



POCKET HOLE PLANS KITCHEN CABINET

ITEM# KC03



Supplies Needed:

SML-F125 screws (196)
SML-F150 screws (9)
SML-C125 screws (24)
SFH-C2 screws (8)
SFH-C125 screws (12)
1-1/8" Cherry Shaker Knobs (4)
1/4" x 2" hex head bolts (2)
1/4" flat washers (4)
Ball catch, solid brass, Amerock #BP5323 (1)
3/4" Friction lid support, brass finish, National #V1891



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Building Notes:

We used a standard 45 quart plastic flip-top kitchen waste basket that has a curved top edge. If you plan to use a different size basket, change measurements accordingly. Read and review all drawings before construction begins.

The screw hole spacing when joining individual frame parts together are noted as c.c. meaning "center-to-center". Be sure to review each drawing for the particular screw hole spacing used.

D-1 Top

1. For stability, we made the top up from three pieces of 3/4" cherry. Rip and trim the A's to size. Dry clamp together and layout the pocket hole screw locations. Drill the pocket holes, apply glue to the mating edges, and clamp. Drive SML-F125 screws where shown (refer to drawing D-1 TOP).
2. When dry, scrape off glue squeeze-out, and sand both surfaces and all edges of the assembly smooth.

D-2 Left & Right Side Frames

Note: Parts B,C,D,E, and F must be uniform in thickness. Mark one frame left and the other right.

1. Rip and trim stiles B & C, rails D & E and mullions F to size. Referring to the Layout Detail drawing, mark the bottom ends of the stiles and bandsaw just outside of the lines. Then sand to the lines for final shaping.
2. Mark the screw hole centerlines (refer to drawing D-2) at each joint as shown. Use 9/16" c.c. spacing for joining F to D & E, 7/8" c.c. for rail E to stiles B & C. Center one screw hole at each end of rail D where shown. Drill the pocket holes.
3. Dry clamp (no glue) each frame together, joints flush. Temporarily assemble using SML-F125 screws. First join F to rails D & E, then assemble the D-E-F assembly to the B-C stiles. Remove the clamps and repeat for the other frame. Then with a 1/4" slotting cutter in your router, rout inside of the panel openings to form the panel grooves 3/8" deep.
4. Cut the 1/4" cherry plywood panels G to size. Round off the corners to fit into the grooves.
5. Remove the screws, apply glue to the parts, and reassemble D-E-F together. Slide in panels G, then add stiles B-C. Repeat for the other frame/panel assembly. Later, sand both sides of the frames flush and smooth.
6. For joining the side frames to the face frame later, lay out and drill pocket holes along the inside edge of frame stiles B where shown (see drawing D-2).

D-3 Face Frame

1. Rip and trim stiles C and rails H & I to size. Shape the layout detail on the bottom ends of the stiles.
2. Bevel rip the top edge of bottom rail I at a 45 degree angle, so that the angle is on the inside surface of the rail. Later, this will give the bottom edge of the door clearance from the face frame bottom rail I.
3. Dry clamp the parts, and mark the screw hole layouts as shown. Then remove the clamps and drill the pocket holes.
4. Apply glue to the mating surfaces and reassemble the frame parts using SML-F125 screws. When dry, sand both sides of the frame clean and smooth.

D-4 Rear Frame

1. Cut stiles B to size, forming the layout detail on the bottom ends. Then rip and trim rails J & K to size.
2. Dry clamp the parts together and mark the screw hole layouts as shown. For rail J use the 9/16" c.c. layout, and the 7/8" c.c. layout for rail K. Remove the clamps, and drill the pocket holes on the rails.
3. Apply glue to the mating surfaces, clamp, and drive SML-F125 screws. When dry, sand both sides of the frame clean and smooth.
4. On the inside face of the frame, mark the screw hole locations on the left and right stiles for joining the frame to the side frames later (see drawing D-2). Drill the pocket holes.



