

HYCO
Manufacturing Ltd

QZC Series

Infrared Electric Soft Start
Quartz Heating Controllers

Models QZC-C and QZC-D

Installation and Operating Instructions Manual

Version 1.0 October 2011

HYCO QZC SERIES INFRARED ELECTRIC SOFT START QUARTZ HEATING CONTROLLERS

QZC-C Push Button operation

QZC-D PIR remote operation

I. INTRODUCTION

Thank you for purchasing a Hyco QZC Series controller. These products are designed to provide:

- Energy efficient control of quartz heaters by providing time (and in some cases temperature) control
- A reduction in the high inrush current that occurs when the lamps are first switched on from cold.

To install and use this equipment safely please read this manual carefully. When the unit has been installed these instructions should be left with the user of the equipment.

Do not proceed with installation if there is any sign of damage to the product.

CAUTION



READ THESE INSTRUCTIONS BEFORE ATTEMPTING
INSTALLATION.



INSTALLATION **MUST** BE UNDERTAKEN BY A COMPETENT
INSTALLER IN ACCORDANCE WITH THE LATEST EDITION OF
THE IEE WIRING REGULATIONS.



THIS UNIT CONTAINS LIVE PARTS.



ONLY QUALIFIED PERSONNEL SHOULD BE ALLOWED TO
ADJUST AND MAINTAIN THE UNIT. UNIT MUST BE
DISCONNECTED BEFORE ADJUSTMENT OR MAINTENANCE.



A MEANS FOR DISCONNECTING THE UNIT MUST BE INCORPORATED INTO THE FIXED WIRING.



THE UNIT MUST NOT BE USED BY CHILDREN OR BY PERSONS WITH A REDUCED PHYSICAL, SENSORY OR MENTAL CAPABILITY OR LACK OF EXPERIENCE AND KNOWLEDGE.



THERE ARE NO USER SERVICEABLE PARTS INSIDE THE UNIT.

2. SPECIFICATIONS

PARAMETER	VALUE
Supply Voltage	230VAC, 50Hz
Switching Capacity	6kW Max, 26A
Lamp On-Time	1 to 99 minutes
Current Consumption (control circuit)	2W (10mA max)
Terminals	6.00mm ²
Operating Temperature	-20 to +60°C
Protection Rating	IP65
Gland Diameter	20mm
Enclosure Dimensions (W x L x H)	100mm x 100mm x 60mm
Weight	500 grams

3. INSTALLATION AND ELECTRICAL CONNECTION

The following section is relevant to the push button model (QZC-C) and PIR model (QZC-D).

The unit should be positioned with the cable glands facing down and securely fixed via the four mounting holes (see Figure 1).



THE UNIT MUST BE SITED AWAY FROM DIRECT RADIATION FROM THE HEATER AND IDEALLY OUT OF DIRECT SUNLIGHT.

Remove cover using four screws.

Connect supply as to terminals, noting the supply is the incoming supply is to the left and the load (heater) is connected to the right.

Screw down cable glands and verify cables are securely clamped.



A MEANS FOR DISCONNECTING THE UNIT **MUST** BE INCORPORATED INTO THE FIXED WIRING.



THE UNIT IS CAPABLE OF SWITCHING UP TO 6KW. SUITABLE CABLE MUST BE USED DEPENDENT ON THE INSTALLATION.

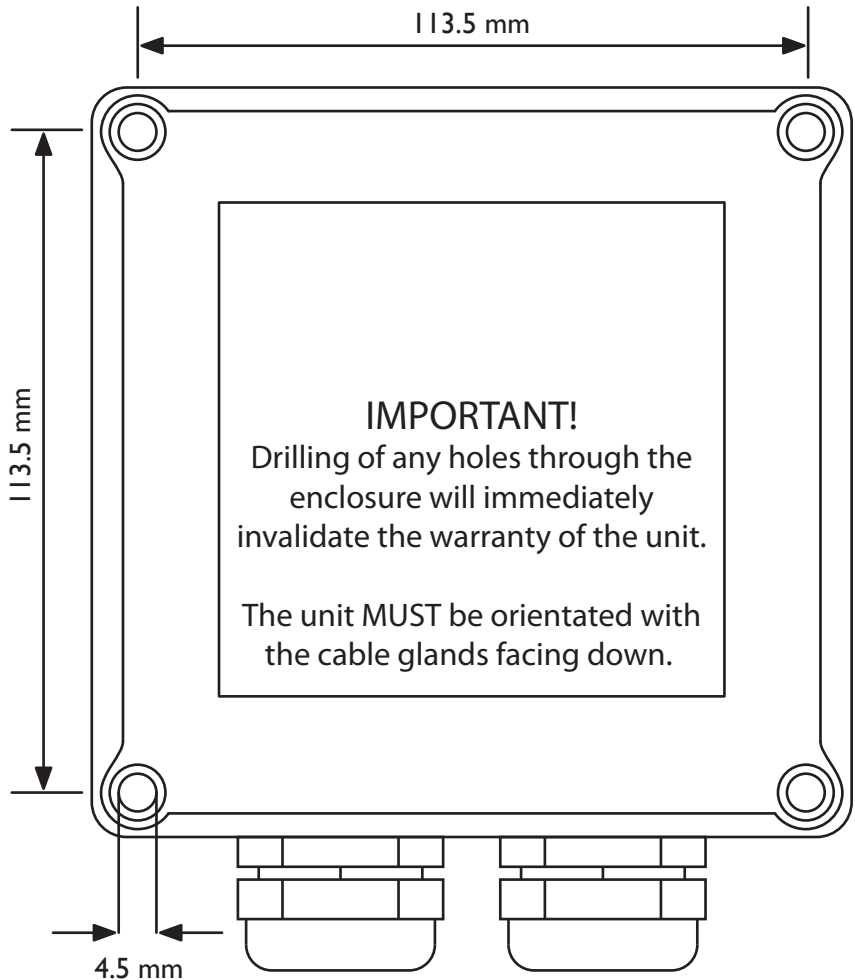


THE CABLE GLANDS SUPPLIED (M20) MAY NOT BE SUITABLE FOR VERY SMALL DIAMETER CABLES. IF NECESSARY THEY MUST BE REPLACED BY SUITABLE GLANDS WITH APPROPRIATE IP RATING.



