

(0)

C & C 30 Mk II

Companionway Door



View from the cockpit

Installed in S/V "Wyndisphree" S/N 58

**86E18806
(02/29/2000)**

(1)
C & C 30 MK I – Companionway Door

Building the Door

1. This package contains instructions and sketches plus scanned pictures.
2. Woodworking skills and equipment are essential to make the pieces and assemble the Holder. It is not for the novice.

Material and Instructions

1. Door Frame -- Pages (2), (3) & (4).
2. Door -- Pages (5) & (6).
3. Weather Insert -- Pages (7) & (8)
4. Screen -- Pages (9) & (10)
5. Epoxy glue
6. # 6 SS Screws x 1" & ¾" & 1 ¼"
7. Teak plugs

Equipment

1. Table saw with carbide blade.
2. Drill press with drill bits for # 6 screws.
3. Combo drill bit and countersink for # 6 screws.
4. Plug cutter for # 6 screws.
5. Router with curved and 45 degree cutter bits.
6. Assortments of clamps or equivalent.
7. 3/8" Power Drill & bits (to drive screws, etc).
8. Flat workbench with vise.
9. Large square.

Good luck, and take your time making the unit. You can e-mail me if you have problem or need advice.

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(2)

C & C 30 MK II – Frame Insert

Material

- | | | |
|-----------------------------|-------|---|
| 1. <u>9/16" x 3/4" Teak</u> | (1.1) | 2 pieces 23 1/2" |
| | 2 | 1 piece 16" |
| | 3 | 2 pieces 5/8" |
| 2. <u>9/16" Teak</u> | (2.1) | 1 piece 1 5/8" high x 15 3/4" long. |
| | | 22 x tapered pieces 24" long , 1 7/8" to 1" |