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Assemble the Carcase

1. Assemble the left side frame to the face frame. Apply glue to the mating surfaces, hold the face of the side frame flush to the edge of the face frame and clamp, checking for square. Then drive SML-F125 screws to secure the assembly. Repeat for joining the right side frame.
2. Now add the rear frame. Apply glue to the mating edges of the rear frame stiles, position between the side frames with the outside surface of the rear frame flush with the edge of the side frame stiles C. Check for square, then clamp and drive SML-F125 screws.
3. To add bottom panel L, turn the carcase upside down. Before cutting L to size, measure and verify the opening size, then cut L to fit.
4. Lay out the pocket holes on the bottom surface of the panel. Along the 20-1/2" edges, in 1" from the ends, make a 7/8" c.c. layout. Then at the center point along the edge, lay out one hole. Repeat the same layout for the other 20-1/2" edge. Then along the 14-1/2" edges, measure in from each corner 3-1/4" and locate one hole, and then one at the centerpoint. Drill the pocket holes.
5. Apply glue to the mating surfaces, and position the L panel in place. Drive SML-F125 screws.
6. From 3/4" melamine coated particle board (we used melamine to make cleaning the interior easier), cut the case back M to size. Along all four edges, space out three screw shank hole centerpoints. Set the centerpoints in 3/4" from the edges (do not drill pocket holes here). At the locations drill 3/32" shank holes. Now position the back inside the carcase and clamp. Secure the assembly by driving SFHN-C125 screws (see D-5 Section View drawing for reference).
7. Next, cut cleats N and O to fit inside the carcase. Along the edge of each piece space out four screw hole locations, and drill 3/32" shank holes through the edge of the cleats. Then countersink the screw holes 1/2" deep.
8. Along the length of the cleats, equally space out four screw shank hole locations for fastening the top A. At the centerpoints, drill 3/32" shank holes countersunk from the bottom side of the cleats.
9. Position the N cleats inside the carcase, with the top surface of the cleat approximately 1/32" below the top edges. Now drive SML-F125 screws to secure the cleats. Repeat for the O cleats.
10. Lay the top on the bench, bottom surface up. Turn the carcase upside down and position it onto the top so that the overhang on each side of the carcase is equal, with the back edge of the top flush with the surface of the rear frame. Drive SML-F125 screws through the shank holes drilled through the cleats. When finished, remove the screws and the top from the carcase.

Building the Door

1. Refer to the D-6 Door drawing. Rip and trim the four false drawer fronts P and false rails O to size. Note that the bottom front is narrower than the others, 4-7/8" wide.
 2. Plane down the drawer fronts to 11/16" thick, and sand clean and smooth.
 3. From 1/2" plywood, rip and trim the back panel R to size. Note that the top and bottom edges of the panel are beveled after assembly. Do not bevel the ends of the panel until the fronts and rails have been attached.
- Note:** To make assembly and repositioning parts easier, use carpet tape to temporarily attach the fronts and rails when setting the spaces between the parts.
4. Rip a 1/16" thin strip of hardwood from a 3/4" thick board. Trim off 12 pieces to 1" long to use as spacers.
 5. Begin with the bottom front P (4-7/8" wide). Apply a small piece of carpet tape to the backside of the front near each end. Peel off the protective paper and position the cherry front flush with the bottom edge of the plywood back panel R, with the ends of the front flush with the side edges of the panel.
 6. Now place a 1/16" spacer next to the top edge of front P near the ends. Apply carpet tape to the back side of one of the false rails O. Peel the paper back off, and hold it against the spacer strips with the ends of the rail flush with the plywood, and press it onto the surface of the panel. Repeat the assembly process, adding spacers, then another front, spacers, and another rail, and so on until all the parts have been attached. When finished, the top edge of the top front P should be flush with the top edge of the plywood panel. Adjust the assembly layout if necessary.
 7. Carefully turn the assembly over on a flat work surface. Referring to D-7 Door-Parts View drawing, drill 3/32" shank holes at the screw locations for securing the fronts and rails to the back panel. Then drive SFH-C1 screws into the shank holes.
 8. Lay the assembled door across saw horses face side up. On each false drawer front, find center and drill 3/32" shank holes for the knob mounting screws through the wood fronts and the plywood back panel. Attach and then remove the knobs until final assembly.



