



COMMERCIAL FAN HEATER INSTALLATION AND OPERATING MANUAL

**CATALOGUE NUMBERS: CH06CSiRX,
CH06CPiRX, CH09iRX, CH12iRX, CH15iRX.**

Ver.14

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1. General Information

1.1 Introduction

This instruction manual describes the commercial fan heater range from Consort. These heaters are robustly designed for use as space heating in large areas. With a maximum heat throw of up to 11m depending on the room temperature and selected fan speed, they are ideal for areas such as garages, workshops and warehouses.

The heaters must not be used in areas with excessive dust or humidity.

Each heater is equipped with an intelligent fan control, which allows the heater to adapt to the environment by automatically adjusting the fan speed. The heater provides instant directional warmth, and also has a fan-only setting for air circulation.

The heaters are wall mounted with multi-directional brackets.

1.2 General

All appliances must be installed in accordance with the regulations in force in the country of use.

These instructions must be handed to the user on completion of the installation.

Installers and service engineers must be able to demonstrate competence and be suitably qualified in accordance with the regulations.

To ensure continued and safe operation, it is recommended that the appliance is serviced annually.

The commercial fan heater air inlet and outlet must not be covered.

1.3 Electrical Supply

The unit must be wired in accordance with IEE regulations for the Electrical Equipment of Buildings, and the installer should ensure that a suitable isolating switch is connected in the mains supply.

Electrical supply for the CH06CSiRX model is 240V single phase, neutral and earth.

Electrical supply for the CH06CPiRX model is either 240V single phase, or 415V three phase, neutral and earth.

Electrical supply for the CH09/12/15iRX model is 415V three phase, neutral and earth.

1.4 Controller

All commercial fan heaters must be controlled via a CRXSL or SLTI controller.

The CRXSL can provide three levels of heat and 3 fan speeds, whilst the SLTI can only run on temperature control mode.

1.5 Clearance Distances



It is recommended that there is a minimum clearance of 200mm between the upper surface of the heater and the ceiling surface.

The unit should be fitted between 2.5m and 3m from the ground (CH06CSiRX/CPiRX) or between 2.5m and 3.5m (CH09iRX/12iRX/15iRX).

The unit should be positioned so that the airflow is not obstructed. Never install heaters opposite each other.

1.6 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 the air outlet of this appliance.
- Do NOT touch outlet grille when the appliance is in use.
- Do NOT cover or restrict the appliance when in use.
- Do NOT use the appliance if damaged.
- Do NOT leave the appliance unattended where young children are present.
- This appliance must be earthed.
- Do not rest anything, especially ladders, against the product.

1.7 Standards

Units conform to the European electrical standard BS EN 60335-2-30 and 2009/125/EC Directive.

2. Installation & Connection Details

2.1 Mounting

Ensure that the heater is fixed on a secure wall, within the mounting height limits stated in 'clearance distances'. Mount the heater as shown in figures 1 and 2.

The angle of the heater can be adjusted in steps, 22.5 deg. vertically and 180 deg. horizontally.

The weight of the CH06CSiRX/CPiRX models is 10kg, and the weight of the CH09iRX/12iRX/15iRX models is 12kg.

2.2 Electrical Connections

(CH06CSiRX): The heater is suitable for connection to 230-240 Volts single phase 50Hz supply. The heater consumes approximately 6kW on the full heat setting. The maximum current draw is 25A.


(CH06CPiRX, CH09iRX/12iRX/15iRX): The heaters are suitable for connection to a 400-415 volt 3 phase 50Hz supply. With modification the CH06CPiRX can also be connected on a 230-240 volt 50Hz supply.

For 230-240 volt single phase operation, link terminals L1, L2 and L3 on the main input terminal block and connect the supply to L.

The maximum current draw for the 06CPiRX model is 25A, single phase, and approximately 8.3A, per phase for a three phase connection respectively.

The maximum current draw for the CH09/12/15iRX model is approximately 12.5A, 16.6A, 20.8A per phase.

The heater consumes approximately 6kW, 9kW, 12kW or 15kW (CH06CPiRX, CH09iRX / 12iRX / 15iRX models respectively) on the full heat setting.

Earth terminals are adjacent to the terminal block and are clearly marked with the symbol .

For safety reasons a good earth connection must ALWAYS be made to the heater.

