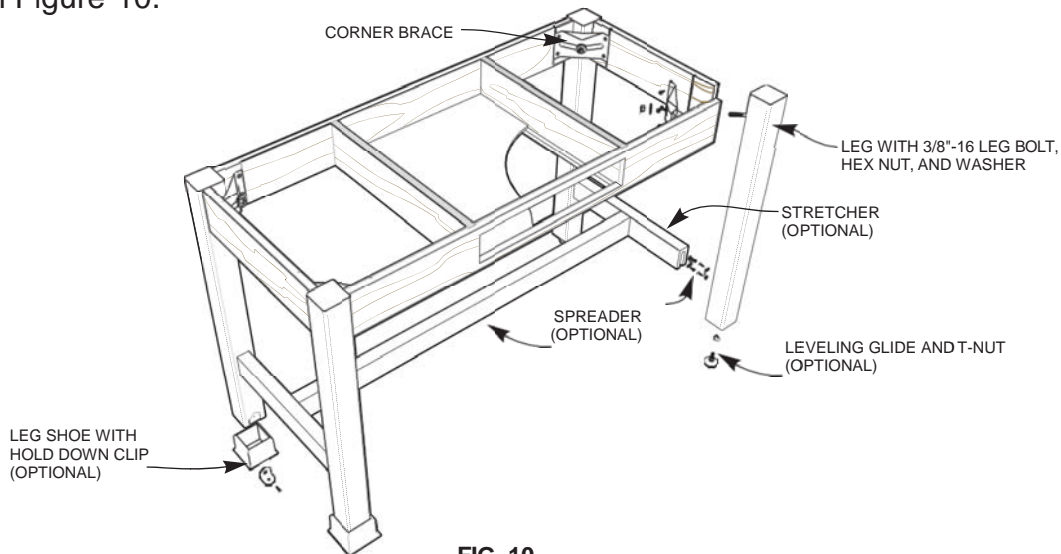


FIG. 10
Leg Assembly Installation (Wood)

Lay the apron section bottom side up on a pad or other suitable protective material to protect the top finish. Set the leg in position with the projecting leg bolts through the holes in the corner brace. Install the washer and nut and tighten securely. Repeat this step until all legs for a given apron section have been installed.

LEG ASSEMBLY INSTALLATION (continued)

Where stretchers are used between legs, screw male half of Mod-ez clip to the leg using the screws provided and the pre-drill holes. Place stretcher in position and snap the two halves of the Mod-ez clips together. (Female half of Mod-ez clip is installed on stretcher at factory.)

Repeat process with spreaders when spreaders are provided.

When legs have been installed, place vinyl leg shoes over the bottom of the leg, if provided, and turn apron right side up. Level with the leveling bolt or shims and fasten to floor with leg hold-downs if provided.

INSTALLATION OF FILLER PANELS AND SCRIBE STRIPS FOR WOOD

When all plumbing and/or wiring have been completed, install the filler panels and scribe strips. In general, filler panels and scribe strips are used to fill in any openings left between cabinet units and the wall, or open spaces between cabinets. Careful installation of these items will improve the appearance of the furniture, and aid in keeping the laboratory clean.

WALL & CENTER TABLE FLUSH FILLER PANELS

Plumbing space wall and center table filler panels are normally 7" to 8" wide, and are furnished with two 3/4" x 3/4" mounting cleats. They are installed flush as illustrated in Figure 15. For a wall table filler, attach one cleat to the wall, and the other cleat to the rear of the base unit with #9 1-1/4" flat head wood screw. (Use a No. 5/32" drill). The filler panel is attached to the cleats with #6 round head wood screws. For center table filler attach the two cleats to the rear of the base units with a #9 - 1 1/4" flat head wood screws. The filler panel is attached to the cleats with #6 - 3/4" round head wood screws. **Be sure to attach the rear cleat to the wall before cases are set.**