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9. Next make the door hinges (see the Hinge inset drawing). Cut the parts to size, drill the holes and assemble as shown. When finished, you will have a matched pair of hinges, one left and right.
10. Mount the hinges to the door, flush to the door edges, and 1" from the bottom edge of the door as shown (see drawing D-7 Door-Parts View).
11. The hinge block T, support block U, and door stop V-W are next. Refer to D-8 Mounting Block-Section View drawing. Begin by cutting the T parts to size. Make two assemblies by laminating two pieces T together with the edges and ends flush. When dry, locate and drill the 1/4" pilot holes through each assembly for the hex bolts to fit into later.
12. Cut a temporary 2-1/2" wide spacer block about 6" long. Position the spacer block on edge on the floor of the cabinet. Then apply glue to the edge of the hinge block, set it on top of the spacer and clamp, with the face of the T block flush with the edge of the face frame stile (do not glue the temporary spacer block). Repeat to install the other T block. Let the assemblies dry.
13. Laminate two U blocks together as shown. When dry, glue into the cabinet setting the block on top of hinge block T with the face of the U block flush with the edge of face frame stile C. Repeat for the other block.
14. Refer to the D-7 Door-Parts View drawing. Rip and trim the V & W parts to size. Then laminate the V-W blocks together holding one edge flush (see the Door Stop inset drawing). Once the assemblies have dried, position each block on top of the support blocks left and right, with the flush edge butted against the side frame stile B. The inside edge of the V block will protrude inside the cabinet opening 1/4". Repeat for the other V-W block.
15. Refer to the Catch Block inset drawing. Rip and trim block X to size. Lay out the 3/4" hole location as shown and bore the hole where marked. Then locate and drill 3/32" screw shank holes for mounting to the bottom side of cleat N. Now position the block centered from left to right in the door opening. Be sure that when positioned, the 3/4" hole center is 1/2" from the back edge of the face frame rail. Secure the block with SML-F125 screws.
16. Turn the cabinet upside down. Using the 3/4" hole in the catch block as a guide, bore through cleat N to later accommodate the cylinder of the ball catch mechanism. Slide the ball catch mechanism into the 3/4" hole, drill pilot holes, and drive the mounting screws. Remove the catch and turn the cabinet over so it is upright.
17. Refer to the Strike Mounting Block inset drawing. On a 12" strip, bevel rip one edge at a 45 degree angle. Trim Y to length and bandsaw the ends to final shape. Apply glue and position the block where shown, and drive small brads at each end to help hold the block until the glue dries. Later, remove the brads and putty the nail holes.
18. Next, refer to the Basket Stop inset drawing. From a 1/2" thick of 3/4" material, cut stop block Z to size and shape, and drill the 1/8" shank hole where shown. Attach Z to the strike mounting block Y with a SML-F150 screw, and lightly tighten.
19. Trial fit the door into the opening. Refer to the Hinge-End View inset drawing. Slide 1/4" flat washers onto 1/4"x 2" hex bolts and slip the bolts into the holes in the hinges. Rub paraffin wax onto the bolt threads for easier assembly. Position the door into the opening and then using a socket/wrench, drive the bolts into the 1/4" holes in the left and right hinge blocks T. Hand tighten so that the door will open and close smoothly. Adjust if necessary.
20. With the door closed, use a pencil to stick down through the catch cylinder hole through the N cleat and X block. Run the pencil around the inside of the hole to trace the hole opening onto the top surface of mounting plate Y. Open the door and position the strike plate over the centerpoint and with a chisel, cut the recess necessary for the strike plate to lay flat on top of block Y. Screw the plate down. Install the catch mechanism into the X block, and drive the screws.
21. The ball can be adjusted up or down for more or less closure pressure by using a screw driver and turning the mechanism cylinder from the topside through the 3/4" hole. Clockwise increases closure pressure and counter-clockwise relieves closure pressure. Adjust to suit your needs.

D-9 Basket Holder

Note: We used a standard 45 qt. plastic flip-top kitchen waste basket that has a curved top edge. If you plan to use a different size basket, change building measurements accordingly

1. From 3/4" plywood (we used birch) cut the bottom AA, sides BB and ends CC to size.
2. On sides BB, lay out and drill the pocket holes where shown. Then drill the 3/32" shank holes for mounting to the door on one of the BB sides (refer to drawing D-10).



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Bill of Materials

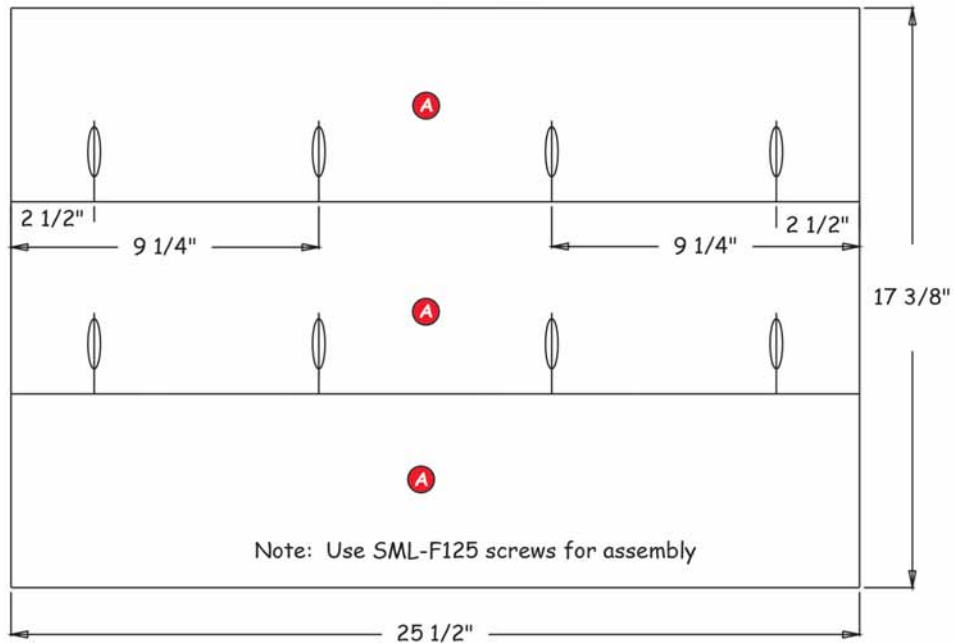
<u>Ltr.</u>	<u>Name</u>	<u>I</u>	<u>W</u>	<u>L</u>	<u>Qty.</u>	<u>Material</u>
A	Top	3/4"	17-3/8"	25-1/2"	1	Cherry
B	Stile	3/4"	1-1/2"	30-1/2"	4	"
C	Stile	3/4"	2-1/4"	30-1/2"	4	"
D	Rail	3/4"	1-1/2"	11-1/2"	2	"
E	Rail	3/4"	2-1/2"	11-1/2"	2	"
F	Mullion	3/4"	2"	22-1/2"	2	"
G	Panel	1/4"	5-7/16"	23-3/16"	4	Cherry Plywood
H	Rail	3/4"	1-1/2"	17-1/2"	1	Cherry
I	Rail	3/4"	2"	17-1/2"	1	"
J	Rail	3/4"	1-1/2"	17-1/2"	1	"
K	Rail	3/4"	2"	17-1/2"	1	"
L	Bottom	3/4"	14-1/2"	20-1/2"	1	"
M	Back	3/4"	20-1/2"	25-3/4"	1	Melamine
N	Cleat	3/4"	1-1/4"	20-1/2"	2	Cherry
O	Cleat	3/4"	1-1/4"	11-3/8"	2	"
P	False Dr. Front	11/16"	5-1/16"	17-3/8"	4	" *
Q	False Rails	3/4"	3/4"	17-3/8"	3	"
R	Back Panel	1/2"	17-3/8"	22-11/16"	1	Plywood
S	Hinge	3/4"	2"	4-1/2"	4	Cherry
T	Hinge Block	3/4"	2"	6"	4	"
U	Support Block	3/4"	1-5/8"	6"	4	"
V	Door Stop	3/4"	1-3/4"	4"	2	"
W	Spacer Block	1/2"	1-1/4"	4"	2	"
X	Catch Block	5/8"	1-1/4"	4-1/8"	1	"
Y	Strike Mtg. Blk.	3/4"	1-3/8"	4-1/8" 1 "		
Z	Basket Stop	1/2"	3/4"	2"	1	"
AA	Basket Btm.	3/4"	10-1/4"	14-1/2"	1	Plywood
BB	Basket Sides	3/4"	6"	13"	2	"
CC	Basket Ends	3/4"	6"	10-1/4"	2	"



