# EVOLUTION REFRIGERATED RETAIL DISPLAY CABINET

## MODEL NUMBERS

**SER60E • SER60SP • SER60SW • SER90E • SER90SP • SER90SW • SER120E • SER120SP • SER120SW**

**Caution: This manual must be read and understood before your appliance is installed, and operated.**

## CONTENTS



*Please use the box provided below to record your model and serial number for future information, this can be found on the data label on the appliance.*

Model number:

Serial number:

## 1. INTRODUCTION

Thank you for buying a Victor product. Many years of satisfactory use from your purchase can be expected, if the operating, cleaning and maintenance instructions are followed, however failure to do so may affect the warranty.

This manual is for the safe installation, operation and maintenance of the Victor product model as stated on the front cover. Check that the model number of your product as printed on the data label matches to one of the model numbers listed.

## 2. USE AND BEST PERFORMANCE

**Caution Operator:**

**This appliance must only be operated by suitably trained or qualified persons aged 16 years and above who have read and understood this manual. An operator is defined as the person who is responsible for switching the appliance on, adjusting the temperature and its safe use.**

**Children shall not play with the appliance.**

### 2.1 SCOPE OF OPERATION

*Please remember the refrigeration system is not designed to chill food, but is designed to maintain it at a satisfactory temperature before serving.*

Operation:

Evolution display cabinets are designed to maintain food at a satisfactory temperature before serving, it is not designed to chill food. All food placed in the cabinet must be pre-chilled to between 1°C & 7°C.

Classification:

Models: SER**E - At a set point temperature of around 2°C, the display cabinet will meet the performance classification of BS ISO 23953-2: - Climate Class 3 - M package classification M1 (an ambient of 25°C with RH 60%, food temperature control -1°C to 5°C)

Models: SER**SP & SER**SW - At a set point temperature of around 2°C, the display cabinet will meet the performance classification of BS ISO 23953-2: - Climate Class 3 - M package classification M2 (an ambient of 25°C with RH 60%, food temperature control -1°C to 7°C)

*Note: The display shows the air temperature within the cabinet, not the food temperature.*

### 2.2 START UP PROCEDURE - COUNTER STYLE MODELS (SER**E & SER**SP)

The controls/switches are located on the rear (operator side) of the unit.

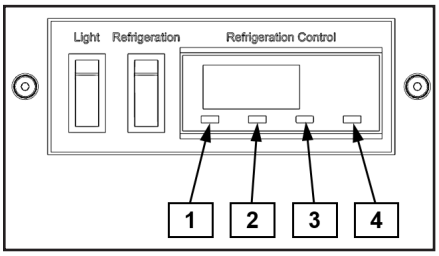


*Figure 1 - Diagram showing the Counter style models controls*

Turning the Lights On/Off

(a) The lights are operated by a green On/Off switch marked '**Light**'.

(b) The lights are turned on and off by pressing the '**Light**' switch.

Turning the Refrigeration On/Off

(a) The refrigeration system is operated by a green On/Off switch marked '**Refrigeration**'

(b) To turn the refrigeration system on, press the '**Refrigeration**' switch so it illuminates.

(c) The controller will turn on. After a startup procedure, the display will show the unit temperature and start to run after one minute.

(d) To turn the refrigeration off, press the '**Refrigeration**' switch.

### 2.3 START UP PROCEDURE - WALL STYLE MODELS (SER**SW)

The controls are located on the front (customer side) of the unit, in the back of the display area.

All power and control functions are dealt with by the controller.

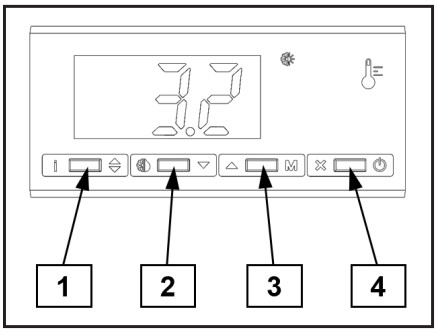


*Figure 2 - Diagram showing the Wall style model controls*

Turning the Lights On/Off

(a) To switch on the lights press button (**3**).

(b) To switch off the lights press button (**3**) again.

Turning the Refrigeration /Off

(a) Press and hold the right hand button (**4**), this will switch the unit on. The display will now read the unit temperature and will start to run after one minute.

(b) Press and hold the right hand button (**4**), this will switch the unit off. The display will now read off.

### 2.4. PULLING DOWN TO TEMPERATURE

Getting to Temperature

Once the refrigeration has been turned on the unit will start to cool the air inside the unit down to the required temperature (determined by the set point).

The air temperature in the unit is displayed on the controller screen.

Depending on the ambient temperature, allow the cabinet approximately 30 minutes to cool to the required temperature before loading.

### 2.5. LOADING THE CABINET

Load the Cabinet Base and shelves as required.

*Caution: Be careful not to over pack the cabinet and restrict the airflow between the front and rear vents, as this will affect the efficiency and performance of the refrigeration system.*

The Base and Shelf panels must be loaded evenly across the width. See section 7, Appliance Specification Table, for maximum Base and shelf loadings. Exceeding these loadings, or loading the shelves unevenly will result in damage to the unit.

*Warning: The cabinet must not be moved when loaded.*

### 2.6. ADJUSTING THE UNIT TEMPERATURE (SET POINT)

The refrigeration system is controlled by a digital temperature controller, it is factory set to 2°C, but can be adjusted between 0 & 8°C.

Displaying the Set Point.

(a) The current temperature set point is displayed by pressing and holding the left hand button (1).

Adjusting the Set Point

(a) Press and hold the left hand button (1), then press the (middle) up and down arrow buttons, (2) & (3) to adjust the temperature up and down.

(b) Once the desired set point value is displayed on the controller, release the left hand button (1).

### 2.7. DEFROSTING

- All refrigeration systems frost up when operating.
- This unit is programmed to defrost periodically.
- No manual defrost is required.
- The refrigeration system will automatically defrost every 2 hours for approximately 20 minutes.
- The controller will display 'def' during the defrost cycle.
- Water collected from the defrost operation is evaporated off within the appliance.

### 2.8. SHELF POSITION AND ANGLE ADJUSTMENT

The position and angle of the glass shelves can be adjusted to suit the customers' requirements. The possible positions of each glass shelf are restricted by the wiring to the shelf lighting. The glass shelves may be removed for cleaning.

Removing the Glass Shelves

(a) Sliding door unit only - Remove the sliding doors by lifting the doors up, clear of the bottom channel and rotating the bottom of the door out.

(b) Carefully lift each glass panel from the unit and store safely.

(c) When replacing the doors ensure the 'Groove' handle side is on the outside.

Adjusting the Shelf Positions

(a) Remove the glass shelves and the Rear Shelf cross member (fitted loose).

(b) Shelf Bracket positons can be now altered.

(c) Lift the shelf brackets from the slots in the rear uprights and move to the new required position.