There is a wireless receiver inside the heater, this must be paired to An SLTI or CRXSL wireless controller. (See section 4)

Fig. 1: CH06 Dimensions

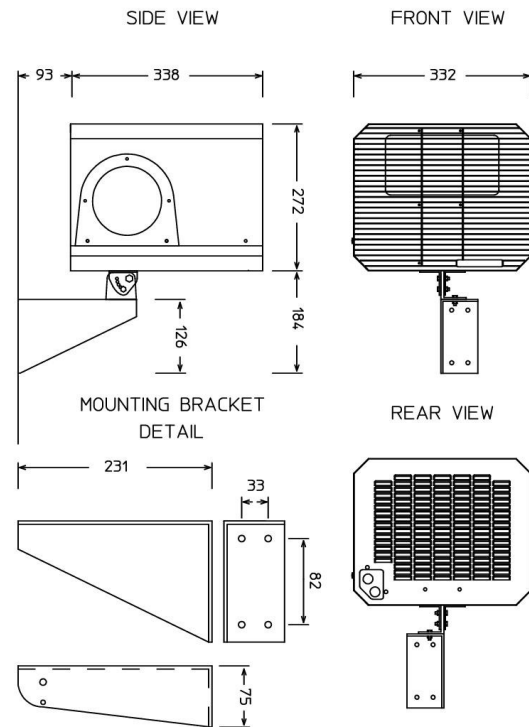
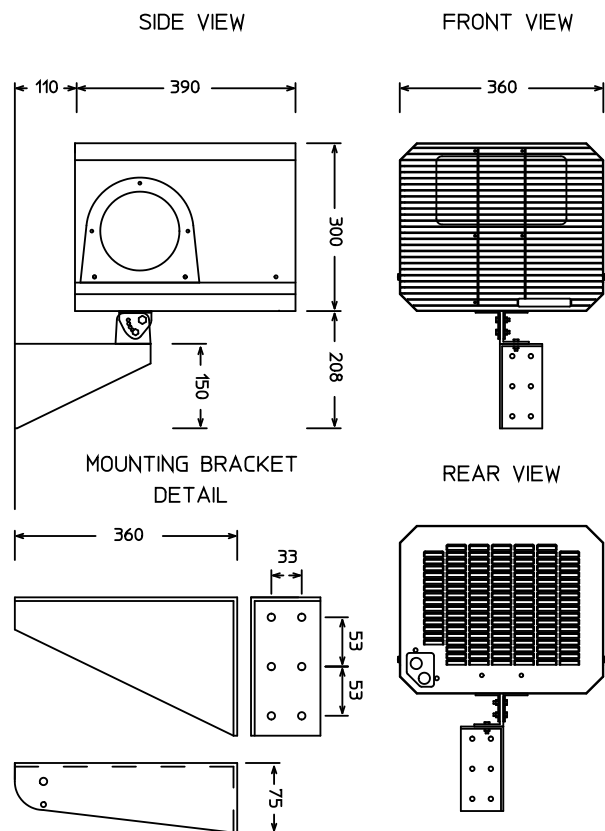


Fig. 2: CH09/12/15 Dimensions



2. Installation & Connection Details

2.3 Installation

It is the sole responsibility of the installer to ensure that the points of attachment to the building are sound. Consultation with the consultant/architect or owner of the building is recommended to ensure that a sound, mechanically stable installation is achieved.

Before fitting or wiring the heater, ensure that the casing faces as shown in figures 1&2, and follow these installation guidance notes.

The wall bracket is secured to one of the inner cardboard box corners. Cut the plastic bag to remove it. All fixing screws are attached to the side of the inner cardboard box.

The heater must always be installed horizontally, using the mounting bracket provided. This ensures correct positioning and adequate clearance.

Assemble the swivel bracket as shown on Fig.3. Use M8 and M5 bolts with locknuts and washers as supplied in bag. Attach the assembled bracket to the bottom of the heater by using 4 x M6 bolts with plain and spring washers as shown on Fig.3.

