



**BAKBAR**

**E74 / E76 / E78**

**HOT FOOD DISPLAYS**

**SERVICE**

**MANUAL**





**WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.**

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# CONTENTS

This manual is designed to take a more in depth look at the E74, E76 and E78 hot food displays for the purpose of making the units more understandable to service people.

There are settings explained in this manual that should never require to be adjusted, but for completeness and those special cases where these settings are required to change, this manual gives a full explanation as to how, and what effects will result.

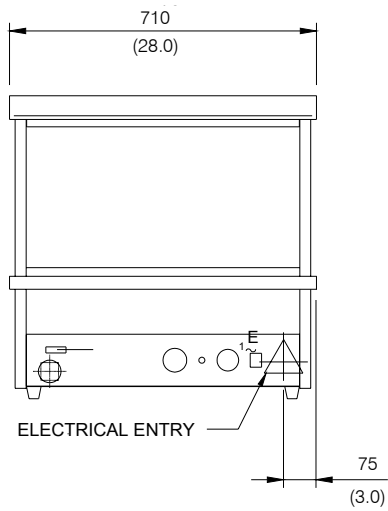
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 **IMPORTANT:** MAKING ALTERATIONS MAY VOID WARRANTIES AND APPROVALS.

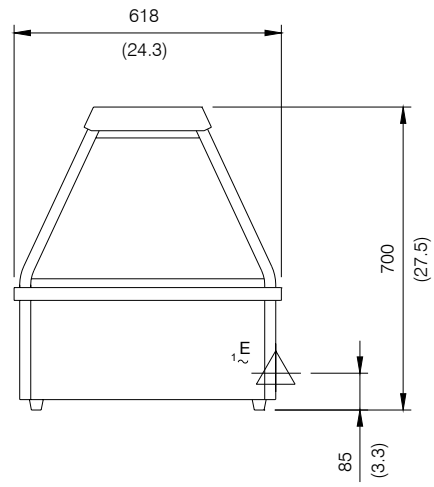


# 1. SPECIFICATIONS

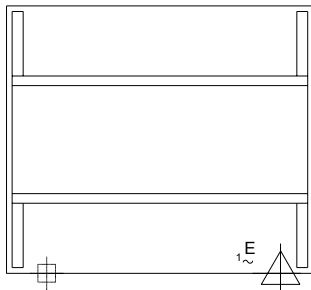
## MODEL: E74



FRONT



SIDE



PLAN

## LEGEND

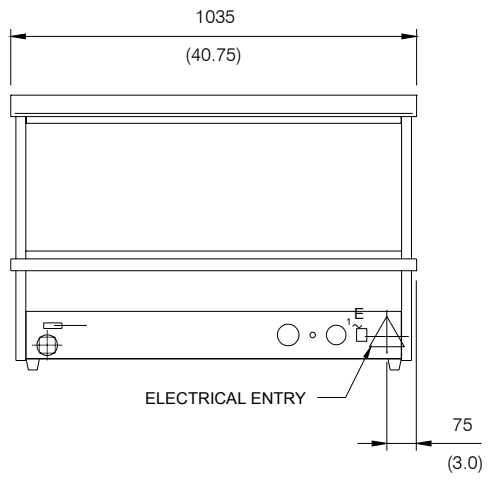


- Electrical connection entry point

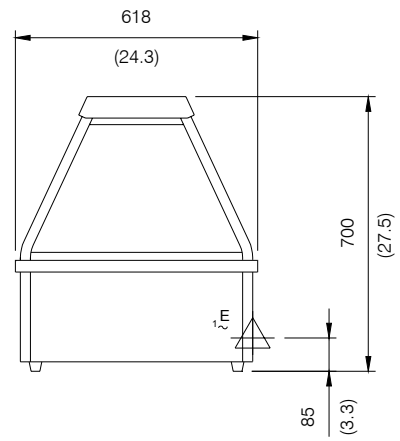
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Dimensions in inches shown in brackets.

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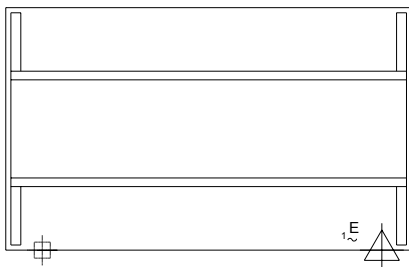
**MODEL: E76**



