

KEGMAS^TER™ SOLSTICE

All Stainless-Steel Kegerator



User Instruction Manual

Designed & Engineered by Keg King

Warnings and General Safety



WARNING

Beware of electricity around liquids!
Ensure power supply packs and power cords are placed well away from any potential spills and pooling condensation.



WARNING

DO NOT power up the refrigeration unit until it has rested upright for 24 hours.



WARNING

Leaking CO₂ gas can cause suffocation.
Always use CO₂ in a well-ventilated open area, in case leaking occurs.



WARNING

Ensure the inlet and outlet vents of the cabinet are clear of obstructions.
Allow 100mm clearance at the back and the right side of the refrigeration unit.



Please read the entire manual before operating.

Table of Contents

Warnings and General Safety	2
Keg King.....	4
Introduction	5
Features.....	5
Unboxing.....	6
Included Items	6
Getting to Know the Unit.....	7
The Control Panel.....	8
Initial Setup	8
Door Orientation.....	8
Installation Space Requirements.....	9
Gas Connection.....	9
Powering Up.....	9
General Operation	10
Selecting Cooling or Heating mode.....	10
Setting the Temperature.....	10
Forcing Defrost ON/OFF.....	10
Reset to Factory Default Settings.....	10
Configuration Parameters	11
Configuration Parameters (continued).....	12
Setting Parameters	13
Heating / Cooling Cassette Replacement	13
Additional Keg King KegMaster™ Accessories	14
Troubleshooting.....	15
Specifications.....	16

Keg King



Whether you're a brewer or someone wanting to put drinks on tap in your own home, cafe or office, Keg King offers beverage creation and keg dispense solutions for amateurs and pros!

We don't just sell products, we innovate, design and manufacture our equipment to bring your beverage ambitions to life!

Our brands include:

- King Kegs, our Australian Made P.E.T. kegs
- Apollo P.E.T. Pressure Fermenters & Unitanks
- KegMaster™ Kegerators
- Atomic 15 Brewery Cleaners
- UltraTap Twist FC Faucets
- Spundy spunding valves
- the KegMaster™ Solstice Fridge
- and more!

Check the resellers map on our website to find where our products are available in North America, UK, EU, Aus, NZ and South Africa.

www.kegking.com.au/retailers

Since 2009, Keg King's mission is to make the best brewing & dispensing equipment in the world!

Check out our helpful instructional videos on the **Keg King YouTube Channel**

www.youtube.com/@Keg-King

Enjoy your KegMaster™ Solstice Kegerator!

Introduction

The KegMaster™ Solstice is a powerful and efficient all stainless-steel refrigeration unit, featuring a convenient, removeable heating & cooling cassette.

The KegMaster™ Solstice was released in May 2022.

This innovative design from the Keg King Engineering Department incorporates a convenient heating/cooling cassette, that can be easily removed and replaced in case of problems.

The unit is controlled by an HJ-510 temperature controller which allows the user to set their desired temperature, switch between heating and cooling modes and set the defrost cycle.

The unit is designed to work with 12 volts DC and is powered with the included mains DC power pack. The Solstice may also be powered by batteries, solar or any mix of these that can provide 12 volts at 15-20 amps max.

The inrush current for the Solstice is below 20 amperes and will settle to between 2-5 amps whilst compressor is running

Please note that power packs must carry local approvals of the power authorities in your jurisdiction.

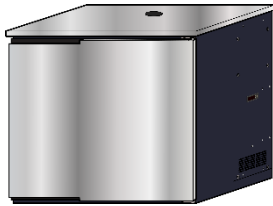
Features

- Stainless Steel both inside and outside walls. 304 Benchtop & Interior for maximum durability, 430 Door for magnetic compatibility.
- Solstice 236 Capacity:
 - 6 x Cornelius (Corny) Kegs **OR**
 - 4 x PET King Kegs and 1 x Corny Keg **OR**
 - 1 x 50L Commercial Keg
- Solstice 365 Capacity:
 - 7x Cornelius (Corny) Kegs **OR**
 - 6 x PET King Kegs and 1 x Corny Keg **OR**
 - 2 x 50L Commercial Kegs
- Powered by 12V DC (2 to 5 amps, with 17 amps inrush current)
- Can be powered by solar panel or car battery or other DC 12 volt sources
- Optional Lockable Castors for easy moving
- Reversible Door
- Fits standard fonts (not included)
- Cold air hose for font cooling
- Internal 12V supply outlet switch for powering internal accessories
- Heating capable for fermentation temperature control
- Automatic defrost
- Suitable for living off-grid
- Suitable for humid environments
- Suitable for under-bench installations
- R600a Refrigerant
- No coils in walls, so no issues drilling holes through walls, if needed
- Push-in “through-wall” fittings for supplying CO₂ from an external gas cylinder

Unboxing

Please check that the unit is free of damage.

