



Louisville Cooler Manufacturing

WALK-IN COOLER & FREEZER INSTALLATION MANUAL



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**WE ARE NOW USING OZONE
FRIENDLY NON-CFC FOAM**



INSTALLATION INSTRUCTIONS

WHEN YOUR WALK-IN IS DELIVERED, CHECK FOR THE CORRECT NUMBER OF PIECES AND INSPECT FOR DAMAGE FROM SHIPMENT. IF IT IS NECESSARY TO FILE A CLAIM WITH THE SHIPPER, DO THIS BEFORE SIGNING THE BILL OF LADING AND NOTE ANY DAMAGE OR SHORTAGE ON THE BILL.

REMOVE THE DRAWING OF THE WALK-IN FROM THE PARTS BOX AND LOOK IT OVER CAREFULLY. IT WILL INDICATE TO YOU THE ACTUAL DIMENSIONS AND CORRECT PANEL LOCATION FOR INSTALLATION AND IDENTIFICATION.

WALK-INS INSTALLED NEAR EXISTING BUILDING WALLS MUST BE POSITIONED WITH A MINIMUM 2" CLEARANCE TO ALLOW FOR AIR CIRCULATION AND PREVENT POSSIBLE CONDENSATION ON THE EXTERIOR SURFACE OF THE PANELS.

THE FLOOR AREA THAT THE WALK-IN IS TO BE INSTALLED ON MUST BE CLEAR OF ALL MOISTURE, DIRT, AND DEBRIS. ALWAYS START OUT BY USING A CHALK LINE TO MARK THE EXTERIOR PERIMETER OF THE WALK-IN. ONCE YOUR CHALK LINES ARE ESTABLISHED, IT IS IMPORTANT TO CHECK THESE LINES TO VERIFY THAT THE LINES ARE SQUARE. THIS CAN EASILY BE DONE BY MEASURING FROM CORNER TO CORNER, DIAGONALLY BOTH WAYS. THESE DIMENSIONS WILL ALWAYS BE EQUAL TO EACH OTHER IF THE LAYOUT IS SQUARE. IT IS ALSO IMPORTANT TO DETERMINE IF THE FLOOR IS LEVEL. IF THE FLOOR IS NOT LEVEL IT WILL BE NECESSARY TO SHIM THE WALL OR FLOOR PANELS WHERE REQUIRED. CAREFUL INITIAL PREPARATION WILL MAKE THE WALK-IN ERECTION MORE RAPID, EASIER AND TROUBLE FREE. **(SEE FIGURE #1 FOR SQUARING LAYOUT)**

FLOOR PREPARATION WITH INSULATED FLOOR PANELS

LOCATE FLOOR PANELS AS PER DRAWING. LEVEL FLOOR PANELS TO THE HIGHEST POINT IN AREA IN WHICH WALK-IN IS TO BE INSTALLED. THIS AREA SHOULD BE CONTAINED BY THE CHALK LINES WHICH YOU HAVE ALREADY MARKED ON THE FLOOR. IF FLOOR IS NOT LEVEL AND SHIMS ARE NECESSARY, PLACE UNDER ALL UNSUPPORTED SEAMS OF FLOOR TO PROVIDE A SOLID BASE.

USING A HEXAGON WRENCH (SUPPLIED IN PARTS BOX) INSERT IT INTO THE PREDRILLED ACCESS HOLES IN THE FLOOR PANELS. CAM THE FLOOR SECTIONS TOGETHER UNTIL THE FLOOR IS IN ONE PIECE. **(SEE FIGURE #2 FOR CAMMING DIAGRAM)**. IT IS IMPORTANT TO FOLLOW THE PANEL LAYOUT EXACTLY AS NOTED ON THE DRAWING PROVIDED IN THE PARTS BOX. AS YOU CAM THE SECTIONS TOGETHER, MAKE SURE THAT THE OUTSIDE SEAMS OF THE FLOOR PANELS LINE UP WITH EACH OTHER AND THAT THE INTERIOR FLOOR SURFACE IS ALIGNED AS IN **FIGURE #3**.

FLOOR LIMITATIONS, GENERAL AND SHIMMING

THE INSULATED FLOOR SECTIONS ARE DESIGNED FOR LOADS UP TO 500 LBS. PER SQUARE FOOT WHEN LOCATED ON A SMOOTH AND LEVEL CONCRETE PAD. IF SHIMMING IS USED TO LEVEL SECTIONS, THE SHIMS MUST EXTEND UNDER THE WHOLE SECTION, NOT JUST AN EDGE OR A SINGLE POINT. SHIMMING WILL

REDUCE THE DESIGNED LOAD LIMITATION SOMEWHAT DEPENDING ON EXACT CONDITIONS. IN EITHER CASE (WITH OR WITHOUT SHIMS), THE FLOORS ARE NOT MADE TO WITHSTAND HEAVY ROLLING LOADS SUCH AS ELECTRIC OR MANUAL FORK LIFT OR PALLET TRUCKS. FOAMED PANELS ARE NOT RECOMMENDED FOR THIS APPLICATION UNLESS SPECIAL CONSIDERATION IS GIVEN IN DESIGN OR ADAPTED TO IN THE FIELD.

