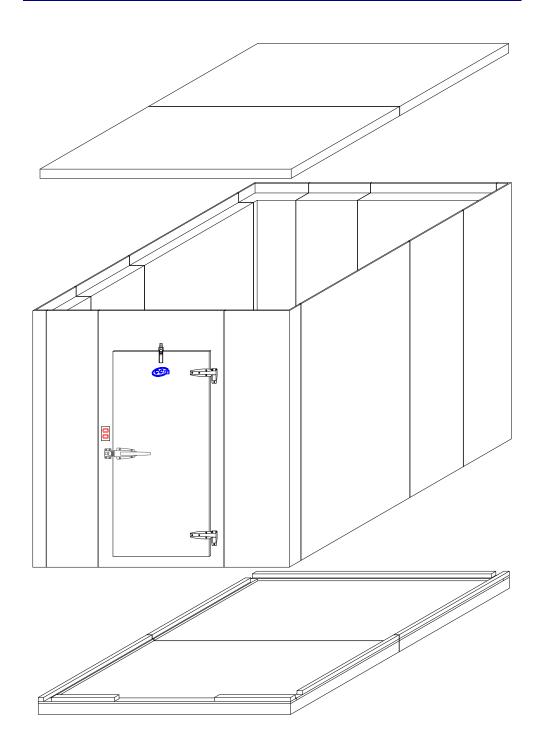


Carroll Coolers 19705 Hwy. 30 West Carroll, IA 51401 1-800-764-6834 Fax 712-792-6748

E-Mail: sales@carrollcoolers.com

Walk-In Cooler and Freezer Installation Manual





Walk-In Coolers & Freezers

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The information in this manual is a work in progress. We never stop improving and refining our products. If you have a question and do not find it addressed in this manual, please let us know and we will do our best to accommodate you. Please note: Everything in this manual may not apply to what you have purchased.

We welcome the opportunity to be of service to you.

Customer Service Department: 1-800-764-6834 Email: sales@carrollcoolers.com



Walk-In Coolers & Freezers

****Important Notice****

This shipment has been carefully inspected, checked and properly packaged before shipment. The shipping containers and our method of packaging have been thoroughly tested. We fully expect your merchandise to arrive in good condition.

When the carrier picked up the shipment at our dock, it was in good condition and technically it became your property at that time. Any damages, whether obvious or hidden, must be reported to the transporting company within 15 days of receipt of the shipment at your premises to avoid forfeiting claims for damages.

If the damage is obvious, write "RECEIVED DAMAGED" on the freight bill and have the driver sign the freight bill.

The packing list enclosed should be checked upon arrival to be sure no shortages exist. Once the freight bill has been signed free and clear, we have no recovery from the carrier on shortages or obvious damages and CARROLL COOLERS cannot accept responsibility. If there are any questions regarding this shipment please notify us within 7 days.

SHIPMENTS DAMAGED IN TRANSIT BUT NOT OBVIOUS UPON

Leave the item(s), packing material and carton "AS IS". Notify your carrier's local office and ask for an immediate inspection of the carton and its contents. Notify CARROLL COOLERS of your problem.

After inspection has been made by the carrier and you have received acknowledgment in writing as to the damage, notify CARROLL COOLERS for the action you desire to resolve the problem. Be prepared to provide your purchase order number, our tag number, and our invoice number

It is your responsibility to follow the above instructions or the carrier or CARROLL COOLERS will not honor any claims for damage.

TOOLS AND SUPPLIES GENERALLY REQUIRED

Some of the tools listed below may be required for specific types of installations if the walk-in is supplied with a floor, vinyl screed, wood screed, or flat bottom sidewalls. If you are unsure or have any questions contact the CCI walk-in technical department.

- * Tape measure * 4' level * Chalk line *Miter saw *Adjustable wrench
- * Screwdrivers *Shims *Lag anchors or suitable fasteners
- * Wrench and Socket set * Hammer * Ram set gun * Power drill

NSF certified silicone sealant (to get you started) and cam-lock wrench are provided Supporting material such as Cable or Threaded rod is supplied by others

THINK SAFETY

USE THESE SAFETY TIPS

- 1. To avoid injury while assembling the walk-in, CCI recommends protective eye gear, hard hat, gloves, and steel toe footwear.
- 2. Prevent back injuries. Walk-in panels are heavy and care should be taken using ergonomic lifting and handling methods.
- 3. Any electrical work should be done by a licensed electrician.
- 4. Any refrigeration work should be done by a licensed refrigeration company.
- 5. Never work alone. Always have another person helping or observing in case of an emergency.
- 6. Follow installation instruction pages. The information is designed to assist in the correct method of walk-in assembly.
- 7. If unsure about something, contact your local representative or the CCI walk-in technical department at 1-800-764-6834.



Walk-In Coolers & Freezers

Job Site Preparation

A level floor is critical to the proper installation of any walk-in cooler or freezer, even if the walk-in has a floor. The high point in the floor must be determined and then shims (not furnished) must be used as required to assure the floor or screeds are level.

A stable floor is required in order to have a properly functioning walk-in. Any movement of the floor underneath the walk-in will void the factory warranty. This movement can be caused by conditions such as the soil freezing and thawing.

It is important to check overhead for any obstructions that would cause a safety hazard (electrical wires, steam pipes or any other items that could cause accidents). It is also important to check at this time for obstructions that interfere with the height of the walk-in.

The installer must see that there is proper ventilation and humidity control around both the top and all walls of the walk-in. A minimum of 3" air space should be maintained along with adequate ventilation to prevent condensation. Air should be moving between 30-45 minutes out of every hour around a indoor walk-in. If dew point is reached on the outside surface of the walk-in, condensation will occur. The damage this condensation causes will NOT be covered by Carroll Coolers warranty.

