

fastfit

Packaged Coldroom

Installation Instructions

GB Operating instructions



Important

It is important that the installation instructions are read through and thoroughly understood before commencing the installation of the coldroom.

Follow the step by step guide ensuring that each stage of the installation is followed correctly as failure to do so could effect the operation of the unit and may result in the warranty agreement being invalidated

Environmental Management Policy

Product Support and Installation Contractors

Foster Refrigerator recognises that its activities, products and services can have an adverse impact upon the environment. The organisation is committed to implementing systems and controls to manage, reduce and eliminate its adverse environmental impacts wherever possible, and has formulated an Environmental Policy outlining our core aims. A copy of the Environmental Policy is available to all contractors and suppliers upon request.

The organisation is committed to working with suppliers and contractors where their activities have the potential to impact upon the environment. To achieve the aims stated in the Environmental Policy we require that all suppliers and contractors operate in compliance with the law and are committed to best practice in environmental management.

Product Support and Installation Contractors are required to:

Ensure that wherever possible waste is removed from the client's site, where arrangements are in place all waste should be returned to Foster Refrigerator's premises. In certain circumstances waste may be disposed of on the client's site, if permission is given, where the client has arrangements in place for the type of waste.

If arranging for the disposal of your waste, handle, store and dispose of it in such a way as to prevent its escape into the environment, harm to human health, and to ensure the compliance with environmental law. Guidance is available from the Environment Agency on how to comply with the waste management 'duty of care'.

Ancillary Items

- Floor Plugs CMFOS1XT826 GREY
- Floor Plug Pins CMFOS1XT827 GREY
- Mastic Hansil 580 Grey 400ML
- Key Hexagonal 8MM A/F Coldroom Panel Coldroom Warning Label (Roof)
- Plugs LD POLY White BPLDP1/2"
- Silicone Sealer White 310ML
- Silicone Sealer Aluminium 310ML
- Skeleton Dispenser Gun
- Cleaning Materials

Tools Required

- 2ft or 3 ft spirit level
- 1.5 mtr (5ft) long, 50mm (2") x 50mm (2") straight plank of wood
- Rubber Mallet
- Pozi Screwdriver
- Light weight hammer
- Flat Bladed Screwdriver
- Electrical Screwdriver
- Pair of Pliers
- Electric Drill c/w
- 4.2 mm Drill Bit
- Step Ladder

Disposal Requirements

If not disposed of properly all refrigerators have components that can be harmful to the environment. All old refrigerators must be disposed of by appropriately registered and licensed waste contractors, and in accordance with national laws and regulations.

It is important that the following steps are fully understood prior to commencing the installation

STEP 1.

Preparation

Prior to commencing the installation familiarise yourself with the entire assembly procedure including joining methods and sealing.

STEP 2.

Uncrating

1. Check the crates or packaging for damage. If damaged inform the lorry driver, note the delivery number, inform the factory immediately (or your insurance company, if outside the UK).
2. Remove crate or packaging carefully. Never use the coldroom panels as a lever point for crowbars.
3. The panels are loaded onto the pallet in sequence for easy assembly with one of the floor panels at the top, beneath that is the door and door jamb. Remove the floor panel and place to one side followed by the door and jamb.
4. It is suggested that the remaining panels be left on the pallet until required.
5. The refrigeration system panel is packed separately and should be left on the panel until required.

STEP 3.

Floor Preparation

The floor that the coldroom is to be erected on must be clean, dry and flat. The floor must be level within ± 3mm.

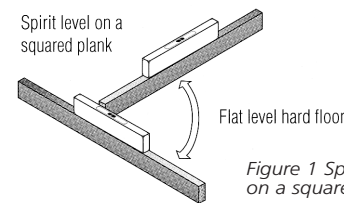


Figure 1 Spirit level on a squared plank

If the floor is not level the wall and ceiling panels will not lock correctly. Check the floor using a spirit level on a 2-metre plank, pointing the plank both along and across the floor.

STEP 4.

Panel Locks

Foster coldroom panels lock together with an effective locking system (fig 2).