Included Items



The KegMaster™ Solstice refrigeration cabinet



12V Power Supply Pack

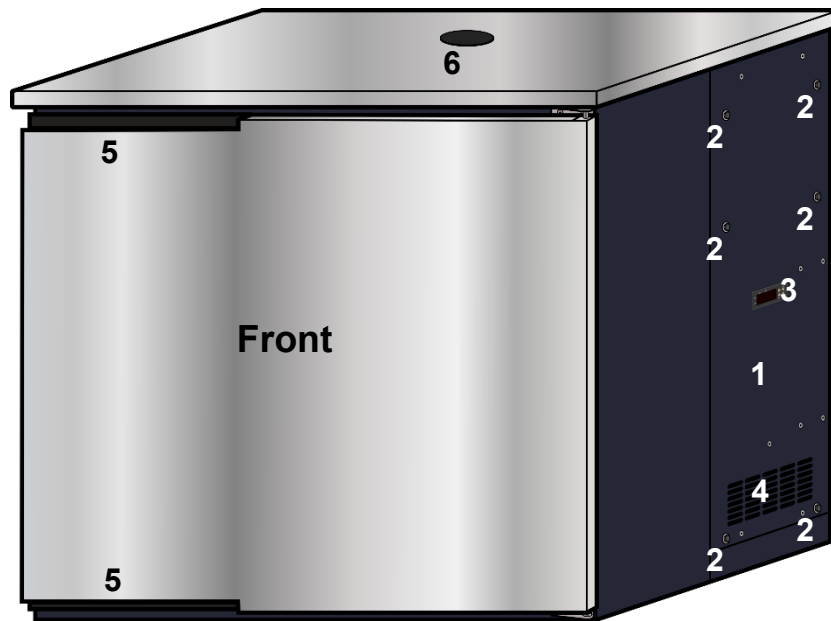


Mains Power Cable

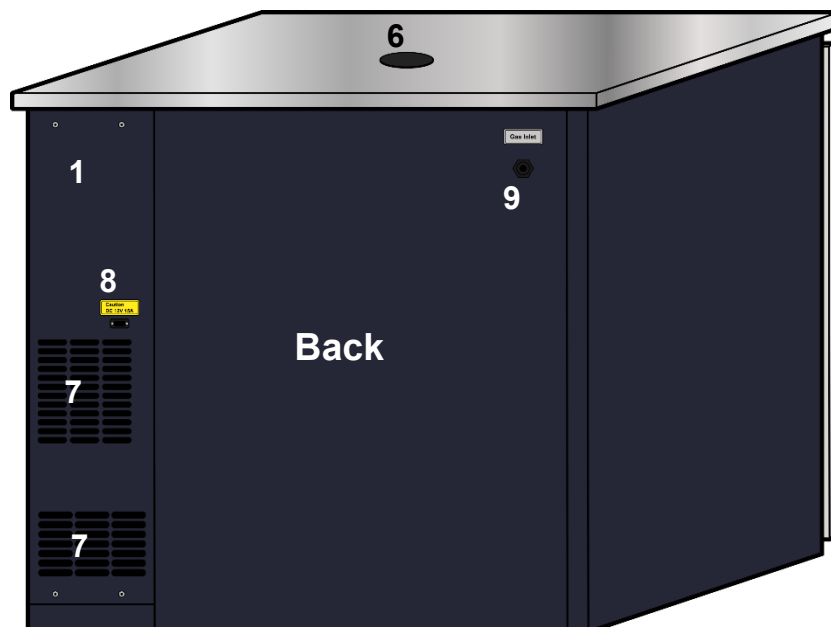


Font Cooling Hose

Getting to Know the Unit











- | | |
|---|---------------------------------|
| 1. Heating / Cooling cassette | 6. Front hole plug |
| 2. Heating / Cooling cassette removal bolts | 7. Back vents |
| 3. Control Panel | 8. 12V DC Anderson Power Socket |
| 4. Right-side vent | 9. Gas inlet – push-in-fitting |
| 5. Door handles | |