Job Site Layout

It is extremely important that the walk-in is installed both level and square. A few extra minutes used to square and level the walk-in at the beginning stages of installation will save a lot of time and aggravation later.

Remember that we recommend that a 3" air space around all (4) four sides of the walk-in.

To find square, you must first find your start point. From this point chalk a line 3' down.

Now go back to your start point and chalk a line over 4'. You now can check for square by connecting the end of the 2 chalk lines. This measurement should be 5'. If this is not true you must now move one of the 2 lines in or out until you come to this 5' line. Continue as shown in Diagram 1 (on page 5) until you have exceeded the lengths and widths of your box.

The layout lines that you have now established will be the exterior of the walk-in. If your walk-in is wood screed you will now mark a line 3/4" on the inside of that line. This dotted line (see Diagram 1 on page 4) is the location for the outside edge of the wood screed that is to be caulked and fastened to the concrete floor with a Ram Set gun or other fastening device. If your walk-in is vinyl screed you will work off the 1st established line, this line will be the outside edge of the vinyl screed that is to be caulked and fastened to the concrete floor with a Ram Set gun or other fastening device.

As you install the wood screed you must hold the screed back 5 1/2" for 4" walls and 7" for 5-1/2" walls at the corners (see Diagram 2 on page 4). A detail of your screed layout will be included with your blueprint for the new walk-in.



Walk-In Coolers & Freezers

Installation Manual

Job Site Layout Continued:

Diagram 1

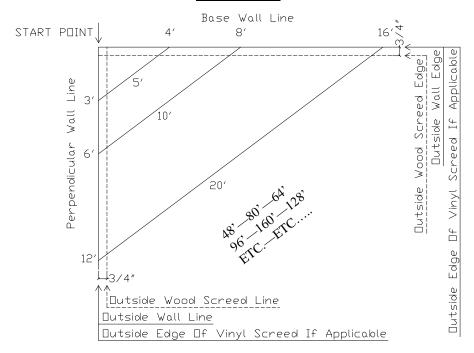
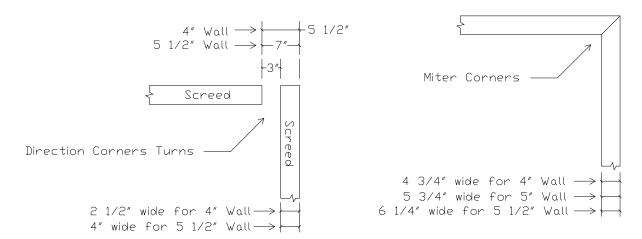


Diagram 2



Wood Screed

Vinyl Screed

Note: Individual screed layouts are provided with walk-in blueprint included in the parts box. Both types of screed are sent in 96" pieces. They will need to be cut to length and mitered if needed on site.



Walk-In Coolers & Freezers

Assembly of Walk-In

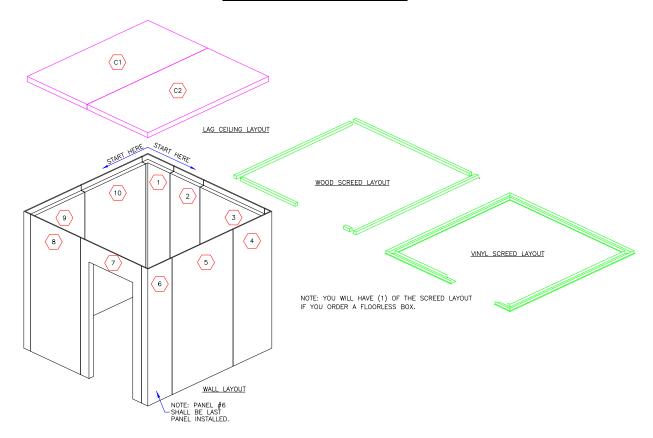
The following drawing is a general plan and will not correspond to the actual cooler or freezer you are now installing.

Not all panels are marked with a panel number that will match your actual drawing of the walk-in that you are currently installing. Most panels are interchangeable with other like panels, non interchangeable will be marked with a panel number. These numbers will be on the end or side of each panel. Each panel will have a serial number on the rail edge.

It is very important to place a large bead of sealant on the male edge behind the gasket (Warm side of panel) before fitting them together. The silicon provided by CCI is enough to get you started. Silicon and/or butyl for installation is by other.

You may find that due to site restrictions it is impossible or impractical to begin with the #1 panel and continue with the exact sequence of the panel numbers on your walk-in plan. The basic rule to apply in deciding which panel to start with, is to start with the corner panel that is the most inaccessible. If your walk-in is a combo box and one side has a floor, this will be the first compartment to install. Use 5/16" hex wrench provided in parts box to turn cams. If the cam hook does not engage the lock on the pin in the adjoining panel, it must be reset. To reset the cam, reverse the rotation until tight.

Walk-In Without Floor

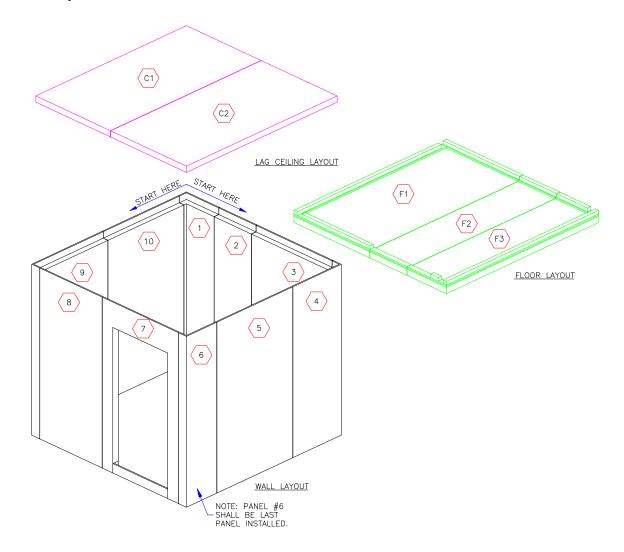




Walk-In Coolers & Freezers

Walk-In With Floor

Note: Not all floor panels will be shipped with your Wood Screed installed. Quick Ship walk-in floors have the screed shipped loose so you can move your door accordingly. If your screed is not installed you will need to refer to your individual blue print showing the screed layout for the location and length required. All wood screed is sent in 96" pieces.