(d) The angle of the shelf can be adjusted by using one of the two slots in the shelf bracket mounting (see Figure 3).

(e) Check the brackets are level side to side and at the same angle.

(f) Replace the Rear Shelf cross member and the glass shelves.

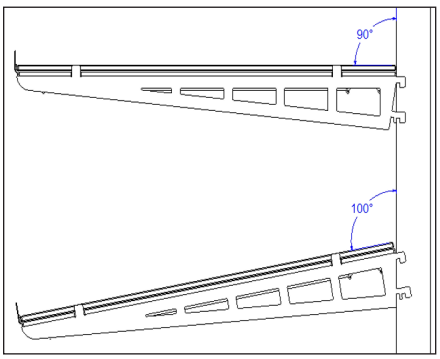


*Figure 3 - Diagram showing the Shelf brackets angle adjustments*

### 2.9. USE OF REAR DOORS DURING OPERATION

Units with rear doors (Hinged or Sliding), the doors open to facilitate loading and cleaning.

Whilst the unit is running, the doors must be kept closed, and only opened for a minimum of time, to allow loading and unloading.

Running the unit with the doors open, or keeping the doors open for excessive time, will result in the unit running inefficiently, a higher temperature than required and may cause the refrigeration system to stop working for a period of time due to internal ice build- 5up on refrigeration components.

## 3. CLEANING

Caution: child safety

*Cleaning and user maintenance shall not be made by children.*

Warning: do not jet wash or steam clean

*This the appliance must not be cleaned with a jet wash or steam cleaner.*

Warning: switch off and unplug

*The unit must be switched off and unplugged from the electrical supply before cleaning.*

Stainless steel surfaces will give you many years of trouble-free use as long as you follow a few simple rules. If it appears to mark do not worry, it is usually not the steel but something deposited on it which has stained.

Wash all surfaces before use:

You should use a damp cloth and a mild detergent or soap, or similar cleaner. Wipe over with a cloth, rinsed well with clean water, to remove any residue and dry the surfaces with a soft cloth. Clean regularly when in use. Do use soft cloths, nylon or bristle brushes.

Do not use:

Metal scrapers, wire brushes or wire wool pads as they can scratch the steel. Do take care when handling sharp objects as they can scratch the surface of the stainless steel. Any scratches on stainless steel will blend together over a period of time and become less noticeable with age. There is no detriment to the corrosion resistance or general performance of the material.

Do not use:

Bleach for cleaning purposes (remember dishwasher powders, sterilising agents and similar products all contain chlorides). If used, black pit marks, large brown patches or other such effects may appear and permanent damage may be caused. If used inadvertently rinse immediately with clean water.

Do not splash the unit with bleach when cleaning around the counter:

If you do, rinse the surface immediately with clean water thoroughly.

Do not allow:

Corrosive foodstuffs such as fruit juices, vinegar, mustards, pickles, mayonnaise, etc., to remain on stainless steel for long periods. Wash and rinse away.

Do not leave:

Steel objects or utensils standing on the stainless steel surfaces for long periods. They can rust and leave marks. After cleaning with detergent always remove residues with a wet cloth and wipe dry, if left they can have an etching effect on the surface.

*Correctly applied the above instructions will result in continuous good looks!*

## 4. MAINTENANCE

Trained person

*Maintenance shall be carried out by a trained competent person who is wearing the appropriate PPE (personal protect equipment).*

Caution: Child safety

*Cleaning and user maintenance shall not be made by children.*

Warning: switch off and unplug

*You must switch off and disconnect the appliance from the electrical mains supply before carrying out maintenance or removing any covers or components which have been fastened using screws.*

### 4.1. CLEANING THE CONDENSER

The refrigeration system will pick up dust from the air, which ***will*** build up on the fins of the condenser. This will cause the condenser to lose effectiveness over time.

It is important to examine, and clean, the condenser as necessary, or every 3 months. The condenser is made up of closely packed metal fins that might present a cut hazard, the use of strong industrial protective gloves is recommended.

*Note: The frequency of checking, and cleaning, the condenser varies between installations and depends on the positioning of the unit, the amount of time the unit is run during a day and the number of people walking past in front of the unit.*

In installations where the units are on for 24 hours a day and have a high volume of people passing in front of the unit this cleaning may be required once a week. It is, therefore, advisable to check weekly when first installed to determine the appropriate cleaning frequency. The position and method of accessing the Condenser will vary depending on the unit size.

**4.2. CONDENSER CLEANING METHOD**

(a) To clean the condenser, use a brush attachment on a vacuum cleaner.

(b) Care must be taken not to damage the condenser fins, the dust needs to be removed gently.

(c) Do not use force or stabbing motions with the brush.

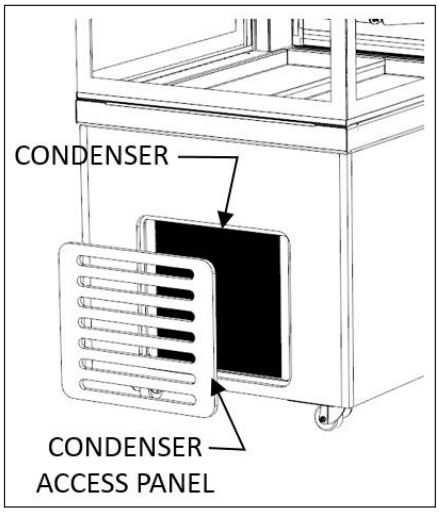


*Figure 4 - Condenser cleaning - 600mm wide units*

**4.3. CLEANING THE CONDENSER - SER..SW.. (WALL STYLE) + SER60..(ALL VERSIONS)**

(a) The Condenser is located on the front (customer facing) side of the unit. See Figure 4.

(b) Remove the Condenser Access Panel, by simply pulling it forward until free. Take care not to damage the vents.

(c) Once the panel is unclipped, lift clear, and store safely.

(d) Clean the condenser using the cleaning method in Section 4.2.

(e) Once cleaning is complete, replace the cover by aligning the Condenser Access Panel with the aperture and pressing firmly.

**4.4. CLEANING THE CONDENSER - SER90E/SP (900mm WIDE - ENCLOSED/PASS THRU UNITS)**

(a) The Condenser is located on the rear (operator facing) side of the unit. See Figure 5.

(b) Remove the Condenser Access Panel, by simply pulling the top handle section forward until free.

(c) Once the panel is unclipped, lift clear, and store safely.

(d) Clean the condenser using the cleaning method in Section 4.2.

(e) Once cleaning is complete, replace the cover by aligning the Condenser Access Panel with the spring clips and pressing firmly.