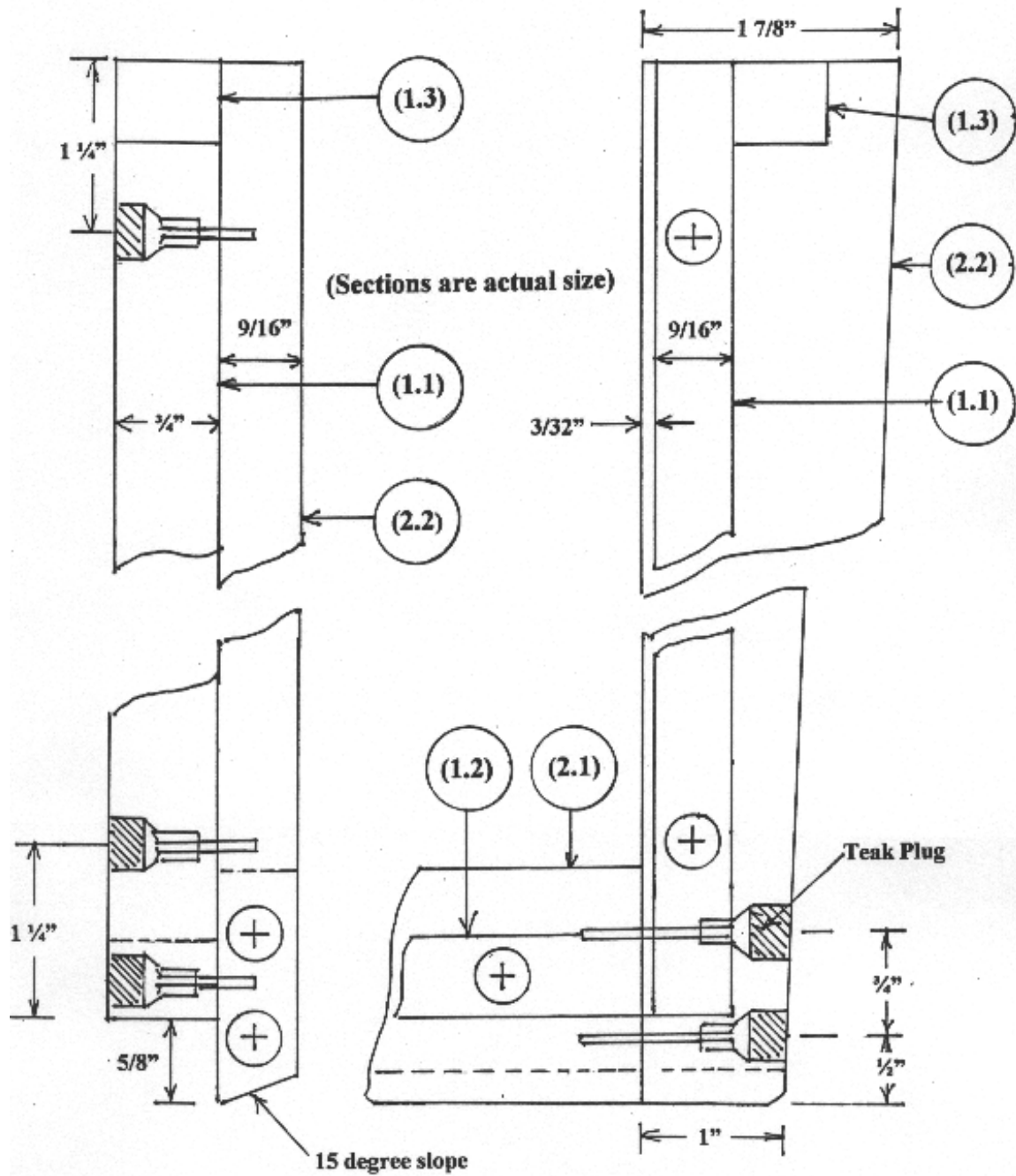
Assembly

(Refer to Pages (3) & (4))

1. Make a template of the companionway opening. This will allow you to adjust the dimensions throughout the plans.
2. Cut the teak pieces per the list above. On the tapered items, one edge is flat and the other is at an angle. Use a drill press and combo drill & counter sink to drill the 2 holes at the bottom of (2.2), both ends.
3. Clamp (2.1) on a flat surface. Apply epoxy glue to both ends of (2.1). Butt the tapered pieces (2.2) to the ends of (2.1). Wipe off all excess epoxy. Fasten the ends with 2 # 6 1/4" SS screws. Insert the plugs and sand smooth. Done!
4. Mark out the screw and plug locations on (1.2) 2 x (1.3). Use the drill press and "combo" to drill 14 holes. Drill through the 3/4" dimension.
5. Locate the 3 pieces, (1.2) and 2 x (1.1). Use # 6 3/4 " SS screws to secure the 3 pieces to (2.1) and 2 x (2.2). Insert the plugs and sand smooth.
6. Epoxy glue the 2 x (1.3) in place.
7. At this point you can round off edges either with a router or sanding. I used a 45 degree router bit to both outside edges of the 5 -- 9/16" x 3/4" pieces. On the flip side I rounded the inside edges of (2.1) and the 2 x (2.2) with a router.