FRONT




SIDE



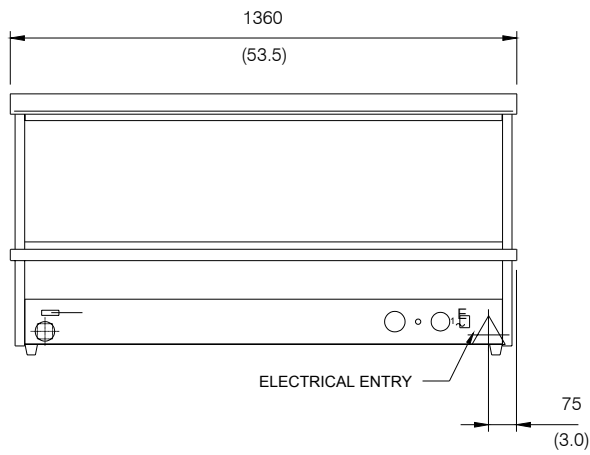
PLAN

**LEGEND**

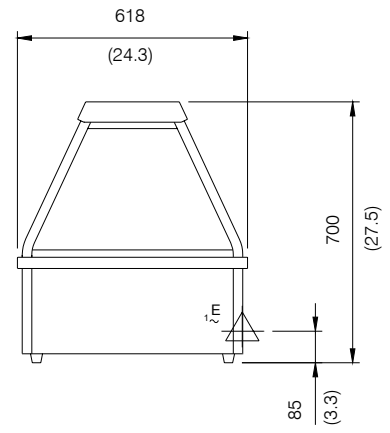
 - Electrical connection entry point

Dimensions shown in millimetres.  
Dimensions in inches shown in brackets.

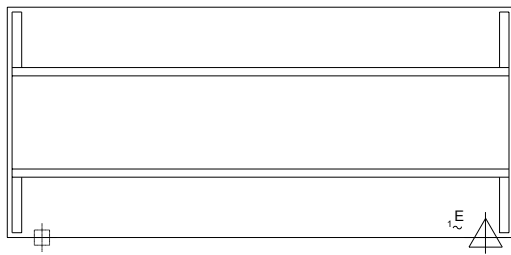
**MODEL: E78**



**FRONT**



**SIDE**



**PLAN**

**LEGEND**



- Electrical connection entry point

Dimensions shown in millimetres.  
Dimensions in inches shown in brackets.

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## **FOOD DISPLAY PAN SIZE**

Length	300mm / 12"
Width	230mm / 9"
Depth	60mm / 2.4"

## **ELECTRICAL SUPPLY SPECIFICATION OPTIONS**

### **E74**

220-240 Volts A.C, 10 Amp, 2.4kW

### **E76**

220-240 Volts A.C, 10 Amp, 2.4kW

### **E78**

220-240 Volts A.C, 15 Amp, 3.6kW

## **ELECTRICAL PLUG SPECIFICATION REQUIREMENTS**

### **E74 / E76**

Australia	3-pin 250V 10A, AS/NZ 3112
New Zealand	3-pin 250V 10A, AS/NZ 3112
United Kingdom	3-pin 250V 13A fused, BS 1363A
Other Countries	3-pin 250V 10A minimum, type to meet country standards

### **E78**

Australia	3-pin 250V 15A, AS/NZ 3112
New Zealand	3-pin 250V 15A, AS/NZ 3112
United Kingdom	3-pin 250V 15A fused, BS 1363A
Other Countries	3-pin 250V 15A minimum, type to meet country standards



## 2. INSTALLATION



**WARNING: THIS APPLIANCE MUST BE GROUNDED.**



**WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.**

It is most important that the hot food display is installed correctly and that the operation is correct before use. Installation shall comply with local electrical, health and safety requirements.

### BEFORE CONNECTION TO POWER SUPPLY

Unpack and check unit for damage and report any damage to the carrier and dealer. Report any deficiencies to your dealer. Check that the available power supply is correct to that shown on the rating plate located on the right-hand side panel.

#### E74

220-240 Volts A.C, 10 Amp, 2.4kW

#### E76

220-240 Volts A.C, 10 Amp, 2.4kW

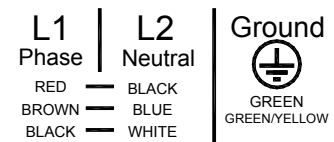
#### E78

220-240 Volts A.C, 15 Amp, 3.6kW

### ELECTRICAL CONNECTION

E74, E76 and E78 hot food displays are supplied with pre-fitted cords. Ensure unit is fitted with correct cord and plug for the installation (refer specifications section).

Should changing of the cord be necessary, gain access to the electrical connection terminal block and strain relief clamp by removing the control panel.



WARNING: THIS APPLIANCE MUST BE GROUNDED / EARTHED

*Figure 2.1*

### MOUNTING

It is possible to install all three models in any of three different installation options.

These are:-

- 1 Counter or bench mounted on the 25mm (1") feet provided.
- 2 Counter or bench mounted flush; ie remove the 25mm (1") feet provided and sit the cabinet flush down on the counter or bench. The unit may then be silicone sealed around the base to meet local health codes.
- 3 "Drop-in" counter or bench mounted. This feature of these models allows the cabinets to be mounted into a cut-out in a bench, either a closed or an open cut-out which creates an installation where only the display half of the unit is exposed above the bench line. The cut-out size required for each model is as listed:-
 

E74	690mm Wide x 600mm Deep + 3.0mm, -0mm
E76	1025mm Wide x 600mm Deep + 3.0mm, -0mm
E78	1350mm Wide x 600mm Deep + 3.0mm, -0mm

**NOTE:** When installing units through closed cut-out the control panel should be removed to prevent damage to controls when dropping through bench. Refit once cabinet is seated.

Drain handle must also be in closed position.

### RATING PLATE LOCATION

The rating plate for the E74, E76 and E78 hot food display is located on the base plate of the unit.