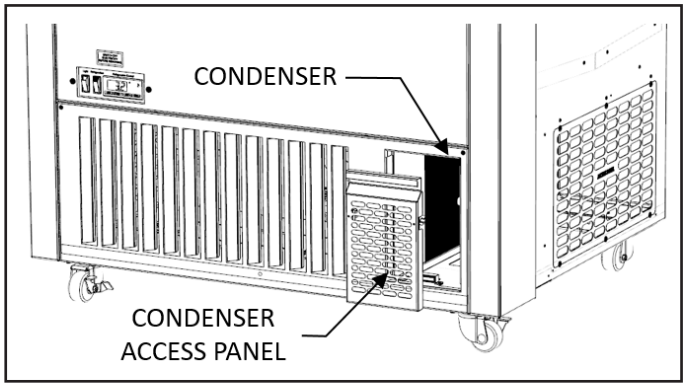


*Figure 5 - Condenser cleaning - 900mm wide units*

**4.5. CLEANING THE CONDENSER - SER120E/SP (900mm WIDE - ENCLOSED/PASS THRU UNITS)**

(a) The Condenser is located on the rear (operator facing) side of the unit. See Figure 6.

(b) Remove the Condenser Access Panel, by simply pulling the top of the Panel forward until free and lifting up to clear the bottom hook.

(c) Once the panel is unclipped, lift clear, and store safely.

(d) Clean the condenser using the cleaning method in Section 4.2.

(e) Once cleaning is complete, replace the cover.

(f) Locate the hooks on the bottom of the Condenser Access panel into the slots on the unit.

(g) Push the top of the panel until it locates into the spring clips at the top.

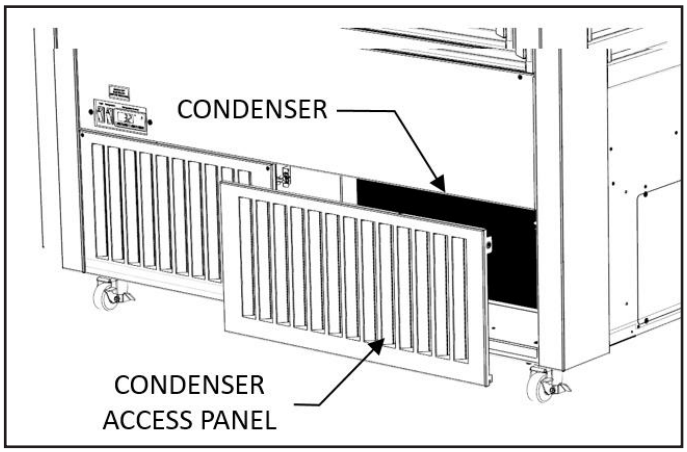


*Figure 6 - Condenser cleaning - 1200mm wide units*

*Warning: Failure to clean the condenser regularly will result in the refrigerant in the appliance not being cooled. The refrigerant will over heat and activate the high pressure cut out switch, turning the refrigeration system off. The cut out is self-resetting, but it will repeatedly activate if the condenser is not cleaned. If the appliance appears to be working, but is not cooling correctly, check the condenser.*

Damage caused by poor maintenance and cleaning of the condenser is not covered by your Victor warranty, see Section 5 (Warranty). Call out of an engineer under warranty that proves to be a blocked condenser due to poor cleaning will be charged for.

### 4.6. CLEANING THE BOTTOM OF THE CABINET AND THE EVAPORATOR

The panels at the bottom of the cabinet can be removed for cleaning. This also allows access to the evaporator coil for cleaning.

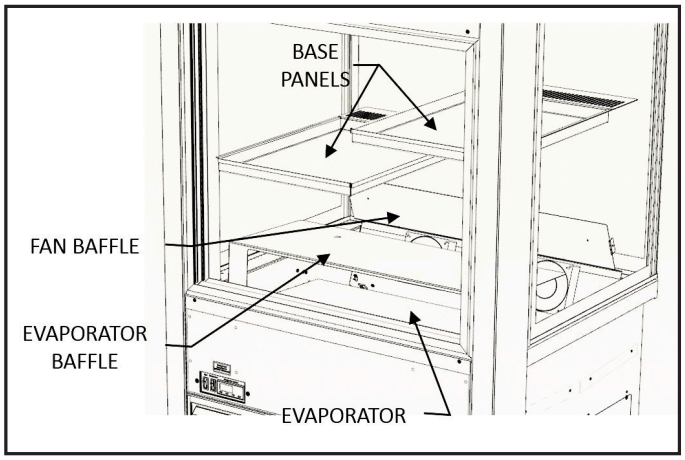


*Figure 7 - Diagram showing access to the Evaporator*

#### Removing the Cabinet Base

(a) The Base Panels/Grilles can be lifted out of the unit.

(b) The panels overlap, so the right hand panel (from the rear) has to be removed first, then work to the left.

#### Cleaning the Evaporator

(a) Ensure the unit is turned off and isolated before attempting to clean the Evaporator.

(b) Remove the Base panels - see Figure 7.

(c) Remove the two screws securing the Fan Baffle panel.

(d) Tilt the Fan Baffle forward until it rests against the front of the base.

(e) Lift the Evaporator baffle clear of the baffle.

(f) There is now clear access to be Evaporator for cleaning etc.

(g) Reverse the above process to replace the panels.

### 4.5 REPLACING THE LIGHTS

The unit is fitted with LED array strip lighting. The LED array is replaceable. See Figure 8.

(a) Turn off power to the unit.

(b) Unclip the LED strip from the brackets.

(c) The LED strip can be made of several pieces, chained together.

(d) Unplug the lead and/or adjacent LED lights.

(e) Replace the faulty strip.

(f) Reverse the process to fit the new strip.

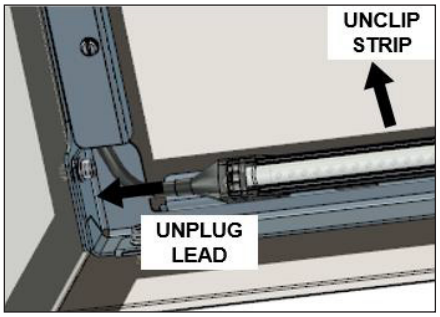


*Figure 8 - LED Lamp removal*

#### Yearly Safety Check

You should have your appliance inspected and tested for electrical safety at least once a year as required by the Electricity at Work Regulations.

#### Electrical Mains Lead

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard. *Do not use if the supply cord is damaged.*

## 5. WARRANTY

As a manufacturer of catering equipment, Victor Manufacturing Ltd offers warranty on all goods manufactured by the company and supplied by its United Kingdom Distributors.

Victor Manufacturing Ltd is renowned for its reliability and Victor Manufacturing Ltd provides on-site warranty in case of failure included in the purchase price, which covers the costs of spare parts and labour on your Victor Manufacturing Ltd goods from the date of invoice for a period of 24 months.

The Victor Manufacturing Ltd warranty does not affect any legal rights you have against the person who supplied your Victor Manufacturing Ltd goods or any other legal right against Victor Manufacturing Ltd under the laws of the United Kingdom - it is an addition to those rights.

All goods sold by Victor Manufacturing Ltd are subject to the Company's standard conditions of sale, a copy of which is available upon request.