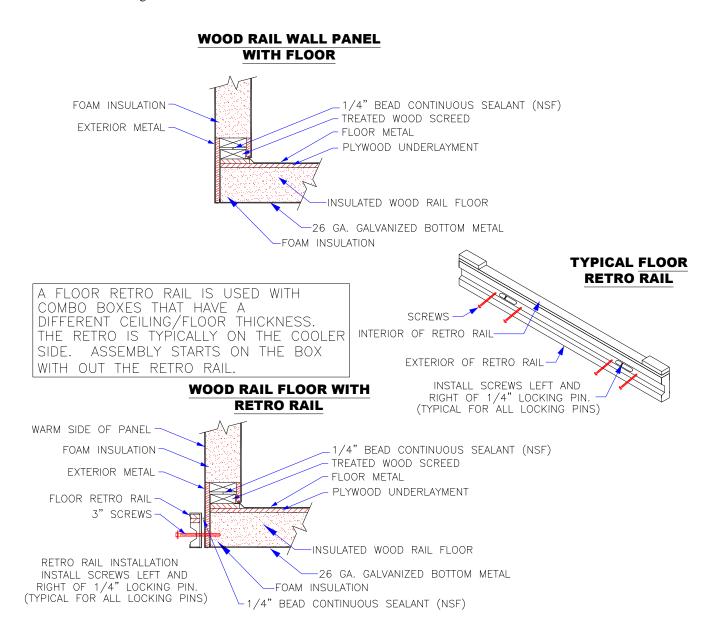


Walk-In Coolers & Freezers

Installation Manual

Floor Panel Installation

The insulated floor supplied by Carroll Coolers is installed similar to the wall panels. It is very important to place a large bead of sealant on the male edge behind the gasket (Warm side of panel) before fitting them together. Once the walk-in is erected, you must place a small bead of sealant over each floor panel seam and around the buttons used to plug the cam wrench holes to insure that no moisture infiltrates the floor panel. If you have a combo box using retro rails, you must install the complete box (typically the freezer) first before attaching your retro rails to continue building off them.

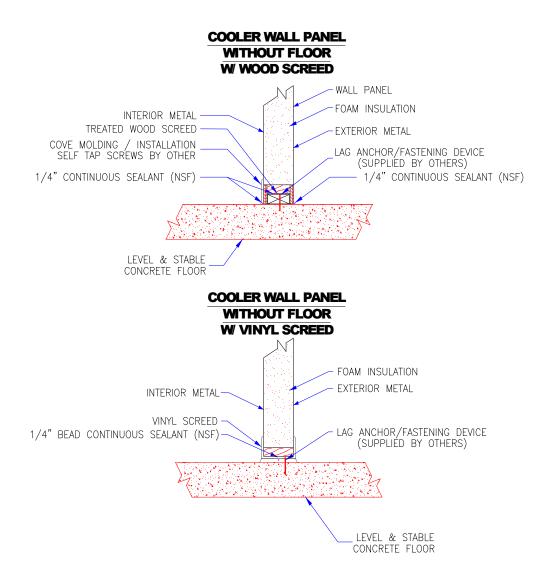




Walk-In Coolers & Freezers

Wall Panels

See drawings below for sealant instructions on Wall Panels. The first two diagrams are for walls with non insulated concrete floor. It is very important to place a large bead of sealant on the male edge behind the gasket (Warm side of panel) before fitting the wall panels together. The silicon provided by CCI is enough to get you started. Silicon and/or butyl for installation is by other.

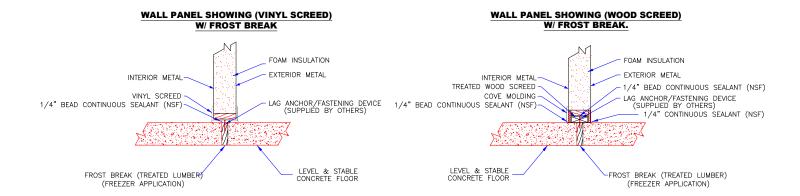




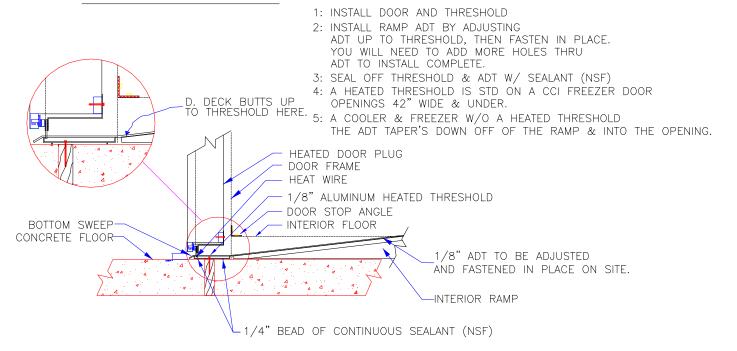
Walk-In Coolers & Freezers

Wall Panels Continued

If an insulated sub floor with a concrete wearing surface is used, the insulation must be installed in the proper manner. In some cases, ventilation beneath the insulation must be used. For more information and suggested methods of insulating beneath the concrete slab, please call Carroll Coolers Inc. at 1-800-764-6834.



