Instruction **Manual**

- MICRO-PC4

PROPORTIONAL DOSING CONTROLLER

Note: Picture shown is MICRO-PC4 with mounting option AF22

Supplied by:

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Manufacturer: Convergent Water Controls Pty Ltd, Sydney Australia.

Note: On-going product development at Convergent Water Controls may lead to changes in the specifications of this product.

Warranty: This product is guaranteed for a period of 12 months from installation date. The warranty applies to manufacturing or component defects which may cause the unit to malfunction under specified conditions. The guarantee does not cover damage due to abuse, tampering or improper installation.

Disclaimer: Convergent Water Controls will not be held liable for any consequential damage or loss arising resulting from product malfunction.

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1. INTRODUCTION

Ideally suited for proportional dosing, the MICRO-PC4 electronic controller controls up to 4 pumps based on input pulses, such as from a water meter.

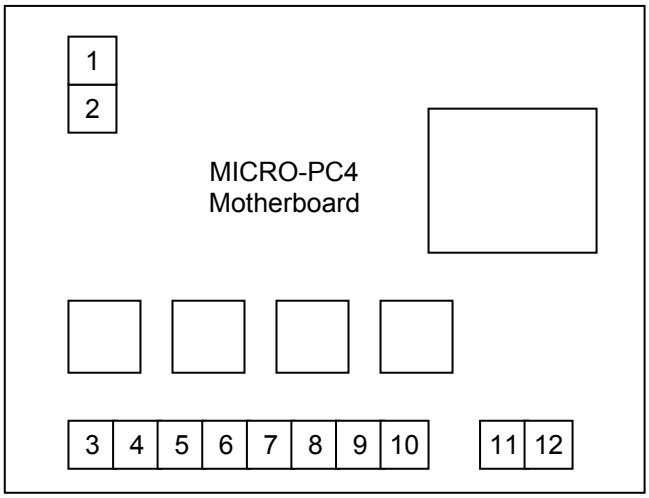
1.1 Features

- Display shows present pulse value (i.e. PV).
- Display shows all timer values when pumps are activated.
- Simple 3-button programming. Setting up is simple, easy and accurate!
- The unit has a digitally programmable totaliser (or pulse count) that relates to a certain volume of water, read from an input pulse, such as from a water meter.
- Each outputs, i.e. pump, can be individually primed/tested from the menu.
- Mains 240VAC powered. All programmed parameters are stored in non-volatile memory (EEPROM).

2. INSTALLATION

2.1 Electrical Wiring Information

The diagrams below show the Motherboard of the controller (in the base of the box).



1. Pulse Input
2. Pulse Input

3. Pump 4 Neutral
4. Pump 4 Active
5. Pump 3 Neutral
6. Pump 3 Active
7. Pump 2 Neutral
8. Pump 2 Active
9. Pump 1 Neutral
10. Pump 1 Active

11. Active 240VAC supply
12. Active 240VAC supply

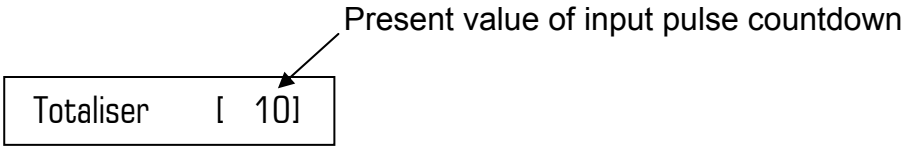
2.2 Description of Operation

Input pulses, such as from a water meter, are counted by the controller. Once a pre-set value is reached, up to 4 pumps can be activated to dose for a set time period. These time periods are independently programmable.