FLOOR PREPARATION WITHOUT FLOOR PANEL FOR COOLER APPLICATION ONLY

FIRST DETERMINE WHETHER FLOOR IS LEVEL. IF FLOOR IS LEVEL PROCEED WITH INSTALLATION. IF FLOOR IS NOT LEVEL, LOCATE THE HIGHEST POINT USING A BUILDERS LEVEL OR TRANSIT. ALTHOUGH CAULKING IS NOT SUPPLIED WITH THIS UNIT, IT IS NECESSARY TO APPLY A **CONTINUOUS BEAD** OF CAULK BETWEEN THE BUILDING FLOOR AND THE INSULATED PANEL TO ENSURE AN AIR TIGHT SEAL.

FLOOR PREPARATION WITHOUT FLOOR PANEL FOR LOW TEMP UNITS.

FLOORLESS MEDIUM TEMPERATURE WALK-INS (33 F. AND WARMER) ON EXISTING CONCRETE FLOORS ARE ACCEPTABLE. HOWEVER, LOW TEMPERATURE (32 F. AND COLDER) **MUST HAVE A PROPERLY INSULATED SLAB** TO PREVENT THE CHANCE OF SUBSOIL FREEZING AND VERY POSSIBLY CAUSING THE FLOOR TO HEAVE ON THE INTERIOR OF THE REFRIGERATED ROOM.

AT NO TIME SHALL THIS WALK-IN BE INSTALLED UNDER ANY OTHER CONDITIONS WITHOUT FIRST CONSULTING WITH THE FACTORY.

FOR CORRECT APPLICATION AND INSTALLATION OF A LOW TEMP BOX WITHOUT FLOOR PANELS, **FOLLOW FIGURE #4**. CONTACT THE FACTORY FOR FURTHER INFORMATION AND SUGGESTED METHODS.

ERECTING VERTICAL WALL PANELS.

FIRST DETERMINE THE CRITICAL AREA TO ESTABLISH A STARTING POINT. BEGIN BY ERECTING A 12" X 12" CORNER PANEL NEAREST THE CRITICAL AREA. (NOTE THAT THE TOUNGE SIDE OF THE PANEL IS ALWAYS TO YOUR LEFT AS YOU ARE LOOKING AT THE INSIDE OF THE PANEL) NEXT ERECT A WALL PANEL AS CALLED FOR ON THE PRINT TO THE RIGHT OF THE CORNER PANEL. MAKE SURE TO ALIGN THE TOPS OF THE PANELS AS THIS WILL ENSURE THAT THE PANELS REMAIN PLUMB AND LEVEL. LOCK THESE PANELS TOGETHER, BUT DO NOT LOCK TO FLOOR PANELS UNTIL ALL WALLS AND CEILING PANELS ARE INSTALLED. NEXT INSTALL THE PANEL TO THE LEFT OF THE CORNER AS PER THE PRINT AND LOCK THESE PANELS TOGETHER. CONTINUE TO INSTALL WALL PANELS IN THIS MANNER UNTIL THERE ARE ENOUGH PANELS ERECTED TO INSTALL THE FIRST CEILING PANEL. SET THE FIRST CEILING PANEL IN PLACE BUT DO NOT LOCK TO WALLS. PROCEED WITH WALL AND CEILING PANELS IN THIS MANNER UNTIL ALL PANELS ARE IN PLACE. REMEMBER TO KEEP ALL WALL PANELS LEVEL AND PLUMB. AFTER ALL PANELS ARE IN PLACE, ALIGN CEILING PANELS WITH OUTSIDE OF WALL PANELS AND LOCK WALLS TO CEILINGS. AT THIS POINT YOU MAY LOCK THE WALL PANELS TO THE FLOOR PANELS IF SUPPLIED. IF THIS IS A FLOORLESS INSTALLATION, IT IS NOW TIME TO INSTALL THE ALUMINUM ANGLE AROUND THE INTERIOR PERIMETER OF THE WALK-IN AS **PER FIGURE #4**

DOOR AND DOOR FRAME INSTALLATION

YOUR FRAME MAY OR MAY NOT INCLUDE A BOTTOM SHIPPING SUPPORT. IF ONE IS PROVIDED, REMOVE IT BEFORE INSTALLATION. INSTALL FRAME SECTION AS YOU WOULD ANY OTHER WALL SECTION. IF CABINET HAS BEEN PROVIDED WITH A FLOOR THERE MAY BE A DESIGNATED SPOT FOR THE FRAME PANEL. SEE WORK BOX DRAWING. CHECK TOP OF OPENING AND COMPARE IT WITH THE BOTTOM OPENING TO ENSURE IT REMAINS THE SAME DIMENSION THROUGHOUT THE INSTALLATION. DOOR FRAME MUST BE EXACTLY PLUMB AND LEVEL FOR THE DOOR TO SEAL PROPERLY. **SEE FIGURE #5**

INTERIOR NSF ALUMINUM RADIUS COVERED SCREED

LOCATE (4) PRECUT AND WELDED ALUMINUM SCREEDS ALONG WITH VARIOUS STRAIGHT PIECES CUT TO FIT BETWEEN THE CORNER SECTIONS. LAY OUT ON THE FLOOR. HOLD UP TIGHT INTO WALL AND MARK AREAS AT WHICH THE EXPANDO BOLT HOLES WILL FALL. THESE SHOULD BE 24" ON CENTER. DRILL HOLES INTO FLOOR WHERE EXPANDO BOLTS WILL BE LOCATED. AFTER DRILLING, RUN A BEAD OF CAULK WHERE THE ALUMINUM ANGLE WILL REST. SET THE ANGLE INTO PLACE AND ATTACH TO THE FLOOR WITH THE EXPANDO BOLTS. NEXT FASTEN THE TOP SIDE OF THE ANGLE TO THE INSULATED WALL PANEL USING THE SELF TAPPING SHEET METAL SCREWS PROVIDED.