Where the goods and components supplied by Victor Manufacturing Ltd are of the company's design and manufacture, Victor Manufacturing Ltd will make good any defects in those goods provided Victor Manufacturing Ltd liability will be limited to the following:

**It is the purchaser's responsibility to prove that the unit is under warranty, e.g. receipt of purchase, invoice number, serial number, etc.**

**Damaged in transit claims must be reported in writing to the company within 3 days of receipt for your claim to be validated. Damaged goods will not be replaced or repaired if they have been used.**

Victor Manufacturing Ltd must authorise all warranty repairs prior to the commencement of work. Work carried out on goods prior to authorisation will not be covered nor will any resultant damage.

All warranty will be immediately invalidated if in the reasonable opinion of Victor Manufacturing Ltd, unauthorised repairs or modifications have been made to the goods, in the case of accident, misuse, or damage caused by improper installation and altered or missing serial numbers. Victor Manufacturing Ltd will not provide warranty repairs if in our opinion the problem resulted from externally caused damage, use outside the goods specification, faults caused by inexperienced or non-approved repairers. All warranty will be immediately invalidated if installation of equipment is not in accordance with Victor Manufacturing Ltd installation instructions supplied.

Customer adjustments explained in the operating manual are not covered by Victor Manufacturing Ltd on-site warranty. Assistance can be received by contacting the warranty desk.

The liability of Victor Manufacturing Ltd and its appointed engineers are limited to the cost of repairs (parts and labour only) of the unit under warranty. Loss of food or other damages caused by faulty goods are not covered by the warranty.

No fault found warranty calls and installation errors are not covered under Victor Manufacturing Ltd warranty and will result in a charge being made for the call-out and on-site labour for our appointed engineer. The Victor Manufacturing Ltd warranty does not cover the replacement of used consumables, or parts that require period adjustment or lubrication, unless the part is faulty.

You must have evidence that routine maintenance has been carried out by a qualified engineer in accordance with the instruction manual. This is of particular importance with refrigerated and gas fuelled appliances. Work made necessary by lack of routine maintenance or cleaning is not covered by this warranty and will be chargeable.

Victor Manufacturing Ltd parts and labour warranty is valid for the United Kingdom Mainland only. (Parts only all areas outside the United Kingdom Mainland.)

Some parts are automatically not covered by the Victor Manufacturing Ltd warranty (e.g. panels, glass, lamps, shelves, etc.) Many surface finishes including paint and plastic coated steel can be scratched and damaged if not properly cared for; such damage is not covered by the Victor Manufacturing Ltd warranty.

## 6. ENVIRONMENTAL CONDITIONS

This appliance contains electrical components and should be used and stored indoors only under the conditions listed in the table below.

| Environmental | |
|---|---|
| Temperature | 5°C - 35°C |
| Relative Humidity | Max. 80% up to 31°C decreasing linearly to 50% at 40°C |
| Altitude | Not exceeding 2000m |
| Electrical Supply Fluctuation | Voltage fluctuation not exceeding 10% |

## 7. SPECIFICATION

This appliance contains electrical components and should be used and stored indoors only under the conditions listed in the table below.

**The Model Number**

| Model Code | Model size | Type code |
|---|---|---|
| 3 letter model code | 2 or 3 digit size code | 1 or 2 letter type code |
| **Model Code:** | **Model Size:** | **Type Code:** |
| **SER** - Square glass, Evolution, Refrigerated. | 60 - 600mm width<br>90 - 900mm width<br>120 - 1200mm width | **E** - Enclosed front / rear door modell<br>**S** - Open Front / rear door model<br>**SW** - Open Front / closed back wall model |

| Appliance Fuse Specification | | |
|---|---|---|
| Fuse | Plug | 13A (Type - BS1362) |
| Internal fuses | F1 | 1.0A (TYPE 5 x 20mm - IEC60127-2) |
| | F2 | 1.0A (TYPE 5 x 20mm - IEC60127-2) |
| | F3 | 5.0A (TYPE 5 x 20mm – FAST ACTING (F)) |
| Internal fuses (SER90 / 120SW) | F3 | 2.0A (Resettable) |
| | F4 | 2.0A (Resettable) |

| Appliance Specification | | | | | |
|---|---|---|---|---|---|
| Model: | Unit Weight (Unloaded) | Max Load (Base) | Max Load (Each shelf) | Supply Voltage (Vac) | Max Current (A) |
| SER60E | 145Kg | 20Kg | tbcKg | 220-240/50Hz | 6.6 |
| SER60SP | 145Kg | 20Kg | tbcKg | 220-240/50Hz | 6.6 |
| SER60SW | 145Kg | 20Kg | tbcKg | 220-240/50Hz | 6.6 |
| SER90E | 195Kg | 20Kg | 12Kg | 220-240/50Hz | 8.5 |
| SER90S | 195Kg | 20Kg | 12Kg | 220-240/50Hz | 8.5 |
| SER90SW | 195Kg | 20Kg | 12Kg | 220-240/50Hz | 8.5 |
| SER120E | tbcKg | tbcKg | tbcKg | 220-240/50Hz | 9.3 |
| SER120S | tbcKg | tbcKg | tbcKg | 220-240/50Hz | 9.3 |
| SER120SW | tbcKg | tbcKg | tbcKg | 220-240/50Hz | 9.3 |

*Note: The Refrigerated Display Cabinet can be supplied to run on a 60Hz supply. If the cabinet is a 60Hz version it is specified on the data labels.*

| Refrigeration System Specification | | | | | |
|---|---|---|---|---|---|
| Model: | Refrigerant | Refrigerant Charge (g) | Max allowable Pressure (PS) (bar) (PS) Low | (PS) High | Pressure switch activation (bar) |
| SER60E | R452a/R404a | 1050 | 24.8 | 24.8 | 27.6 +/- 1.0 |
| SER60SP | R452a/R404a | 1050 | 24.8 | 24.8 | 27.6 +/- 1.0 |
| SER60SW | R452a/R404a | 1050 | 24.8 | 24.8 | 27.6 +/- 1.0 |
| SER90E | R452a/R404a | 1150 | 24.8 | 24.8 | 27.6 +/- 1.0 |
| SER90S | R452a/R404a | 1150 | 24.8 | 24.8 | 27.6 +/- 1.0 |
| SER90SW | R452a/R404a | 900 | 24.8 | 24.8 | 27.6 +/- 1.0 |
| SER120E | R452a/R404a | 1600 | 24.8 | 24.8 | 27.6 +/- 1.0 |
| SER120S | R452a/R404a | 1600 | 24.8 | 24.8 | 27.6 +/- 1.0 |
| SER120SW | R452a/R404a | 1530 | 24.8 | 24.8 | 27.6 +/- 1.0 |

Check the Data label to confirm the refrigerant type and charge.

