

# Versatile, energy efficient heating Sterling 3 kW Electric

**Model: Sterling 3 EL** 



## **INSTALLATION & USER GUIDE**

PLEASE RETAIN THIS LEAFLET FOR FUTURE MAINTENANCE

## **MODEL**

The STR3EL is a quiet High Level Fan Heater designed for Commercial and Industrial situations. It is suitable for wall mounting. The Heater incorporates a tangential flow fan and the unit is designed to operate in free air conditions. It is important that there should be no restriction to the free flow of air through the unit.

## Safety & Care

The appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

## WARNING

- •Do NOT site the appliance in a corner.
- Do NOT handle the appliance with wet hands.
- •Do NOT use the appliance in workshops or rooms where excessive dust is generated or present.
- Ensure that nothing is pushed into any aperture of this appliance.
- •Do NOT touch outlet grille when the appliance is in use.
- •Do NOT cover or restrict any aperture of the appliance when in use.
- •Do NOT use the appliance if damaged.
- •Do NOT leave the appliance unattended
- •where young children are present.

#### **PROTECTION**

The unit is protected in the event of fan failure, or an obstruction of the free airflow, by a single thermal PTC Self Hold Cut-out. Having tripped, the PTC Cut-out remains open, effectively switching off the heating elements as long as mains power is available inside the appliance. The PTC Cut-out will only reset when the appliance is switched OFF and allowed to cool for at least 20 minutes.

#### **MOUNTING**

The normal mounting height is 2.3m above the floor, although this will depend to some extent on the situation. The unit should be mounted at least 200mm below ceiling. The heater can be arranged to blow air at any angle, from horizontal to vertically downwards, subject to the conditions mentioned below. It is suggested that an angle of 45 deg is a convenient starting point when setting up the unit. It must always be installed with the axis of the motor horizontal. Failure to ensure this will result in excessive bearing wear and premature failure.

A mounting bracket is provided for mounting to a wall.

The heater should not be mounted in situations where it may be subject to conditions of excessive humidity or the atmosphere is corrosive.

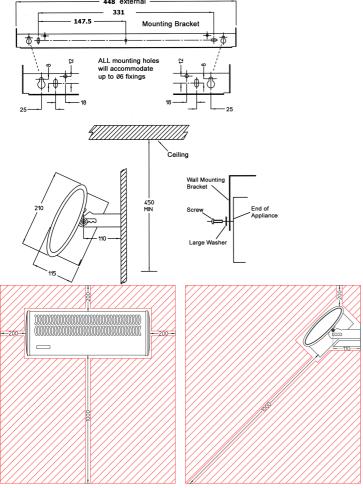
#### **INSTALLATION**

IN ALL CASES, THE UNIT SHOULD BE WIRED IN ACCORDANCE WITH IET REGULATIONS FOR THE ELECTRICAL EQUIPMENT OF BUILDINGS.

Loosen mounting screws, allowing the mounting bracket to be removed from the unit. Making sure that the mounting bracket is horizontal, fix the bracket to the wall using  $3 \times 10^{-2} \, \mathrm{M}_{\odot}$ 

Place the unit on the mounting bracket ensuring the washers are spaced as on diagram.

Tighten screws to hold the unit at the required angle.



## **ELECTRICAL CONNECTIONS**

This unit is suitable for connection to a 230/240V 50Hz single phase AC supply. The unit consumes 3kW of electrical power when the fan and heater are in operation. Connection to the mains supply should be via a switched fused isolator.

To connect a supply to the heater the curved top cover first needs to be removed. Looking directly at the output grille the top cover is secured by two screws which are located at the upper left and right of the outlet grille. Once the 2 screws are removed the curved top cover can be removed by lifting it up and away from the output grille, then lifting off the cover from the two slot hinges located at the opposite side to the two screws/output grille. The input terminal block, marked ENL, is fitted at the left-hand side of the unit looking from above (at the opposite end to the fan motor).

To the unit connect a suitable length of 3 core 1.5  $\,\mathrm{mm^2}$  flexible cable to the input terminal block marked ENL.

For safety reasons, a sound earth connection MUST ALWAYS be made to the unit before being used.

#### Controller

The unit is supplied with a SLVT-B wireless controller. This controller must be used in conjunction with the heater.

Important: The heater will not function without the controller.

The controller should be positioned 1.5m above the floor and in the same room as the heater. The controller should be fixed to the wall. Avoid areas with draft or direct sun. Do not position the controller above or close to the heater or other heat sources. Damp areas or areas where the controller can be mechanically damaged should also be avoided. Avoid installing the controller in areas where there are metal objects between the heater and the controller. This will reduce the RF range. The RF range in ideal conditions can be up to 20m however this can be reduced when the signal is passing through the walls or other objects. The range can be also affected where the controller is mounted close to power cables, motors or equipment producing strong electromagnetic field. If the temperature control feature is used it is necessary to use one controller for each room or zone.