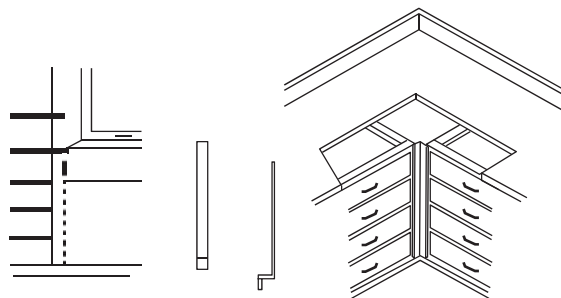


FIG. 15

OVERLAPPING WALL TABLE END FILLER

Overlapping end filler panels are installed overlapping the edge of a unit on one side and butts against the wall on the other side. Wall table end filler panels (Figure 17 & 18) are provided with one 3/4" cleat to attach to the wall. The filler panel is then put into position and the edges of the unit and the cleat are drilled with a 1/8" drill for #6 flat head wood screws.

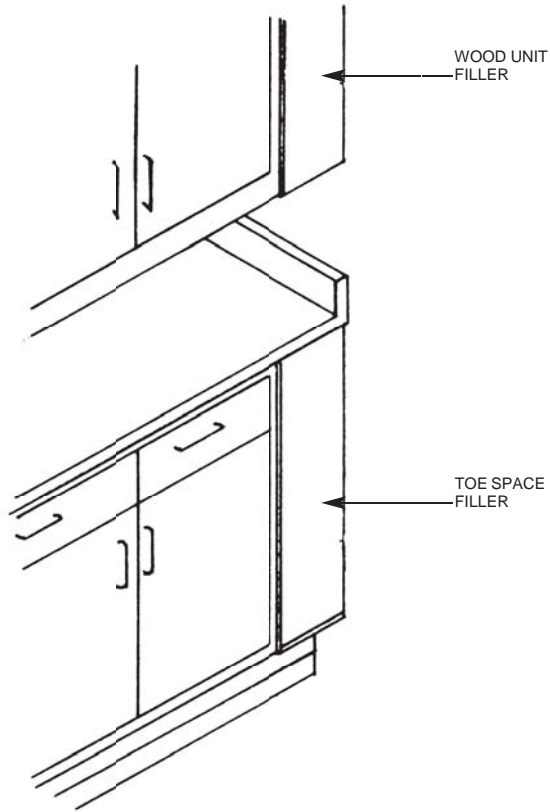


FIG. 18
TOE SPACE WALL & TABLE FILLER

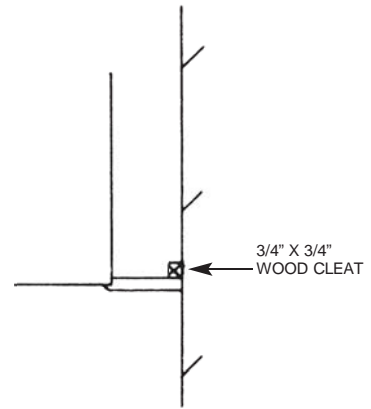


FIG. 19
HORIZONTAL SECTION OF A TOE SPACE

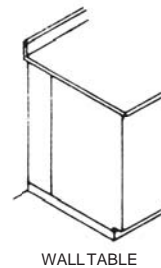
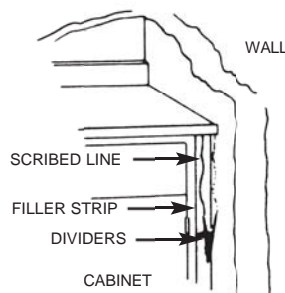


FIG. 20

WALL SCRIBE STRIP INSTALLATION

To scribe a strip to the wall, place one edge on the cabinet and the other edge against the wall. Now take a pair of dividers and adjust them to the widest opening between the edge of the strip and the wall surface. When this measurement has been obtained, start at the top of the strip with one point of the dividers against the wall and the other point held against the surface of the strip, and move the dividers the entire length of the strip (Figure 21).



