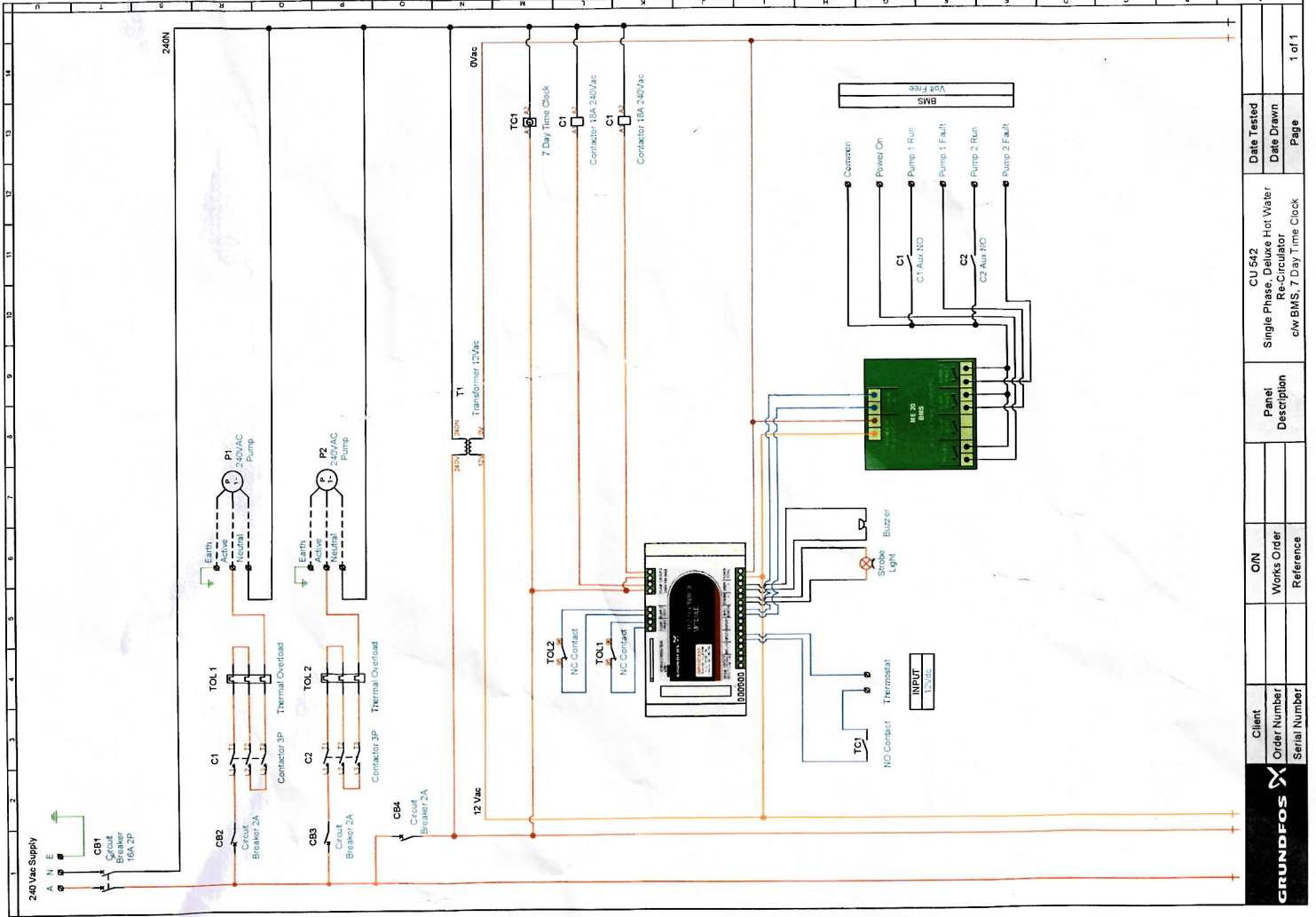
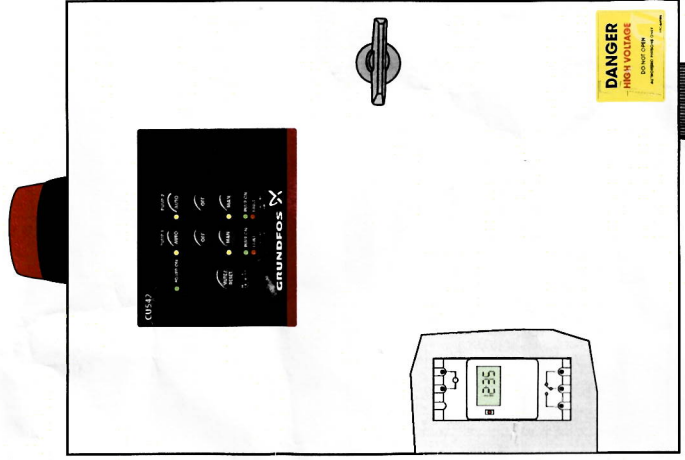


