

ELEMENTS AND THERMOSTATS		
WH9	3kw	1 phase 18" & stat pocket
WH9A	3kw	1 phase 14" & stat pocket
WH9B	3kw	1 phase 9" & stat pocket
WH9D	4kw	1 phase 14" & stat pocket
WH9F	3kw	1 phase 11" & stat pocket
WH10	4.8kw	1 phase 18" & stat pocket
WH10A	4.8kw	3 phase 18" & stat pocket
WH11	6kw	1 phase 18" & stat pocket
WH12	6kw	3 phase 18" & stat pocket
WH12A	9kw	3 phase 18" no stat pocket
WH13		Hi Range Stat 30° - 110/120°

**TO SET DIGITAL CLOCK (for every day use)**  
**See clock's own manual for other settings.**  
**THIS IS A 24 HOUR CLOCK**

**SET CURRENT TIME**

Press and Hold Down CLOCK button whilst setting hours and minutes to input current time

**SET HEATER ON/OFF TIMES**

Press and release TIMER until C1 appears on right and 1-ON comes up at left, set first element ON time by pressing HOUR and MIN

Press Timer again, 1-OFF will appear at left set first element OFF time by pressing HOUR and MIN

Press Timer again, 2-ON will appear at left set second element OFF time by pressing HOUR and MIN

Press Timer again, 2-OFF will appear at left set second element OFF time by pressing HOUR and MIN

(repeat above steps for third and fourth on/off's if needed if not required, press TIMER repeatedly to step through 3on/off and 4on/off)

**SET WATER SOLENOID to re-fill heater**

Press and release TIMER until C2 appears on right and 1-ON comes up at left, set first Solenoid OPEN time by pressing HOUR and MIN

Press TIMER again, 1-OFF will appear at left set first SOLENOID OFF (close) time by pressing HOUR and MIN

(this will shut water solenoid - allow 2 - 3 hours to refill heater)

Press TIMER again and 2-ON comes up at left, set second SOLENOID OPEN time by pressing HOUR and MIN

Press Timer again, 2-OFF will appear at left, set Second SOLENOID OFF (close) time by pressing HOUR and MIN, (this will again shut water solenoid - allow 2 - 3 hours to refill heater)

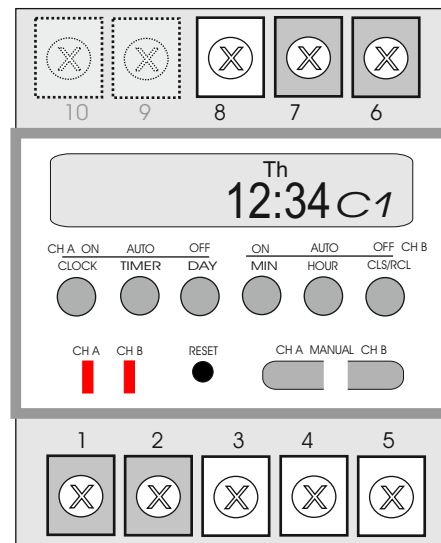
(repeat above sequences to set thirdon/off's if required,(no fourth setting) if not required, press TIMER to step through 3on/off and return to C1)

Finalise settings by pressing CLOCK

**SET AUTO OPERATION**

Press CH A until line at bottom of display is above AUTO, repeat for CH B

if stepping from ON to AUTO, timing starts immediately, if stepping from OFF to AUTO timing will start at NEXT clock point



**CLOCK CONNECTIONS**

Channel A (Heater Element)

Series 1 (Up to Approx Aug'08): 7 & 6

Series 2 (After Approx Aug'08): 2 & 3

Channel B (Water Inlet Solenoid)

Series 1 (Up to Approx Aug'08): 10 & 9

Series 2 (After Approx Aug'08): 1 & 2

Illustration is of Series 2 Clock, fitted August 2008 on (both types of clock have same set-up, but different connections)

**"All STAINLESS STEEL"**  
**DAIRY WATER HEATER**



**INSTRUCTIONS**  
**Installation & Maintenance**

Dual Clock (S2) and  
 Digital Thermostat Versions

Cotswold Dairy Equipment Co Ltd  
 Avenue 3 Station Lane  
 Witney Oxford OX28 4BP  
 UK