The Control Panel



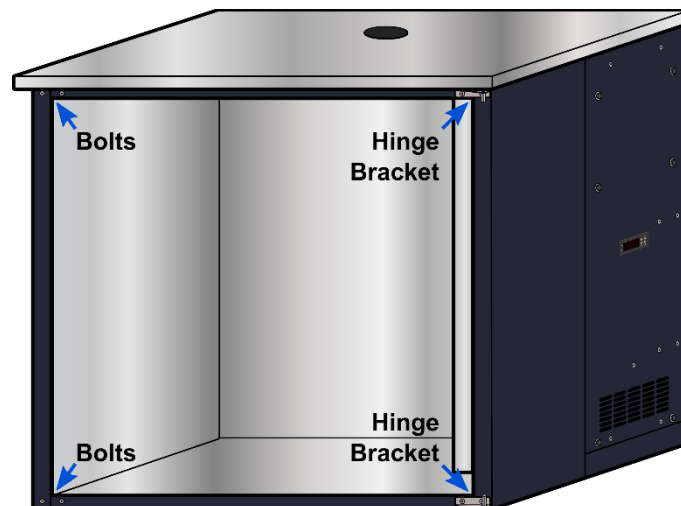
-  Switch menus and parameters
-  Confirm & save parameter setting
Switch Cooling / Heating
-  Increase value / Select Parameter
Force ON/OFF Defrost
-  Decrease value / Select Parameter
Factory Reset

- Cool**  Cooling indicator
- Heat**  Heating indicator
- Set**  Setting indicator
- Def**  Defrost indicator

Initial Setup

Door Orientation

The KegMaster™ Solstice door is reversible. It can be removed and re-attached to be hinged on the left or right, depending on your preference.



1. Open the door wide to provide access to the hinge bracket bolts on both sides of the door cavity
2. Remove the 4 bolts from the holes where the hinge brackets will be installed. i.e. on the opposite side to where the hinge brackets are currently installed.
3. Remove the upper hinge bracket by unscrewing the 2 bolts using a Hex Key tool. Retain the bolts.
4. Remove the door by tilting the door outwards and sliding upwards from the lower hinge. Ensure you retain the washer from the lower hinge.
5. Place the door somewhere safe.
6. Remove the lower hinge bracket by unscrewing the 2 bolts using a Hex Key tool. Retain the bolts.
7. Fasten the lower hinge bracket (previously the upper bracket) onto the opposite side of the cabinet, with the removed hex bolts and tighten firmly.
8. Place the washer on the lower hinge axle.
9. Position the door on the lower hinge axle in the preferred orientation
10. Slot the remaining upper bracket axle (previously the lower bracket) into the hole in the top of the door
11. Fasten the upper bracket to the cabinet with the removed hex bolts and tighten firmly

Installation Space Requirements

The Keg King KegMaster™ Solstice fridges generate heat around the compressor (bottom back-right corner) when cooling. This heat needs to be dissipated and if the heat is trapped it could potentially overheat the unit and trigger compressor failure. Good ventilation is necessary for the longevity of the unit. Please note that the following clearance requirements are a necessity and failure to meet those requirements could void the warranty.

- 100mm clearance required for the back of the fridge cassette.
- 100mm clearance required for the right-hand side of the fridge cassette.
- No clearance required for the top.
- No clearance required for the left-hand side.
- No clearance required for the bottom of the fridge however it is recommended for the fridge to be elevated off the ground for moisture to dissipate.
- If the unit is installed in an enclosed space behind doors, the doors must have vents and clearances must be respected. In this case, a minimum front clearance of 50mm is required.

Gas Connection



WARNING

**Leaking CO₂ gas can cause suffocation.
Always use CO₂ in a well-ventilated open area, in case leaking occurs.**

The rear of the unit has a Gas Inlet push-in fitting that can be used if you need to supply gas to the inside of the KegMaster™ Solstice.

Push gas line from the gas regulator firmly into the outer side of the push-in fitting. Inside the Solstice, connect gas line to the inner side of the push-in fitting.

Once connected and gas is flowing, use soapy water to check for leaks around all connections, including the gas inlet inside and out.

Powering Up



WARNING

DO NOT power up the refrigeration unit until it has rested upright for 24 hours.