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D-1

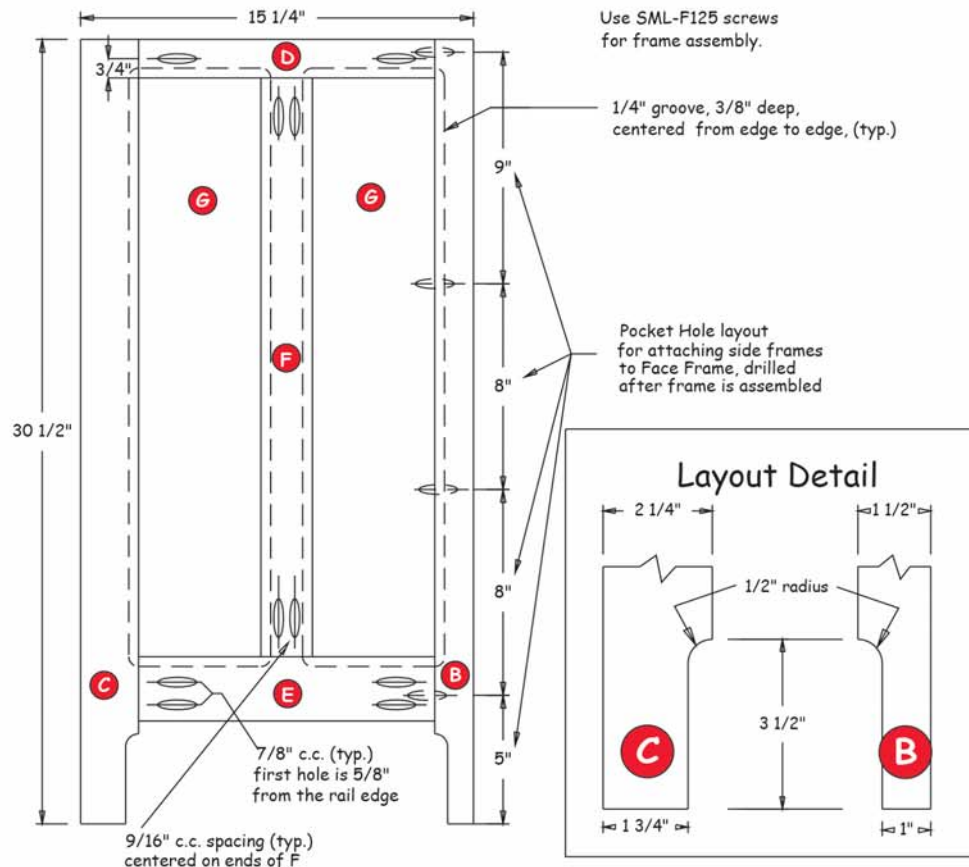
Top



D-2

Left & Right Side Frames

(Inside surface of right frame shown)