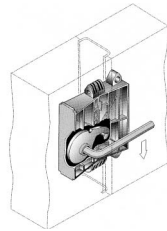
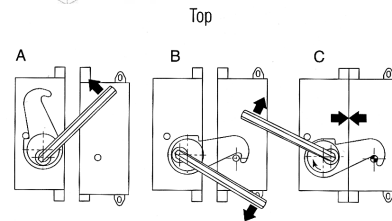


Figure 2 Fosterlok



Bottom Lock is 150mm from the inner clad

Figure 3 Locking procedure

1. Insert the hexagonal locking wrench into its lock hole, making sure it is fully engaged.
2. Turn the wrench fully anti-clockwise to raise the locking arm (fig 3A) and engage cam action.
3. Now turn the wrench clockwise and the locking arm strikes the pin in the adjacent lock (fig 3B)
4. Continue turning the wrench to lock the panels securely (fig 3C). If the lock fails to engage turn the wrench anti-clockwise and repeat 1 - 4.

NOTE: Do not use unnecessary force as this may impair the locking mechanism and damage the lock

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NOTE: Only when the previous steps are fully understood should you proceed with the installation.

Coldroom Installation

Use the 'Coldroom Assembly Detail', found on a separate sheet, to give the correct panel layout for the coldroom you are about to erect.

STEP 5.

Floor Panels

Fit the floor panels with the patterned side up and the smooth side down. Ensure sub-floor is smooth, flat, level and hard.

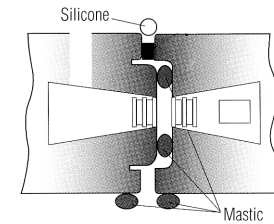


Figure 4 Floor/Floor joint

Before laying the first floor panel into position apply a bead of mastic as shown to all outer perimeter edges of the panel, (fig 1) ensuring a moisture seal between the insulated floor panel and the sub-floor. Follow the same procedure for the second and any subsequent floor panels but also apply two beads of mastic to the female extrusion (fig 1) prior to locking panels together.

NOTE: Packing is not advised to adjust insulated floor panel levels.

Do not use sand as a sub-floor base.

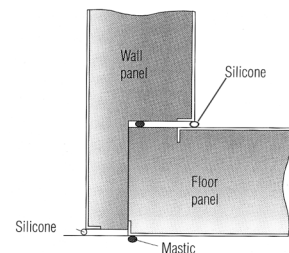


Figure 5 Wall/Floor joint

STEP 6.

Refrigeration System Panel

Transport the refrigeration panel on its pallet as close as possible to the point of installation. Apply mastic to the top edge of the floor, female side and the top of the 'L' shaped section of the panel (see fig 5). Manoeuvre the panel into position.



Figure 6

Carefully slide the refrigeration system panel approximately into place as the corner, when fitted, will determine the final position. Avoid pressing against the hinged cover as this could result in damage to it.

NOTE: the bottom lock is always 150mm (6inches) from the floor on all corner and wall panels

Wall/Corner Panels

Prior to positioning and locking the corner and wall panels together:

Apply two beads of mastic as shown (see fig 7) to the female extrusion only.

Position and lock adjacent wall / corner panels using the same locking procedure as described in 'Panel Locks' (Step 4).

Lock the wall panel to the floor panel securing them in to place.

NOTE: where access to external wall joints is not possible after installation of coldroom, insert silicone seal at the same time as mastic seals (see fig 7).

Do not silicone other joints at this time.

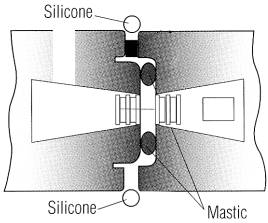


Figure 7

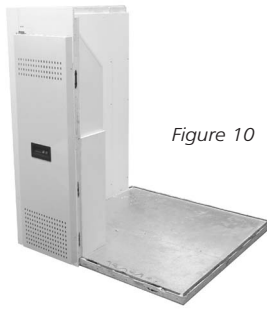


Figure 10



Figure 11

Front Left Hand Corner

Select the left-hand corner and adjacent wall panel apply mastic to the edge of the female side of the wall panel (see fig 7) and lock the corner to the panel. Fit the white buttons into the corner/ wall lock holes and apply a bead of silicon to the internal joint between the wall and corner.

Apply mastic to the edge of the floor, female side of the corner and the top of the 'L' shaped section also (see fig 5 and 7).

Lift the corner/ wall panel and slot into place.

To lock the corner/ wall panel to the refrigeration system panel it is necessary to open the door of the refrigeration system panel (see fig 8). Remove the two screws, one near the top of the door and one near the bottom, from the opposite edge to the hinges securing the door in the closed position. Remove the white buttons from the holes adjacent to the lock holes, Insert the hexagonal locking wrench into its lock hole, making sure it is fully engaged, and lock as described previously.