(3)
C & C 30 Mk II – Frame Insert

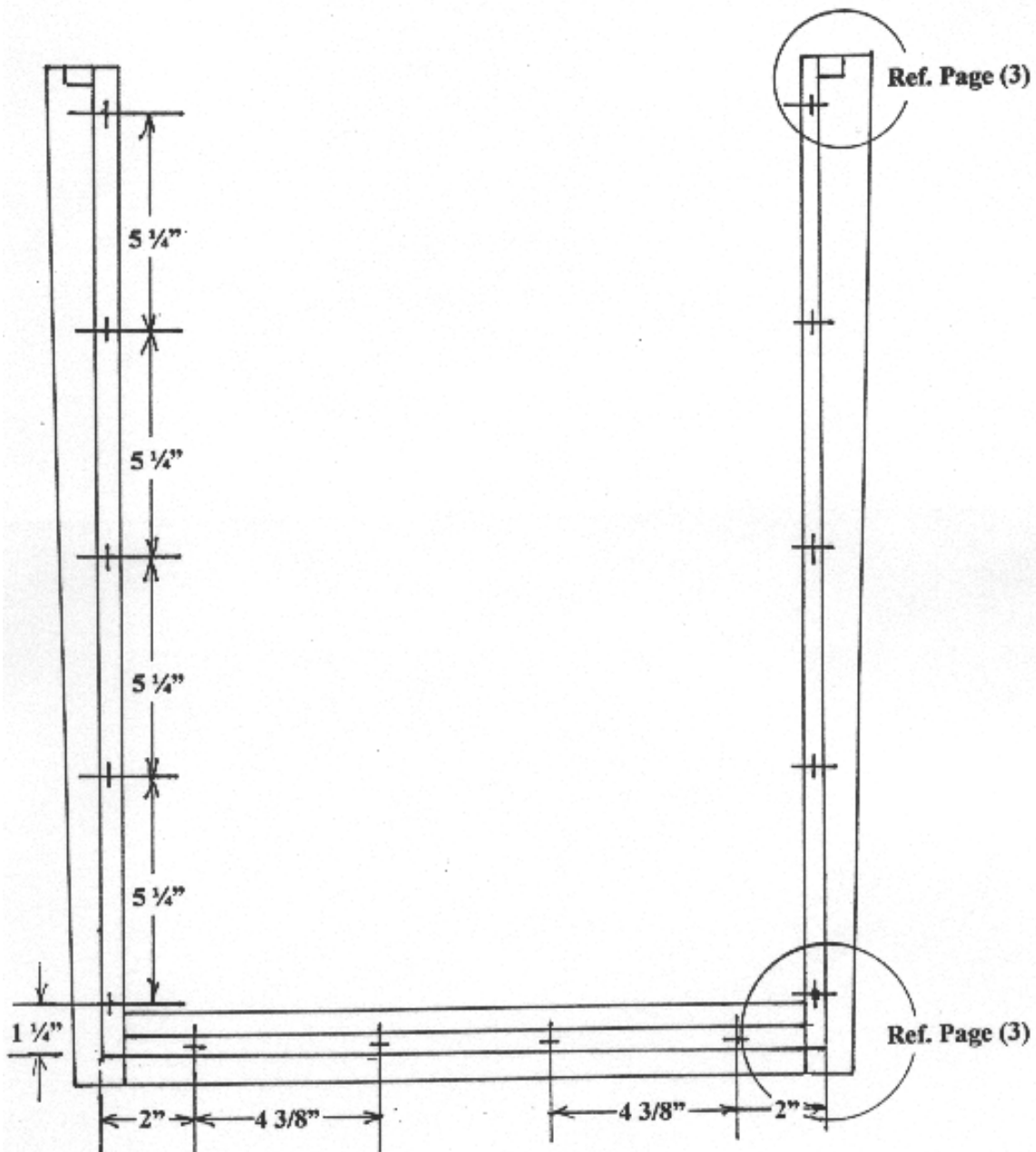
Assembly of (2.2) to (2.1)



(4)
C & C 30 MK II – Frame Insert

Assembly of (1.1), (1.2), (1.3) to (2.1)/(2.2)

14 -- # 6 3/4" Screw & Plug Locations)



(5)

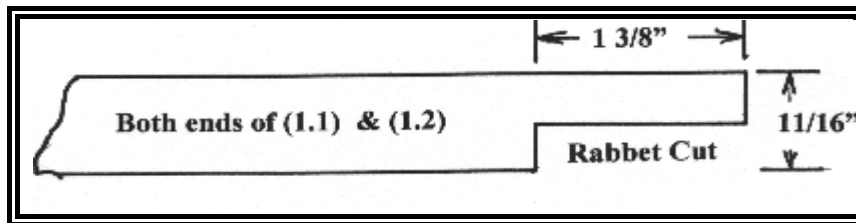
Material

- [illegible]

Assembly

- 1. Cut the teak pieces per the list above.**
- 2. Set the blade height to 11/32" on the table saw. Check the height with a piece of scrap. What is required is exactly half the height of the 11\16" thickness.**
- 3. Set the table saw guide 1 3/8" to the outside edge of the saw blade. Use a piece of scrap material to ensure the left edge of the cut line is 1 3/8" from the end.**
- 4. With the table saw set up complete, make a rabbet cut at the 2 ends of the 4 pieces. This can be done by making consecutive cuts by moving the pieces a blade width left after each cut. (You may a different way of making the rabbet cuts)**