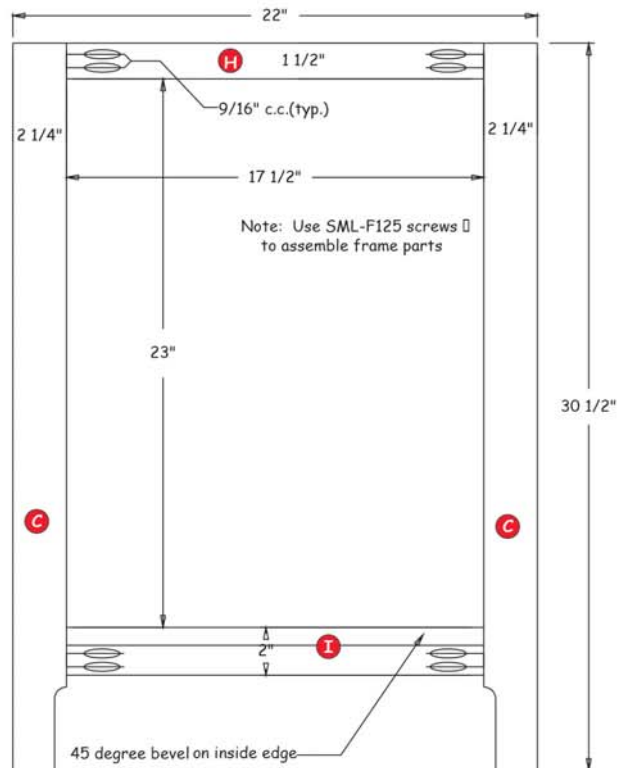


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D-3

Face Frame

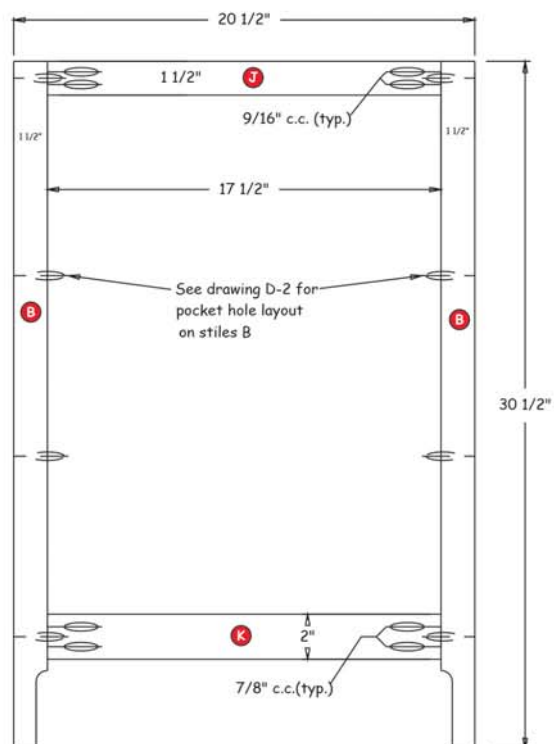
(Viewed from backside)