#### TO RESET THE PTC SELF HOLD CUT-OUT

#### DO NOT ADJUST BY HAND ANY INTERNAL COMPONENTS

- a) The cut-out is reset by switching OFF mains power to the appliance.
- b) Allow the appliance to cool for 20 minutes
- c) Reconnect mains power, switch ON the appliance.
- If the cut-out trips again the appliance and installation should be checked by a qualified electrician.

### TO REPLACE A SWITCH

- a) Ensure mains supply is switched off.
- b) Remove the top cover.
- c) Remove the push-on connectors, noting their position.
- d) Remove copper links, noting their position.
- Remove switch by compressing the plastic retaining tabs and lifting out the switch.
- Insert the new switch, refit copper links and push on connectors in the correct order.
- g) Test and reassemble.

## TO REPLACE THE FAN HEATER ASSEMBLY

- a) Ensure mains supply is switched off.
- b) Remove the top cover.
- c) Disconnect the internal wiring from the main terminal block.
- d) Remove the four nuts and washers fixing the fan heater assembly and earth tag to the back of the case.
- The fan heater assembly can now be eased forward and removed from the heater case.
- Fit replacement fan heater and reassemble in reverse order.

#### IF YOUR HEATER DOES NOT WORK

- Check that the unit is wired correctly
- Check that the fuse has not blown in the connection to the unit
- Check re-set of PTC (as described under relevant section)
- Check the SLVT-B controller is calling for heat.
- Check the unit is paired with the SLVT-B controller
- Check the battery condition in the SLVT-B controller and replace if necessary

## Do NOT attempt to repair the heater yourself

Should none of the above remedies work, disconnect heater from power supply and consult accredited service agent. If the appliance is still under guarantee, return it to your supplier.

#### THERMOSTAT CONTROLLER QUICK SET UP

1. Ensure the heater is correctly installed and connected to the mains power supply.

DO NOT TURN THE MAINS POWER ON AT THE WALL UNTIL INDICATED IN THE INSTRUCTIONS BELOW.

- 2. Remove the thermostat from the box and packaging. Remove the two screws to access the back of the SLVT-B thermostat Controller. The clear plastic tag should be pulled out from the end of the battery holder. The screen should now show the current room temperature. Note: If you are using any of the advanced features, these should be set now (see separate instruction detail packaged with controller)
- 3. Set the heater fan switch to ON (leave the mains power OFF at the wall) Turn ON the mains power at the wall and within 20 seconds press and hold the large ON/OFF button on the SLVTB thermostat controller, keep pressing button, PAIR and then TEST will appear on the screen. Once TEST appears on the screen release the button and the fan in the heater should run.



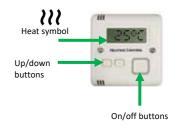
Note: Failure to switch on the mains power and press the controller ON/OFF button within 20 seconds will result in the heater and controller not pairing and the pairing process should be restarted from step 3

5. To exit the pairing mode, press the ON/OFF button on the SLVTB thermostat controller ONCE (DO NOT HOLD THE BUTTON IN). The room temperature will now be shown.



- 6. Set the heat output switch on the side of the heater to the desired position.
- 7. Press the large ON/OFF button on the SLVTB controller ONCE (DO NOT HOLDTHE BUTTON IN). You will see a heating symbol appear in the bottom left hand corner of the screen; this indicates the thermostat is turned on.

8.Using the UP and DOWN symbols buttons on the SLVTB controller set the temperature to the desired setting. Press the up arrow to increase the target temperature or the down arrow to decrease the target temperature.



Providing the target temperature is higher than the room temperature the heater will operate.

Note: If the  $\it W$  heat symbol flashes the target temperature of the SLVT-B thermostat controller is lower than the current room temperature – if the heat symbol is solid the SLVT-B thermostat controller target temperature is higher than the current room temp

#### **OPERATION**

The lower right-hand switch connects the mains supply to the fan motor (giving cold air flow) and energizes the heat control switches.

Note: wireless controller must be in the on position for the heater to work.

#### **HEAT CONTROL**

When the centre switch (marked with 1 bar) is depressed the output is 1kW. When top switch (marked with 2 bars) is depressed the heat output is 2kW. When both switches are depressed the heat output is 3kW.

Note: for all heat settings the lower right-hand must be set to on (fan)

#### MAINTENANCE

ALWAYS ENSURE THAT THE MAIN EXTERNAL ELECTRICITY SUPPLY IS SWITCHED OFF BEFORE ATTENDING TO THE SERVICING OF THE UNIT.

To obtain the best results from the Heater it is necessary to avoid any buildup of dust or dirt within the unit or on the air inlet grille. For this reason the unit should be cleaned regularly, paying particular attention to the removal of dirt build-up on the back of the fan rotor blades.

The removal of dust and dirt is best achieved using a soft brush.



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