IMPORTANT

**A SAW TOOTH APPEARANCE ON
PANEL TOPS AND GAPS AT THE BASE
WILL RESULT FROM NOT LEVELING
THE FLOOR SECTIONS OR SCREED.**

ACCESSORY AND SMALL PARTS INSTALLATION

AS A QUALITY SERVICE TO OUR CUSTOMERS, LOUISVILLE COOLER MFG. HAS INSTALLED ALL MINOR PARTS POSSIBLE SO THAT IT WILL NOT INTERFERE WITH STANDARD SHIPPING PROCEDURES. THERE ARE A FEW MINOR BUT IMPORTANT PARTS THAT MUST BE FIELD INSTALLED.

#1) PLASTIC CAM ACCESS HOLE BUTTONS.

INSERT PLASTIC BUTTONS IN PREDRILLED ACCESS HOLES IN WALLS, CEILING AND FLOORS IF PROVIDED. START THE BUTTON INTO THE HOLES AND THEN GENTLY TAP IT WITH A HAMMER UNTIL IT SEATS PROPERLY.

#2) ALUMINUM PLUGS FOR TREAD PLATE FLOORS

AFTER THE WALK-IN IS INSTALLED, PUT A SMALL AMOUNT OF GREY SILICONE ON BOTTOM OF ALUMINUM PLUG AND INSERT INTO HOLE. PUT SILICONE AROUND PERIMETER AT TOP OF PLUG. WIPE EXCESS SILICONE FROM FLOOR. IF PLUG NEED TO BE REMOVED, DRILL A SMALL HOLE ½" INTO PLUG AND INSERT A SCREW, THEN USE PLIERS OR A CLAW HAMMER TO PULL PLUG FROM PANEL. **SEE FIGURE #6**

#2) SINGLE POINT ELECTRICAL WIRING CONNECTION

WITHIN THE JUNCTION BOX ON THE INTERIOR OF THE DOOR FRAME SECTION YOU WILL FIND ALL WIRING LEADS FOR LIGHTS, HEATER CABLE, AND PRESSURE RELIEF VENT, IF PROVIDED. ALL ELECTRICAL CONNECTIONS ARE MADE FOR NOMINAL 120 VOLT, 60 HERTZ, I PHASE OPERATION

#3) PLASTIC LIGHT BULB GUARD

WITHIN YOUR WORK BOX YOU WILL FIND A PLASTIC GLOBE FOR EACH LIGHT FIXTURE SUPPLIED WITH UNIT. SIMPLY SCREW ON TO THE THREADED PORTION OF THE LIGHT FIXTURE.

NOTE: BULB IS NOT SUPPLIED AND MUST BE INSTALLED BEFORE GLOBE.

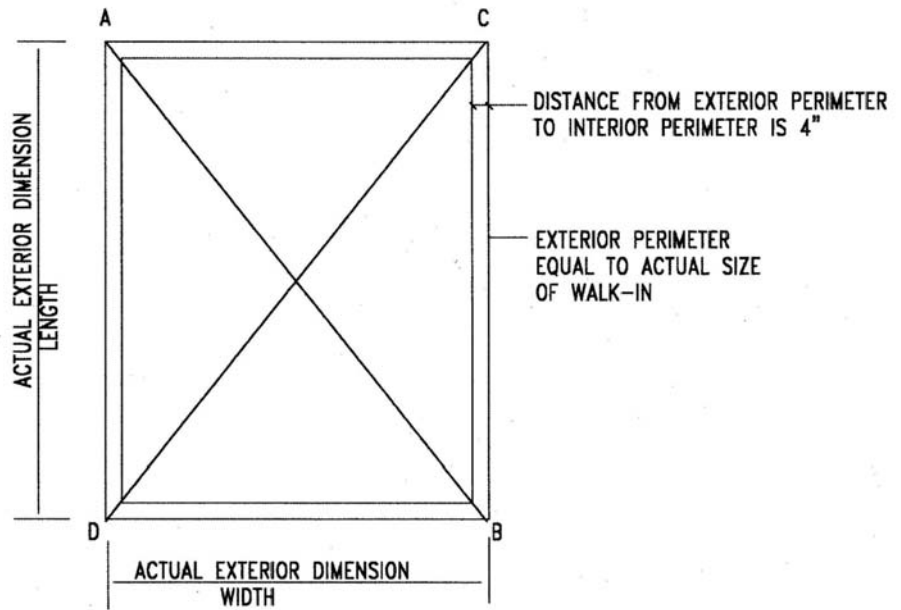
#4) ADJUSTING DOOR LATCH MECHANISM

IF YOUR DOOR LATCH SHUTS TOO HARD OR SEEMS TO BE LOOSE, IT MAY BE ADJUSTED. SIMPLY LOOSEN (2) SCREWS ON STRIKE PIECE AND ADJUST AS NECESSARY. RETIGHTEN SCREWS TO DESIRED POSITION.