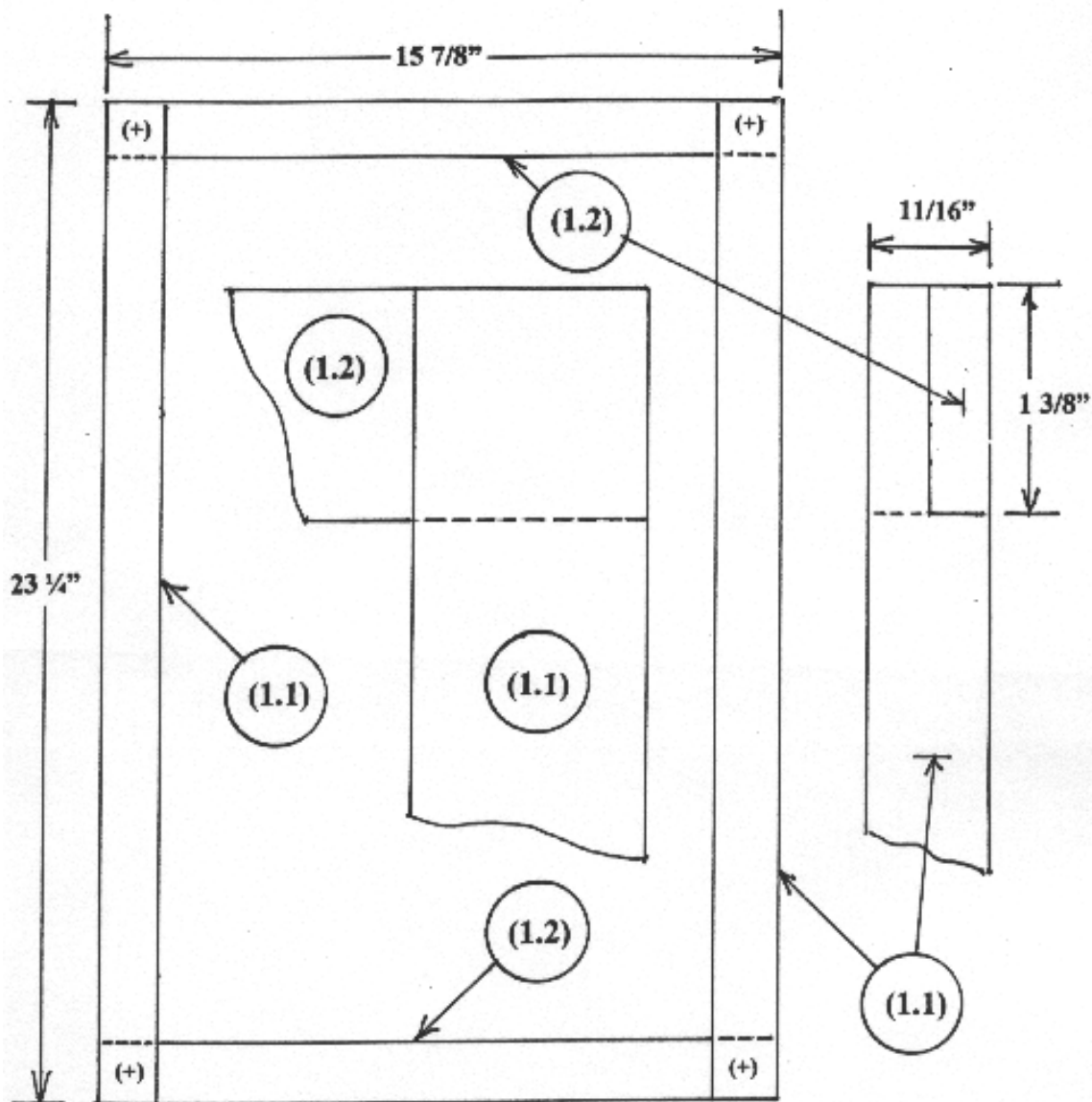
Refer to the diagram below.



