

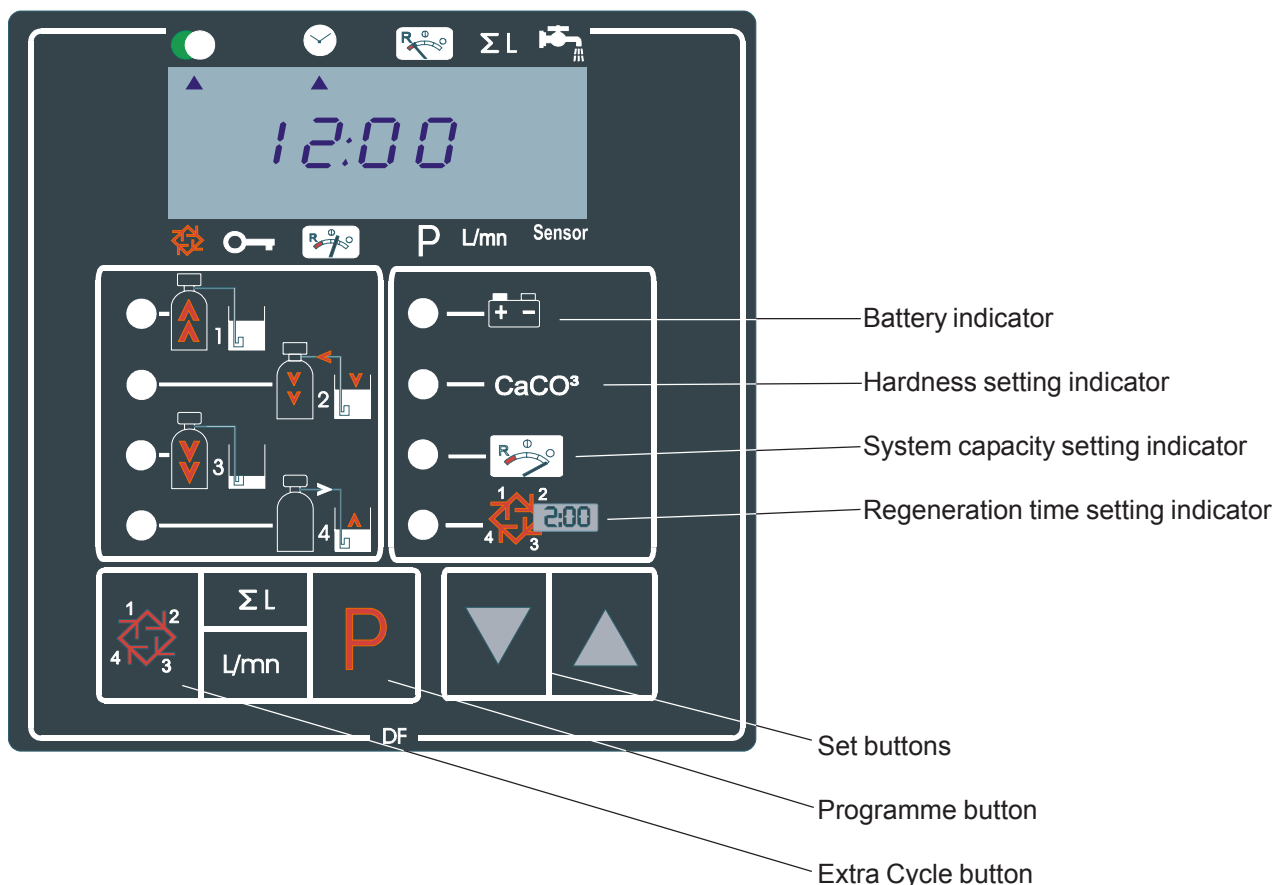
3200ET Timer OEM Manual



MODEL 3200ET

The 3200ET timer assembly is pre-fitted to the Fleck valve which should be connected to a 24vac power supply. The control must be set up for use. This is a two stage process that requires that you first define what the unit is - level #2 setting, and then subsequently define the site/system operating conditions - level #1 setting. **You must start with level #2 settings.** When taken out of the box, some options have already been established. Like so many “electronic gadgets”, the 3200/ET has a lot of “features” that are irrelevant to the real world in that they were included in the design specification to satisfy specialised situations. On initial programming, if you see a display not shown on the following pages, ignore those displays by simply pressing the programme button until you get to the next display that is on the following pages. Having gone through the process once and having set up the device as recommended, if you repeat the process you will find that the unwanted displays no longer appear. We strongly advise you not to stray from the following guidance notes - you do so at your own risk !

The facility is provided for the installation of a standard 9v Alkaline battery. If this battery is not fitted or if the battery power is low then the battery indicator will illuminate. Use of this facility allows retention of current operating data for approx 24 hours with a fully charged battery. Programming data is permanently retained by the unit, regardless of battery status.



MODEL 3200ET

Quick Start - Level 2 Programming

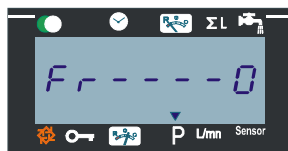
This level of setting actually defines what the system is and how it functions.

Entering level #2 programming:

Depress the **Programme** button for 5 seconds. The Programme arrow on the lower edge of the display will illuminate and the display will show the default Water Hardness (*usually 0.1*). Now depress the **Extra Cycle** button for 5 seconds and you will get into level #2 programming.