*Note: Any pressure strength testing/tightness testing must be carried out in accordance with BSEN 378-2.*

## 8. UNIT DIMENSIONS

| Unit Dimensions | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unit | Overall Width | Overall Depth | Overall Height | Rear Column Width | Front O/hang | Side O/hang | Body Width | Counter Top Height | Deck T/ness | Vent Opening Width | Vent Opening Height | Vent Height |
| | W | D | H | RCW | FO | SO | BW | CTH | DT | VOW | VOH | VH |
| SER90 | 600 | 750 | 1350 | 140 | 22 | 22 | 552 | 556 | 48 | 275 | 274 | 248 |
| SER900 | 900 | 750 | 1350 | 140 | 22 | 22 | 852 | 556 | 48 | 513 | 235 | 236 |
| SER120 | 1200 | 750 | 1350 | 140 | 22 | 2224 | 1152 | 556 | 48 | 675 | 241 | 239 |

*Note - SER..SW (wall style units) must be positioned 150mm from the rear wall, and are fitted with a spacer to ensure the gap is maintained.*

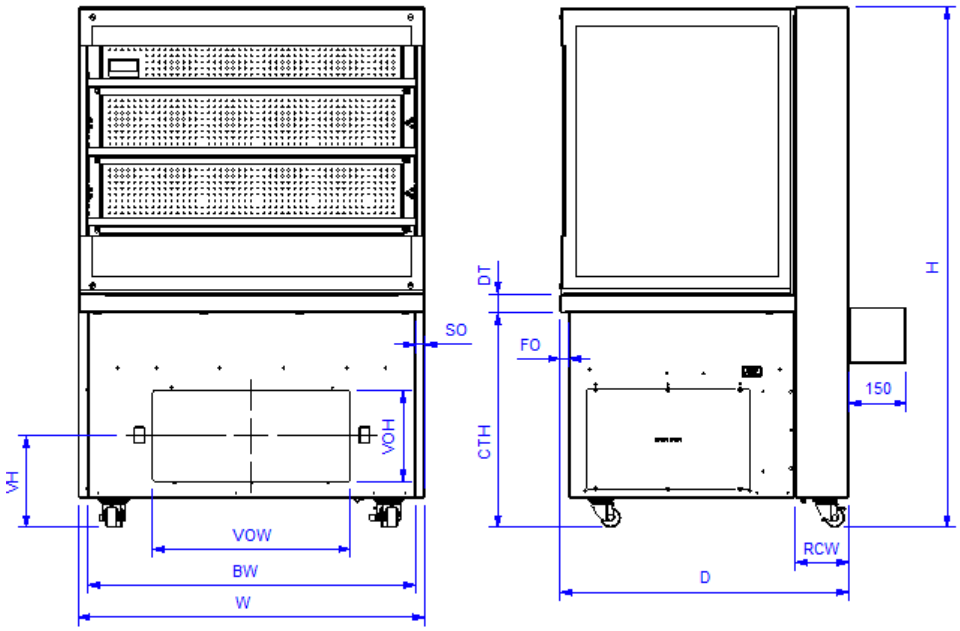


*Figure 9 - Unit dimensions*

## 9. SPARE PART ORDER CODES

When ordering any spare parts from your distributor always quote the model and serial number. This can be found on the data label affixed close to the mains lead connection point to your product. It is also advisable to make a note of these numbers in the space provided on the front cover of this manual.

The most common spare parts and their order codes are listed in the following tables. If you are unsure of your Victor product model number check your data label and **Section 8** of this manual.

| Spares order codes - 600mm wide cabinets | | | |
|---|---|---|---|
| | **SER60E** | **SER60SP** | **SER60SW** |
| Compressor (50Hz) | 72-0502 | 72-0502 | 72-0502 |
| Condenser Unit | 72-0270 | 72-0270 | 72-0270 |
| High Pressure Cut out | 24-0345 | 24-0345 | 24-0345 |
| Dryer | 60-0181 | 60-0181 | 60-0181 |
| Access fittings | 61-0211 | 61-0211 | 61-0211 |
| Liquid Receiver | 61-0456 | 61-0456 | 61-0456 |
| Sight Glass | 60-0146 | 60-0146 | 60-0146 |
| Expansion Valve | 61-0224 | 61-0224 | 61-0224 |
| Orifice Assembly | 61-0222 | 61-0222 | 61-0222 |
| TEV Adaptor | 61-0322 | 61-0322 | 61-0322 |
| Evaporator Coil | 61-0530 | 61-0530 | 61-0530 |
| Evaporator Fan | 62-0182 | 62-0182 | 62-0182 |
| LED Light (448mm) | 26-0142 | 26-0142 | 26-0142 |
| LED driver | 26-0164 | 26-0164 | 26-0164 |
| LED lamp Connecting Cable | 26-0163 | 26-0163 | 26-0163 |
| Glass shelf panel | 77-1114 | 77-1250 | 77-1250 |
| Shelf bracket LH | SHF0047 | SHF0147 | SHF0147 |
| Shelf bracket RH | SHF0046 | SHF0146 | SHF0146 |
| Refrigeration Switch Green | 60-0210 | 60-0210 | 60-0210 |
| Digital Controller | 60-2000 | 60-2000 | 60-0229 |
| Controller Keypad | - | - | 60-0330 |
| Boil-off tray element | 22-0310 | 22-0310 | 22-0310 |
| Boil-off tray switch | 25-0236 | 25-0236 | 25-0236 |
| Fuse F1/F2 (1A) | 28-0036 | 28-0036 | 28-0036 |
| Fuse F3 (5A) | 28-0035 | 28-0035 | 28-0035 |
| Fuse Holder | 28-0051 | 28-0051 | 28-0051 |
| H.P.C Relay | 24-0297 | 24-0297 | 24-0297 |
| Mains Lead | 23-0150 | 23-0150 | 23-0150 |
| Mains lead strain relief bush | 35-0020 | 35-0020 | 35-0020 |
| Casters swivel (Brake) | 52-0250 | 52-0250 | 52-0250 |
| Casters swivel | 52-0240 | 52-0240 | 52-0240 |

