

HIQ 414T (TR8200CY) Cylinder Element control Timer.



This control device is designed to provide timed (or override) control over a hot water element. It can be used as an element control where the element is the only heat source, OR as supplementary element control in systems where DHW is primarily produced through a hydronic coil input from a heat pump, and the element input is normally controlled by the Heat pump.

Display symbols

	Controller On / off	Day	Day of week, Monday = Day 1 etc,
	Keypad Locked	Program 1,2,3,4	Current switching period shown as periods 1 to 4
	Element Active		Reminder to connect the sensor
	Frost protection active (Not applicable)		Standard element target temperature
AUTO	Following the timed schedule		low Target temperature (Not Generally applied)
O / RIDE	Temporary override, Reverts at next switch time		Vacation mode
Err	Sensor Error		Press to program the schedule for Auto mode
	Adjust setting Up or Down		AUTO Switch between operating modes

Set the Clock

This device includes a clock, you must ensure the clock is set accurately if the control is to be by timed schedule.

Operating mode setting

AUTO Element is Operating as per your pre-programmed Time schedule. (See over for setting.)

(A) Element permanently active at set temperature – set your desired level.

(B) Element permanently active at set temperature – set your desired level.

Use the (A) programme as a permanently on control mode for high temperature input (for example: with a set point 50° The element comes on when the sensor is at below the set point by **(01)** and off when above the set point by **(01)**

Use (B) as you would use (A) but with a lower set point for economy.

* This mode feature is not typically used in this control Scenario

O / RIDE Temperature is over-ridden, **higher**, or **lower**, until next scheduled switching point In Auto mode.

To set touch displayed temperature (it will Flash the current set target temperature)

Use **Up (+)** or **Down (-)** keys to adjust the Temperature Set Point, then Press **Done** to store & Exit.

To lock the keypad press & hold the bottom left corner of screen you will see the lock symbol repeat process to unlock

Configuration.

To enter the menu press to turn the control off then press **Set Menu** you will see menu item **01**

Touch **Next** or **Previous** to scroll through the menu items using or to adjust settings, Press **Done** to store

01	Switching Differential	Your chosen control differential (2° typical)	1-5°
02	Calibrate Sensor temp	Compensate for a discrepancy default 0	Adjusts -5 to +5
03	Backlight Timer	30 seconds default	Adjusts 10 to 60 seconds
04	Temperature format	Select unit Centigrade by default	C or F
05	Clock Format	24 Hour by default	24Hr or 12Hr
06	Frost protection (NA)	Generally irrelevant for this controller	On or Off
07	5+2 or 7 day programming	7 days by default	7days or 5+2
08	Keys silent	Beep on press by default	On or off
09	Software Version	View version only	

*Some control family features are present but not used in this version of our control device

Program	From	Default setting (Adjust as shown below)	Explanation
Switching point 1	7.00 AM	50°	Activated element
Switching point 2	9.30 AM	30°	Deactivated element unlikely
Switching point 3	16.30 PM	50°	Activated element
Switching point 4	22.30 PM	30°	Deactivated element unlikely

Principal of operation. When set at 50° and with 01 (differential) set at the default 5° the element will come on when the probe reads 45° and go off when the Element reads 55° - When set at 30° the trigger point is 25° The element will not be activated. (01 Is adjustable - see over).

In 7 Day, program mode

1/ with the control in **Auto** mode Press **Set Schedule** - you will see the day flashing.

2/ Use + or - to adjust the day you wish to program. or day you wish to edit in the existing program. Or if you wish to amend every day the same press **ALL Days**.

3/ Press **Next** you will see program one with the time flashing. Use + or – to set the time for program one to begin. Pressing Next will move you to set the temperature for program 1 Then By pressing Next you can move through the remaining program points and temp adjusting as you wish

In 5 +2 Day, program mode

1/ Press set Schedule

2/ Use + or - to adjust the weekdays program 1 time then press **Next** to set the temperature. Pressing **Next** will then take you to Program 2 and so on until all four program times and temperatures are all set for the weekdays

Pressing **Next** again will take you to weekend days settings. Set these by the same process as above

Press **Done** to save and exit

Installation (Screen is Horizontal)

1 Carefully separate the front half of the thermostat from the back plate by placing a small flat head terminal driver into the slots on the bottom face of the thermostat

2 Carefully unplug the ribbon connector which is plugged in to the front half of the thermostat

3 Place the thermostat front half somewhere safe. Terminate the thermostat as shown in the diagrams below

4 Screw the thermostat back plate on to the back box

5 Re-connect the thermostat ribbon cable and clip the two halves together

Max 16A AC230V

Sensor L N N L

6 5 4 3 2 1

This product should be installed by a qualified electrician.

To reset the programmer to factory settings, with the controller turned off press and hold the top left corner of the screen for 5 seconds. You will see RESET on the screen.