#5) RUBBER ROOF CAP SEE DUROLAST ROOF CAP INSTRUCTIONS

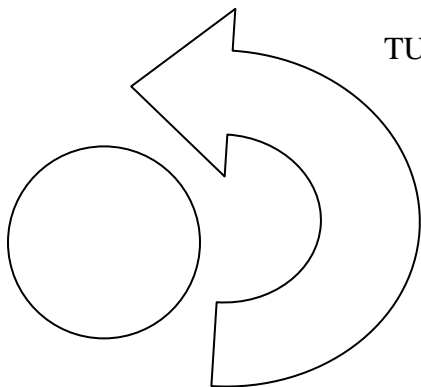
NEVER USE ANY PETROLEUM BASED SEALANT ON RUBBER ROOF MEMBRANE.

#6) ALL PENETRATIONS FOR ELECTRICAL AND REFRIGERATION EQUIPMENT MUST BE SEALED TO PREVENT AIR LEAKAGE AND ICE BUILD UP. ALL CONDUIT ENTERING THE WALK-IN MUST HAVE A SEAL OFF FITTING AND BE SEALED WITH SEALANT OR FOAM.



DISTANCE FROM POINT 'A' TO POINT 'B'
IS EQUAL TO DISTANCE FROM POINT 'C' TO POINT 'D'