# PUMP CONTROL OWNER'S OPERATION MANUAL

**Dual Pump Deluxe Hot Water Re-Circulator  
Installation and Operating Instructions**

**MODEL: CU542**  
c/w BMS & Time Clock



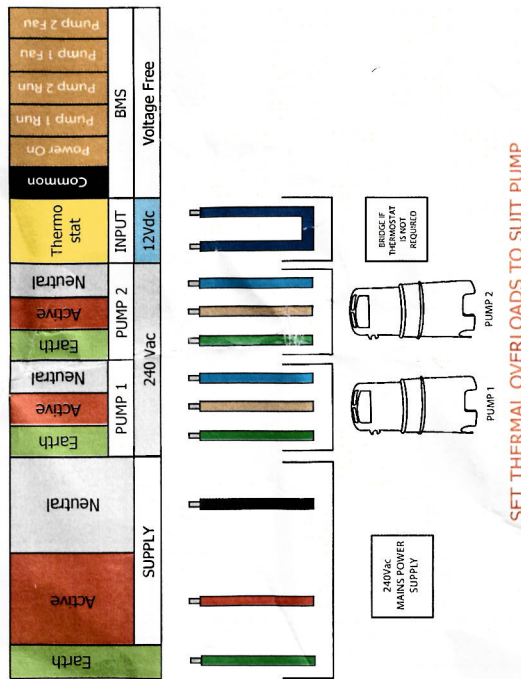
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<b>GRUNDFOS</b>		CU 542 Single Phase, Deluxe Hot Water Re-circulator c/w BMS, 7 Day Time Clock
		1 of 1

**WARNING: All electrical connections must be carried out by a suitably qualified and registered electrician.**

**SAFETY** ⚠️

- Prior to installation, ensure power supply is isolated.
- Power supply must be Circuit Breaker Protected. (Qualified Electrician to determine appropriate amp rating.)
- Electrical connection to the panel must be carried out in accordance with 'Connection Instructions', see below.
- Additions or modifications to the control panel are not permitted and will void warranty.
- The controller is not intended for use by children or infirm persons without supervision.
- Repairs to the Controller must only be carried out by a suitably qualified Electrician.

**CONNECTION**



**NOTE:** Controller must be earthed and all electrical connections must be carried out by a suitably qualified Electrician

**FACTORY SETTINGS**

DIP Sw	Function	Position	Description
1   2	Operation Mode	Off   Off	Mode(A) Standard float switch configuration (start, stop, high level).
3	Pump Alternate Options	On	Duty pump alternates each time a pump start is triggered OR after 360 minutes of continuous running. Upon high level pumps run until pump stop input opens
4	Anti-seize Function	Off	Anti-seize timer is disabled
5	Pump Manual Timeout	Off	After <i>manual_timeout</i> (5 minutes) in manual mode the pump will revert to auto mode
6	High Level Alarm Options	Off	No high level alarm

**Maximum Run and Alternation Mode**

With **DIP Switch 3** set to "Off", the unit will alternate as usual each time a pump start condition occurs. Additionally, the controller will automatically alternate pump duty if a pump has been running continuously for 30 minutes (maximum run timer)

Setting this DIP Switch to "On" will cause the controller to operate in "Circulation Mode" where duty will only alternate once the pump has run for 6 hours of accumulated time.

**Manual Mode Timeout**

With **DIP Switch 5** set to "On" the pump will only remain in Manual Mode for 5 minutes, after which time, it automatically reverts to Auto.

**Audible and Visual Alarm Test**

By pressing the **Mute/Reset** button on the Keypad continuously for a period of 5 seconds, the Strobe, Siren and Indicator Lights will be powered up for inspection.

**Fault Reset**

To reset all faults on the controller, press and hold the **Mute/Reset** button on the Keypad continuously for a period of 3 seconds until an acknowledgement beep is heard.

**Pump Fault**

A Pump Fault is indicated for two types of faults. A Thermal Overload will be indicated by way of a steady Fault Indicator Light. A Flashing pump fault indicates a prime loss. Both types of faults can be reset by way of the fault reset button.

**Auto Silencing Alarm Feature**

The audible Alarm is programmed to sound for 5 minutes continuously, unless muted and will thereafter automatically silence and enter "Chirp" mode. In "Chirp" mode, the Audible Alarm will sound briefly (2 seconds) every 5 minutes.

**Prime Loss Protection**

With **DIP Switch 1** set to "On", a flow switch is enabled for Input 1. If a pump is running for 2 minutes without the flow switch closing its contact, it will fault out the duty pump and alternate to the standby pump. The same process then occurs for the standby pump if no flow is detected. Fitting of a system flow switch required and connected to Input 1.

**SETTING UP TIME CLOCK**

1. To start switch, press Reset key
2. To adjust the present time, please press  $\ominus$  key, then press D+, H+, M+ to adjust the Days, Hours and Minutes.
3. Programming steps as follows:

Step	Key	Programming
1	Press P	Setting 1 ON time (display 1 on)
2	Press H+/M+	Setting hours and minutes
3	Press D+	Select same everyday, different day, MO-FR, MO-SA, MO-WE, TU THU SA, MO-WE, TH-SA. (if same everyday, no need to press this key)
4	Press P	Setting 1 OFF time (display 1 off)
5	Press H+/M+	Setting hours and minutes of the turn off time
6	Press D+	If you want the same setting every day, there is no need to press this key
7	Repeat steps 2~6	Set 2-17 ON/OFF times
8	Press $\ominus$	End