*Table 1 - Spare part codes SER60*

| Spares order codes - 600mm wide cabinets | | | |
|---|---|---|---|
| | **SER90E** | **SER90SP** | **SER90SW** |
| Compressor (50Hz) | 72-0264 | 72-0264 | 72-0264 |
| Condenser Unit | 72-0274 | 72-0274 | 72-0901 |
| High Pressure Cut out | 24-0345 | 24-0345 | 24-0180 |
| Dryer | 60-0181 | 60-0181 | 60-0181 |
| Access fittings | 61-0211 | 61-0211 | 61-0211 |
| Liquid Receiver | 61-0457 | 61-0457 | - |
| Sight Glass | 60-0146 | 60-0146 | - |
| Expansion Valve | 61-0224 | 61-0224 | - |
| Orifice Assembly | 61-0221 | 61-0221 | - |
| TEV Adaptor | 61-0322 | 61-0322 | - |
| Evaporator Coil | 61-0535 | 61-0535 | 61-0535 |
| Evaporator Fan | 62-0182 | 62-0182 | 62-0181 |
| LED Light (260mm) | 26-0159 | 26-0159 | 26-0159 |
| LED Light (448mm) | - | - | 26-0142 |
| LED Light (560mm) | 26-0161 | 26-0161 | 26-0161 |
| LED driver | 26-0171 2 | 6-0171 | 26-0171 |
| LED lamp Connecting Cable | 26-0163 | 26-0163 | 26-0163 |
| Glass shelf (per half) | 77-1117 | 77-1249 | 77-1249 |
| Glass shelf (per half) – upper shelf | 77-1117 | 77-1249 | 77-1127 |
| Shelf bracket LH | SHF0047 | SHF0147 | SHB0230 |
| Shelf bracket RH | SHF0046 | SHF0146 | SHB0231 |
| Shelf bracket LH - upper shelf | SHF0047 | SHF0147 | SHB0228 |
| Shelf bracket RH – upper shelf | SHF0046 | SHF0146 | SHB0229 |
| Refrigeration Switch Green | 60-0210 | 60-0210 | 60-0210 |
| Digital Controller | 60-2000 | 60-2000 | 60-0229 |
| Controller Keypad | - | - | 60-0330 |
| Boil-off tray element | 22-0310 | 22-0310 2 | 2-0308 |
| Boil-off tray switch | 25-0236 | 25-0236 | - |
| Fuse F1/F2 (1A) | 28-0036 | 28-0036 | - |
| Fuse F3 (5A) | 28-0035 | 28-0035 | - |
| Fuse Holder | 28-0051 | 28-0051 | - |
| Fuse (resettable) F3/4 (2A) | - | - | 24-0090 |
| H.P.C Relay | 24-029724-029724-0297 | | |
| Mains Lead | 23-0150 23-0150 23-0150 | | |
| Mains lead strain relief bush | 35-002035-002035-0020 | | |
| Canopy Glass – Double Glazed | - | - | 65-2001 |
| End Glass (LH) – Double Glazed | - | - | 65-2220 |
| End Glass (RH) – Double Glazed | - | - | 65-2221 |
| Lower Riser (Single Glazed) | - | | 65-2185 |
| Upper Riser (Single Glazed) | - | | 65-2249 |
| Casters swivel (Brake) | 52-0250 | 52-0250 | 52-0250 |
| Casters swivel | 52-0240 | 52-0240 | 52-0240 |

*Table 2 - Spare part codes SER90*

| Spares order codes - 900mm wide cabinets | | | |
|---|---|---|---|
| | **SER120E** | **SER120SP** | **SER120SW** |
| Compressor (50Hz) | 72-0266 | 72-0266 | 72-0266 |
| Condenser Unit | 72-0901 | 72-0901 | 61-0560 |
| Condenser Fan | - | - | 62-0184 |
| High Pressure Cut-out | 24-0345 | 24-0345 | 24-0180 |
| Dryer | 60-0181 | 60-0181 | 60-0181 |
| Access fittings | 61-0211 | 61-0211 | 61-0211 |
| Liquid Receiver | 61-0457 | 61-0457 | - |
| Sight Glass | 60-0146 | 60-0146 | - |
| Expansion Valve | 61-0226 | 61-0226 | - |
| Orifice Assembly | 61-0221 | 61-0221 | - |
| TEV Adaptor | 61-0322 | 61-0322- | |
| Evaporator Coil | 61-0540 | 61-0540 | 61-0540 |
| Evaporator Fan | 62-0182 | 62-0182 | 62-0181 |
| LED Light (260mm) | 26-0159 | 26-0159 | 26-0159 |
| LED Light (560mm) | 26-0161 | 26-0161 | 26-0161 |
| LED Light (960mm) | 26-0165 | 26-0165 | 26-0165 |
| LED driver | 26-0172 | 26-0172 | 26-0172 |
| LED lamp Connecting Cable | 26-0163 | 26-0163 | 26-0163 |
| Glass shelf panel | 77-1120 | 77-1251 | 77-1251 |
| Glass shelf (per half) - upper shelf | - | - | 65-2405 |
| Shelf bracket LH | SHF0047 | SHF0147 | SHB0230 |
| Shelf bracket RH | SHF0046 | SHF0146 | SHB0231 |
| Shelf bracket LH - upper shelf | SHF0047 | SHF0147 | SHB0228 |
| Shelf bracket RH - upper shelf | SHF0046 | SHF0146 | SHB0229 |
| Refrigeration Switch Green | 60-0210 | 60-0210 | 60-0210 |
| Digital Controller | 60-2000 | 60-2000 | 60-0229 |
| Controller Keypad | - | - | 60-0330 |
| Boil-off tray element | 22-0310 | 22-0310 | 22-0308 |
| Boil-off tray switch | 25-0236 | 25-0236 | - |
| Fuse F1/F2 (1A) | 28-0036 | 28-0036 | - |
| Fuse F3 (5A) | 28-0035 | 28-0035 | - |
| Fuse Holder | 28-0051 | 28-0051 | - |
| Fuse (resettable) F3/4 (2A) | - | - | 24-0090 |
| Fuse Holder | 28-0051 | 28-0051 | - |
| Fuse (resettable) F3/4 (2A) | - | - | 24-0090 |
| H.P.C Relay | 24-0297 | 24-0297 | 24-0297 |
| Mains Lead | 23-0150 | 23-0150 | 23-0150 |
| Mains lead strain relief bush | 35-0020 | 35-0020 | 35-0020 |
| Canopy Glass - Double Glazed | - | - | 65-2002 |
| End Glass (LH) - Double Glazed | - | - | 65-2220 |
| End Glass (RH) - Double Glazed | - | - | 65-2221 |
| Lower Riser (Single Glazed) | - | - | 65-2248 |
| Casters swivel (Brake) | 52-0250 | 52-0250 | 52-0250 |
| Casters swivel | 52-0240 | 52-0240 | 52-0240 |

*Table 3 - Spare part codes SER120*

## 10. INSTALLATION

### 10.1. UNPACKING AND ASSEMBLY

All protective coating used on stainless steel surfaces of the unit must be removed. The exposed surfaces can then be wiped clean with a damp cloth, using a mild detergent or soap if necessary, as detailed in Section 3 Cleaning.

*Do not use any abrasive material or form of bleach for cleaning purposes.*

### 10.2. POSITIONING THE UNIT

- Ensure the area is clean, level and clear of obstructions.
- When moving the unit, push on the metal base, ***not the glass***.
- Move the unit into the required position.
- Four castors are fitted to allow the unit to be easily moved to where it is to be used.
- Two of the castors can be locked so the unit remains static whilst in use.
- Locking castors must be locked before the unit is plugged into the electrical power supply.

Ensure all points below with regards minimum rear clearance distances and siting have been considered.

### 10.3. REAR CLEARANCE DISTANCE FOR SER**E and SER**SP

SER**E and SER**SP counter style unit's minimum rear clearance distance.