FIGURE #1



TURN WRENCH COUNTER CLOCKWISE TO TIGHTEN

TURN WRENCH CLOCKWISE TO LOOSEN

FIGURE # 2

MAKE SURE THAT INTERIOR SURFACE IS
LEVEL WITH EACH PANEL

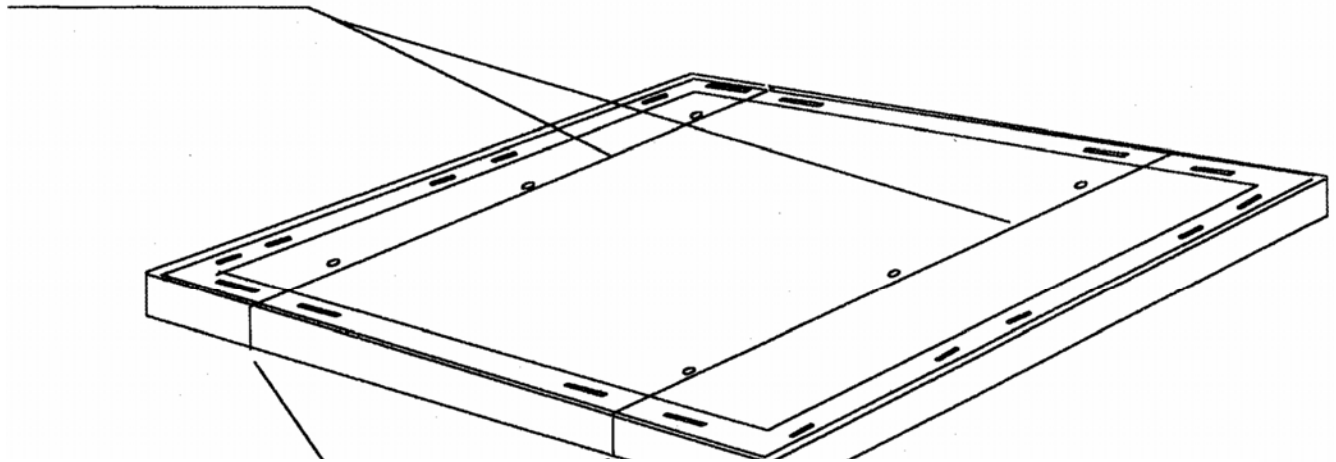


FIGURE #3

CHECK TO MAKE SURE THAT ALL SEAMS ARE
EVEN WITH THE NEXT ADJOINING WALL

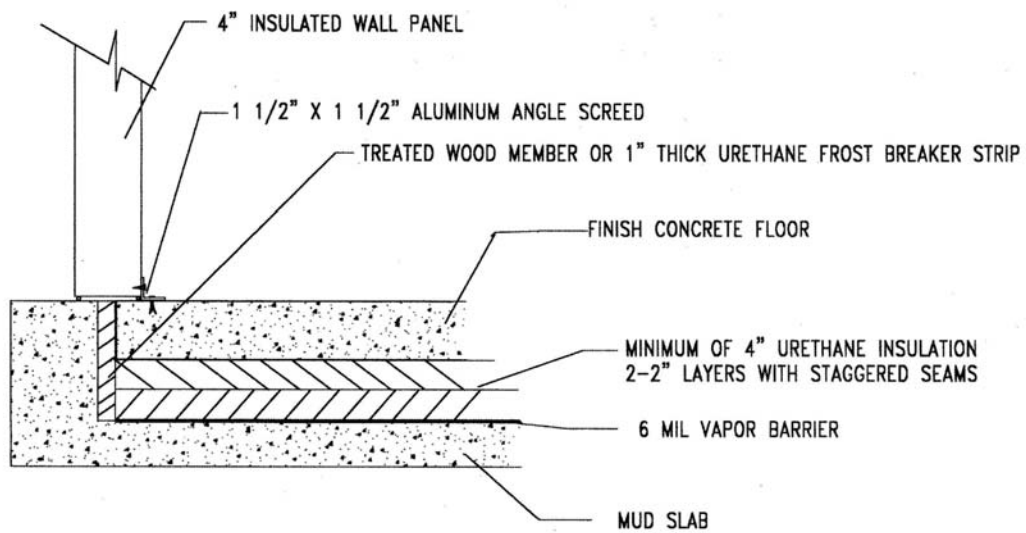


FIGURE #4

DOOR AND DOOR SECTION ALIGNMENT AND ADJUSTMENTS

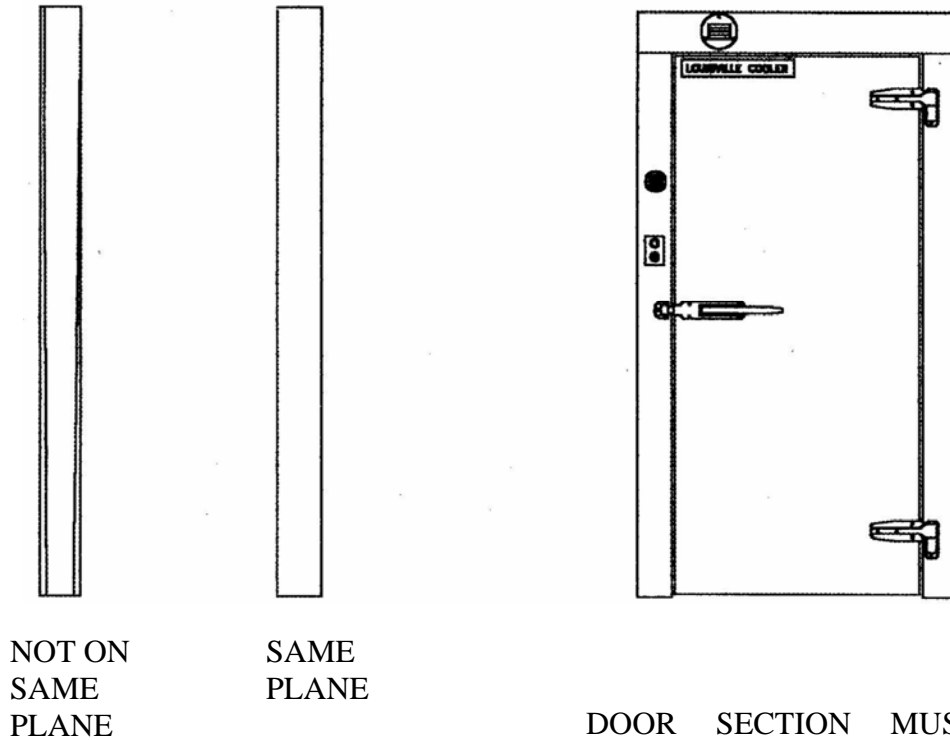


FIGURE #5

DOOR SECTION MUST BE PLUMB, LEVEL AND SQUARE TO OPERATE AND SEAL PROPERLY. ALWAYS CHECK CORNER TO CORNER TO MAKE SURE DOOR SECTION IS SQUARE. BOTH DOOR LEGS MUST BE ON THE SAME PLANE IN ORDER FOR THE DOOR TO SEAL PROPERLY. AFTER DOOR SECTION IS SET, THE DOOR STRIKE MAY BE ADJUSTED IN OR OUT TO SEAL GASKET.

