

INSTALLING OUTDOOR FRIDGES

Direct sunlight and the elements can be extremely damaging to an outdoor fridge and the way it functions. Tests have shown that fridges sitting in direct morning sunlight for only one hour achieved an inside temperature of 65°C. Here, we share information to help you with the best possible installation for your outdoor setting.

All you need to know...

INSTALLING A GLASS DOOR FRIDGE OUTDOORS

A glass door fridge can be in open alfresco area's as pictured. This install is fully open to the elements with large openings throughout, however the refrigerator is positioned to only get small amount of sun through a large 'tinted' UV window. No part of the install allows direct sunlight. In heavy rain, the unit could still get rainwater through main opening so where possible make sure you have the IP rating that is suitable, more about IP ratings on the next page.



INSTALLING A SOLID DOOR FRIDGE OUTDOORS







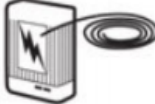







A solid door unit that is located undercover (under bench) outside can still survive if sun is passing over the fridge, as in fridge facing North or South etc. The below unit is in a position where the actual sunlight does not meet the fridge directly. In this application the IP rating also comes into effect as units can still be hit by rain.



IP RATING CHART

'Ingress Protection or 'IP' is a universal code used worldwide for all types of products, it measures solid particles and water ingress that could enter into a product and damage it.

NOTE: 95% of fridges on market have NO official IP testing done due to high costs affecting viability. However, it is helpful to know what important factors you need to consider in order to protect your fridge when looking to install it outdoors.

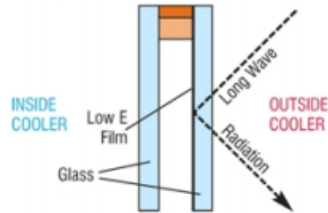
IP (Ingress Protection) Ratings Guide	
SOLIDS	WATER
<p>1  Protected against a solid object greater than 50mm such as a hand.</p>	<p>1  Protected against vertically falling drops of water. Limited ingress permitted.</p>
<p>2  Protected against a solid object greater than 12.5mm such as a finger.</p>	<p>2  Protected against vertically falling drops of water with enclosure tilted up to 15 degrees from the vertical. Limited ingress permitted.</p>
<p>3  Protected against a solid object greater than 2.5mm such as a screwdriver.</p>	<p>3  Protected against sprays of water up to 60 degrees from the vertical. Limited ingress permitted for three minutes.</p>
<p>4  Protected against a solid object greater than 1mm such as a wire.</p>	<p>4  Protected against water splashed from all directions. Limited ingress permitted.</p>
<p>5  Dust Protected. Limited ingress of dust permitted. Will not interfere with operation of the equipment. Two to eight hours.</p>	<p>5  Protected against jets of water. Limited ingress permitted.</p>
<p>6  Dust Tight. No ingress of dust. Two to eight hours.</p>	<p>6  Water from heavy seas or water projected in powerful jets shall not enter the enclosure in harmful quantities.</p>
<p>Rating Example:</p> <p>IP65</p> <p>INGRESS PROTECTION</p>	<p>7  Protection against the effects of immersion in water between 15cm and 1m for 30 minutes.</p>
	<p>8  Protection against the effects of immersion in water under pressure for long periods.</p>

For any questions, please contact our friendly team on 04 526 6009 or email sales@barfridges.co.nz

LOW E Glass

Units with LOW E glass have a special coating on the glass designed to reflect heat rays 70% better than non-coated glass. This coating helps keep the cold in and warmth out, also helping with lowering condensation. However, this feature becomes redundant if you have direct sunlight streaming onto the fridge.

LOW E GLASS DOORS



Low E (low emission) glass has been specially designed to provide increased thermal insulation. It is a high quality, clear float glass with specially formulated permanent transparent coating. The effect of the coating is to absorb and reflect long wave length energy (infra-red heat energy generated by the sun, lighting etc). This keeps the radiant energy out of the cabinet and simultaneously increases the temperature of the outer glass pane causing it not to condensate in high humidity conditions.

LOW E Glass Doors

Low E glass doors are standard on ALL Staycold products.

Glazing Type	U Value (W/m2K)*
Standard glass doors	2.6
Low E glass doors	1.6

U values express the rate of heat loss. The lower the U value the greater the thermal insulation. 70% of energy loss on any glass door cooler is lost through the glass doors. Thus, Low E glass will reduce the total energy loss on a cooler by: $70\% \times (2.6-1.6)/2.6 = 27\%$
 *U values quoted above have been calculated in accordance with BS 6993: part 1, based on 6mm thick glass with a 12mm argon filled cavity. The U value on Low E glass doors will improve as the respective technology improves.

Below shows 70% humidity with Normal Glass above and LOW E Glass at bottom with no fog.



Normal Glass



LOW E Glass

In summary, it is vital when designing an outdoor entertaining area to ensure a glass door fridge be placed out of direct sunlight, and any fridge to be protected from the elements (rain, dust etc).

For any questions, please contact our friendly team on 04 526 6009 or email sales@barfridges.co.nz