D-4

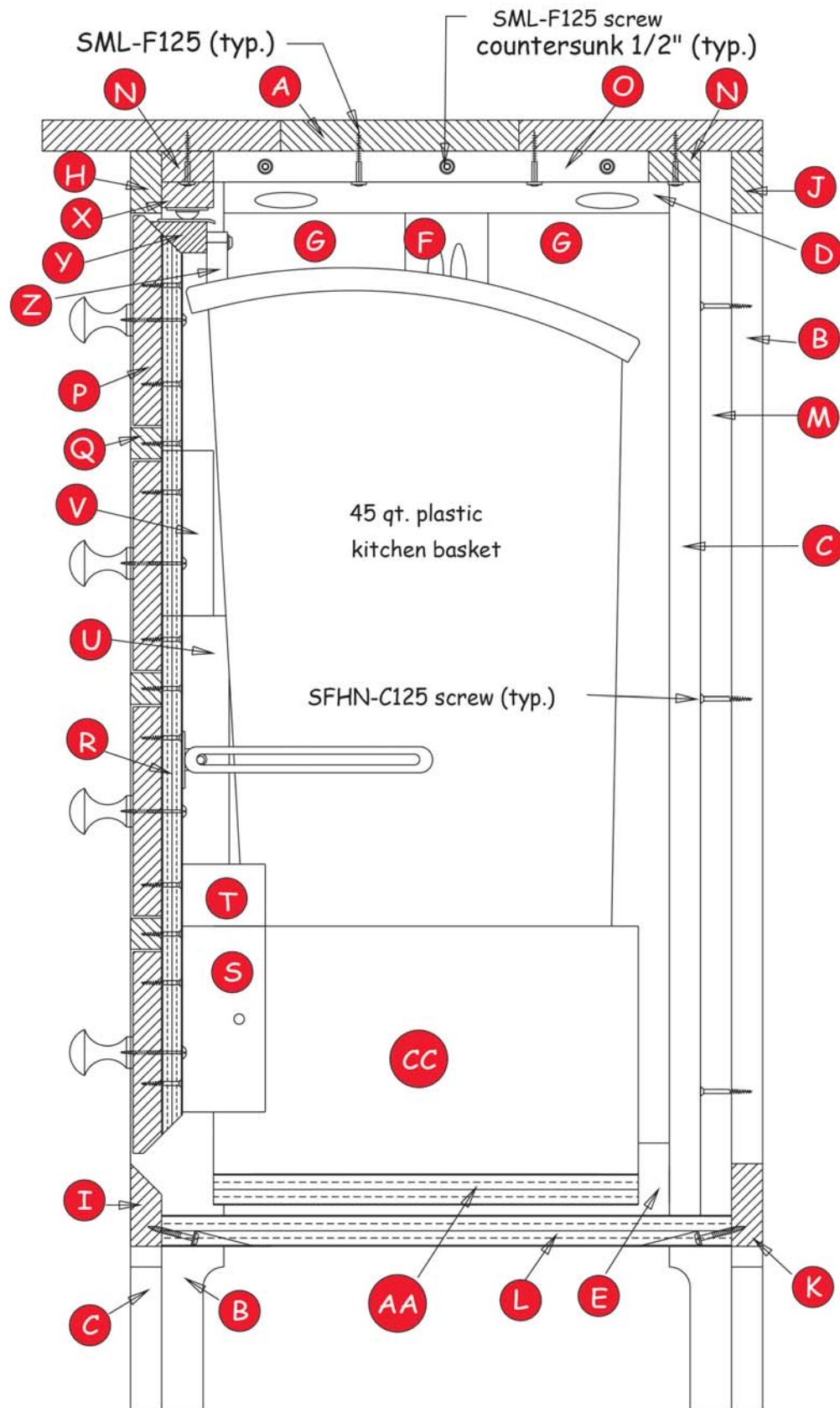
Rear Frame

(Viewed from inside)