CAM LOCK PLUGS FOR TREAD PLATE FLOORS

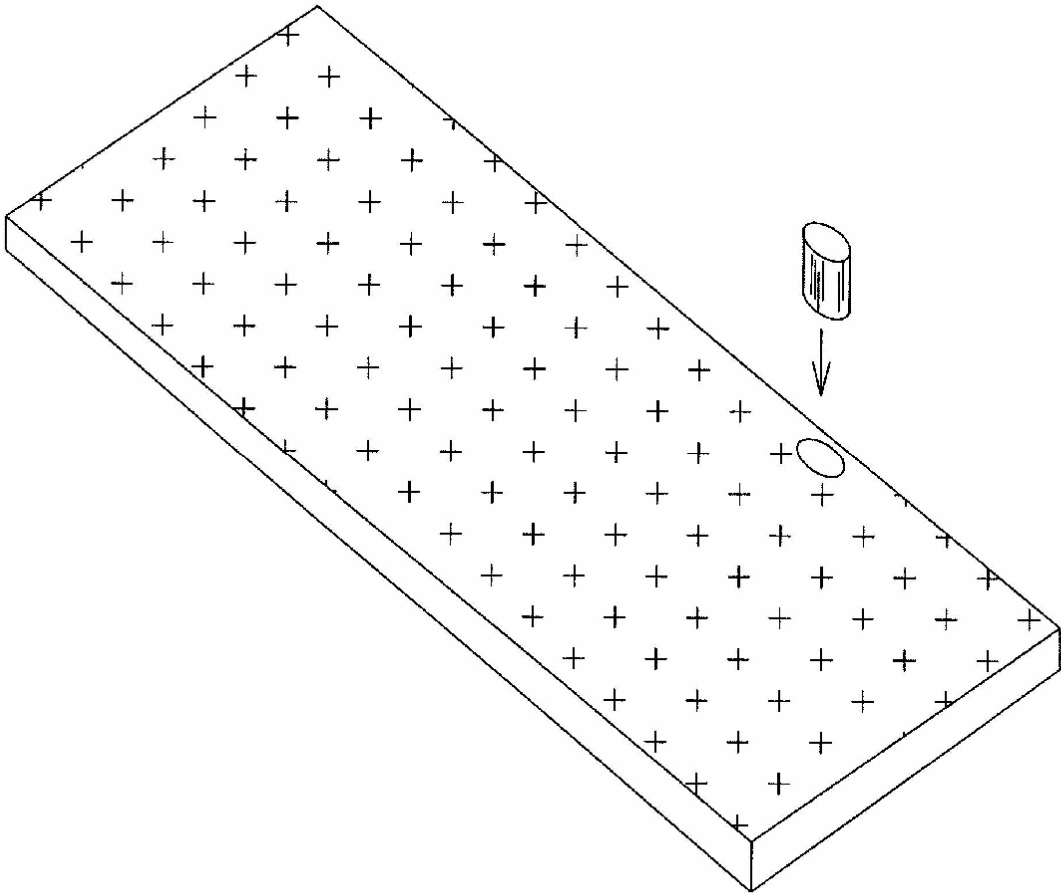
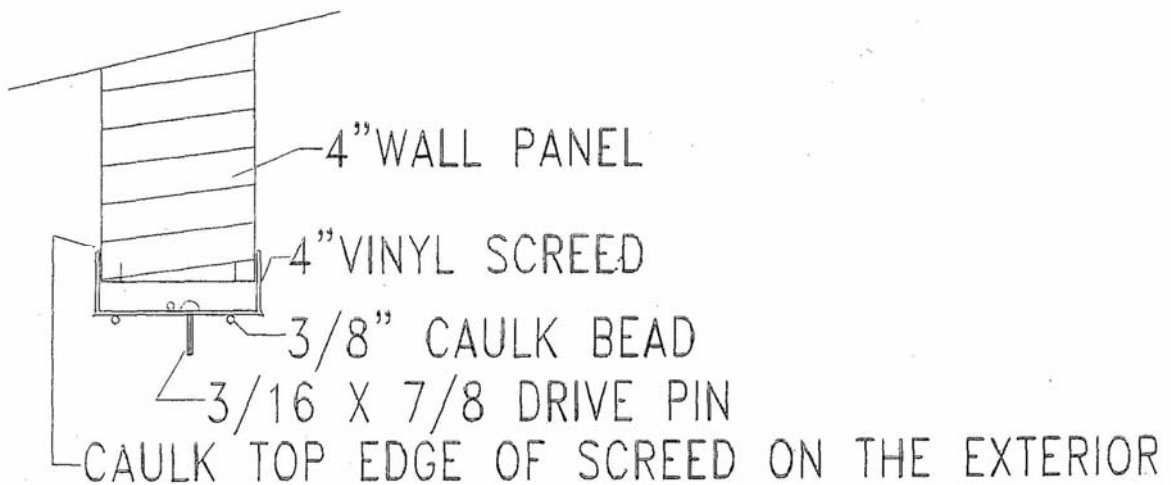


