

Fridge Installation Guide

INSTALLATION.

1.1 Position the cabinet on a level surface, as far away from heat sources as practical, with a minimum of 4cm of space at the back and top and SIDES to allow sufficient circulation of air.

1.2 A good way to encourage better air flow over the condenser,(the black grill on the back of the cabinet),is to fit a grill (or drill holes) in the floor behind the fridge,in order to allow cold air from the bilge to convect up.

1.3 Extra ventilation can be obtained by fitting a small 12v dc fan (computer type) to extract air from behind the fridge and vent it away from the enclosure. Tags small + and F are provided on the electronic unit at the back of the fridge for this purpose. Fig 1.
The fan will cycle with the compressor.

1.4 The increase in circulation of air promotes better heat transfer, and will produce more efficient refrigeration,run times will decrease and there will be a corresponding drop in power consumption.

Connection(2)

2.1 Connection to the cabinet is made by fixing a 12 or 24 volt dc supply to the electronic power pack, located at the rear.The positive or red wire to the terminal marked (+). The negative or black wire to the terminal marked(-).Fig 1.

2.2 Please note, if the wires are incorrectly connected the unit will not run.Check the polarity of the supply and correct.Note there is a slight delay between connection of supply and unit start up, caused by the electronics calibrating the correct parameters for operation.

Cable size(3)

3.1 Connect the cabinet directly to the battery using the correct size of cable.

3.2 NOTE.OVER 90% OF SERVICE CALLS ARE DUE TO INCORRECT CABLE SIZING.

3.3 A fuse, rated at 15amp(12v) or 7.5(24v) MUST be fitted close to the battery.If wished, a switch, rated at 20amp, can be fitted close to the cabinet.

3.4 Refer to electronic unit instructions for cable sizing. Fig 2.

Battery Protection(4)

- 4.1 In order to avoid permanent damage to the battery, due to heavy discharge, the cabinet is fitted with a protection device which cuts the compressor in and out at the voltages shown in the electronic unit instructions.(fig 3)
Note the lowest settings are used on Freezers and Fridge/Freezers.(fig 4)
- 4.2 If the intended use will be on 24v, you may need to lower the cut out settings. This can be achieved by fitting a jumper wire between tags C and P on the electronic unit. This will drop the settings to 21.3 out and 22.7 in(Fig 4)
- 4.3 Note if used on 24v dc, the internal bulb (not fitted on all cabinets) will need to be changed from a 12v dc S.E.S. 10 watt to a 24v dc S.E.S. 10 watt.
- 4.4 When low voltage is detected the L.E.D. or BUZZER (if fitted) will flash/sound and the compressor will power down. See operational errors section.
Note the L.E.D/BUZZER is normally OFF.
- 4.5 All voltages should be measured at the electronic unit input.

Battery Condition(5)

- 5.1 The amount of time the cabinet will operate for, depends on keeping it supplied with enough power. It is rare that a battery will be 100% charged, and it can be considered useless for running a refrigerator at less than 30% capacity.
There is only a difference of around 1 volt between a charged battery and a discharged one. So, careful reading of any Volt Meter is necessary.

Operation (6)

- 6.1 The temperature of the fridge is controlled by the thermostat Clockwise colder, anti clockwise warmer. Try to keep the setting at an economical level. Located on freezers to the left of the compressor (at the rear).
- 6.3 Caution. Prolonged use of the coldest setting will cause higher than normal power consumption, and could result in some contents of the fridge becoming frozen.
- 6.4 Caution. The Ice Box compartment (all fridges) except freezers and fridge freezers This is NOT a DEEP FREEZE. It should only be used for freezing ice cubes and SHORT TERM storage of PRE-FROZEN food. ICE-CREAM can be kept for short periods, but it must be hard frozen when put in. The Ice tray must be in contact with ice box floor for efficient ice cube production.

| OPERATIONAL ERRORS SHOWN BY LEDor BUZZER | | | |
|--|-------------------------------------|--|--|
| Number of flashes | message | Possible reason | Correction |
| 5 | Thermal cut-out of electronic Unit. | Ambient temperature Too high | Switch off fridge and allow to cool down. Give more air space to top and back of fridge. |
| 4 | Minimum motor speed error | Motor cannot maintain minimum speed | Check battery voltage and allow unit to cool down. |
| 3 | Motor start error | Differential pressure high | Will reset by itself and clear. (will happen now & then) |
| 2 | Fan over-current cut-out. | Fault with fan (if fitted) | Disconnect fan at electronic unit.(replace fan) |
| 1 | Battery protection cut-out. | Battery voltage Below the cut out setting. | Charge battery or check cable dimensions. |

IMPORTANT NOTICE

Guarantee and service is applicable to the U.K. MAINLAND only.

All refrigeration products supplied by ourselves are designed for use in CLASS "N" climatic regions, i.e. "THE U.K.", and should not be used in tropical or sub-tropical environments, i.e. Southern Europe and the Mediterranean.

Climate category N means use in room temperatures of +16c to +32c

In the event of a service problem, please produce your receipt as proof of purchase to your supplier, who will make the necessary arrangements for rectification as quickly as possible.