- 5. To assemble the 4 pieces a flat surface and large square are a must. Lay the top (1.2) with the rabbet cut up; same with the bottom (1.2). The spread should be 23 1/4" and square. The 2 side pieces (1.1) are fitted on the top and bottom pieces with the rabbet cut down. You have your picture frame. On to Page(6)**

(6)
C & C 30 MK II – Door Frame

Assembly of (1.1) & (1.2)



(+) Epoxy glue the corners

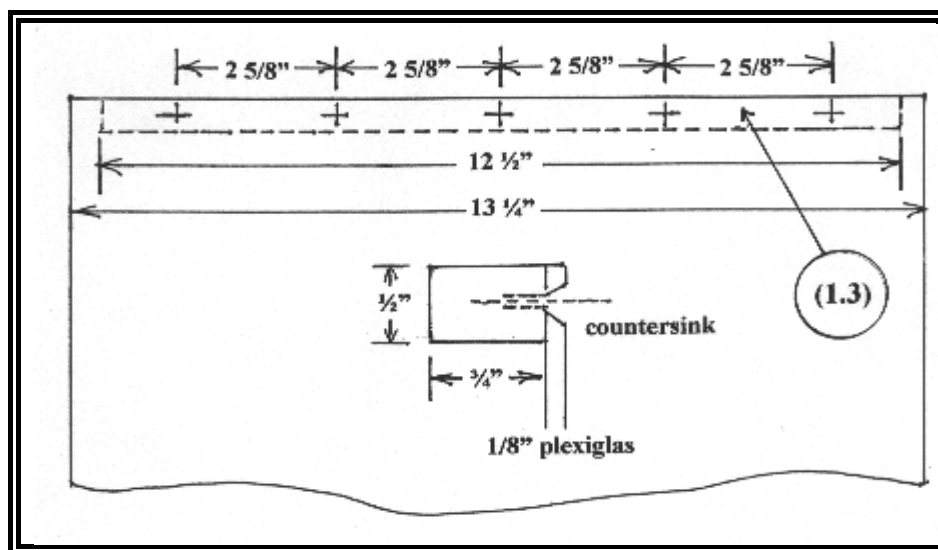
(7)
C & C 30 MK II -- Door "Weather Insert"

Material

1. 1/2" x 7/8" Teak (1.1) 2 pieces 22" long.
 (1.2) 1 piece 15" long.
 (1.3) 1 piece 12 1/2" long
2. 1/8" thick x 13 1/4" x 21 3/8" smoked plexiglas.