FIGURE #6

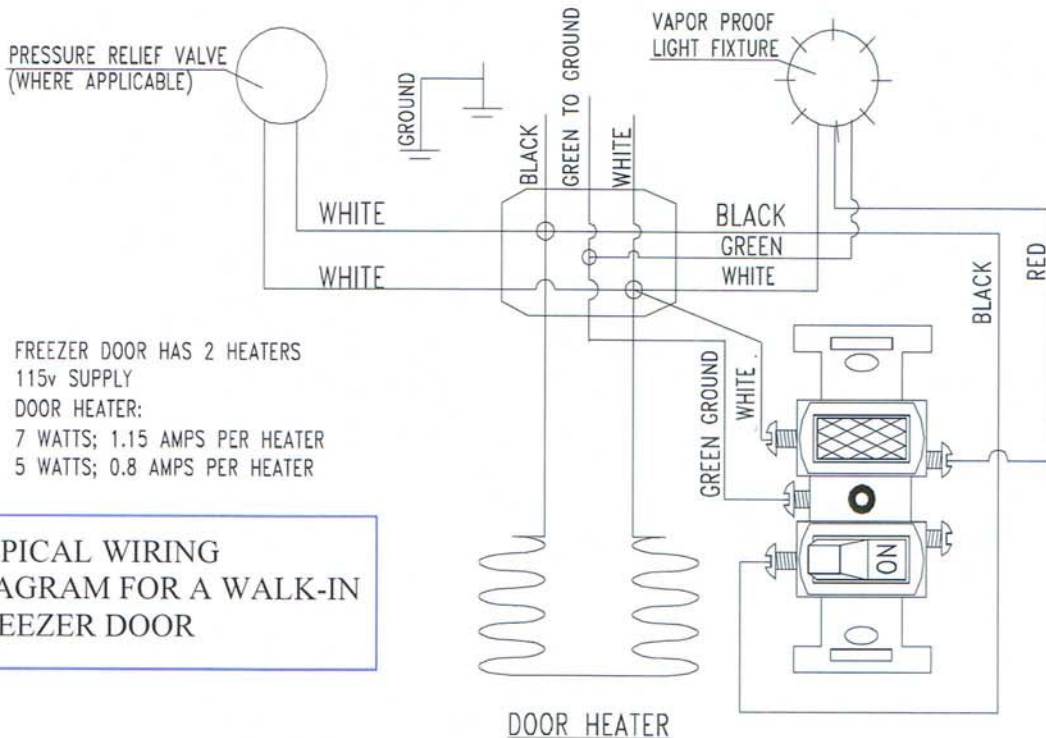
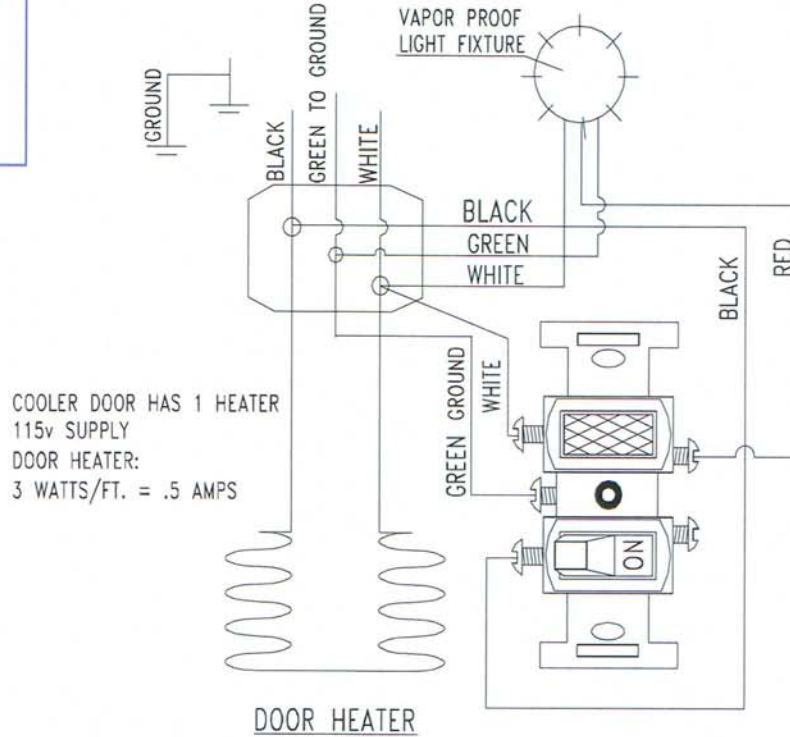
FLOOR SCREED INSTALLATION

1. CHALK A PERIMETER LINE TO LOCATE SCREEDS
2. APPLY A DOUBLE 3/8 " BEAD AROUND PERIMETER
3. SET SCREEDS IN THIS BED OF CAULK
4. INSTALL DRIVE ANCHOR PINS 24" TO 30" ON CENTER
5. APPLY A 3/8" BEAD OF CAULK IN THE CENTER OF THE FLOOR SCREED
6. SET CORNER PANEL IN FIRST
7. SET WALL PANEL IN AND LOCK TO CORNER
8. CONTINUE INSTALLATION OF PANELS
9. AFTER ALL PANLES ARE INSTALLED USE CAULK TO FILL ANY GAPS UNDER FLOOR SCREED AND AT JOINTS
10. CAULK ALONG THE TOP EDGE OF THE SCREED ON THE EXTERIOR OF THE BOX



ELECTRICAL INFORMATION

TYPICAL WIRING
DIAGRAM FOR A
WALK-IN COOLER
DOOR



TYPICAL WIRING
DIAGRAM FOR A WALK-IN
FREEZER DOOR

Duro-Last Roof Cap
General Installation Instructions
Free-Standing Walk-In Cooler

Step 1:

Verify the overall width and length of the membrane roof cap. It should be one foot wider and one foot longer than the width and length of the walk-in unit

Step 2:

Check the rooftop of the walk-in unit and remove any foreign matter. Seal all protruding rough edges such as screw heads, rivets, etc. with VK626 caulk. This will prevent any chance of penetrating or wearing a hole in the membrane roof cap.

Step 3:

The smooth (shiny) finish surface of the white or gray membrane is the exposed (up) side. If tan material is used, the (rough) grain side is exposed. The 3" fastening tabs are on the bottom side of the membrane. There should be 6" of membrane overhang on all sides of the walk-in unit.

Step 4:

Snap a chalk line approximately 55" from edge of walk-in unit (Figure A) and align the first 3" tab with chalk line. Fasten 3" tab by using 1-1/2" self tapping metal screw and a fastening plate. (Figure A) Start in the middle of the tab and work toward the edges placing the screws and plates 12" on center. The 1-1/2" screws should penetrate the top skin of the metal cooler.

Step 5:

Unroll roof cap membrane to next tab and repeat the screw and plate fastening pattern. Pull slack out of membrane each time membrane is unfolded. Use of vice grips is ideal to keep material taut.

Step 6:

On completion of the fastening of the roof cap, fold corners as shown in (Figure B) and install flashing trim (Figure A) around perimeter of walk-in unit. Use 1-1/2" screws spaced 6" on center. Seal top edge of trim with VK626 caulk. Flashing trim should be installed between 1" -6" from top of unit.