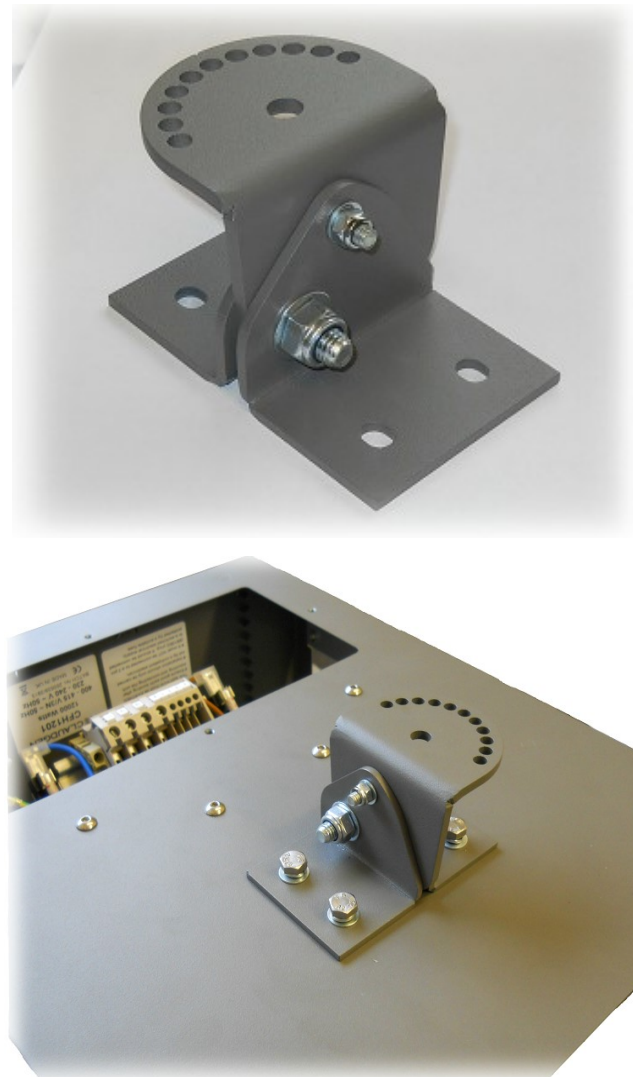
Secure the wall bracket to the wall with suitable fixings. Ensure the position of this bracket will allow suitable clearances between the heater, when fitted, and adjacent walls. **Minimum of 3 fixings must be used** to secure the wall bracket to the wall. Attach the heater to the wall bracket.

Finally, adjust the direction of the heater to the desired area and tighten up all clamping nuts and bolts.

The heater comes with a wireless receiver built within the heater. A CRXSL or SLTI must be used or the heater will not work.

Care should be taken when choosing a position, ideally there should be a clear line of sight between the heater and controller. If the signal has to travel around corners, walls or any metal objects it will decrease the range.

Fig. 3: Swivel Bracket Assembly



3. Intelligent Fan Control

The intelligent fan control incorporates one of the latest low energy consumption EC motors. This allows the heater to operate quietly, whilst still providing the best possible levels of comfort.

The intelligent fan control is only activated when the heat is switched on. If the heater is running in fan/boost mode only (heat switched off), then the fan will operate at a fixed speed.

When activated, the intelligent fan control detects the temperature of the room and, depending on which heat mode is activated, it will calculate the best possible airflow and will adjust the fan speed accordingly.

In order to maintain a constant airflow temperature, the fan runs at lower speed when the ambient temperature is low and will speed up as the room is getting warmer. This will result in reduced throw at low room temperatures.

NOTE: When turning the heater on, or changing heat mode or fan speed mode, the fan will respond accordingly after a small time delay.

4. Wireless Control

4.1 Pairing to the Controller

This must be done, otherwise heaters **will not work**.

Power up the CRXSL/SLTI wireless controller (see user instructions for CRXSL/SLTI for details).

Set heater into pairing mode as follows:

1. Locate the status light.
2. Turn power to the heater on. The light should be green. Now, the heater is ready for pairing for the next 20 seconds. After 20 seconds, it will return to normal operating mode and pairing will not be possible. (Heater must be powered off, and then back on again in this case)

To pair to CRXSL, follow the instructions below:







1. Touch and hold (P) and (M) icons together until display shows CRXSL identification code.
2. Tap the (P) button. This must be done within 20 seconds from powering up the heater. The controller should beep and flash

To pair to SLTI, follow the instructions below:

1. Touch and hold TIME and MODE icons together until display shows SLTI identification code.
2. Tap the TIME button. This must be done within 20 seconds from powering up the heater. The controller should beep and flash

If the pairing was successful, the light will show purple for 5 seconds, and the heater will begin to start. If the CRXSL/SLTI is signalling the heat output to be on, it will begin outputting heat, if the CRXSL/SLTI is signalling the heat output to be off, the heater will switch off after 5 seconds.