Fit the white buttons into the lock holes and refit the white buttons in the holes in the door.

The mains lead for the coldroom is found behind the refrigeration system door.

Pass the cable through the slot provided in the top of the door ensuring that it does not get entangled in any of the components.

Close the door and replace the screws ensuring they are fully tightened.

With the refrigeration system panel and corner locked firmly into place refer to the Coldroom Assembly Detail for selection of the next wall panel.

Select the next wall panel (see fig 9, 10 and 11), and any subsequent side wall panel, seal and lock into place until the rear corner is reached.

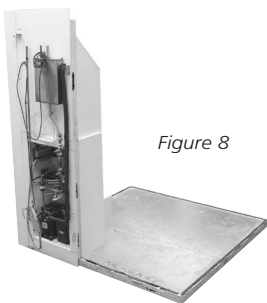


Figure 8



Figure 9

Refer to the Coldroom Assembly Detail for selection of the next wall panel and continue to erect the rear wall, seal and lock into place until the rear corner is reached (see fig12, 13 and 14).



Figure 12



Figure 13



Figure 14

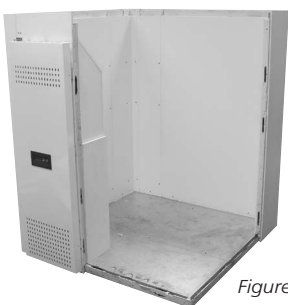


Figure 15

Refer to the Coldroom Assembly Detail for selection of the next wall panel and continue to erect the side wall, seal and lock into place but do not fit the front corner (see fig15).

STEP 7.

Ceiling Assembly

1. Apply two beads of mastic as shown (see fig 16) to the wall panel top recess.
2. Refer to the Coldroom Assembly Detail and select a ceiling panel and place it in position.
3. Select the next ceiling panel seal the edge with mastic and lock it to the first panel.
4. Continue until the whole ceiling is in position (see fig 17 and 18) (on the smaller coldrooms there will be two panels on larger coldrooms more will be required).

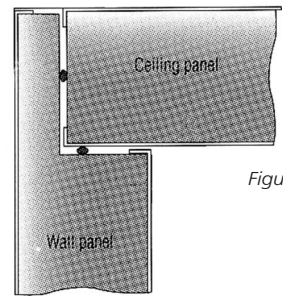


Figure 16



Figure 17



Figure 18

With the sidewalls, rear and ceiling assembled (see fig 18) seal all internal joints with silicone sealer (see fig 19) taking care not to overfill.



Figure 19

STEP 8.

Capping Lock Holes

Capping lock holes in walls and ceiling.

Insert the white plastic caps provided and tap in using the shaft of a hammer ensuring they are tight and flush fitting.

Capping lock holes Floors

To ensure an adequate fixing the lock hole plugs for the floor are provided as a two part component (see fig 20).

Insert the outer body into the hole and tap the central pin in with a light hammer.

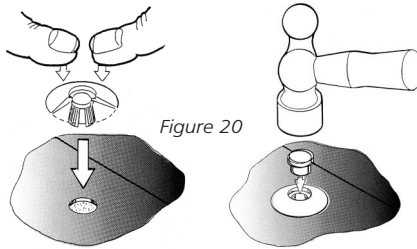


Figure 20

STEP 9.

Before proceeding further assemble the racking and position inside the coldroom. Refer to the 'Shelving Arrangement' on the separate sheet for the shelving layout for your particular coldroom.

Shelving Assembly

NOTE: Assemble the first set of racking out of the coldroom and place inside (see fig 21). For rooms FPC 1.8 x 1.2, FPC 1.8 x 1.5 and FPC 1.8 x 1.8 the second and subsequent racks will have to be assembled inside the room (see fig 22). For all of the remaining models the racking can be assembled and placed inside when assembled.



Figure 21



Figure 22

- A.** Remove all packaging from the shelves and posts..
- B.** Determine the position of the lowest shelf (it is recommended that at least a 150mm clearance from the floor is left to allow for cleaning).
- C.** Snap on one half (see fig 23) of the plastic collar onto the post (with the thick end down). Snap on the remaining half of the collar and slide up or down until secured into the groove. Repeat this for all four posts.