WARNING


**Ensure the inlet and outlet vents of the cabinet are clear of obstructions.
Allow 100mm clearance at the back and the right side of the refrigeration unit.**


1. Ensure refrigeration unit has rested upright for 24 hours and has the required 100mm clearance around the back and right-side vents.
2. Plug the 12V DC Power Supply Pack into mains power and the back of the unit and turn power on.
3. Select Heating or Cooling mode as detailed in “Selecting Cooling or Heating mode”
4. Set the required temperature as detailed in “Setting the Temperature”

General Operation





Selecting Cooling or Heating mode

 Press and hold the “**Rst**” button for 3 seconds to switch between Cooling and Heating modes.

 When Cooling mode is activated the “**Cool**” indicator will illuminate and the display will show “**Fr**” for 5 seconds

 When Heating mode is activated the “**Heat**” indicator will illuminate and the display will show “**Ht**” for 5 seconds


Setting the Temperature

1.  Press and hold the “**Set**” button for 5 seconds
The “**Set**” indicator will illuminate, and the display will show the set temperature for the mode the unit is currently in (Cooling or Heating)
NOTE: separate temperature values are stored for Cooling and Heating modes
2.   Use the up and down arrow buttons to set the desired temperature
3.  Press the “**Rst**” button to confirm and save the parameter value.


Forcing Defrost ON/OFF

The KegMaster™ Solstice has automatic defrosting.
However if you need to manually switch defrosting ON or OFF:

 Press and hold the “**Def**” / Up button for 5 seconds.

 When Defrost mode is manually activated, the “**Def**” indicator will illuminate and the display will show “**dEF**” for 5 seconds, and then the display will change depending on the setting for the **d4** parameter (as detailed in “Other Settings”).


e.g. the display may continue to show “**dEF**” if **d4** is set to 02

 When Defrost mode is manually deactivated, the “**Def**” indicator will extinguish and the display will show “**rF**” for 5 seconds, and then the display will show the current temperature.

Reset to Factory Default Settings

To reset all parameter settings to the factory default values

 Press and hold the Factory Reset  / Down button for 10 seconds

 The display will temporarily show “**H0**”, and then all parameters will be reset to factory default values. Operation will then continue with the default values.

Configuration Parameters

There are a number of settings that can be configured on the control panel.

F1

F1 is the temperature setting for cooling mode.
Range: 0-10°C (32-50°F), Default: 5°C (41°F)

F2

F2 is the temperature setting for heating mode.
Range: 15-88°C (59-190°F), Default: 30°C (86°F)

F3

F3 is the cooling hysteresis setting.
Range: 0-10°C (0-18°F), Default: 3°C (5.4°F)
In cooling mode, once the temperature set via F1 is achieved, the unit pauses cooling. The hysteresis value is the temperature threshold above which the unit resumes cooling. Setting this value too small will result in excessive cool cycling. Typically, 3°C (5.4°F) should work well.

Example: with a hysteresis value of 1° and a temperature setting of 5°, the unit will reach 5° and then pause actively cooling. If temperature rises by 1° above 5°, it will then start cooling until it reaches 5° again.

F4

F4 is the heating hysteresis setting.
Range: 0-10°C (0-18°F), Default: 3°C (5.4°F)
In heating mode, once the temperature set via F2 is achieved, the unit pauses heating. The hysteresis value is the temperature threshold below which the unit resumes heating. Setting this value too small will result in excessive heat cycling. Typically, 3°C (5.4°F) should work well.

Example: with a hysteresis value of 1° and a temperature setting of 5°, the unit will reach 5° and then pause actively heating. If temperature drops by 1° below 5°, it will then start heating until it reaches 5° again.

F5

F5 is the cooling mode cabinet sensor temperature calibration value.
Range: -5 to +5°C (-9 to +9°F), Default: 0°C (0°F)
Set this value if you test the sensor in a liquid with a known, validated (from an accurate thermometer) temperature, and the HJ-510 reads a different temperature.
Set this value to the difference between the cabinet sensor reading and the validated temperature.

F6

F6 is the heating mode cabinet sensor temperature calibration value.
Range: -5 to +5°C (-9 to +9°F), Default: 0°C (0°F)
Set this value if you test the sensor in a liquid with a known, validated (from an accurate thermometer) temperature, and the HJ-510 reads a different temperature.
Set this value to the difference between the cabinet sensor reading and the validated temperature.

F7

F7 is a cooling delay setting.
Range: 1-15 minutes, Default: 3
If the unit has been actively cooling and stops due to reaching the set temperature, it will not start cooling again until the cooling delay is passed (and the temperature is above the set hysteresis value).