INTERIOR RAMP FREEZER





Walk-In Coolers & Freezers

Door Details

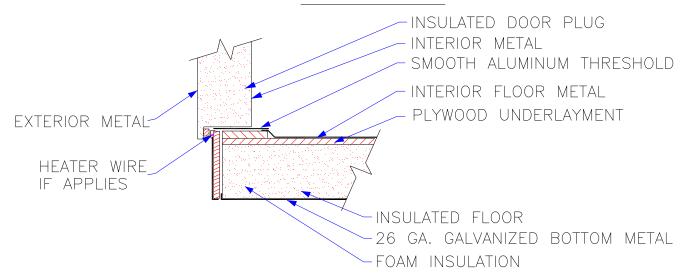
It is extremely important to make sure that all doors and jambs are properly aligned prior to installing the ceiling of the walk-in. Proper alignment requires that each door jamb is plumb and should be checked with at least a 4' spirit level. The door opening must be square and should be checked by measuring diagonally from each direction.

For all threshold applications, after the door and frame are installed, it is necessary to install the threshold. All thresholds require caulking between and around the perimeter of the threshold & finished floor. After caulking is complete, fasten the threshold to the floor.

Freezer door plug & door frame heaters are 120 volts and the electricity should never be turned on until after the refrigeration system is operating. Without refrigeration the heaters will/can become excessively hot and will cause a short circuit. If this happens the heater will need to be replaced. Note: You need to wire your heater wire to constant power. You do not want it turning off with your light switch.

If your walk-in door is opening through an existing wall you must contact Carroll Coolers for a drawing giving the recommended rough opening for your application.

TYPICAL OVERLAP DOOR WITH FLOOR



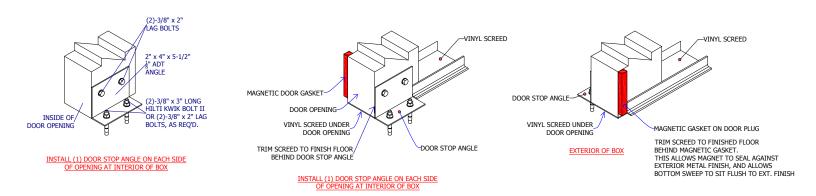


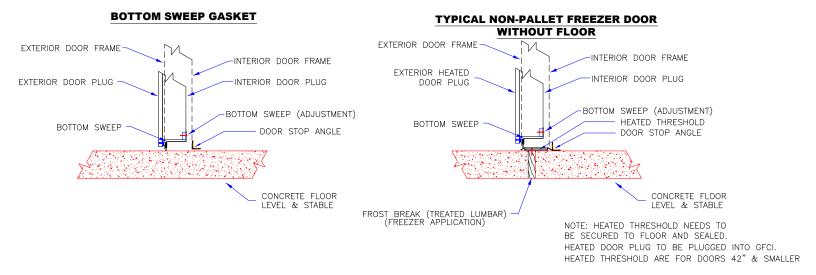
Walk-In Coolers & Freezers

Door Details Continued

The bottom of the door without a floor has a wiper gasket that is adjustable. Simply loosen the screws on the bottom of the door and slide the bracket connected to the wiper gasket up or down to the desired level. The wiper gasket should gently sweep the threshold or the concrete floor.

Two angle brackets (door stop angles) are furnished and should be fastened to the floor at each of the interior door jambs after the door is properly sealing to the frame. Angle brackets will hold the frame in place. If you are using Vinyl Screed you must notch back the vinyl cove at magnetic gasket and door stop angle area. See Detail below. To seal door to the frame, push door frame legs in or out until the magnetic gasket seals tightly, then fasten the brackets to floor.



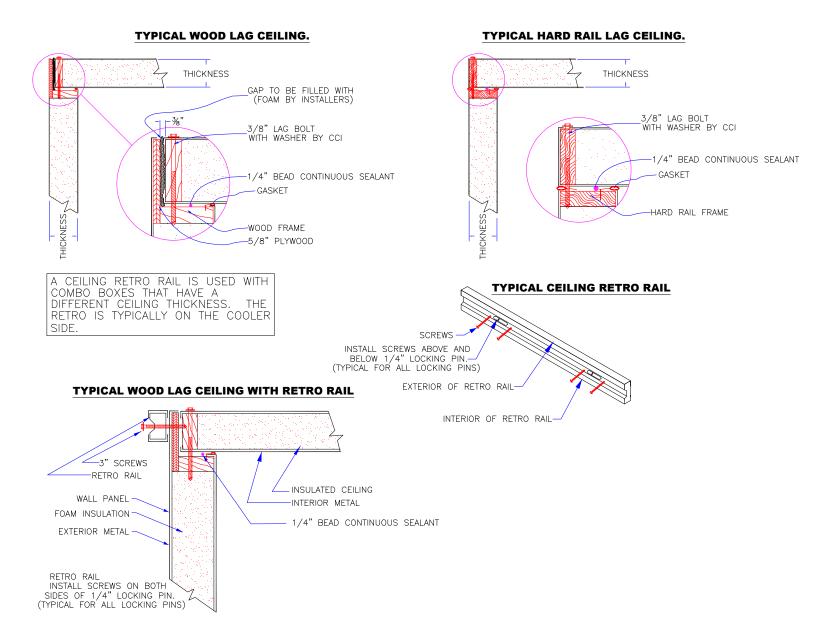




Walk-In Coolers & Freezers

Cam and Lag Down Ceilings

Carroll Coolers has (2) two ceiling styles. Standard style is the wood rail lag down style ceiling. The ceiling panels fit inside the skirt on top of the wall panels and are bolted down using the lag bolts supplied by Carroll Coolers. Silicone caulk should be used prior to laying the ceiling on the wall panel. The void between the outside edge of the ceiling and the wall panel should be filled with foam before the refrigeration system is activated. Spray foam is by other.