3. COMMISSIONING AND PROGRAMMING

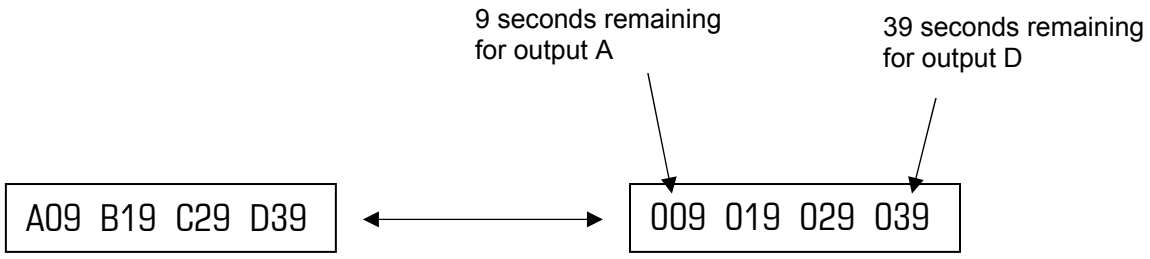
3.1 Start-Up

- After power-up, the MICRO-PC4 controller displays the present value of the input pulse as explained below.

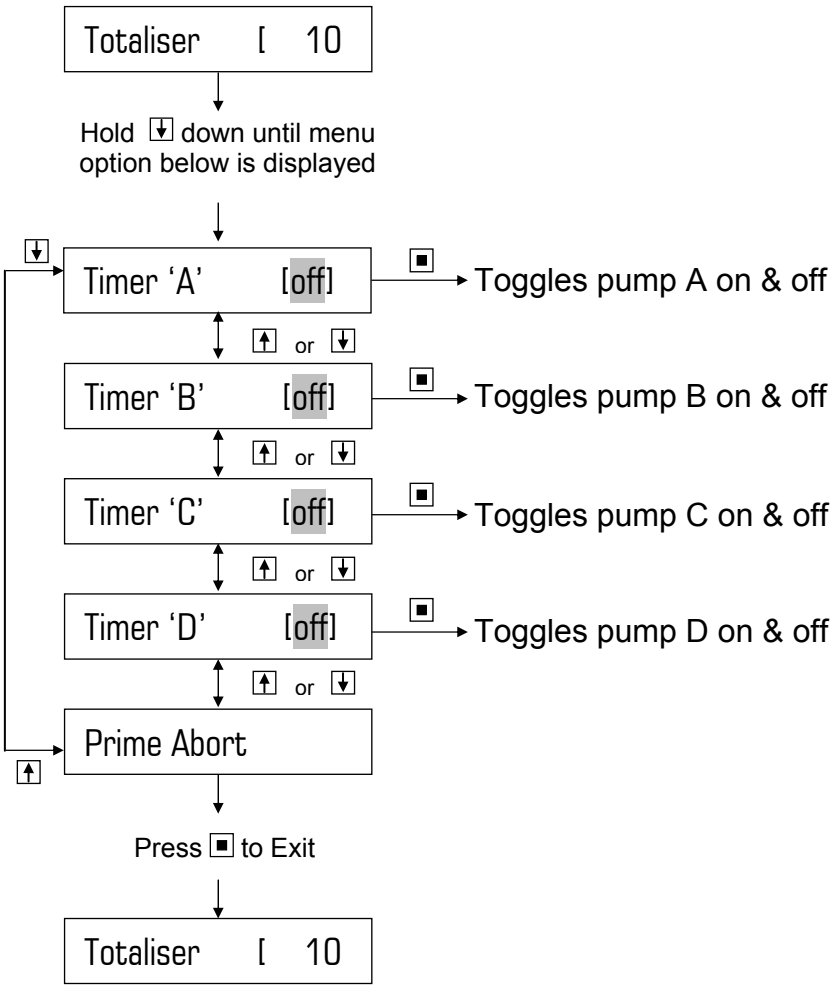


Status	Display
Normal operation:	**Present value countdown**, as shown above
Programming mode:	Programming information (eg. “Totaliser”)

- During normal mode when the totaliser decrements to 0, the display will alternate between the pump no. and the time left for all four outputs, see example below:



3.2 Pump Priming/Testing



Note:

Shading represents item to change

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↓ Press to Scroll Down
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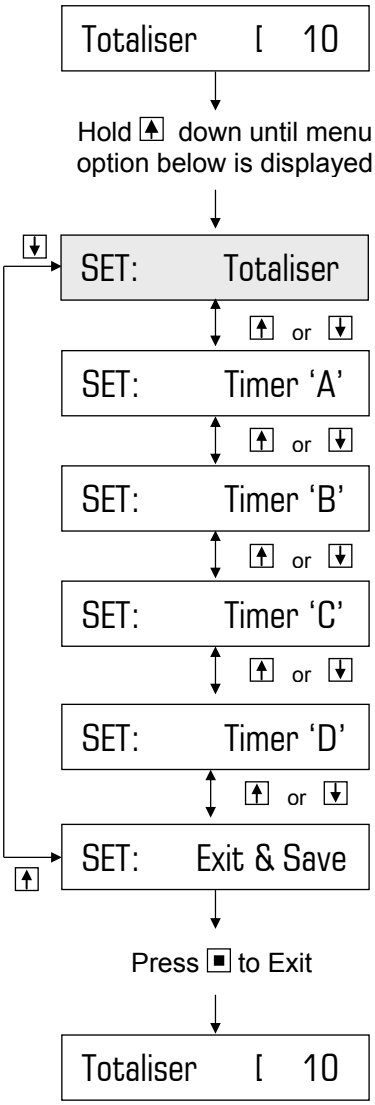
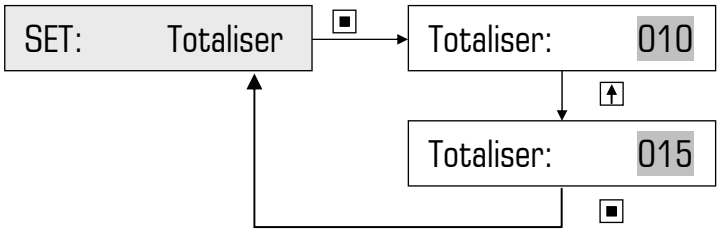
3.3 Set Totaliser



This is the pulse input number at which the outputs/pumps will be activated.

Each time there is a pulse input the Totaliser will decrement by one until 0 is reached at which time the outputs/pumps will be activated (eg. if the Totaliser is set at 10, when 10 pulses are counted, the outputs/pumps will be activated).

Example:
Increasing factory default totaliser of 10 to 15



Note:

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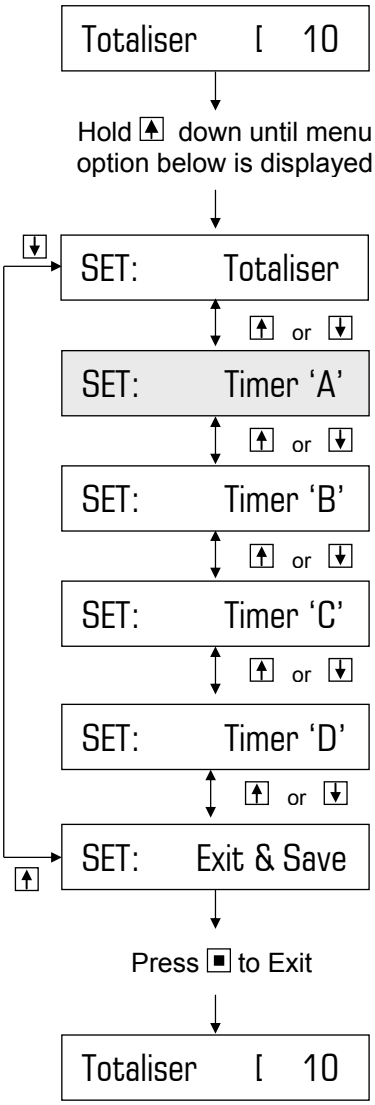
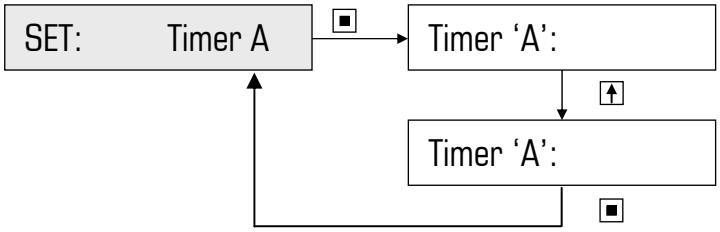
3.4 Set Timer ‘A’



This is the time period when output/pump A will be active (i.e. ON).