4.2 Status Light

| Light colour | Heater status |
|---|--|
|  | Heater is in stand-by mode/ not receiving signal from controller. Heater is ready for pairing with controller. see section 4.1 "Pairing to the controller" for details. |
|  | Heater paired successfully - Solid Purple light for 5 seconds |
|  | Reduced heat output |
|  | Full power heat output |
|  | Heater is in fan only mode |
|  | If the LED is flashing white, there is a fault. The unit will continue to function in restricted mode. However, in specific circumstances, the unit will stop running. |

4.3 Temperature Control/Manual Operation on CRXSL

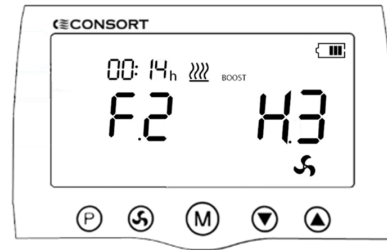
The CRXSL controller will come factory set in temperature control mode. This can be changed to manual operation mode which simulates a 4-switch box. In this mode, the temperature control is disabled and the controller doesn't have to be installed in the same location as the heaters, however they must still be within the wireless range.

To switch to manual mode, touch and hold the (S) & (M) icons for 5 seconds to access the setup menu. Use (M) icon to navigate through the menu. Navigate to option 6, and change the value to 2, this will change your controller to manual/timer mode.

MANUAL OPERATION

The CRXSL can also operate in Manual Control Mode.

In this mode, heat and fan settings can be manually set, and the room temperature is not used to switch the heaters.



The fan speed F0, F1, F2 or F3 is displayed on the left side of the display. Touch (S) to cycle through the fan settings.

The heat setting H0, H1, H2 or H3 is displayed on the right side of the display. Touch (down arrow) or (up arrow) to adjust the heat setting.

In Manual Control Mode, many of the functions of the CRXSL are very similar to automatic mode, except that the fan and heat settings are adjusted instead of the set temperature:

- Boost mode can be used to temporarily override the heat and fan settings.
- Programmes can be set up with up with the same flexibility as in automatic mode.
- Manual mode can be used to run the heaters continuously in one heat and fan setting.

5. Servicing & Maintenance

5.1 Maintenance

! ALWAYS ENSURE THAT THE MAIN EXTERNAL ELECTRICITY SUPPLY IS SWITCHED OFF BEFORE COMMENCING ANY MAINTENANCE ON THIS HEATER.

To obtain the best results from the heater, it is essential to avoid the accumulation of dust and dirt within the unit on the air inlet and discharge grilles. For this reason regular cleaning is necessary, paying particular attention to the removal of dirt build up on the rotor blades.

Cleaning of the fan is best carried out with a soft brush.

The product should be serviced annually.

Servicing shall be undertaken by a competent person.

5.2 General

If the Fan Heater does not operate after switching on, then a suitably competent service engineer should be called to identify the nature of the fault.

If the heater will not operate, disconnect it from the mains and arrange for a certified electrician to attend to investigate the reason.

Other faults in relation to the element, motor and wiring should be identified using conventional fault finding techniques.

In the event that electrical components are replaced, please ensure that electrical safety checks in accordance with the regulations in force in the country of use are undertaken.

In the interest of progress the Company reserves the right to vary specifications from time to time without notice. The material listed is offered subject to the Company's General Conditions of Sale, a copy of which can be obtained on request.

5.3 Thermal and Fault Protection

The units are protected from overheating in the event of fan failure or an obstruction of the free airflow, by two thermal cut outs.

If this happens the thermal cut outs effectively switch off the appliance. The appliance will not operate until the heater is checked (see note below) and thermal cut outs are manually re-set. This should be done by a competent electrician.

PLEASE NOTE:

If thermal cut outs operate, the heater has more likely failed and has to be inspected. Resetting the cut outs without inspecting the heater is dangerous and can result in catastrophic failure.