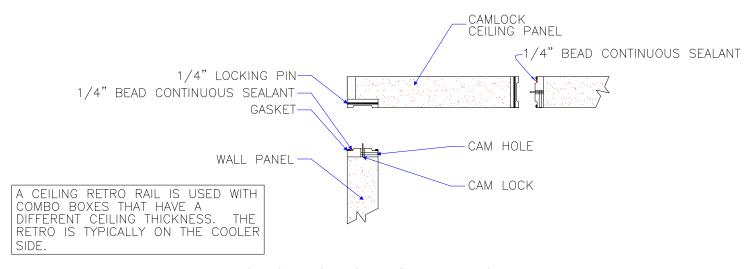


Walk-In Coolers & Freezers

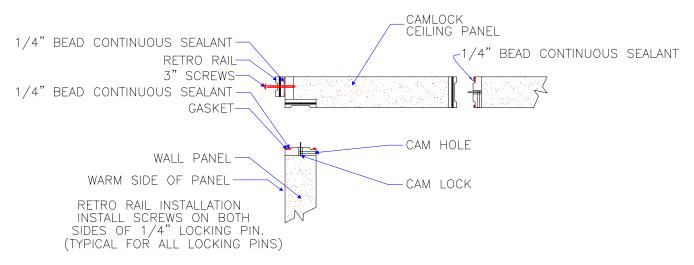
Ceilings Continued

The cam lock style ceiling is available as an option. In this case, the ceiling panels are placed on top of the wall panels as they are erected. The cams are locked in place in the same manner as the wall panels. The cam down ceiling should be properly caulked prior to activating the cam lock from inside the walk-in.

TYPICAL CAM DOWN CEILING



TYPICAL CAM DOWN CEILING WITH RETRO RAIL



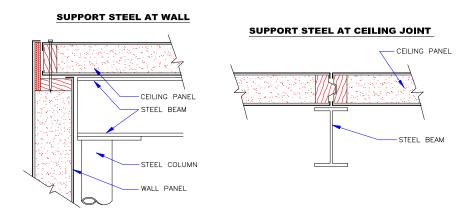


Walk-In Coolers & Freezers

Ceiling Support Details

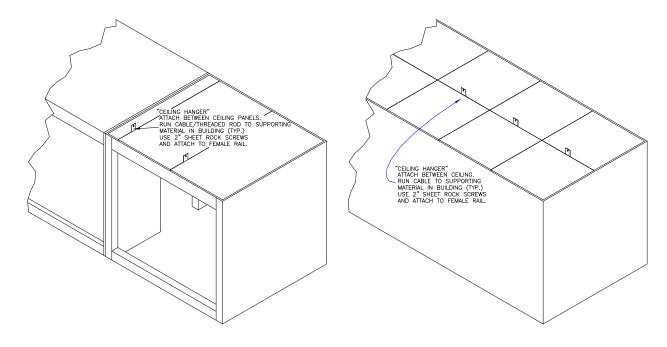
There are various methods to support a ceiling. The most common methods are shown in the following drawings.

Interior Ceiling Support Details



Exterior Ceiling Support Details

When a rough (buck) opening is required in a walk-in wall and/or split ceiling panels are needed, it is necessary to support the ceiling panels above the opening area and/or at the split ceiling panel seams. This support is done by use of ceiling hangers and suspension materials (see detail below). The ceiling hanger is fastened to the female rail of the panel by (2) 2"-3" sheet rock screws before installing the ceiling panel. After panel is installed, the suspension material is attached to the overhead building structure and to hanger bracket. The length of suspension material is adjusted until tension of material is observed to relieve weight on door frame area and inside height of walk-in is correct. Ceiling hangers are required for panels in length from 12' to 16'. (Supporting material such as Cable or Threaded rod is supplied by others)