Configuration Parameters (continued)

- A1** sets the action for sensor errors in cooling mode.
Range: 00 or 01, Default: 01
If A1 is set to 0, cooling stops. If A1 is set to 1, there is a delay as specified by A2 or A3 depending on if the unit was cooling at the time of the sensor error.
- A2** sets the cooling run time for sensor errors in cooling mode.
Range: 01-90 minutes, Default: 15 minutes
If there is a sensor error while the unit is actively cooling, cooling will continue for this specified time.
- A3** sets the timeout for sensor errors in cooling mode.
Range: 01-90 minutes, Default: 15 minutes
If there is a sensor error in cooling mode while the unit is NOT actively cooling, cooling will be paused for this specified time.
- A4** sets the cooling mode “Low Temperature” alarm level.
Range: -25°C to A5, Default: 0°C
If the unit is in cooling mode, and the sensor reads a temperature at or below this temperature, an alarm is triggered
- A5** sets the heating mode “High Temperature” alarm level.
Range: A4 to 70°C, Default: 60°C
If the unit is in heating mode, and the sensor reads a temperature at or above this temperature, an alarm is triggered
- A6** enables / disables audible alarms.
Range: 00 (off) or 01 (on), Default: 01
- A7** sets the alarm delay time.
Range: 0-250 minutes, Default: 0 minutes
- d1** sets the defrosting time
Range: 1-90 minutes, Default: 10 minutes
- d2** sets the period of defrosting
Range: 0-24 hours, Default: 4 hours
- d3** sets the defrosting interval mode
Range: 00 or 01, Default: 01
00: Power on for **d2** hours
01: Cooling continuously for **d2** hours
- d4** sets the defrosting display mode
Range: 00, 01 or 02, Default: 01
00: temperature display
01: temperature for defrosting
02: display **dEF**

Setting Parameters

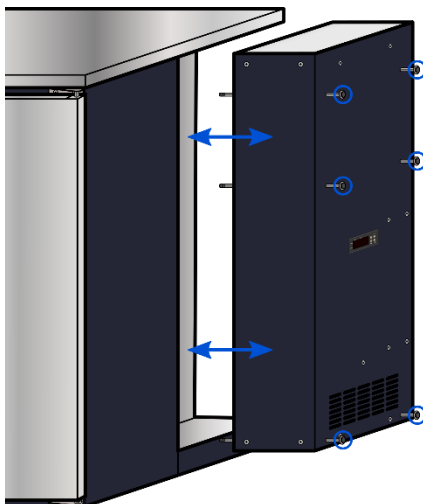
To set any of the parameters above:

If the unit does not have power supplied, follow the instructions in the “Powering Up” section

1.   Press and hold both the “**Set**” and Down buttons for 5 seconds
 The “**Set**” indicator will illuminate, and the display will show F1, which indicates the temperature setting mode.
 To set the temperature, go to step 3
2.   Use the up and down buttons to select the parameter to change.
 (F1, F2, F3, F4, F5, F6, F7, A1, A2, A3, A4, A5, A6, A7, d1, d2, d3, d4 as detailed above)
4.  Press the “**Set**” button again to activate the parameter setting mode
5.   Use the up and down arrow buttons to set the desired parameter value
- 6a.  Press the “**Set**” button to confirm and save the parameter value, and then return to parameter selection.
- 6b.  **OR** Press the “**Rst**” button to confirm and save the parameter value and then return to normal operation.
- 6c.  **OR** Wait 30 seconds to save the parameter value and return to normal operation.

Heating / Cooling Cassette Replacement

In case of failure with the heating or cooling, the KegMaster™ Solstice is designed with a convenient removeable cassette that can be replaced.



1. Unscrew the 6 bolts highlighted with a 10mm spanner
2. Remove the installed cassette by sliding it out
3. Slide the replacement cassette into the cassette cavity
4. Insert the bolts
5. Firmly tighten the bolts

Additional Keg King KegMaster™ Accessories



Fonts and Taps

The KegMaster™ XL comes standard without any fonts or taps.

Keg King sells a range of [fonts](#) and [taps](#)

The UltraTap Twist flow-control tap provides additional control when pouring your beer.

Castor Wheels

The lockable castor wheels provide extra maneuverability for your kegerator.



Stainless-Steel Drip Tray

Help keep your KegMaster™ Solstice countertop clean with a drip-tray that fits under the font and taps.



UltraFill Counter Pressure Tap Mounted Bottle Filler

Take your beer with you!

The Keg King [UltraFill](#) can be fitted to UltraTaps for easy filling of bottles from tap.