*Figure 2.2*

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## 3. OPERATION

**NOTE:** A full user's operation manual is supplied with the product and can be used for further referencing of installation, operation and service.

### 3.1 DESCRIPTION OF CONTROLS

This unit is designed to keep hot food warm and display it ready for serving.

The cabinet can be used "wet" or "dry" depending on the type of food being displayed or the type of operation you wish to run.

Standard gastronorm size pans up to 150mm deep full size pans can be used if required, although small pans can be used by utilizing the support bars provided.

The units come factory fitted with ½ size 65mm gastronorm pans as this is the most common pan size used.

Alternate pans can be obtained from your distributor.

#### PRE-HEATING

If the tank is going to be run "WET" then pre-heating of the water is required before hot food can be maintained in the display cabinet.

The unit should be switched on and the temperature knob set in the mid range of the screen scale approximately 1 hour before attempting to use the cabinet for food display. It is also important that pans be placed in the tank during pre-heating of the water to prevent excessive losses of heat and excessive steam being generated.

**NOTE:** To reduce pre-heating times it may be preferable to use hot water out of a hot water tap.

If the tank is to be used dry then pre-heating is not required, however switching on 5-10 minutes prior to use is recommended.

#### 'WET' or DRY OPERATION

'Wet' operation of the tank will provide a more even underside heating of the pans, but will require longer heating up times as detailed in PRE-HEATING. If wet operation is desired it is recommended that the tank be filled to approximately 50mm (2") deep on all models as indicated by dimples on tank walls.

The water level should be checked regularly and topped up with hot water as required.

Always ensure that the drain is closed when filling the tank. Draining of the tank should be made a daily occurrence. See CLEANING.

#### TEMPERATURE

All three Bakbar hot food displays are thermostatically controlled to provide more accurate heat control. A dial thermometer is also provided in the control panel to provide an indication as to the actual temperature of the tank cavity.

To operate the tank element, simply turn the temperature control knob to the required setting once power has been supplied to the unit. Set higher or lower to achieve desired temperature.

A pilot light between the thermostat knob and thermometer will illuminate whenever the heating element is on.

#### TOP HEAT/ LIGHT

Enclosed in the cabinet top cover are halogen lamps which provide top heat to the pans and light to the display.


To turn on, simply switch the switch control on the control panel. The switch will illuminate when the lights are on.


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## 4. MAINTENANCE

 **WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.**

### 4.1 CLEANING

 **WARNING: ALWAYS TURN THE POWER SUPPLY OFF BEFORE CLEANING.**

 **IMPORTANT:** THIS UNIT IS NOT WATER PROOF.  
DO NOT USE A WATER JET SPRAY TO CLEAN INTERIOR OR EXTERIOR OF THIS UNIT.

Cleaning of these display units should be a daily occurrence.

Water should be drained from the tank if "wet" operation is being used.

To drain, simply place a 10 or 20 litre bucket under the drain outlet and pull out the drain handle so that it is perpendicular to the control panel. When the bucket is full the drain can be closed while the bucket is being emptied,

Dry (wipe down) and clean the tank. All stainless steel should be cleaned with a good quality stainless steel cleaner. Glass should also be cleaned daily with a quality glass cleaner.

The front display glass is hinged to allow the glass inside face to be easily cleaned.

To hinge the glass down, stand in front of the unit, hold the handle at the top centre of the glass, lift the top cover and pivot the glass forward. Always support the glass when cleaning.

### 4.2 ROUTINE PROCEDURES

	PROCEDURE	INTERVAL
ELEMENTS	Check that element resistance is correct to its rating. (refer 6.3.7).	12 months

## 5. TROUBLE SHOOTING



**WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.**

FAULT	POSSIBLE CAUSE	REMEDY
THE UNIT DOES NOT OPERATE	The mains isolating switch on the wall, circuit breaker or fuses are "off" at the power board.	Turn on.
	Incorrect electrical supply. <b>(Refer fault diagnosis 6.1.1)</b>	Ensure electrical supply correct.
	Thermostat on unit faulty. <b>(Refer fault diagnosis 6.1.1)</b>	Replace. <b>(Refer service section 6.3.2)</b>
	Element faulty (blown). <b>(Refer fault diagnosis 6.1.1)</b>	Replace. <b>(Refer service section 6.3.4)</b>
INDICATOR LIGHT NOT WORKING	Indicator faulty. <b>(Refer fault diagnosis 6.1.2)</b>	Replace. <b>(Refer service section 6.3.1)</b>
	Thermostat faulty. <b>(Refer fault diagnosis 6.1.1)</b>	
ONE LAMP NOT WORKING	Lamp faulty (blown). <b>(Refer fault diagnosis 6.1.3)</b>	Replace. <b>(Refer service section 6.3.6)</b>
ALL LAMPS NOT WORKING	Switch faulty. <b>(Refer fault diagnosis 6.1.4)</b>	Replace. <b>(Refer service section 6.3.6)</b>

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## 6. SERVICE PROCEDURES

 **WARNING:** ENSURE POWER SUPPLY IS SWITCHED OFF BEFORE SERVICING.

 **WARNING:** ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.

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## 6.1 FAULT DIAGNOSIS

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### 6.1.1 WARMER DOES NOT OPERATE

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#### Incorrect electrical supply

Check that the voltage across phase and neutral (L1 and L2) wires is the voltage as stated on the unit's electrical rating plate.