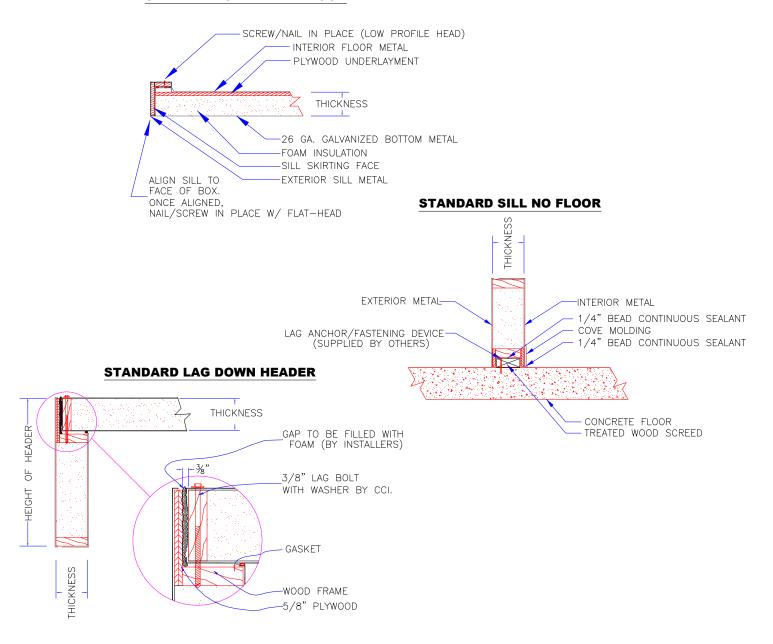




Walk-In Coolers & Freezers

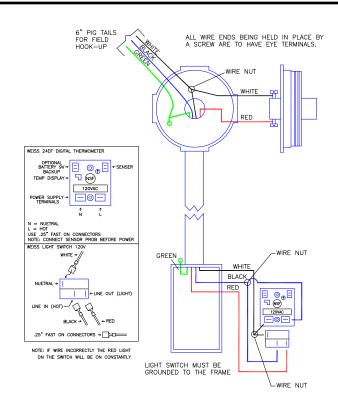
Header and Sill Details

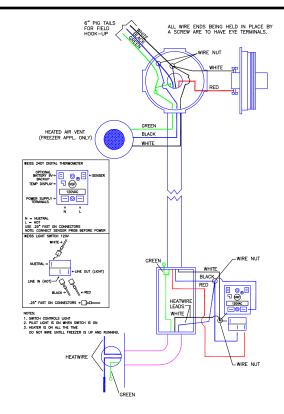
STANDARD SILL WITH FLOOR





Walk-In Coolers & Freezers

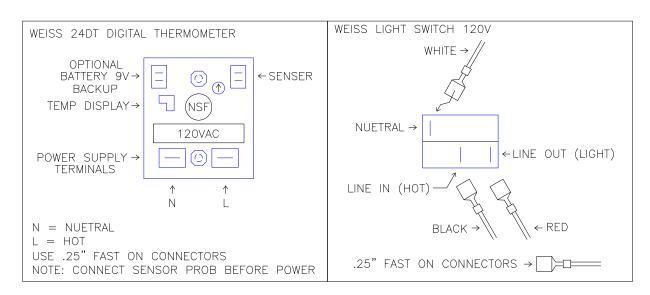




<u>Cooler Door Electrical Diagram</u> Weiss Switch & Digital Thermometer

Freezer Door Electrical Diagram
Weiss Switch & Digital Thermometer

WEISS SWITCH AND DIGITAL THERMOMETER

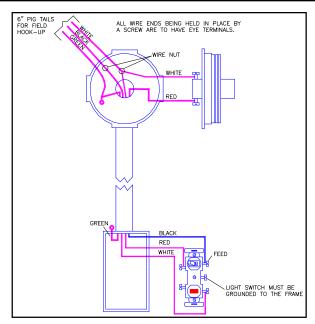


All Doors are 115/60/1. The light switch is rated for 15 amps.

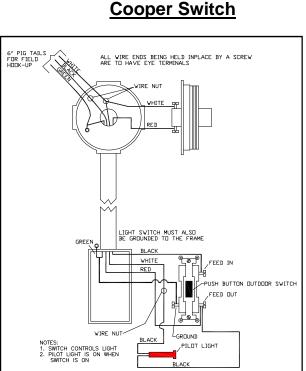
Warning! Do not turn on heat wire until refrigeration is running, as the heat wire will short out from excessive heat.



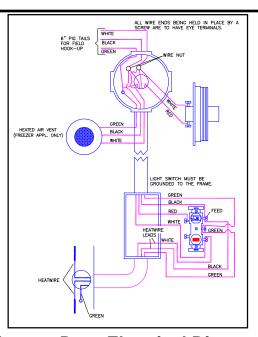
Walk-In Coolers & Freezers



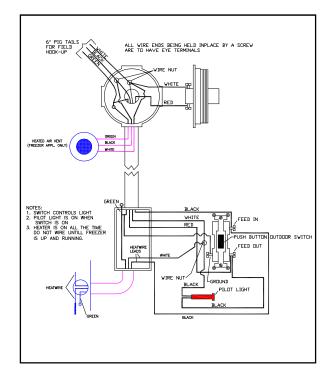
Cooler Door Electrical Diagram
Cooper Switch



Cooler Door Electrical Diagram
Outdoor Hubbell Switch



Freezer Door Electrical Diagram
Cooper Switch



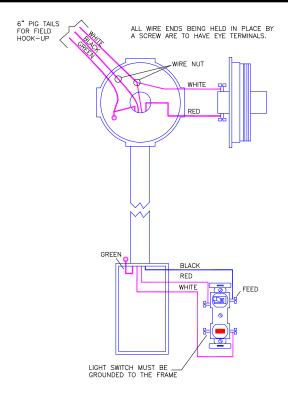
<u>Freezer Door Electrical Diagram</u> <u>Outdoor Hubbell Switch</u>

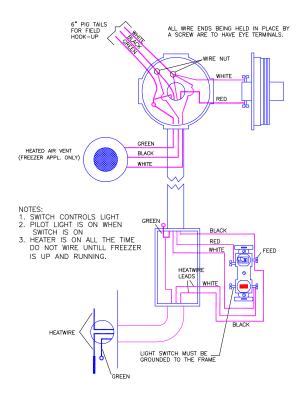
All Doors are 115/60/1. The light switch is rated for 15 amps.

Warning! Do not turn on heat wire until refrigeration is running, as the heat wire will short out from excessive heat.



Walk-In Coolers & Freezers





Cooler Door Electrical Diagram Leviton Switch

Freezer Door Electrical Diagram
Leviton Switch

Electrical Information

Door Size	Light	Door Frame- Heater	Optional Vision Port	Pressure Relief Port (Freezer Only)	Heated Door Plug
30" Wide	23 watt CFL Max	1.06 Amps	.6 Amps	.2 Amps	3.6 Amps
34" Wide	23 watt CFL Max	1.06 Amps	.6 Amps	.2 Amps	3.76 Amps
36" Wide	23 watt CFL Max	1.06 Amps	.6 Amps	.2 Amps	3.8 Amps
42" Wide	23 watt CFL Max	1.17 Amps	.6 Amps	.2 Amps	4.0 Amps
48" Wide	23 watt CFL Max	1.26 Amps	.6 Amps	.2 Amps	4.2 Amps
54" Wide	23 watt CFL Max	1.35 Amps	.6 Amps	.2 Amps	4.4 Amps
60" Wide	23 watt CFL Max	1.43 Amps	.6 Amps	.2 Amps	4.6 Amps
30"X36"	N/A	.52 Amps	N/A	.2 Amps	
24"X34"	N/A	.48 Amps	N/A	.2 Amps	
24"X63"	N/A	.70 Amps	N/A	.2 Amps	

All Doors are 115/60/1. The light switch is rated for 15 amps. Warning! Do not turn on heat wire until refrigeration is running, as the heat wire will short out from excessive heat.