D-5

Section View

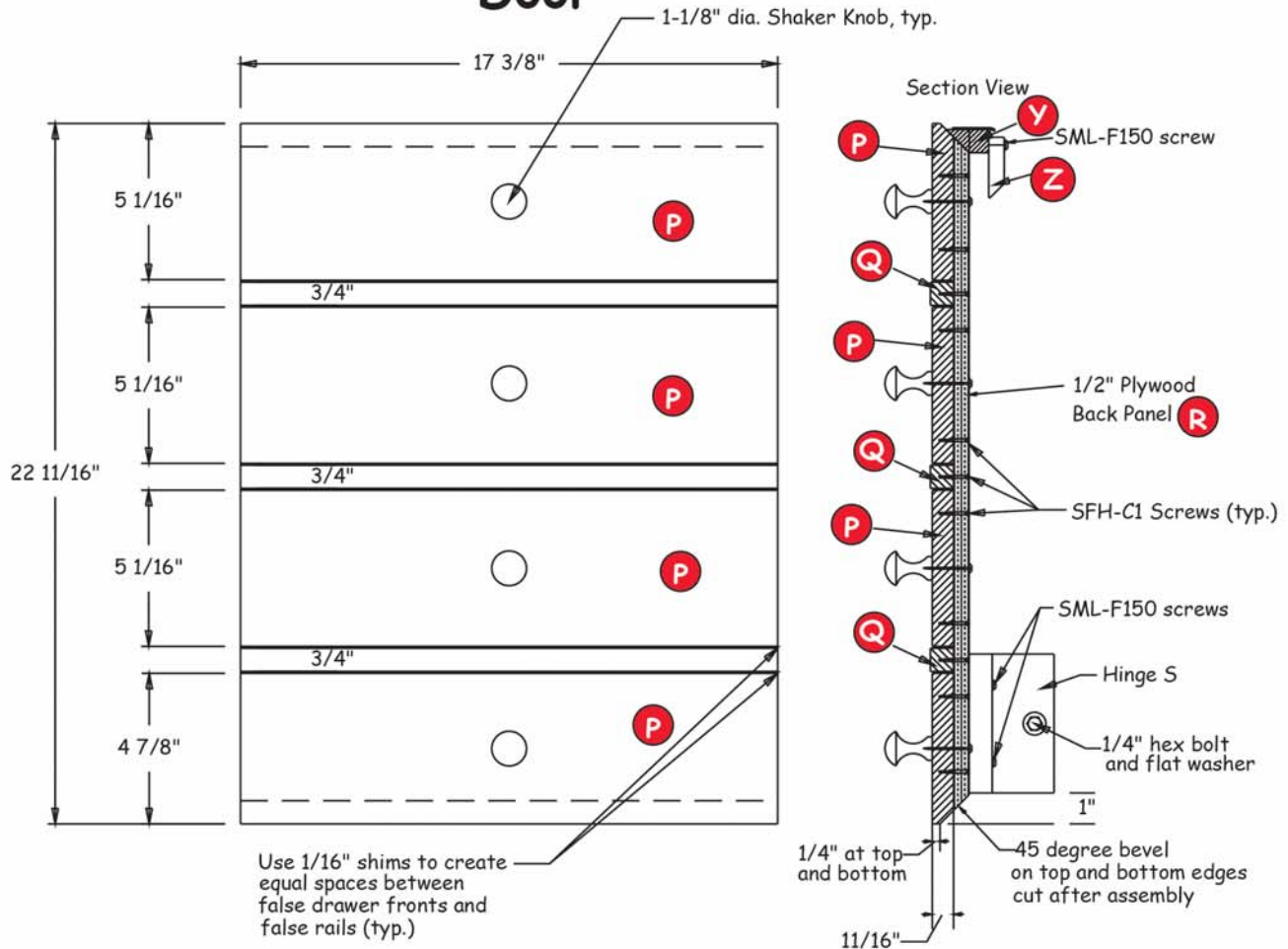




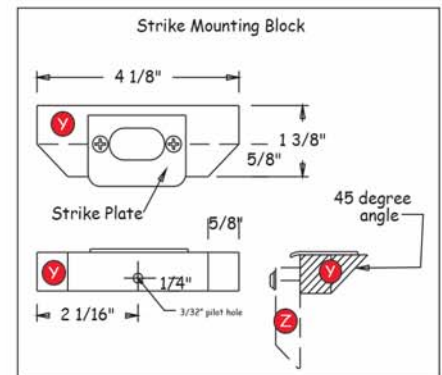
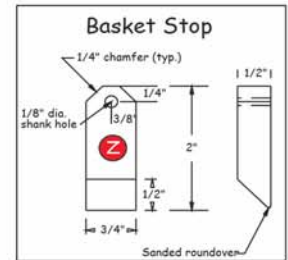
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D-6

Door

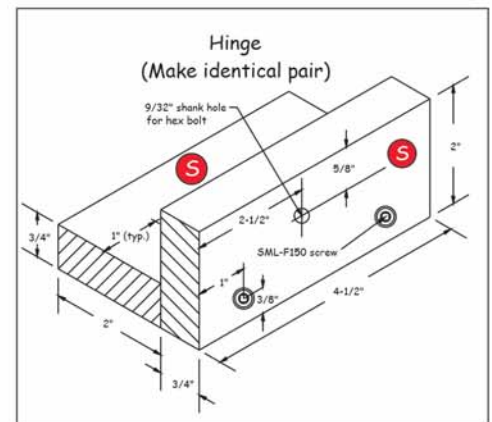
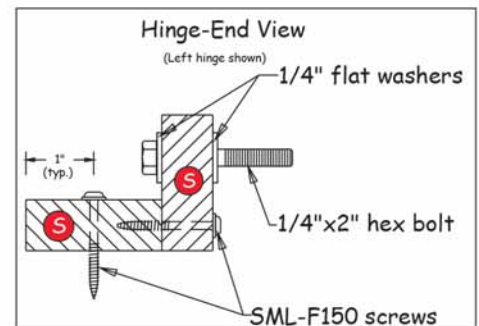
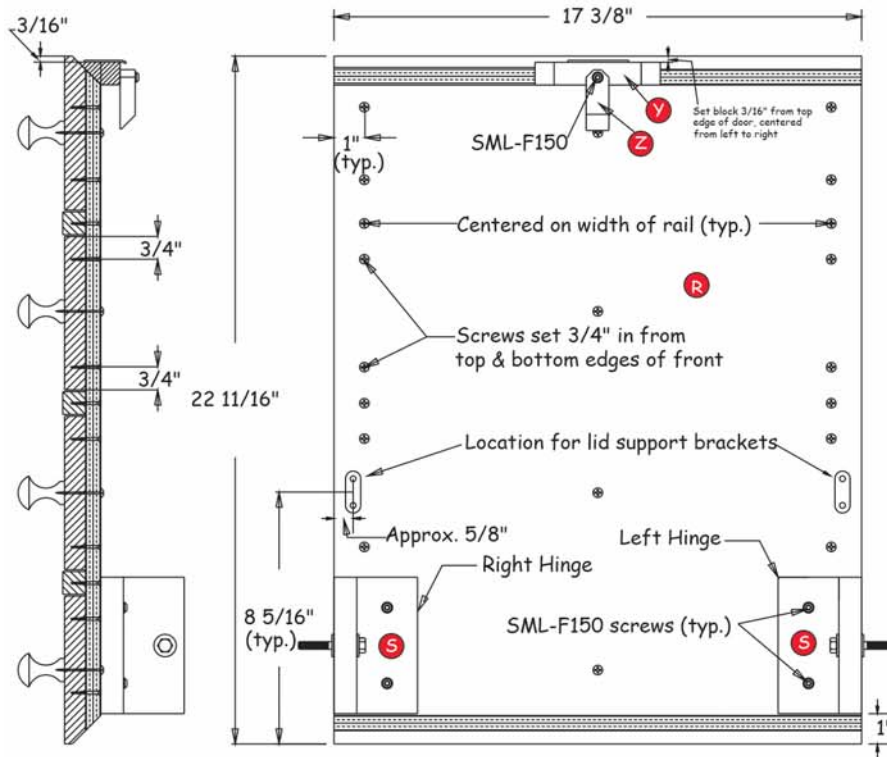