If a pump is connected to output A, then the pump will dose for the set time period every time the Totaliser decrements to 0.

Example:
Increasing Timer A factory default time of 10 seconds to 15 seconds



Note:

Shading represents item to change

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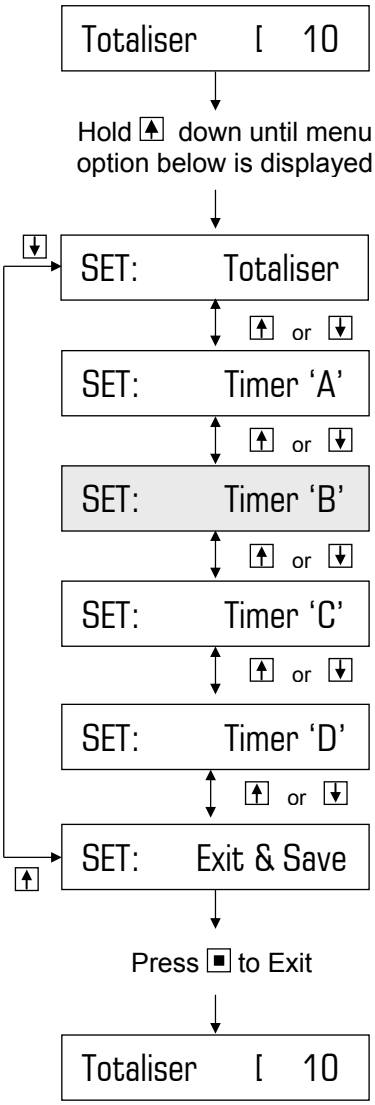
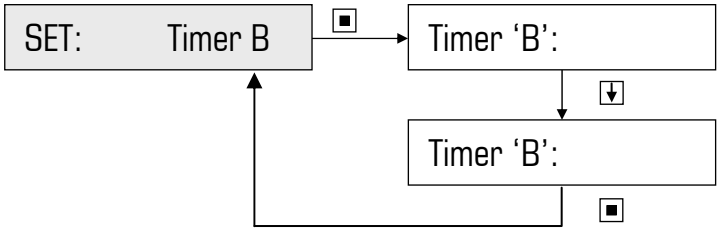
3.5 Set Timer ‘B’



This is the time period when output/pump B will be active (i.e. ON).

If a pump is connected to output B, then the pump will dose for the set time period every time the Totaliser decrements to 0.

Example:
Decreasing Timer B factory default time of 20 seconds to 18 seconds



Note:

Shading represents item to change

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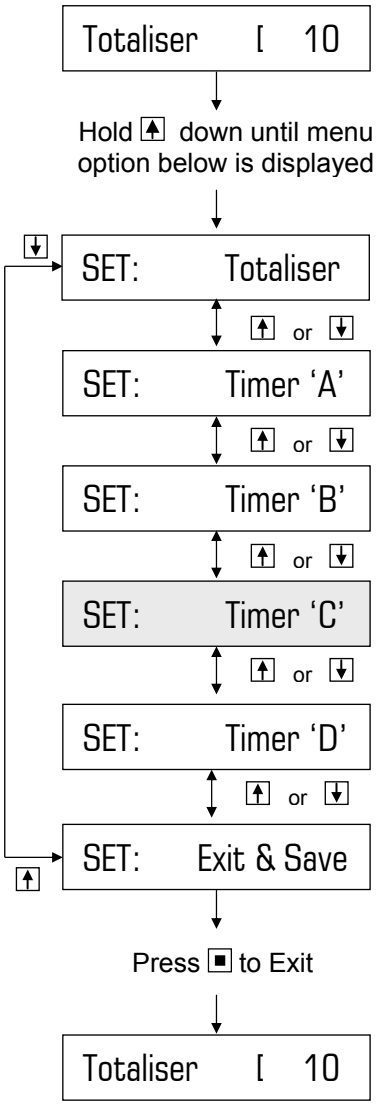
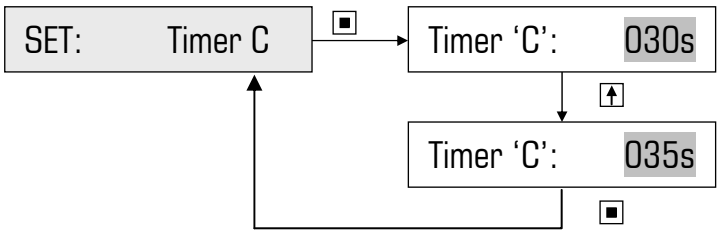
3.6 Set Timer ‘C’