If incorrect, check electrical connection of supply wiring and / or check electrical supply.

#### Thermostat faulty

Check voltage to terminal 2 on thermostat. If there is no voltage then check wiring.

With thermostat on, check the voltage out of terminal 1 on the thermostat. If there is no voltage then the thermostat is faulty—replace.

If the voltage is correct then check all wiring to element.

#### Element faulty (blown)

With the thermostat on and heating, check the voltage across element terminals. If the voltage is correct then check the current draw of the element. If there is no current draw then the element is faulty—replace.

If there is no voltage to element terminals then check voltage is being supplied to element from terminal 1 on thermostat. If no voltage at 1 then check for voltage at terminal 2. If power to 2 (and none to 1) then thermostat is faulty—replace.

**NOTE:** Correct element current draw:

E74 / E76:  $8.3 \pm 5\%$   
E78:  $11.3A \pm 5\%$

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### 6.1.2 INDICATOR LIGHT NOT WORKING

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#### Indicator faulty

With power to unit on, check the voltage across the indicator terminals. If the voltage is correct then indicator is faulty—replace.

If there is no voltage then check voltage is being supplied from terminal 1 of thermostat (refer Thermostat faulty).

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### 6.1.3 ONE LAMP NOT WORKING

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#### Lamp faulty (blown)

With power to unit on, check voltage across lamp terminals. If voltage is correct, lamp is faulty—replace. If no voltage, check wiring.

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### 6.1.4 ALL LAMPS NOT WORKING

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#### Switch faulty

With power and switch on, check for voltage to terminal 4 of switch. If no voltage then check wiring.

If voltage is correct then check voltage at terminal 5 of switch. If no power to 5 then switch is faulty—replace. If voltage at 5 correct then check wiring to lamps.

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## 6.2 ACCESS

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### 6.2.1 CONTROL PANEL

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- 1) Drain any water from unit and leave the water valve open.
- 2) Remove four screws securing control panel.
- 3) Control panel can now be removed.

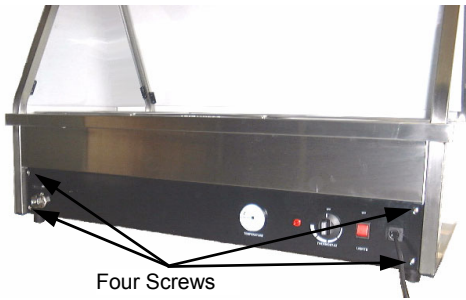


Figure 6.2.1

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## 6.3 REPLACEMENT

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### 6.3.1 INDICATOR LIGHT

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- 1) With control panel open (refer 6.2.1) remove the wires from the back of the indicator.

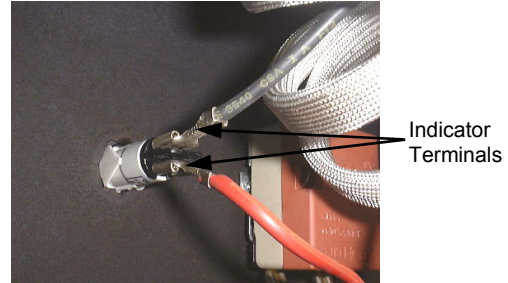


Figure 6.3.1

- 2) From back, push neon through front of panel, rotating clockwise.
- 3) Push new neon in from front of panel, and reconnect wires.

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### 6.3.2 THERMOSTAT

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- 1) Remove thermostat knob by pulling it firmly away from control panel.
- 2) Open control panel (refer 6.2.1) and undo two screws securing thermostat.

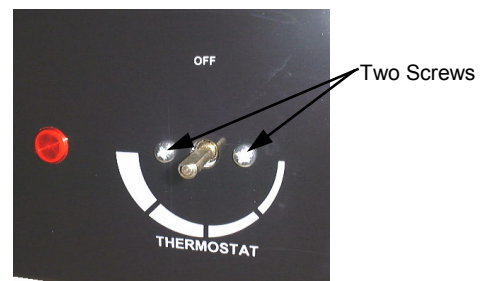


Figure 6.3.2

- 3) Remove the adhesive aluminium tape securing thermostat bulb to outside of tank behind control panel.
- 4) Remove wires from thermostat.
- 5) Replace thermostat and re-assemble in reverse order.

**NOTE:** When fitting new bulb, ensure aluminium tape of suitable temperature rating (120-150°C) is used.

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### 6.3.3 THERMOMETER

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- 1) Open control panel (refer 6.2.1) and undo two nuts securing thermometer behind control panel.

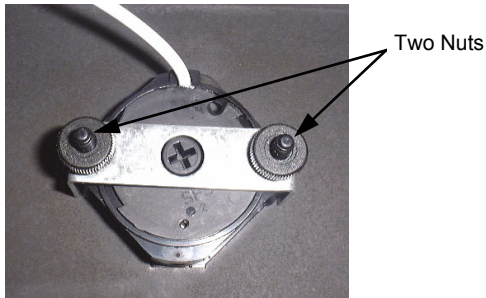


Figure 6.3.3

- 2) Remove the adhesive aluminium tape securing thermometer bulb to outside of tank behind control panel.
- 3) Replace thermometer and re-assemble in reverse order.