Walk-In Coolers & Freezers

<u>Membrane Roof cap Installation Instructions</u> (Free Standing)

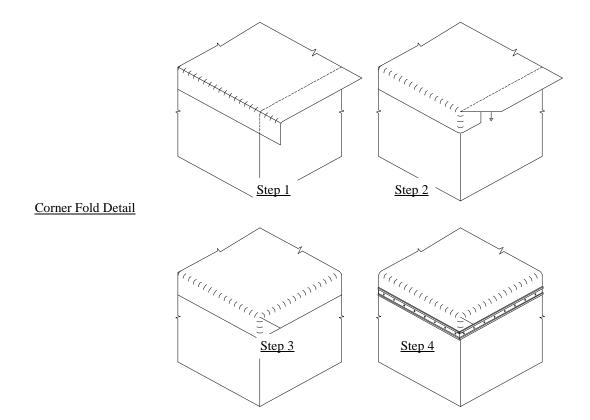
These instructions are for installing Pro-Shield EPDM material on a walk in cooler with no parapet walls. This is a loose laid one piece installation with no roof penetrations.

Step 1: Unroll the EPDM (rubber) sheet and center in on the roof so it overlaps the edge on all sides by a minimum of 3 inches. Allow the material to relax for at least 10 minutes.

Step 2: Start at one corner and fasten the termination bar one the side of the cooler a minimum of ½ inch below the roof line. The termination bar should be fastened with the angle toward the ground and kicking out from the side of the cooler. Slightly tug the rubber below the bar and shoot the screw on a slight down angle. Do not stretch the rubber.

Step 3: Continue fastening the termination bar until you reach the corner. The termination bar can either be butted at the corner, or can be bent around the corner. Tuck and fold the corner as illustrated in the figure below. Continue attaching termination bar and folding the corners until the entire roof is secured. Put a screw in every hole in the termination bar.

Step 5: Using a razor blade knife trim all of the excess rubber below the termination bar.





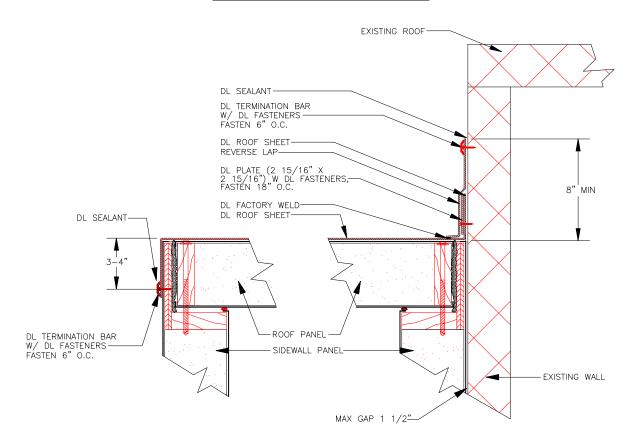
Walk-In Coolers & Freezers

Membrane Roof cap Installation Instructions (Attaching to building)

- Step 1: Check the roof top of the walk-in and remove any foreign matter. Recess the lag bolts and seal all protruding rough edges with caulk. This will prevent any chance of penetrating or wearing a hole in the membrane roof cap.
- Step 2: Verify the overall length & width of the membrane roof cap. The membrane should be long enough to overlap 6" on three sides of the walk-in and when unrolled a 8-12" reverse piece will appear. This side is to be aligned along the building wall.
- Step 3: The smooth (shiny) finish surface of the white or gray membrane is the exposed side. If tan material is used the rough side is exposed. The 3" fastening tabs are on the bottom side of the membrane.
- Step 4: Start at the end attaching to the building. Attach the first 3" fastening tab to the base of the building wall were it meets the walk-in. This needs to be far enough up the wall that the entire 3" tab is on the building. Start in the middle of the walk-in and attach this using 1-1/2" screws and the Duro-Last poly plates provided every 12" on center. After the first tab is secured the 8"-12" reverse piece can be fastened to the building using the termination bar and the 1-1/2" screws fastened 6" on center also starting in the center. When this is completed a bead of sealant should be applied above the termination bar at the connection to the building.
- Step 5: Continue over the rest of the unit, fasten the 3" tabs by using the 1-1/2" self tapping screws and fastening plates. Always starting in the center and working to the edges placing the screws and plates 12" on center along the fastening tabs. Always pull the slack out of the membrane before starting another row of fasteners. Vice grips are ideal for this process.
- Step 6: On completion of the fastening tabs on the roof cap, tuck and fold corners as shown in illustration and install termination trim around the perimeter of the walk in unit ,approximately 3-4" down the sides of the walk -in. They can either be butted at corners or be bent around them. Use the 1-1/2" screws spaced at least every 6" on center. Shooting them on a slight downward angle. Then use a razor blade knife to trim the excess rubber below the termination bars AFTER the entire roof is completed.