Assembly

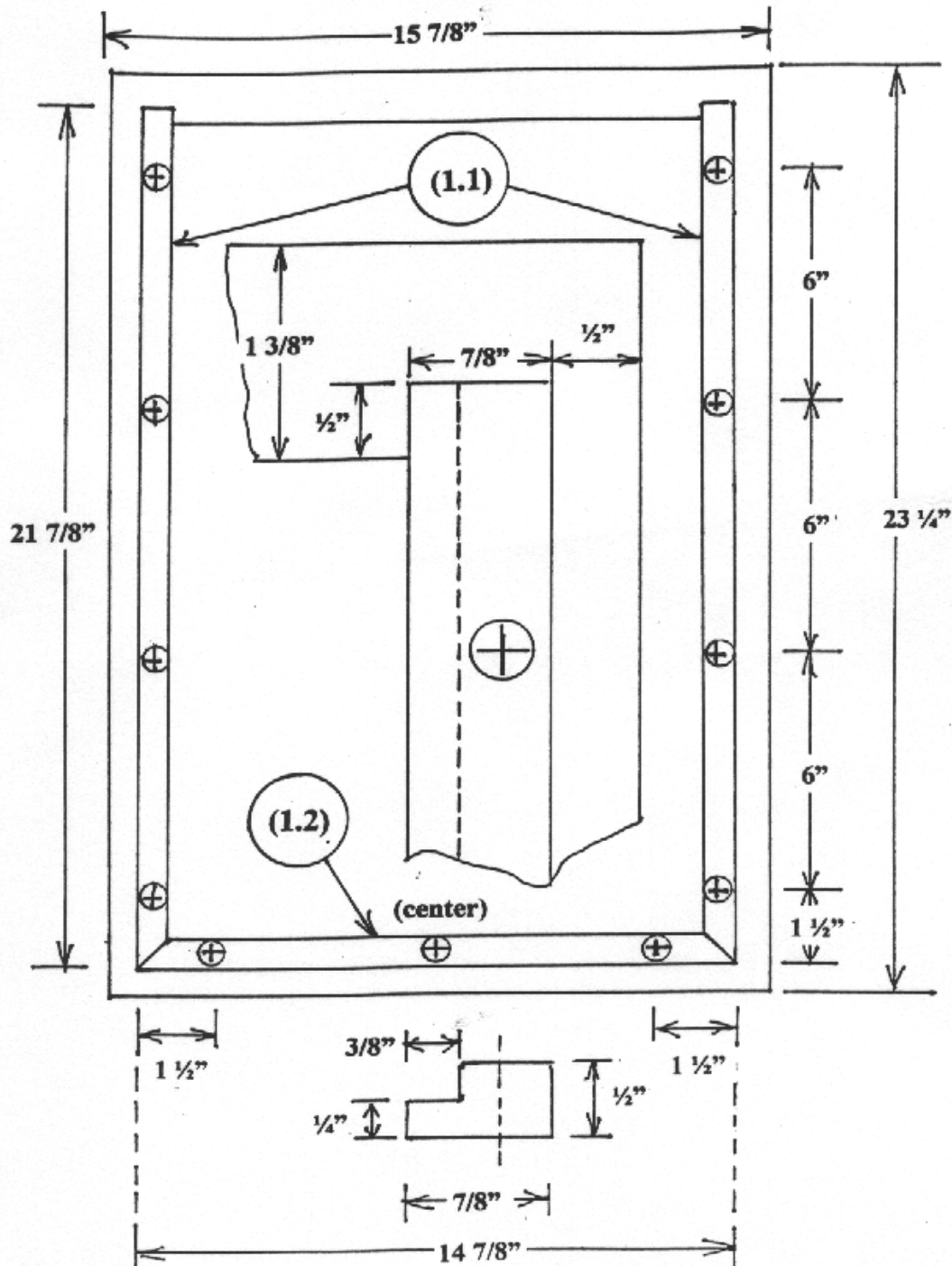
1. Use the table saw or equivalent to cut a 3/8" x 1/4" groove on pieces (1.1) and (1.2). Refer to the cross section at the bottom of Page (8). These are the slider guides for the plexiglas insert. **MAKE SURE YOU MAKE THE CORRECT 45 DEGREE CUTS!**
2. Make the cuts to the 3 pieces. Use a drill press and combo drill/countersink to drill the holes per the diagram on Page(8). Drill 4 small drain holes in (1.3).
3. Install the 3 pieces with 11 -- # 6 3/4 SS" flat head screws. Install the plugs and sand smooth.
4. Tape off a 13 1/4" plexiglas edge. Draw a line 1/4" from the edge. Layout the screw positions on the masking tape. Use a drill press to carefully drill 5 holes using a 1/8" drill. Countersink the holes. Clamp (1.3) into position and install 5 # 6 3/4" SS flat head screws. Round off the edges of the handle.



(8)
C & C 30 MK II – Weather Insert

Assembly of (1.1) & (1.2)