This is the time period when output/pump C will be active (i.e. ON).

If a pump is connected to output C, then the pump will dose for the set time period every time the Totaliser decrements to 0.

Example:
Increasing Timer C factory default time of 30 seconds to 35 seconds



Note:

Shading represents item to change

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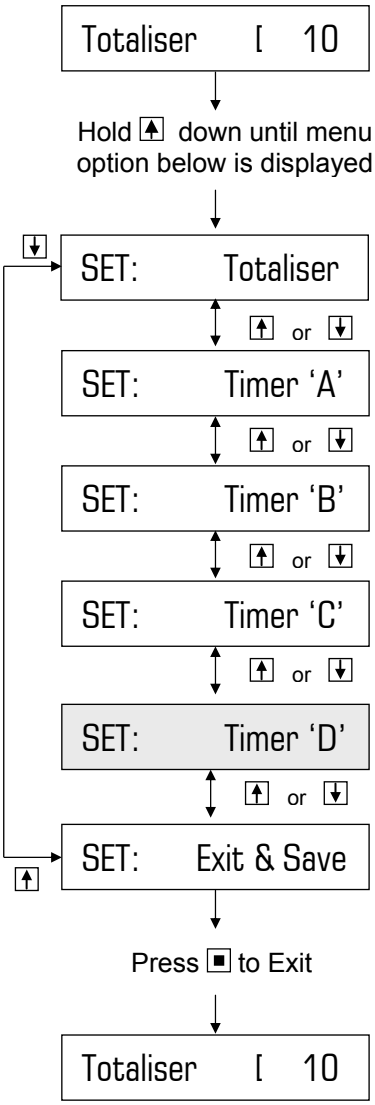
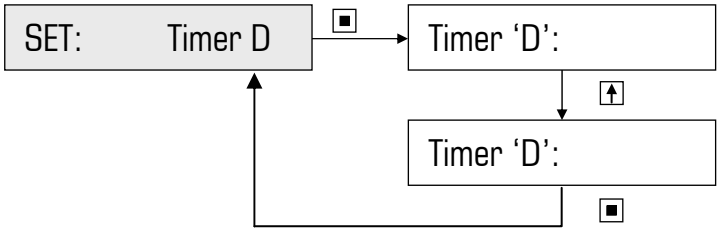
3.7 Set Timer ‘D’



This is the time period when output/pump D will be active (i.e. ON).

If a pump is connected to output D, then the pump will dose for the set time period every time the Totaliser decrements to 0.

Example:
Increasing Timer D factory default time of 40 seconds to 50 seconds



Note:

Shading represents item to change

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■ Press to Select/Enter

4. FACTORY SETTINGS / PROGRAMMABLE OPTIONS

Item	Factory Setting	Option	Note
Totaliser	010	001 – 999 pulses	Set Value of pulse input count
Timer 'A'	010s	000 – 999s	Desired time for output A to be ON
Timer 'B'	020s	000 – 999s	Desired time for output B to be ON
Timer 'C'	030s	000 – 999s	Desired time for output C to be ON
Timer 'D'	040s	000 – 999s	Desired time for output D to be ON

5. SPECIFICATIONS

Power Supply:	220 – 240 VAC
Inputs:	Pulse, e.g. water meter
Outputs:	240VAC applied to each Timer – 5 Amp rated.
Resolution of pulse input:	1 pulse
Resolution of timer settings:	1 second
Controller Enclosure rating:	IP55 (ie. completely weatherproof)