D-7



Door-Parts View

(Backside Shown)



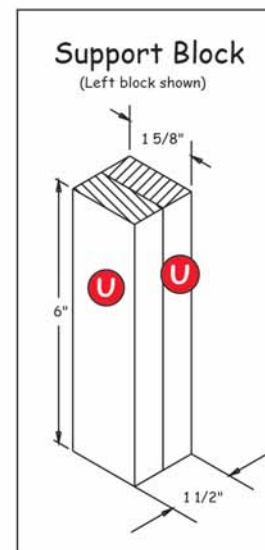
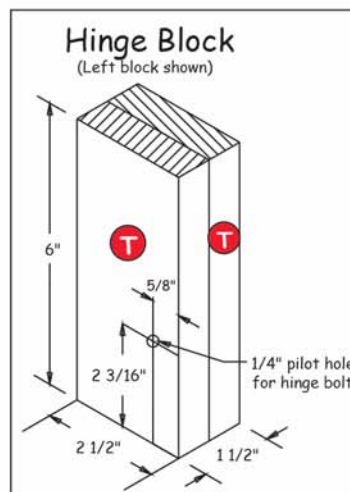
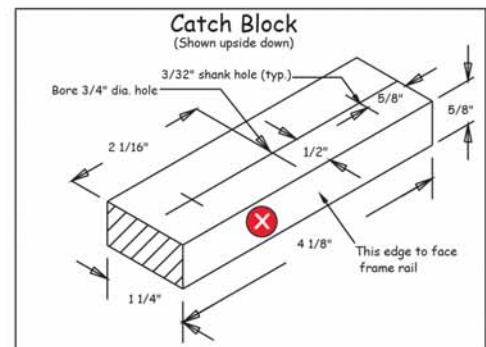
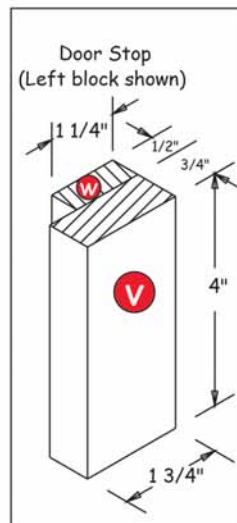
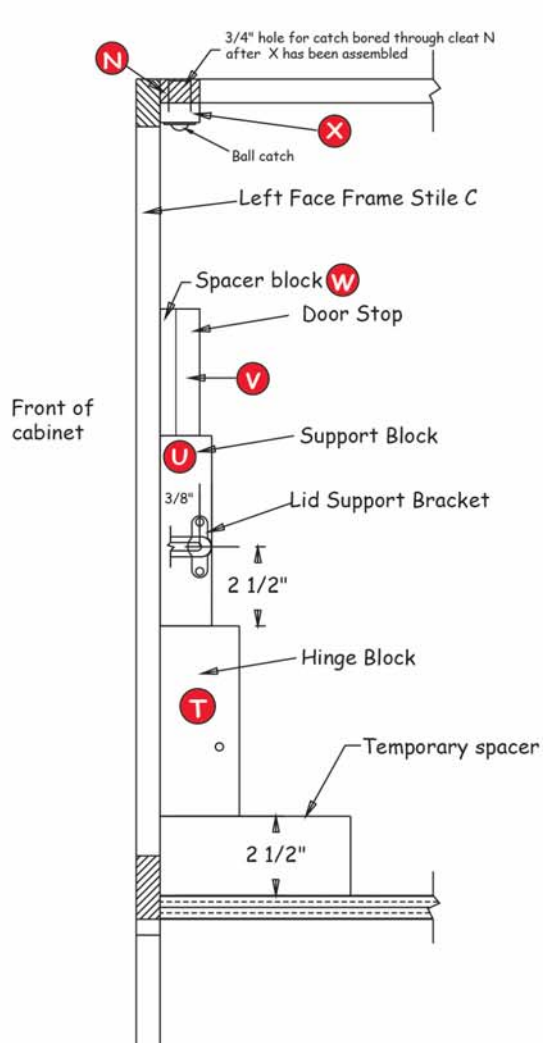


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D-8

Mounting Block - Section View

(Left side shown)





D-9

Basket Holder

Fits rectangular 45 qt. size basket

Use SML-C125 screws
for assembly