**NOTE:** When fitting new bulb, ensure that aluminium tape of suitable temperature rating (120-150°C) is used.

#### 6.3.4 LIGHT SWITCH

- 1) Open control panel (refer 6.2.1).
- 2) Remove wires from the back of the switch, noting their positions.

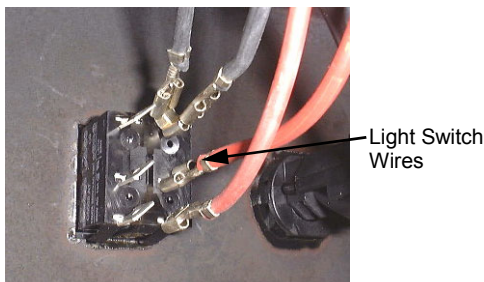


Figure 6.3.4

#### 6.3.5 HEAT LAMPS

- 1) Unclip blown bulb from its holder at the top of the unit.
- 2) Fit new bulb to unit.

**NOTE:** Do not touch new bulb with fingers. Use a cloth to hold the bulb whilst fitting it into its holder.

#### 6.3.6 LAMP HOLDER

- 1) Remove front glass (refer 6.3.7)
- 2) Secure side glasses to frame with tape, to prevent them falling out.
- 3) Remove eight screws securing top cover (four screws on each side).



Figure 6.3.5

- 4) Remove heat lamp from fitting.
- 5) Remove two screws securing lamp holder to unit.

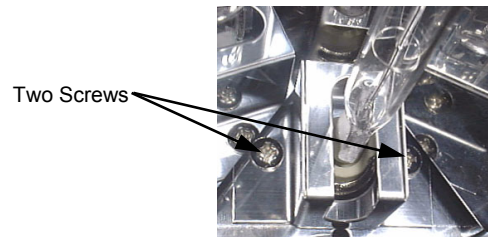


Figure 6.3.6

- 6) Remove cable tie securing fibreglass sleeving to lamp wire, and slide sleeving out of the way, to reveal connector.

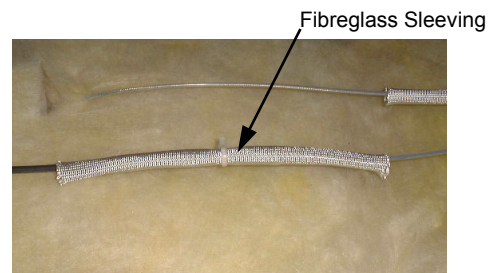


Figure 6.3.7

- 7) Cut the lamp wire at the join, and withdraw the lamp holder from the unit.
- 8) Insert new light fitting, and secure with two screws.
- 9) Using a suitable connector, reconnect the lamp wires, and replace the fibreglass sleeving.
- 10) Replace the top cover panel.

#### 6.3.7 ELEMENT

- 1) Remove control panel (refer 6.2.1), and remove all food display pans from the unit.
- 2) Disconnect element wires, and undo nuts securing element to the unit. The element can now be removed.



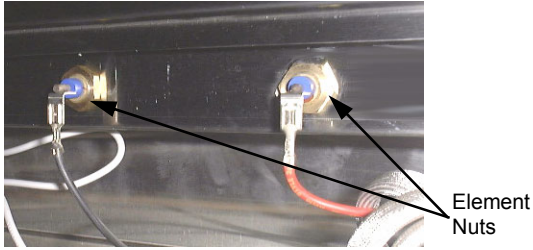


Figure 6.3.8

- 3) Replace and reassemble in reverse order.

Element Ratings

E74 Element	29.5 Ω
E76 Element	30.0 Ω
E78 Element	22.9 Ω

### 6.3.8 FRONT GLASS

- 1) Hold the handle at the top centre of the glass, lift the top cover, and pivot the glass forward.
- 2) Loosen the grub screws in the pivot bracket with an Allen key.

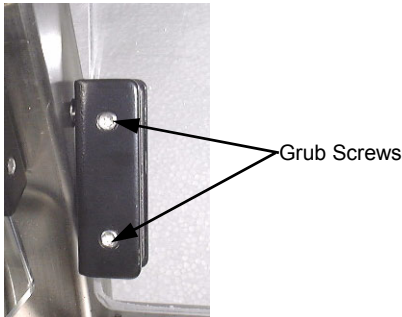


Figure 6.3.9

- 3) Glass can now be removed from the unit.
- 4) When replacing, ensure that the height is set correctly such that when the top cover is lifted for glass hinging, the glass does not fall through into the cabinet, and the top cover sits flat when the glass is captive under its front lip.

### 6.3.9 SIDE GLASS

- 1) Loosen the grub screws in the pivot bracket with an Allen key.

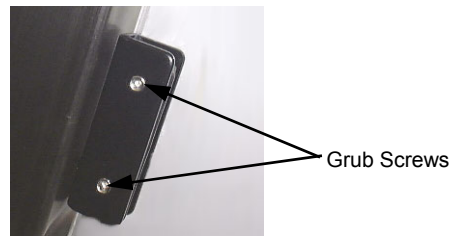


Figure 6.3.10

- 2) Glass can now be removed from the unit.
- 3) Replace and reassemble in reverse order.