Figure 23

- D.** Standing the shelf poles upright, lower the shelf onto the poles until the collars fit inside the corner of the shelves (see fig 24).
- E.** With the shelf in position use a rubber mallet to 'knock down' the shelf until it is completely secured.
- F.** Repeat steps B, C, D & E for the remaining shelves.
- G.** The foot of each pole can be adjusted to compensate for uneven surfaces.



Figure 24

STEP 10.

Door Jamb Fitting

Select the door jamb without the door, apply mastic to the edge of the floor, top of the 'L' shaped section and the left hand side of the jamb (see fig 5 and 7) as described previously, and fit and lock into place (see fig 25).



Figure 25

STEP 11.

Front Right Hand Corner

Select the front right hand corner (see fig 26), apply mastic to the edge of the floor, both sides and the top of the 'L' shaped section of the corner (see fig 5 and 7) as described previously, and lock the corner into place.



Figure 26

STEP 12.

Threshold Plate

The threshold plate is the stainless steel portion of the door jamb and requires fixing to the coldroom floor (see fig 27). With the jamb locked into position, using the .42mm drill bit, drill three holes in the coldroom floor through the pre-drilled holes in the threshold plate. Using the zinc plated countersunk screws cut a thread in the drilled holes, remove and discard. Insert the flat headed stainless screws into the threaded holes taking care not to over tighten.

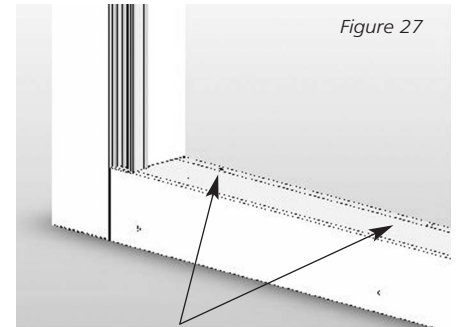


Figure 27

Detail shows positions of 2 of the screw hole positions, the 3rd is not shown

STEP 13.

Door Fitting

Offer the door up to the door jamb, whilst holding it at a 90° angle to the jamb lower the door so that both portions of the hinge assembly join together. Once in position allow the door to close. If the door does not close lift the door off the hinges and check that the cam is located correctly on both portions of the hinge assembly. If required make the necessary adjustments and re-fit the door. The door should close with the handle coming into contact with the jamb and hold the door firmly against the jamb creating a positive seal with the gasket. If there is movement of the door when in the closed position adjust the strike position using a pozi screwdriver.

STEP 14.

Sealing Joints

Seal all external joints with silicone sealer (see fig 28) taking care not to overfill.



Figure 28

STEP 15.

Cleaning

The finished coldroom should be cleaned thoroughly before loading.

STEP 16.

Switching On

Important Note: If the refrigeration panel has been laid down at any time it must be left in the vertical position for at least one hour before switching ON.

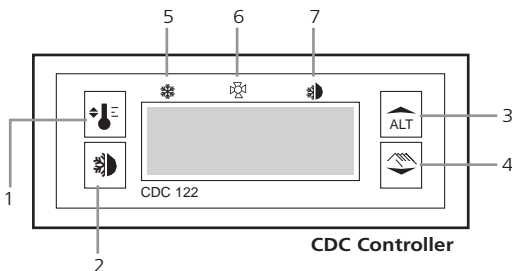
(For water cooled models proceed to step 18). Plug the lead into a suitable socket and switch ON the power to the unit.

Switch the unit on using the ON/OFF switch on the control panel. Do not load product into the coldroom until it has achieved the correct working temperature.

Temperature.
High Temperature coldroom +1°C to +4°C.
Low Temperature coldroom -18°C to -21°C.

Low Temperature Room Control Panel

When the unit is switched on the display shows “- - -” for a period of five seconds, during which the controller performs a self-check. The display then shows the air temperature measured by probe 1.



Check Set Point

Low point of temperature band. Press and hold button 1 ().

Increase Set Point

Press and hold button 1 (). Press button 3 () until required temperature is displayed.

Decrease Set Point.

Press button. 1 (). Press button 4 () until required temperature is displayed.

Manual Defrost

Press and hold button 2 (). Press button 4 () a timed defrost will follow.

Indicators

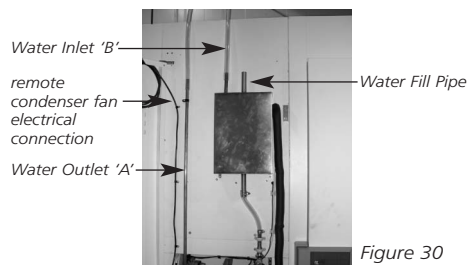
LED 5 Compressor on ().
LED 6 Evaporator Fan on ().
LED 7 Defrost on ().