5.4 Resetting Thermal Cut-Out

The cut-outs are located under the top cover on the top of the heating element.

a) To reset the cut-out, allow the appliance to cool for 20 minutes.

b) Gently press the plastic square button on the top of the cut-out.

c) Restart, switch ON the appliance and test all functions.

5.5 Spares

It is essential when ordering spares or replacement parts to state the model number and the serial number.

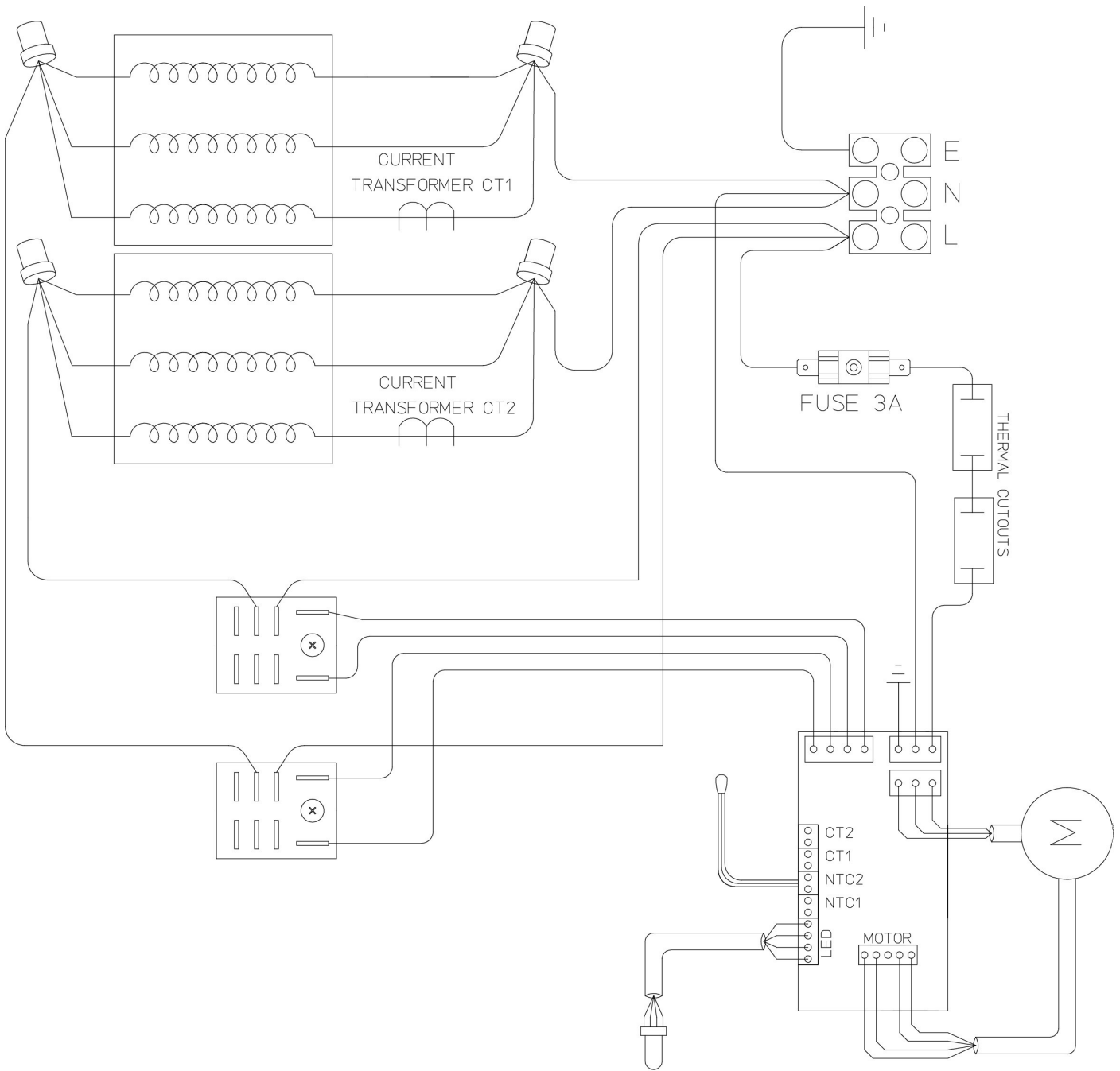
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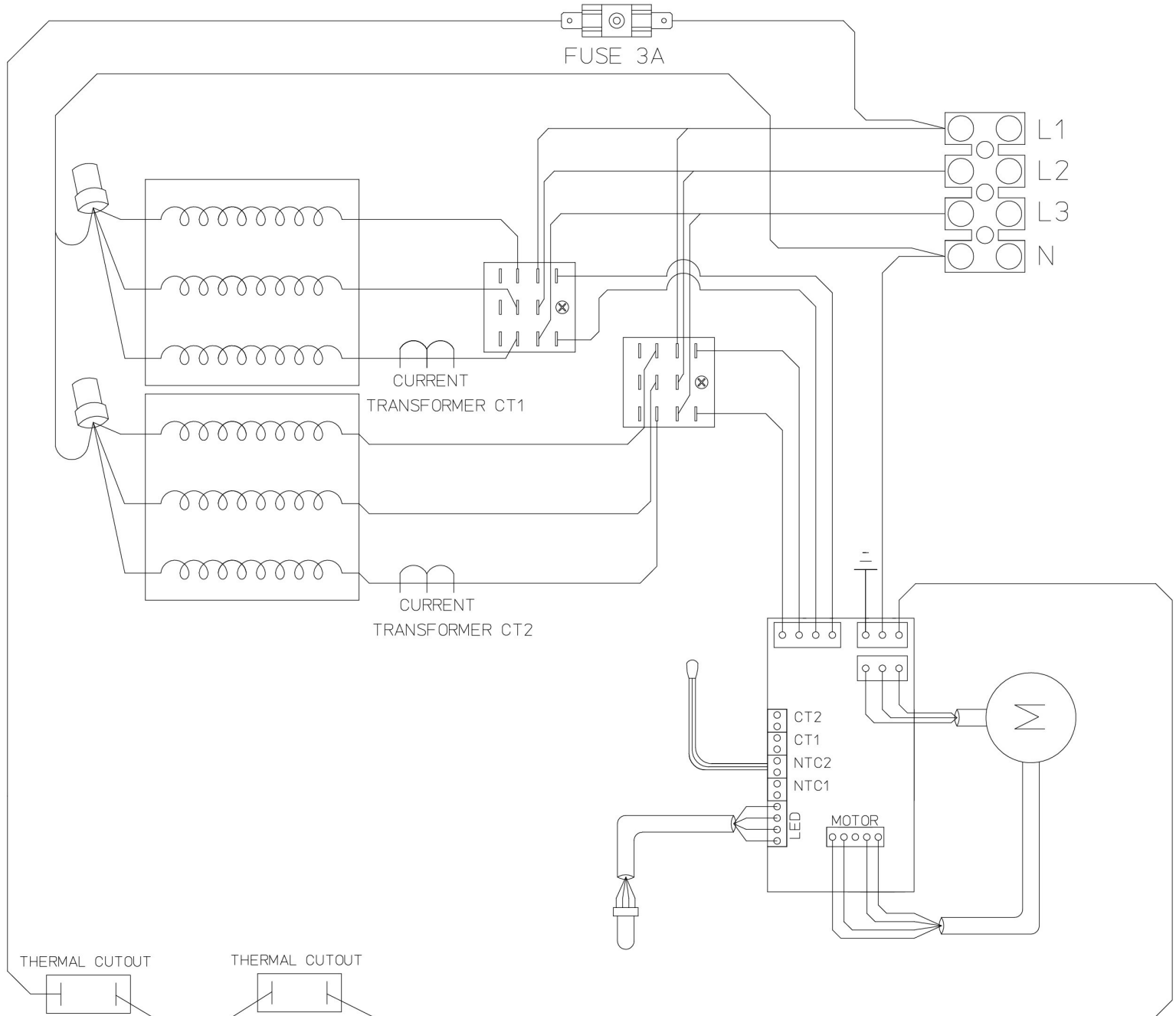
CH06CSiRX Wiring Diagram

WIRING DIAGRAM CH06CSI WITH EC MOTOR
14 REVISION



CH06CPiRX Wiring Diagram

WIRING DIAGRAM CH06CPI WITH EC MOTOR
14 REVISION



CH09iRX/12iRX/15iRX Wiring Diagram

WIRING DIAGRAM CH9iRX,12iRX, 15iRX WITH EC MOTOR
14 REVISION