Warning:

A minimum rear clearance of 1.0 meter behind the units/counter is required either to a back wall or to other equipment placed along the back wall, provided that there is good ventilation and no excessive heat build-up (ambient temperatures need to remain below 25°C). Failure to do this will result in poor performance of the unit and possible damage as the refrigeration system cannot work correctly and may cause it to trip out on the high pressure safety switch.

### 10.4. INSTALLATION OF SER**SW (WALL STYLE) UNITS

These units are designed to be positioned against a wall and only accessed from the customer side.

SER**SW wall style unit's minimum rear distance: A minimum rear clearance of 150mm behind the unit and the wall is required provided that there is good ventilation and no excessive heat build-up (ambient temperatures need to remain below 25°C). There must be some means of the air off from the back of the unit to escape either to the side or over the top of the unit. Failure to do this will result in poor perforce of the unit and possible damage as the refrigeration system cannot work correctly and may cause it to trip out on the high pressure safety switch.

Wall style units are supplied with a 150mm deep spacer to ensure the correct minimum gap is maintained at the rear of the unit to ensure the safe and efficient operation of the refrigeration system.

Removing these spacers, or blocking this clearance will result in the refrigeration system failing.

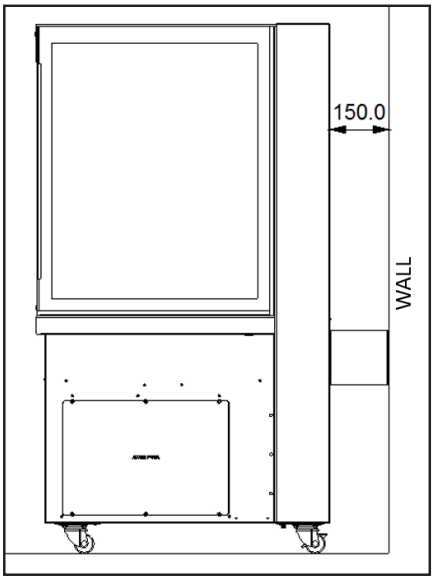


*Figure 10 - Positioning of SER…SW (Wall Style) Units*

*Warning: Position away from heat sources - Do not site the appliance in the immediate vicinity of a heat source,*

Do not site the appliance where warm/hot air can be drawn into the cool air inlet of the appliance, failure to ensure a good supply of coolant air below 25°C can result in the refrigeration system over heating and cutting out. This appliance is fitted with a refrigerant pressure cut-out that ***will*** activate and switch the appliance off when the refrigeration system inside cannot cool correctly.

Caution: Air vents

Do not position the appliance so as to obstruct the air vents on either the operator or customer sides, or the vents in the plinth, of the appliance (as applicable). Do not place anything in front of the air vents as to obstruct them. Adequate airflows are vital to the correct functioning of the refrigeration system.

Caution: Strong draughts

Do not place the appliance in areas subject to strong draughts or under air conditioning systems.

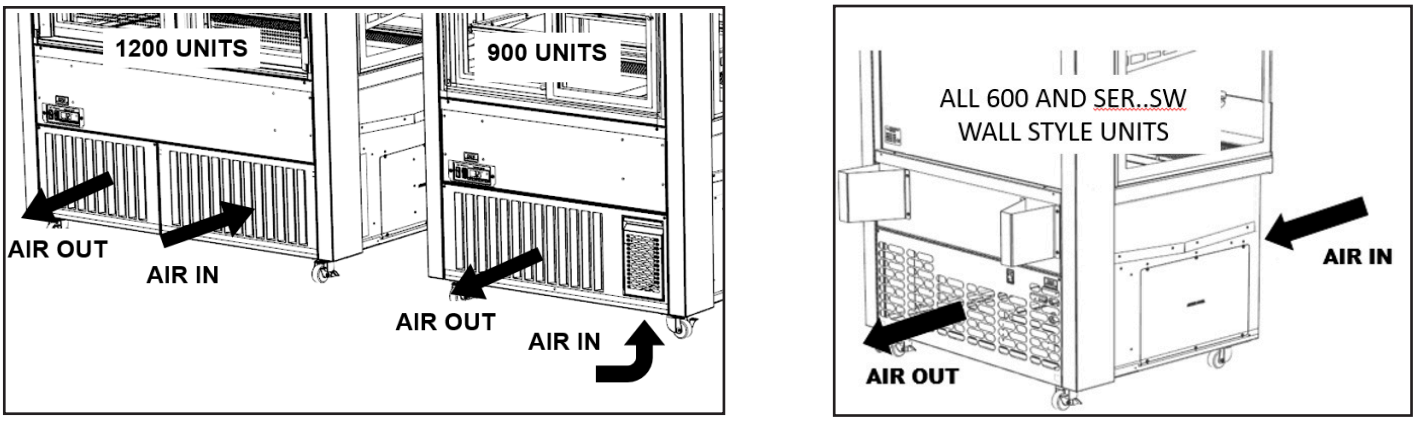


*Figure 11 - Diagram showing the air vent positions*

Caution: High humidity

Do not place in areas subject to high humidity (e.g. conservatories) as the appliance will act as a de-humidifier, and create excessive amounts of water.

Warning: Electrical supply voltage

The appliance is fitted with a 13 Amp fused plug and only requires connection to a 13 Amp socket outlet. This model is suitable for 220 - 240V A.C. 50Hz supply only. Ensure that the electricity supply is as stated on the model's data plate.

Warning: Electrical earthing

*This unit must be earthed, do not touch internal wiring.*

Wires in the mains lead are coloured in accordance with the following code:

Green and Yellow - Earth (E)

Blue - Neutral (N)

Brown - Live (L)

**10.5. INSTALLATION OF REAR VENTED UNITS INTO A COUNTER**

The counter top aperture can be shaped around the unit (with an appropriate clearance) under the Deck. Please note the Unit is narrower at the front (Body Width - BW) than the rear (Overall Width - W). See Section 8.

For all thru' vented units, the Counter front MUST include appropriate ventilation (see Section 10.6).

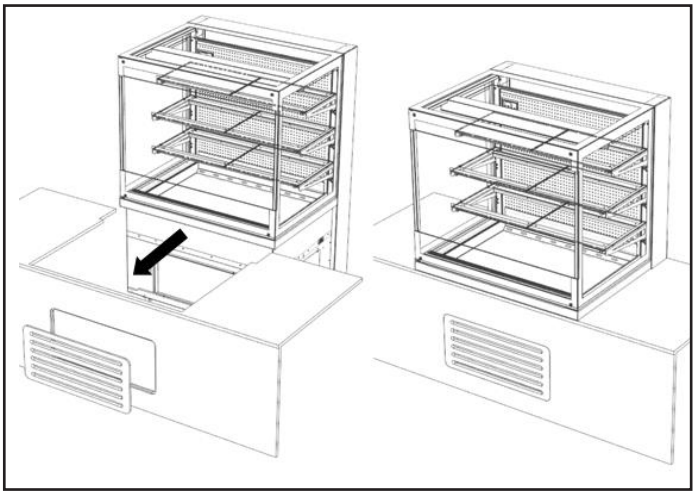

*Figure 12 - Counter Installation (Vent in counter for Thru' vented units only)*

### 10.6. INSTALLATION OF FRONT VENTED UNITS INTO A COUNTER

See notes above (**Section 10.5**) with regards to the counter top aperture.