DO NOT EXCEED POWER RATING (MAX 6kW).

Figure 1



THIS ILLUSTRATION IS NOT FULL SCALE AND SHOULD **NOT** BE USED AS A GUIDE FOR MOUNTING OR INSTALLATION. USE THE MEASUREMENTS PROVIDED ABOVE FOR ACCURATE INSTALLATION.

4. OPERATION – PUSH BUTTON UNIT QZC-C

To operate the unit, manually press the central red button and release.

Provided the ambient temperature is BELOW the unit's threshold temperature the unit will perform a soft start, increasing the gradually power over a timescale of 2-3 seconds.

The unit will then stay on for a number of minutes before switching off.

To protect against excessive operation that could damage the unit, only two on/off cycles are permitted per minute.

5. OPERATION – PIR UNIT QZC-D

If motion is detected and the ambient temperature is BELOW the unit's threshold set point the unit will perform a soft start, increasing the power gradually over a timescale of 2-3 seconds.

It will then stay on for a number of minutes before switching off.

If motion is detected whilst the unit is already operating the timer will be reset.

An externally visible red LED indicates when motion is detected.

6. PARAMETER ADJUSTMENT

Both models include two parameter adjustments

- Run Time
- Threshold temperature



MAINS POWER **MUST BE DISCONNECTED FROM THE UNIT BEFORE ATTEMPTING ADJUSTMENT.**

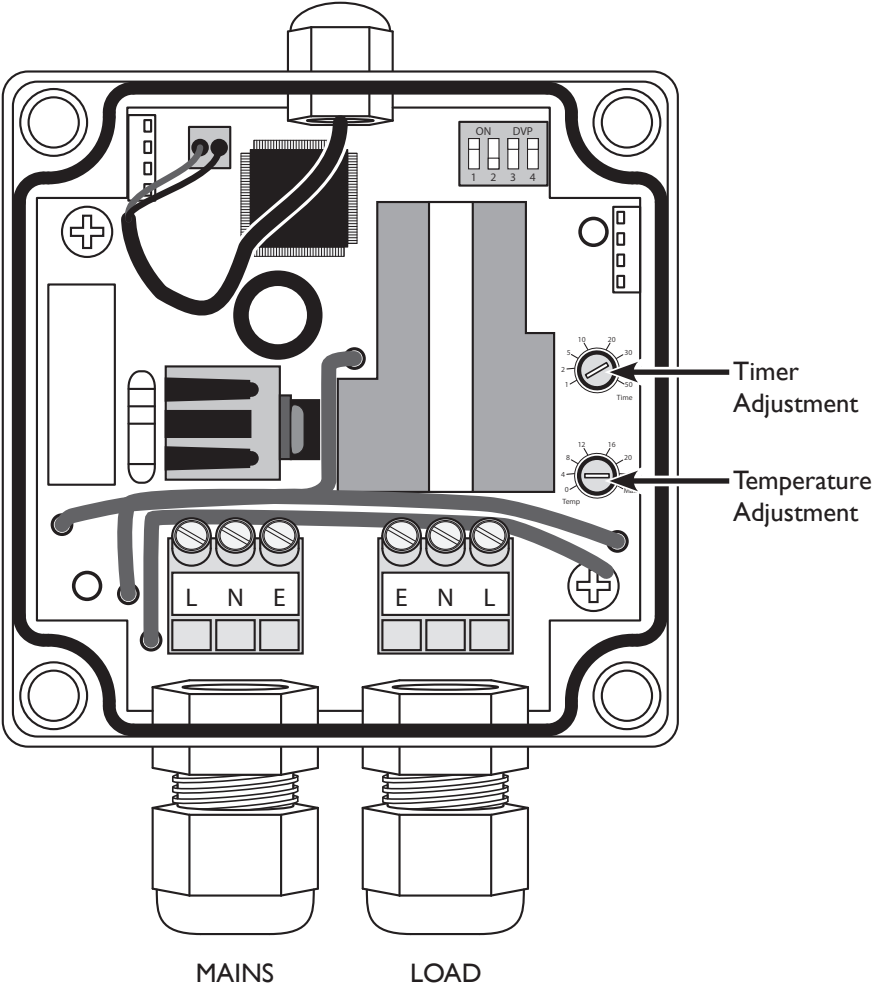
To adjust, first open cover.

On the right hand side of the PCB are two small potentiometers that can be adjusted with a small flat bladed screwdriver (see Figure 2).

The top potentiometer controls the run time in minutes.

The lower potentiometer controls the threshold temperature in degrees C. The unit will not operate if the ambient temperature is above the threshold temperature. To effectively disable the temperature control set it to the highest setting.

Figure 2



7. GUARANTEE AND SERVICE POLICY

This product is guaranteed against faulty materials and manufacture for a period of one year from the date of purchase. Hyco will in its sole discretion repair, replace or refund any faulty unit. The results of incorrect installation are excluded. Consequential losses such as damage to fittings or labour charges are excluded from this guarantee.

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