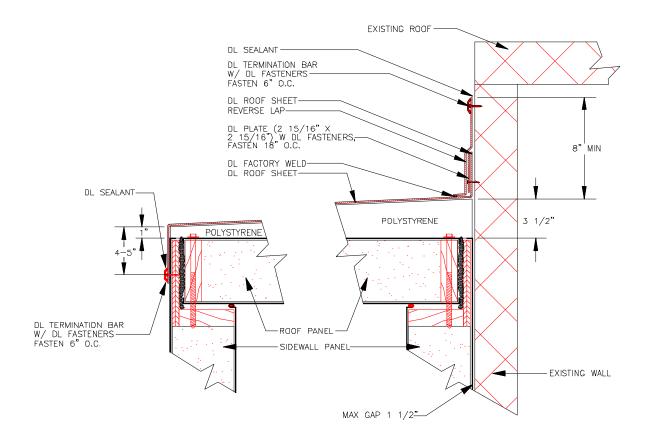


Outdoor Membrane Roof





Outdoor Membrane Roof with Sloped Roof





Walk-In Coolers & Freezers

Dial Thermometer Calibration

Your dial thermometer is an accurate thermometer that conforms to NSF standards. This standard states that the thermometer must be accurate within plus or minus 2 degrees Fahrenheit.

The thermometer should be checked after installation because of the possible rough handling during shipment. To adjust the thermometer you should fill a 32 ounce cup with ice and cold water. Place the thermometer probe in the cup for approximately 1 minute for the temperature reading. The temperature should read 32 degrees Fahrenheit, plus or minus 2 degrees Fahrenheit. If the thermometer needs adjustment remove lens assembly and place index finger at left side of the wide end of pointer, close to the hub. Insert small screwdriver in pointer slot and turn slowly clockwise for lower temperature and counter-clockwise for a higher setting. Adjust to proper setting and replace lens assembly.

If the needle has fallen off during shipment, remove lens assembly, put needle on stem with pointer down (6 o'clock). Gently press needle on stem. Test and calibrate using the procedure described above. Replace lens assembly.

Final Inspection

- 1. All locks are engaged and wrench ports closed with cap buttons.
- 2. Entrance door operates smoothly and seals properly.
- 3. Thermometer has been adjusted to proper temperature.
- 4. All excess sealant has been removed and residue cleaned up with proper cleaner.

Maintenance

- 1. Wipe up spills with warm water and mild soap. (never use caustic or abrasive cleaners)
- 2. To clean up dirt or fingerprints from wall surfaces, use the same procedure above.
- 3. Clean door gaskets regularly.
- 4. Check and lubricate door hinges using petroleum jelly as needed.
- 5. If any hardware becomes loose or malfunctions, contact CCI for information or replacement.
- 6. The top of the walk-in is not a storage area. Damage caused by the storage of anything on the top of the walk-in is not covered by warranty.



Walk-In Coolers & Freezers

One (1) Year Warranty

Carroll Coolers warrants to the original purchaser every walk-in cooler or freezer to be free from defects in material and factory workmanship under normal use and service for a period of one (1) year (not to exceed one (1) year and three (3) months from original shipment date). CCI will repair or replace, not including freight charges, the refrigeration and mechanical and electrical components of any CCI walk-in cooler or freezer that becomes defective. Any defective parts to be repaired or replaced must be returned to the destination designated by CCI, transportation charges prepaid, and they must be properly packaged and identified with a return material tag. This return material tag must be obtained from CCI. The serial and model number of the part and the date of original installation of the CCI walk-in must be given. After thorough examination of the defective parts, the decision of the CCI sales department shall be final. CCI will not assume any responsibility for any expenses (including labor) incurred in the field incidental to the repair of and replacement of equipment covered by this warranty.

Additional Four (4) year Compressor Warranty

At an additional charge, CCI warrants to the original purchaser the refrigeration compressor for a period of four (4) years beginning after one (1) year from original shipment. The four-year warranty, when purchased covers the replacement of the compressor only. The refrigerant and labor is expressly not included in this warranty. **Contact factory for proper replacement procedures.**

Ten (10) Year Limited Panel Warranty

CCI warrants to the original purchaser, the foamed-in-place polyurethane panels manufactured and sold by them, to be free from defects in material and workmanship under normal use and service for a period of ten (10) years from the date of original installation by an authorized representative. This warranty is void if the panels have been moved from the original site and reinstalled.

General Provisions Applicable to all Walk-In Warranties

CCI shall not be liable for any breach of any express warranty set forth above unless CCI is informed immediately upon the discovery of defective part(s). The warranties described above are not transferable and shall operate only in favor of the original buyer/user. These warranties shall not apply to any goods, or any part thereof, which may have been subject to any damage in transit, accident, negligence, abuse or misuse, unauthorized alteration or repair, acts of nature or failure to follow any of CCI's manuals or instructions, if in CCI's sole judgment, such act, omission or event has detrimentally affected the physical condition, use or operating qualities of the product.

CCI MAKES NO WARRANTY, EXPRESS OR IMPLIED, BY REASON OF LAW, STATURE OR OTHERWISE, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE, AND IMPLIED WARRANTIES ARE HEREBY DISCLAIMED. CCI SHALL NOT BE LIABLE FOR LOSS OF GOODS, MERCHANDISE OR OTHER PROPERTY, OR LOSS OF PROFITS, RESULTING FROM PRODUCT DEFECTS. IN NO EVENT SHALL CCI'S LIABILITY UNDER ANY CIRCUMSTANCES FOR ANY BREACH OF CONTRACT OR FOR ANY OTHER CLAIM BY BUYER AGAINST CCI EXCEED THE CONTRACT PRICE OF THE GOODS SOLD HEREUNDER WITH RESPECT TO WHICH SUCH CLAIM ARISES.



Walk-In Coolers & Freezers

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