TOWERTECH 3000 &4000 Operating Instructions

TOWERTECH 4000 CONTROLLER

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These operating instructions are intended to assist the installation and set-up of the following controllers: Towertech 3000 & 4000 Series Tower Controllers.

The Towertech 4000 series controller has a TDS conductivity meter control from an electrode, With both controllers having Dual Biocide, Proportional Bleed & Inhibitor Dose, with a 0-6Hr bleed lockout.

TDS Conductivity Bleed

The bleed valve is controlled through the TDS electrode in the system to keep a stable conductivity level in the system, adjustment of set point is through the potentiometer on the front of the controller.

Biocide Dosing

The biocide section of the controller is programmed through a digital timer on the facia allowing up to 10 daily programs; a ratio facility (15- 1) is also included on the controller to enable a wide program option.

Bleed Lockout timer (0-6 hr)

The timer operates only when a biocide pump is in use, the lock-out period can be set through the potentiometer on the front of the controller to suit each application and only effects the bleed valve.

Proportional Bleed & Inhibitor dose

Both bleed and dose timer outputs can be programmed independently with a time scale up to 30 minutes per output. These can be activated either through an impulse water meter or from its own internal timer circuit.

Wiring & Setting Up Section

1	2	3	4	5	6	7	8	9		10	11		12	13	14	15	16	17		18	19
LIVE	NEUT	EARTH	LIVE	NEUT	EARTH	EARTH	NEUT	LIVE		+	-		LIVE	NEUT	EARTH	EARTH	NEUT	LIVE		+	-
MAINS SUPPLY IN			TIMER 1 MAINS VALVE			TIMER 2 MAINS INHIB				PULSE INPUT			BIOCIDE PUMP A			BIOCIDE PUMP B				CELL INPUT	

TERMINAL WIRING FOR TOWERTECH 3000 & 4000 CONTROLLERS

Setting up the controller with a water meter

Using the 8 way division switch on the PCB

Using the division switch program in impulses from the water meter up to max 255 pulses, activating the timed outputs from the controller.

The switches need to be on the left (on) position until the required pulses can be counted.
Example: 85 pulses from the water meter, therefore the following switches need to be in the (on) position 1,4,16 & 64 = 85 pulses.

On	Off		Switch Value	DIVISION SWITCH
		8	128	
		7	64	
		6	32	
		5	16	
		4	8	
		3	4	
		2	2	
◄		1	1	

Time/Pulse Switch

The controller has a jumper switch (located above the relays) on the PCB to select the mode the controller will work in, either in proportional mode off a water meter signal, or in a time mode basis. In this mode the each switch values are multiplied in minute increments up to a maximum 255 minutes according to the switches selected.

Setting the time outputs

According to the positions of both the A & B switches this determines the Minimum And Maximum times to both T1 and T2 outputs to the solenoid valve and dosing pump respectively.

SWITCH SETUP		MIN TO MAX TIME RANGE
A	B	
ON	OFF	0.5-6 sec's
OFF	ON	2.5-30 sec's
OFF	OFF	0.5-3 min's
ON	ON	3-30 min's

T1		T2	
A	B	A	B
On			
1	2	3	4

Setting The Biocide Program

Setting the Clock

Press **and hold** the clock symbol button, now press the day, hours and minutes buttons to vary any of these settings. Once current time input is completed, release the clock symbol button.

Setting programmed switching operations

Press the Prog. Button. Enter the switching instruction ON or OFF with the button; then the day or days for the switching instruction to occur; then the time of the switching instruction with the h & m buttons. Each press of the Prog. Button saves the last (completed) entry, and steps through to the next programme space. **If you want to change any of the settings**, you can do so while the setting is showing in the display. Press the day, hours or minutes buttons to alter the timing as you require. Once you have completed your changes, press the Prog. Key to confirm and step to the next programme space in the memory. Press the clock symbol button to revert to time display.

Manual switch

After you have set the current time and any programme instructions you require, you should press this button once to switch ON, if you require the output to be ON now. The time switch will follow the programme settings in the memory from now on.
At any time, you can use the manual switch to change the output to ON or OFF. The display symbols are:

Timed OFF Manual OFF Fixed ON
Timed ON Manual ON Fixed OFF

The Manual ON and OFF selections is self-resetting. I.E. this manually chosen output will revert to the timed setting with the next timed instruction. Fixed ON and Fixed OFF outputs will remain in that condition until you next use the manual switch to change back to Timed or Manual control.

Summer / Winter change

Pressing the recessed can effect the change of the clocks from GMT to BST and back
± 1h Button. Press this button with a biro or a pencil.

Reset Button

The time switch can be reset (all information deleted), by pressing the Reset button with (e.g.) a biro or a pencil.