**NOTE:** Replacement glass is available as a spares item (see spare parts section), however it may be preferable to have your local glass merchant supply replacement glass. The required cut sizes are therefore listed below. (Replacement glass must be specified as 5 or 6mm thick toughened safety glass.)

#### Front Glass Size

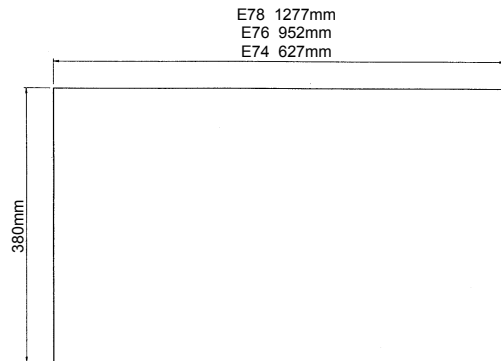


Figure 6.3.11

#### Side Glass Size

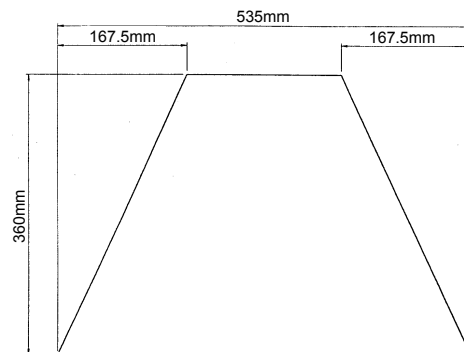
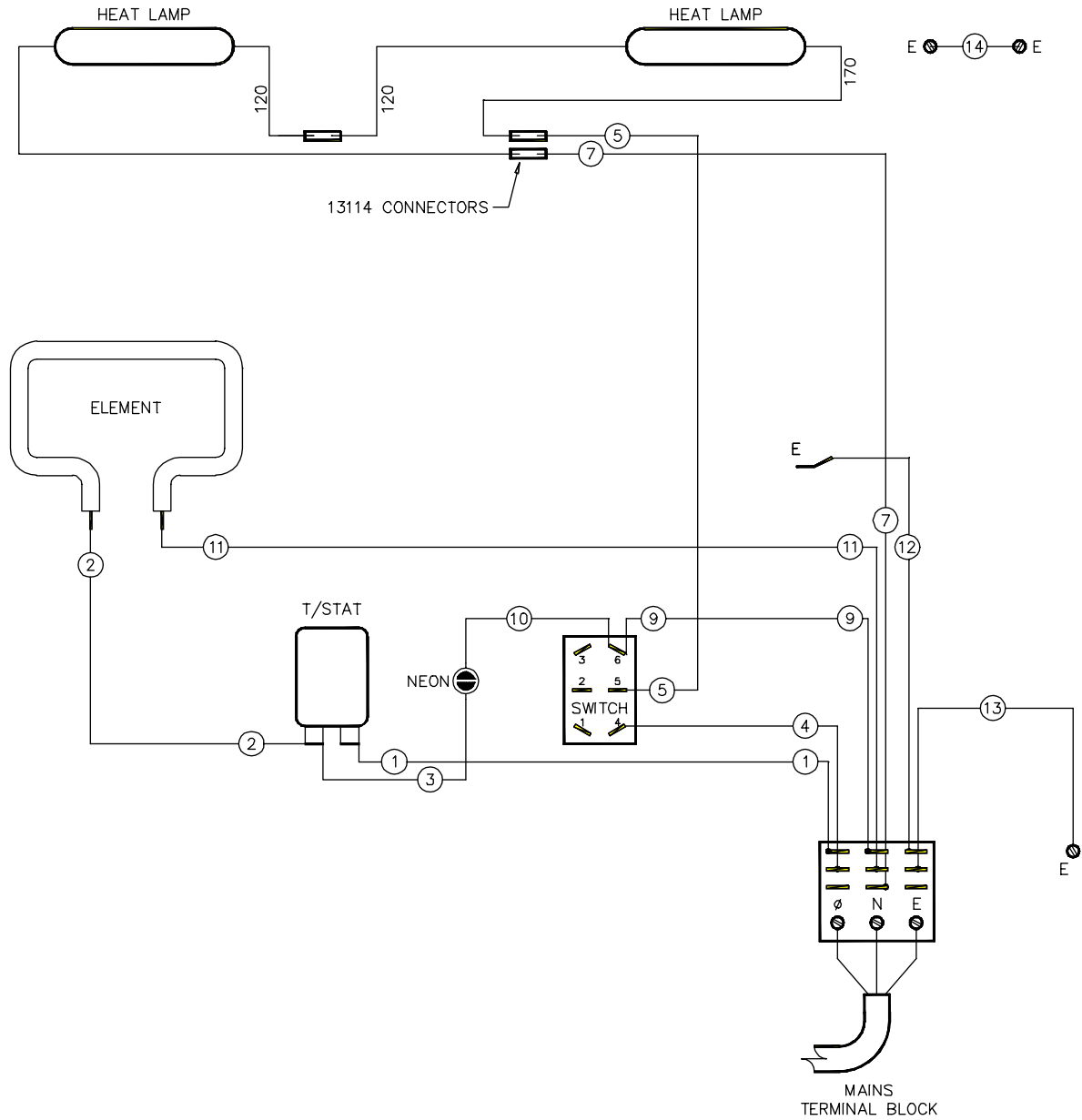