Alarms and Warnings

PF1 indicates air probe failure.
PF2 indicates evaporator probe failure.

Open the cover of the refrigeration system panel as previously described.

Cut the pipes to the required length allowing sufficient surplus so that the pipes are not stretched. Slide the jubilee clip over the end of the flexible pipe. Connect the pipe connected to the top of the condenser (Water Inlet 'A') to the 15mm copper pipe (Water outlet 'A') at the left of the left-hand side of the compartment. Slide the jubilee clip over the connection and tighten securely to avoid leakage.



Slide the jubilee clip over the end of the second flexible pipe. Connect the pipe connected to the bottom connection (Water return 'B') of the heat exchanger to the 15mm pipe (Water Inlet 'B') attached to the stainless steel tank. Slide the jubilee clip over the connection and tighten securely to avoid leakage.

Electrical Connection

Run the remote condenser fan cable to the condensing unit with the water pipes. Plug the male cable connector attached to the end of the fan wire in to the female cable connector attached to the wire next to the water fill pipe. Leave any surplus cable on the top of the coldroom

Filling the system with water

Fill the 5-litre container with clean water. Note: Anti-freeze
Where pipework to heat exchanger may be at risk of freezing, add anti-freeze at 40% of total liquid requirement.
Remove the plastic cap from the end of the 'Water Fill Pipe'.
Insert the funnel in to the end of the Water Fill Pipe. Slowly and with care, avoiding any spillage, pour 2 litres of the water into the tank.
Plug the mains lead in to the power source and turn the unit ON.
After a short period the water pump will start to circulate the water round the system.
Leave the pump to run for a further 2 minutes.
Switch the unit Off before adding the remaining 3 litres of water.
Switch the unit On and leave running for a few minutes to check that the water is circulating correctly.
Check the water level in of the tank by placing a hand against the front, the tank if filled with sufficient water will be warm half way up, if not it may be necessary to add more water.
Refit the plastic cap to the water fill pipe.

On completion return to step 16.

STEP 17.

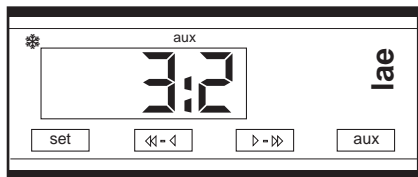
Control Panel



Temperature controller
Mains ON/OFF switch
Interior light switch

High Temperature Room Control Panel

When the controller is switched on a single line appears on the display for 3 seconds to indicate the autotest period. After this period the air temperature measured by the T1 probe is displayed.



LDU 15 Controller

Check temperature set point.

Check set point by pressing the 'set' button

To increase set point press 'set' +

To decrease set point press 'set' +

Factory Temperature Set Point +1°C.

Exit from set up occurs after 10 seconds if no button is pressed.

Alarms and Warnings

HI High Temperature Alarm
LO Low Temperature Alarm
E1 T1 Probe Failure
DF Defrosting in Progress
CLN Clean Condenser

STEP 18.

Water Cooled

Condensing System Connection Procedure

Water cooled condensing kit.

Heat Exchanger complete with fan and cable.
2 x 30 metres flexible hoses.
4 x jubilee clips.

Tools required

Flat bladed screwdriver
Funnel
5 litre container for water
Step ladder

Determine the position of the Heat Exchanger (see fig 29) before proceeding further with the installation. Unit can be mounted up to 5 metres vertically away from the compressor and up to 25 metres horizontally. Weather proof housing to the remote system means it is suitable for outdoor location. It should be positioned in a cool area and out of direct sunlight with no restriction to the airflow. Either attach it to a wall by the fixing points, using screws and wall plugs, or position on a flat roof firmly securing it in place.

Once positioned connect the flexible water pipes to the Water Inlet (A) and Water Outlet (B) connection, securing them to the pipes using the jubilee clips provided.

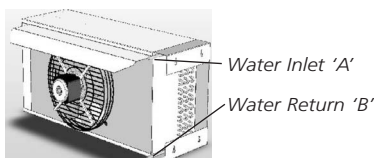


Figure 29

Run the flexible pipes to the refrigeration system panel avoiding any sharp bends that could result in kinks in the flexible pipes therefore impeding the water flow.

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