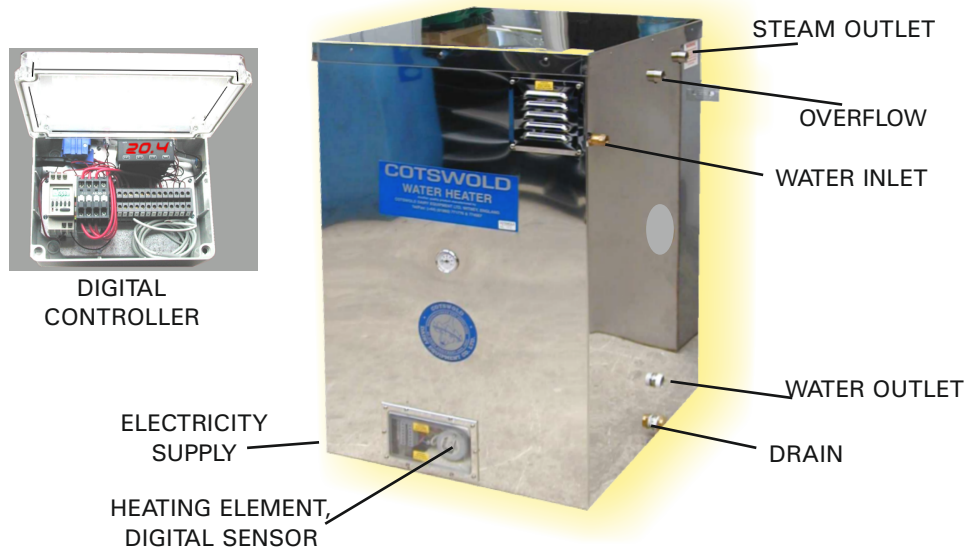
Tel +44 (0)1993 774567  
 Fax +44 (0) 1993 771776  
 e-mail sales@cotswold-dairy.co.uk  
 www.cotswold-dairy.co.uk



MADE IN ENGLAND

## WATER HEATER

- all stainless-steel construction including inner tank and outer cabinet
- high quality internal insulation for maximum economy, (including lid)
- connects direct to mains water supply
- square inner vessel for minimum size / maximum volume
- designed specifically for agricultural use.
- special sizes shapes and specifications to order



### SPECIFICATION

<b>WATER OUTLET:</b>	1 ¼" BSP
<b>OVERFLOW &amp; STEAM:</b>	1 ¼" BSP
<b>WATER INLET:</b>	15mm compression fit
<b>ELEMENT:</b>	Incoloy stainless steel

### IMPORTANT INSTALLATION INFORMATION

#### DO NOT RESTRICT OR BLOCK THE OVERFLOW OR STEAM OUTLET.

They also allow air into the tank as the water is removed, and if they become blocked the inner tank may implode.

In hard water areas, it is essential that a scale prevention device or water softener be used and a water strainer fitted.

## IMPORTANT INSTALLATION INFORMATION

### MAINTAIN WATER PRESSURE AT THE INLET.

The cold water inlet is controlled by an electrically operated solenoid valve suitable for water pressures between 10 and 150 psi (1 - 10 BAR). It is important that this pressure is maintained **EVEN WHEN OTHER TAPS OR APPLIANCES ARE OPERATING**, otherwise the solenoid may overheat.

### CONTROL BOX

The controller can be mounted on a wall adjacent to the heater, or can be screwed directly to the heater housing. Connect the mains electricity supply to the connectors..

### CLOCKS (see back page for setup instructions)

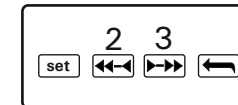
Where a single clock is fitted, it is used to control the timing of the heating element . A dual clock allows you to also set the timing of the fill solenoid, to prevent ingress of cold water while there is still hot water inside. This is particularly useful where separate amounts of water are drawn off for morning and afternoon milkings.

**POWER CUTS.** If you have a power cut, **ALWAYS** check and if necessary re-set the timing settings of the clock.

### ADJUSTING THE DIGITAL THERMOSTAT

**IMPORTANT** - The digital sensor must be connected before setting the digital thermostat. The digital thermostat has been set to 83°-85°C at the factory, . In other words, *the unit will switch "on" at 83°C and switch "off" at 85°C.*

### To re-set the digi-stat (digital thermostat)



You can set the operating temperature anywhere between 70°C and 97°C.

As delivered the unit is set to min 83 - max 85°C

To LOWER the target temperature, press and hold down the SET button, and simultaneously press the LEFT ARROW (2) repeatedly to lower the setting in single degrees.

To RAISE the target temperature, press and hold down the SET button, and simultaneously press the RIGHT ARROW (3) repeatedly to raise the setting in one-degree increments.

*There are many other parameters that can be set on the controller, including switching over to Fahrenheit degrees if preferred. A complete manual is also included with each controller*

### SERVICE NOTE

If the Display shows "OR", it is indicating a problem with the external sensor, probably that it is disconnected. Reconnect or exchange the sensor.