WALL SCRIBING METHOD
FIG. 21

The wall profile will then be scribed on the strip. Using sheet metal shears (for steel) or hand saw (for wood) cut the strip along the scribed line. The strip will then fit smoothly against the wall surface. Attach the strip to the cabinet as previously described for Flush or Overlapping Fillers.

INSTALLATION OF KNEE SPACE PANELS (WOOD)

Knee space panels are used to close an opening between aprons, between units or units and walls. To install, first mount knee space panel cleats on the adjacent base units. Position cleats as shown in Figure 22. Secure to base unit end with a #9 - 1 1/4" flat head wood screw. Next set knee space panel in position against the cleats and attach with #6 - 1 1/4" round head wood screw, (Figure 23).

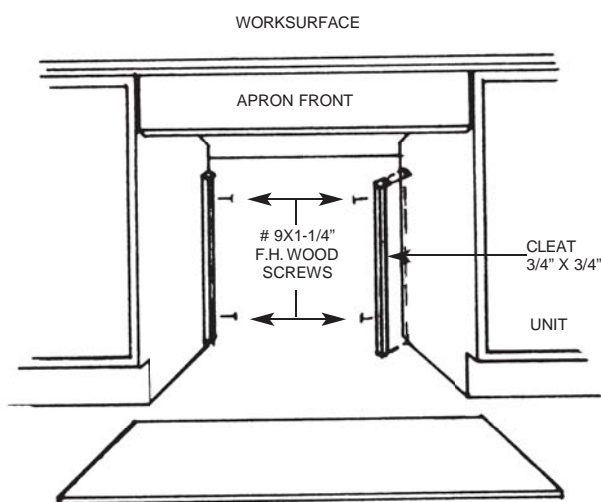


FIG. 22

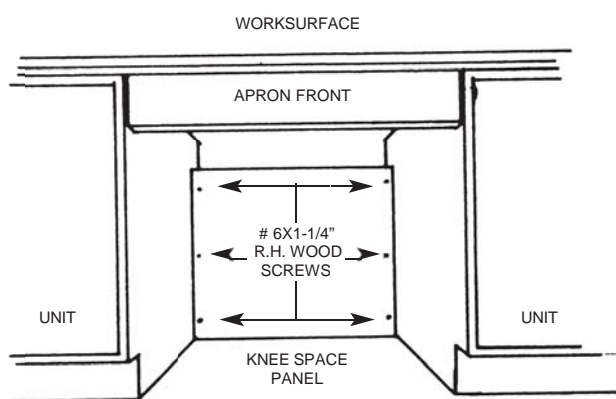


FIG. 23

FINAL ADJUSTMENT OF WOOD FURNITURE

1. Place all removable back panels in place.
2. If it has been necessary to run conduit on plumbing pipe through plumbing space opening, the panels should be cut to fit around these pipes and reinstalled.
3. All shelves in base cabinets should have hold downs removed and shelves installed on their supports.
4. Each item of furniture should be cleaned inside and out and final adjustment made as follows:
 - a. All wood drawer assemblies are pre-fitted to their respective openings at the factory during the installation process they are sometimes removed from their original locations and installed elsewhere. When this happens they may not operate freely. Should this condition exist, remove the drawer and find the drawer originally fitted to the opening and install it there. This should relieve any binding and allow the drawer to work properly. This procedure should be repeated as many times as necessary until all drawers are returned to their original location.
 - b. When doors bind or are uneven, it is usually an indication the units have settled out of level. Cabinets should be re-leveled. Once this is done, door should align and work freely. Re-level by adding or removing shims as needed.
 - c. In some instances, it may be necessary to adjust a hinge to level doors. If this is the case, the hinge should not be moved more than 1/16".
 - d. When adjusting doors, it may be necessary to readjust the magnetic catches. This can be done by loosening mounting screw and moving catch forward or backward, as needed.

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