All units are vented from the front (***customer facing***) side with the air exhaust to the rear.

To ensure the unit operates in a safe and efficient manner the front condenser vent must not be blocked at any time.

If installed into a counter, or behind a decorative panel, a removable vented panel must be included in the panel to allow the condenser to 'breathe' and allow access for cleaning.

Slots should be cut into the removable panel to give even air flow over the Condenser (see example in **Figure 13**).

The venting must be positioned directly in front of the condenser. See the table below the appropriate grille configuration. See **Figure 13** and **Figure 14** for the recommended venting configuration.

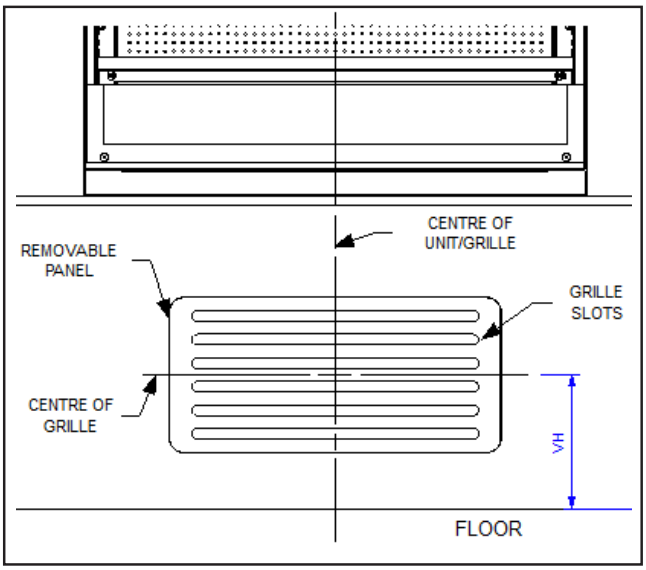


*Figure 13 - Unit counter venting details*

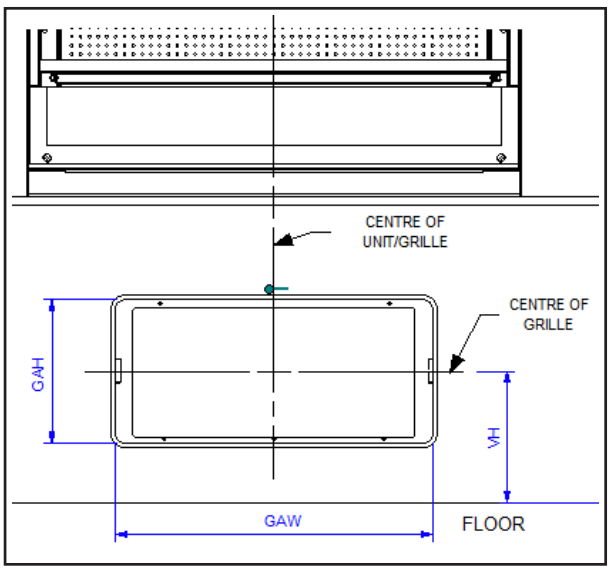


*Figure 14 - Unit counter aperture detail*

| Grille Dimensions | | | | | |
|---|---|---|---|---|---|
| Unit | Overall Width | Vent Height | Grille Open Area (min) | Grille Aperture Height (min | Grille Aperture Width (min) |
| | W | VH | (m2) | GAH | GAW |
| SER60 | 600 | 248 | 0.034 | 278 | 319 |
| SER90SW | 900 | 236 | 0.057 | 261 | 577 |
| SER120SW | 1200 | 239 | 0.076 | 261 | 739 |

Note all sizes are minimums.

To maintain the unit warranty the venting must follow the above guidelines.

***Please contact Victor Manufacturing if any additional guidance is required.***

## 11. IF YOUR EQUIPMENT FAILS

Refer to the instruction manual. If the problem still cannot be resolved, prepare a description of the fault you have.

Make sure you have your proof of purchase document (Invoice number or serial number) and the model number of the equipment that has failed.

Contact the warranty department on the following numbers:

- **Warranty Desk Tel No: 01274 722125 (Office hours)**
- **Warranty Desk Fax No: 01274 307082 (Office hours)**
- **Warranty Desk Email: service@victormfg.co.uk**
- **Emergency Warranty Tel No: 07876 898114 (All other times)**

Warranty repairs are carried out between
9.00am and 5.00pm Monday - Friday.

Access required outside normal working hours may incur charges.

**Registered Office:**
Victor Manufacturing Ltd
Prospect Works, Off South Street, Keighley BD21 5AA
Tel: 01274 722125
Email: sales@victormfg.co.uk

# EC DECLARATION OF CONFORMITY

In accordance with BS EN ISO 17050 -1:2010

*We of*

Victor Manufacturing Limited
Prospect Works, Off South Street, Keighley BD21 5AA

*in accordance with the following Directive(s):*

| | |
|---|---|
| 2006/42/EC: | Machinery Directive (MD) |
| 2014/30/EU: | Electromagnetic Compatibility Directive (EMC) |
| 2011/65/EU: | Restriction of the use of certain Hazardous Substances (RoHS) |

*hereby declare under our sole responsibility that:*

Appliance(s): **Evolution Refrigerated Retail Display**

Model number(s): **SER60E • SER60SP • SER60SW • SER60SW-EURO • SER90E • SER90SP • SER90SW**
**SER120E • SER120SP • SER120SW • SER150E • SER150EMB • SER180E • SER180EMB**

*is/are in conformity with the applicable requirements of the following documents*

| Ref. No. | Title | Edition/date |
|---|---|---|
| BS EN 60335-1 | Household and similar electrical appliances<br>Safety - Part 1: General requirements | 2012 +A11:2014 |
| BS EN 60335-2-89 | Part 2-89: Particular requirements for commercial refrigerating appliances with an incorporated or remote refrigerant condensing unit or compressor | 2010 |
| BS EN 378-2 | Refrigerating systems and heat pumps<br>Safety and environmental requirements<br>Part 2: design, construction, testing, marking and documentation | 2016 |
| BS EN 61000-6-1 | Electromagnetic compatibility (EMC). Generic standards. Immunity for residential, commercial and light-industrial environments | 2007 |
| BS EN 61000-6-3 | Electromagnetic compatibility (EMC). Generic standards. Emission standard for residential, commercial and light-industrial environments | 2007 +A1:2011 |

I hereby declare that the equipment named above has been designed to comply with the relevant sections of the above referenced specifications and is in accordance with the applicable Essential Requirements of the Directives.

The Technical Documentation for the above named machinery is available from Victor Manufacturing Ltd at the above address.

Signed:

Name:

Position:

Location

On:

CE

Certificate No.
VDC-0014(3)