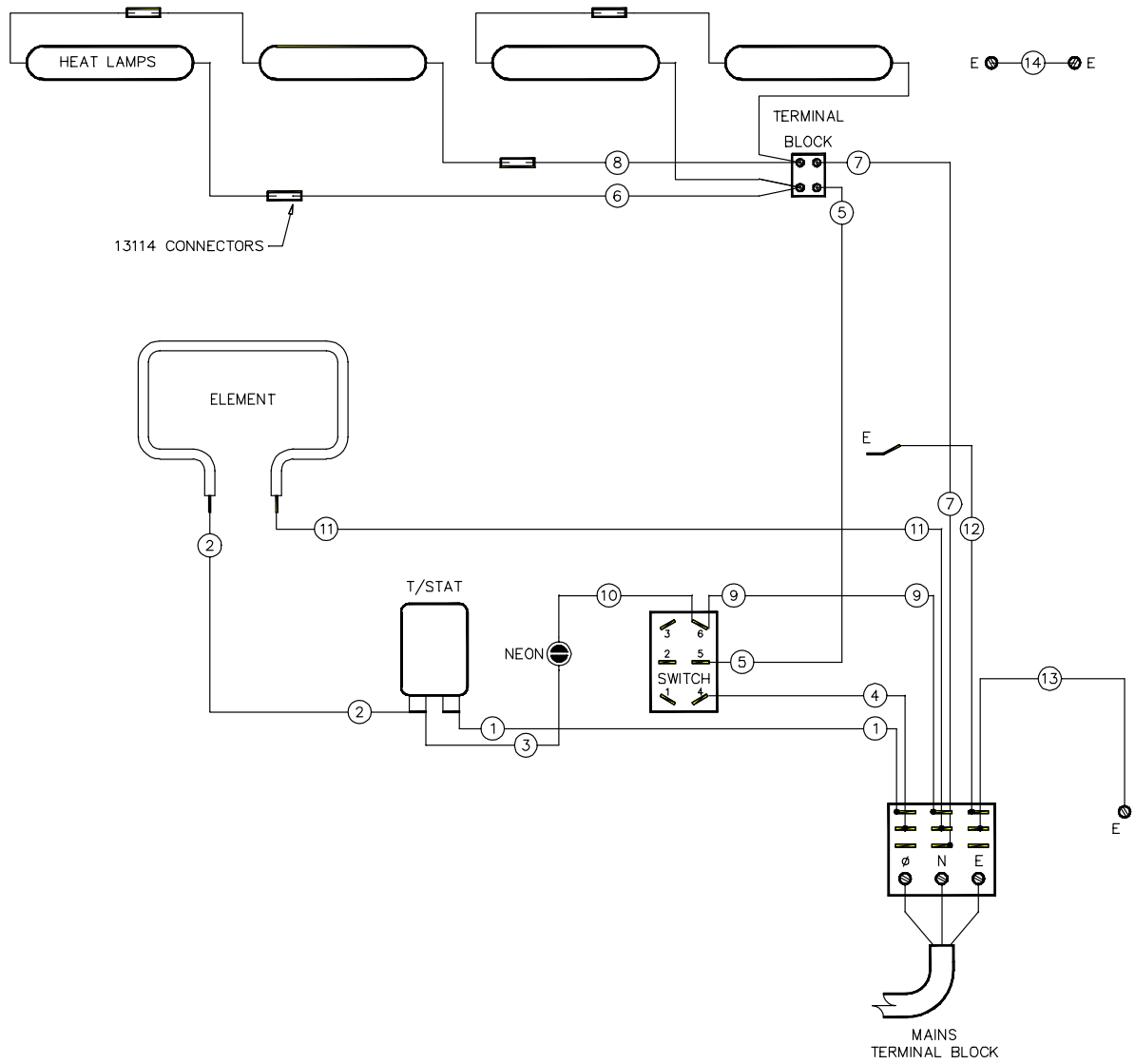
Figure 6.3.12

# 7. ELECTRICAL WIRING DIAGRAM

## 7.1 E74 / E76

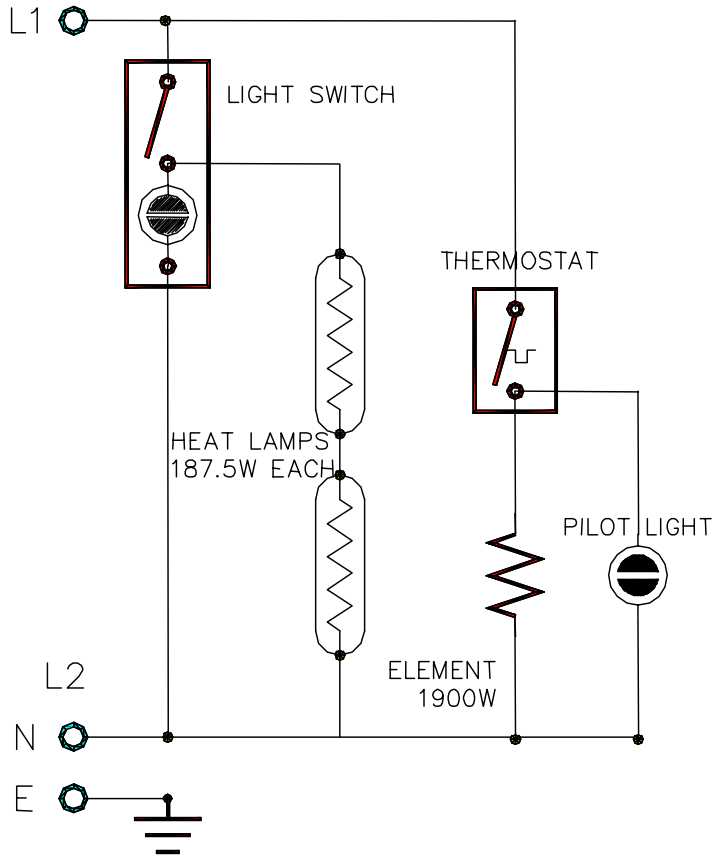


## 7.2 E78

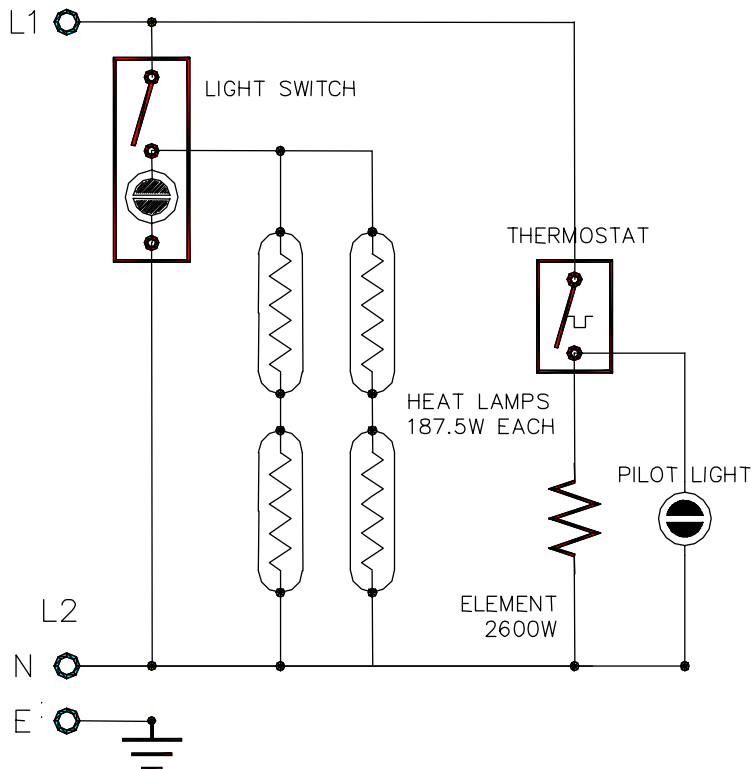


## 8. ELECTRICAL CIRCUIT SCHEMATIC

### 8.1 E74 / E76



### 8.2 E78



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## 9. SPARE PARTS

<b>PART NO</b>	<b>DESCRIPTION</b>
017365	Element (E74 only)
017366	Element (E76 only)
017367	Element (E78 only)
015292	Sealing Washer
017374	Heat Lamp (Tungsten Halogen Strip Lamp, 750 Watts, 240V)
020566	Lamp Holder
018473	Lamp Holder Kit
011980	Thermostat
015560	Knob
017368	Thermometer
013543	Light Switch
013528	Neon/Pilot Light
017370	Glass - Side
017371	Glass - Front (E74 only)
017372	Glass - Front (E76 only)
017373	Glass - Front (E78 only)
017362K	Glass Pivot Bracket Kit
010723	Pan ½ size (65mm)
017351	Pan Divider Long
017388	Pan Divider Sht

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## 10. SERVICE CONTACTS

### AUSTRALIA

VICTORIA HEAD OFFICE AND MAIN WAREHOUSE  
740 Springvale Road  
Mulgrave VIC 3170  
Spare Parts Department

Tel (03) 9518 3888  
Fax (03) 9518 3838  
Free Call 1800 337 963  
Fax (03) 9518 3895

NEW SOUTH WALES  
Unit 8/142 James Ruse Drive  
Rosehill NSW 2142  
Spare Parts

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Fax (03) 9518 3895

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30 Prosperity Place  
Geebung QLD 4034  
Spare Parts

Free Call 1800 337 963  
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Suite 8/71 Fullarton Rd  
Kent Town SA 5067  
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Joondalup Business Centre WA 6027  
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(0800 663 328)

Tel (03) 389 1007  
Fax (03) 389 1276

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Mt Wellington  
Auckland  
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Fax (09) 574 3159

Free Call 0800 Moffat  
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