Tap / Faucet Plugs and Brushes

During periods where the kegerator is not used the faucets can be plugged to prevent contamination or fruit flies getting into the tap. This handy little device fits all tap sizes and shapes and is made from long lasting silicon (See photo to left).

We also sell a faucet brush that can be used to clean out the taps. (See photo to right)



Beer Line Cleaning Equipment

To keep your kegerator in top condition it is recommended to clean your beer lines out between kegs. Keg King supplies cleaning chemicals that are perfect for the job. Keg King also sells beer line cleaning caps (See photo to left) that you can use on an empty PET bottle and use this to clean out your beer lines or if you are using commercial keg couplers then you should try our 15 liter wash out kegs (see photo to right).



These useful parts will ensure you maintain the quality of your beer.

Troubleshooting

Issue	Remedy
The unit fails to heat or cool.	Organise a replacement cassette. Replace the cassette as instructed above.

Let's run through a few settings and troubleshooting to check prior to organizing a cassette swap:

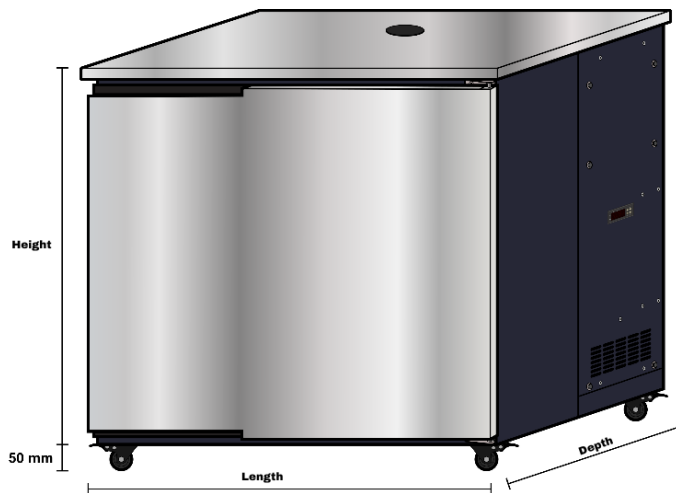
1. Just make sure there is ample (5 to 10cm clearance) for ventilation on the back and the side that has the cassette.
2. Check to see if there is ice building up inside the cassette. Sometimes a thin layer of ice is seen through the vents.
3. Set the temp to 2C by holding 'Set' for 5 seconds and arrow up or down to the temperature.
4. Note that there are separate temp values stored for Cooling and Heating modes. Ensure you are setting cooling to 2C. Then press the RST button to confirm the value.
5. If you notice Ice on the cassette or your fridge is having trouble cooling below 16C, try:
 - a. Press and hold the "Def" / Up button for 5 seconds.
 - b. When Defrost mode is manually activated, the "Def" indicator will illuminate and the display will show "dEF" for 5 seconds, and then the display will change depending on the setting for the d4 parameter (as detailed in "Other Settings"). e.g. the display may continue to show "dEF" if d4 is set to 02
 - c. When Defrost mode is manually deactivated, the "Def" indicator will extinguish and the display will show "rF" for 5 seconds, and then the display will show the current temperature.

Remember:

- ✓ F1 is the temp setting for cooling mode (set this to 2C)
- ✓ F2 is the temp setting for heating mode.
- ✓ F3 is the resting temp that should be set to 3C so when the probe feels a 3C difference it will run the cooling cycle again. 3C is about perfect.

If you believe the cassette is experiencing freezing, try switching to warming mode and leaving it set to 25C for about 2 to 4 hours. Once the warming mode has melted the frozen components, you should then be able to switch back over to cooling mode and get the fridge to drop to your cooling set temp of (2C).

Specifications



SOLSTICE 236

Height:	880 mm with castors 850 mm without castors
Length:	880 mm
Depth:	642 mm
Weight:	44 Kg with Cassette 30 Kg without Cassette
Volume:	236 L

SOLSTICE 365

Height:	880 mm with castors 850 mm without castors
Length:	1145 mm
Depth:	713 mm
Weight:	53 Kg with Cassette 39 Kg without Cassette
Volume:	365 L

Cassette Weight:	14 Kg
Power:	12V 15A DC
Heating:	105W
Cooling:	120W
Climate Class:	T
Refrigerant:	R600a (40g)
Insulation:	Cyclopentane

NOTE: The inrush current for the Solstice is below 20 amperes and will settle to between 2-5 amps whilst compressor is running

Configurations