Flow rate Display

The display will show

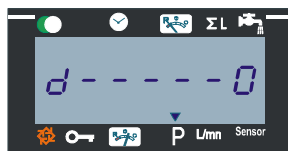


which represents the flow rate through the system. It is not adjustable.

Depress the **Programme** button

Days Since Last Regeneration

This display will show

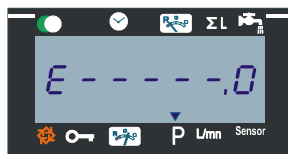


which represents the number of days since the last regeneration. It is not adjustable.

Depress the **Programme** button

Prior Service Volume

This display will show

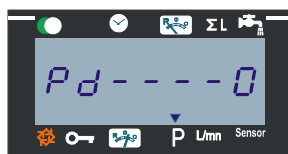


which represents the volume of water used to between the previous two regenerations (up to the limits of the display memory capacity, after which it resets to zero). It is not adjustable.

Depress the **Programme** button

Previous Days Water Usage

This display will show



which represents the volume of water used during the previous day. It is not adjustable.

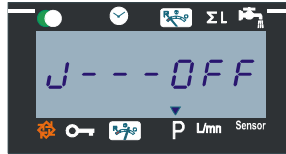
Depress the **Programme** button

MODEL 3200ET

Quick Start - Level 2 Programming

Auxiliary Cycle Step Indicator

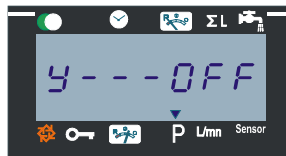
This display will show



Depress the **Programme** button

Timed Auxiliary Output

This display will show



Depress the **Programme** button

It is VERY important that this is set to OFF. If the display indicates anything else then use the **Set** arrow buttons to ensure that it is set to OFF. *Explanation: This provides for the operation of an auxiliary output relay which is not normally relevant to simple installations*

Dosing Pump Output

This display will show



Depress the **Programme** button

It is VERY important that this is set to OFF. If the display indicates anything else then use the **Set** arrow buttons to ensure that it is set to OFF. *Explanation: This provides for the operation of an auxiliary output relay which is not normally relevant to simple installations.*