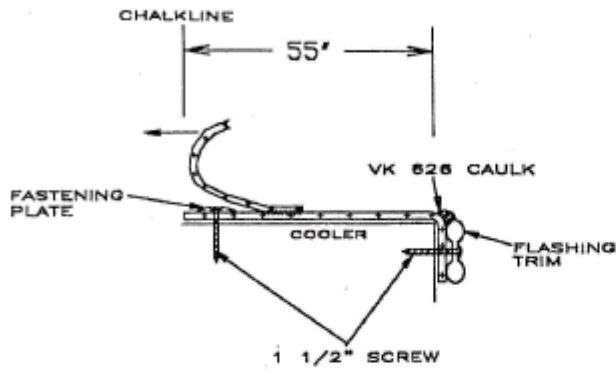
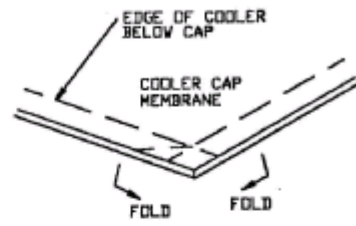
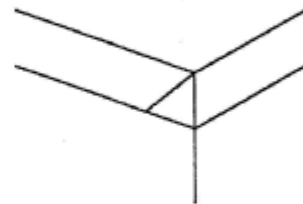


FIGURE A

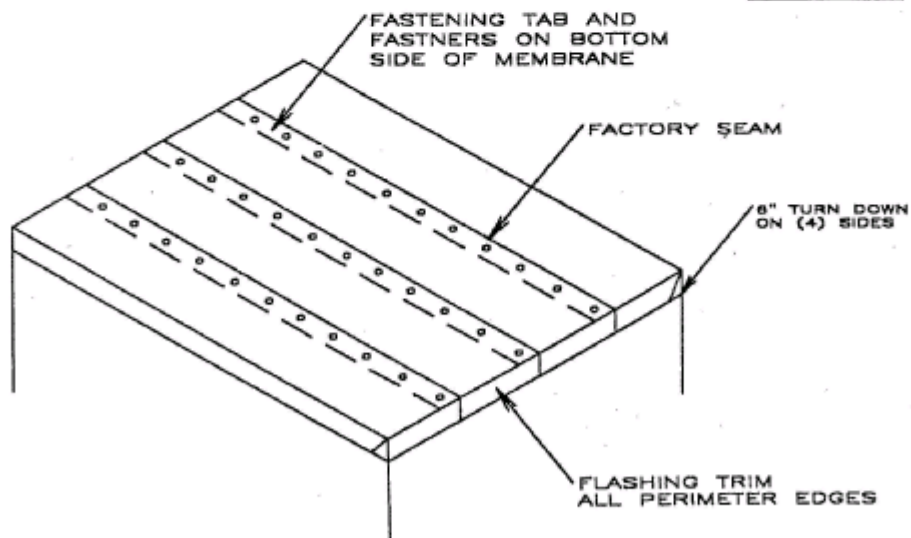


STEP #1

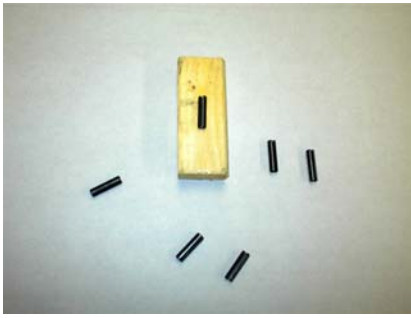


STEP #2

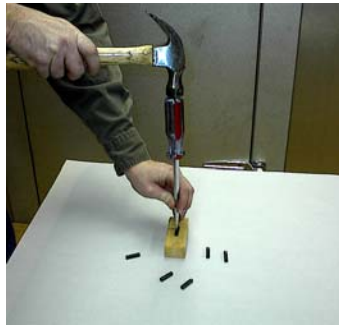
FIGURE B



ROOF CAP: FREE STANDING



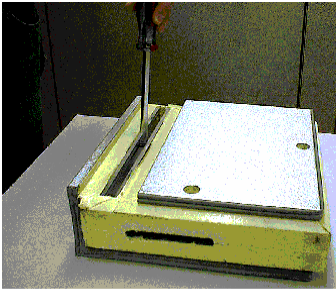
Step 1
Place ¼" x 1" roll pin in stand to hold pin while screwdriver is inserted. Position pin with slot up.



Step 2
Insert screwdriver into pin by tapping with hammer.



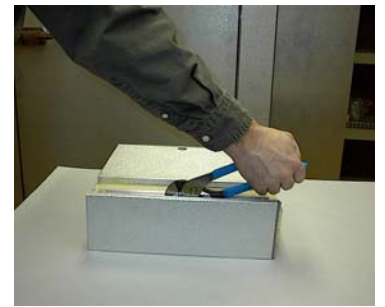
Step 3
Holding pin parallel to pin bar, insert into pin bar at predetermined location.



Step 4
Rotate pin 90° into track and remove screwdriver.



Step 5
Grasp Pin with pliers and rotate approximately 30° to lock into place (see drawing.)



DETAIL DRAWING