⊕ Screws & Plugs

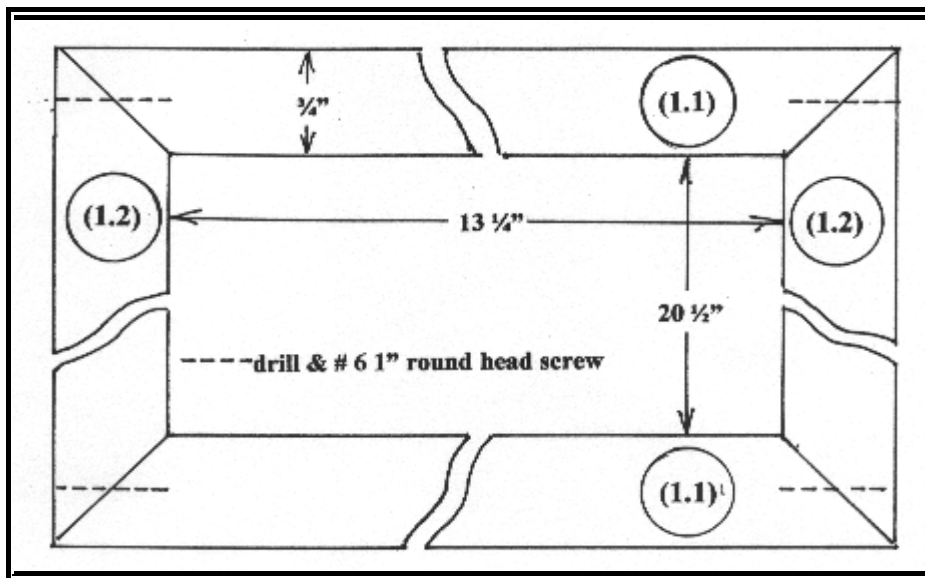


(9)
C & C 30 Mk II – Screen

Material

- | | | |
|-----------------------------|-------|--------------------|
| 1. <u>1/2" x 3/4" Teak</u> | (1.1) | 2 pieces 15" long. |
| | 2 | 2 pieces 23" long. |
| 2. <u>Fiberglass screen</u> | | 24 " x 16" |

Assembly



1. Measure carefully and cut 45 degree angles on 2 x (1.1) & 2 x (1.2)
2. Assemble the frame – (a) Use epoxy glue on the corner joints.
(b) Add screws to the joints.
(c) Make sure the frame is square!!
4. Choose a face for the screen. Stretch the fiberglass screen over the frame and secure with many 1/4" staples.
5. Fit the screen on the door frame (should line up with the inside edges). With door installed in the companionway the screen will be in the cabin.
6. Install with 8 # 6 1" SS screws:- On 2 x (1.1) 3 1/2" from the outside edges.
On 2 x (1.2) 5 " from the outside edges.

(10)
C & C 30 MK II – Completion

Material

1. Teak weather strip – ½" x 3/8" x 22 ¼" long.
2. Teak button support -- 1 3/16" wide x ½" deep x 1 7/8" long.
3. Door Button – Perko 1217 DP CHR
4. # 8 1" flat head SS screw (for Perko button).
5. Two Hinges – 1 ½" x 1 ½"—Perko 952DP2CHR
6. 1 Eye Strap – RONST RF148
7. # 6 ½" & ¾" flat head SS screws.
8. Epoxy glue.
9. Cetol M teak oil recommended.

Assembly

1. Install the weather strip on the hinge side, flush with the door frame outside edge and flush with the bottom of the door frame. Use the combo drill /countersink and center the holes spaced 2 ½" from the top and bottom and 5 ¾" spaces in between. Install 5 # 6 ¾" screws. Install the plugs and sand smooth. Edges should be rounded or routed using a 45 degree cutter. Small cuts should be made.
2. Install the 2 hinges, centered 3 ¾" from the top and bottom. The hinges must be inset so it's a job for the hammer and chisel (or a router and chisel if your careful). Viewed from the cockpit the hinges are installed on the port side.
3. Epoxy glue the button support, 8 ¼" from the top of the frame. Butt the 1 7/8" side next to the screen frame (on the side opposite to the hinges). Install the button on the support with the # 8 1" screw and 2 # 6 flat head screws. Install the striker plate on the Frame Insert with a ½" screw. It should complete the circle.
4. Install the eye strap about an inch below the door button (or elsewhere or not at all). A lanyard should be attached to the eye strap for ease of closing the door.
5. Set the completed assembly in the companionway (if it must be raised use 2 Shepherd tack bumpers under the Insert). The Frame Insert must be secured to the companionway so it does not move when door is opened and closed. Drill a 1/8" hole through the companionway frame, Frame Insert and a further ¼". The hole should be 3/8" below the top of the Frame Insert and ¼" in from the edge. I use 2 - 1/8" cotter pins with lanyards to secure the Frame Insert.

Your Done!