Regeneration Day Override

This display will show

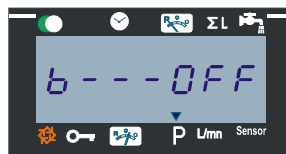


Depress the **Programme** button

It is VERY important that this is set to OFF. If the display indicates anything else then use the **Set** arrow buttons to ensure that it is set to OFF. *Explanation: This facility can force a regeneration, regardless of volume throughput or programmed time frequency. It is not normally relevant to simple installations.*

Volume Override

This display will show



Depress the **Programme** button

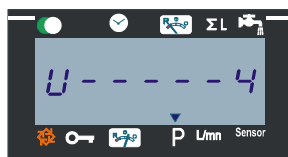
It is VERY important that this is set to OFF. If the display indicates anything else then use the **Set** arrow buttons to ensure that it is set to OFF. *Explanation: This facility can force a regeneration, regardless of reserve volume allowances used in delayed meter initiation applications. It is not normally relevant to simple installations.*

MODEL 3200ET

Quick Start - Level 2 Programming

System Measurement Display

This display will show



If the display shows anything else then use the **Set** arrow buttons to ensure that it is set to 4. This is the only configuration relevant to UK installations and uses:

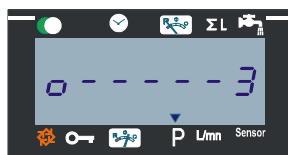
- ⇒ m³ for volume display
- ⇒ litres per minute for flow rate data displays
- ⇒ 24 hour clock format
- ⇒ Water hardness in mg/l as CaCO₃
- ⇒ System Capacity in grams CaCO₃

NOTE: If you change from the default U-----4 setting then when you next depress the programme button you will be taken directly to Level #1 programming. On exiting that programming level you will be returned back to the start of level # 2 programming.

Depress the **Programme** button

Valve Type

This display will show o-----3.

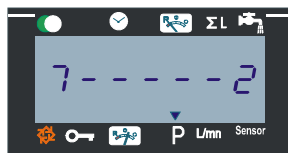


If the display shows anything else then use the **Set** arrow buttons to ensure that it is set to 3. This setting defines all of the Fleck simplex commercial control valves.

Depress the **Programme** button

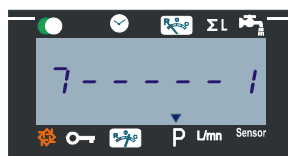
Regeneration Initiation Type

This display will show



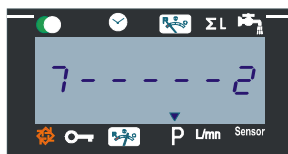
This is the most commonly used setting but the following list details the various options which can be selected using the **Set** arrow buttons:

Timeclock



Sets the control to initiate regeneration based on time only parameters. The day frequency was programmed OFF by default A - - - OFF earlier so if the system is to be regenerated based on time considerations only then you will need to go back to that option later and set the day frequency you require. For example A - - - - 3 would provide regenerations every three days. The actual time of regeneration is established later in the programming sequence in level #1.

Immediate Meter

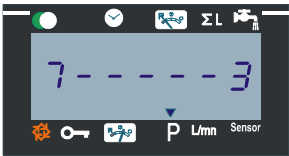


Sets the control to initiate regeneration immediately the set volume has been reached

MODEL 3200ET

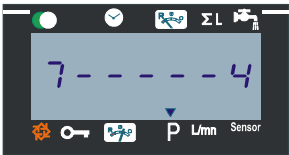
Quick Start - Level 2 Programming

Delayed Meter

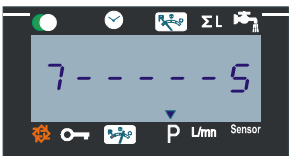


Sets the control to initiate regeneration at a pre-defined time, after the set volume has been reached. If at that pre-set time there is any service flow detected then regeneration will be deferred by up to a maximum of 20 minutes, after which time regeneration will commence regardless of any service demand. Use of this option normally requires approximately 24 hours reserve capacity although the system automatically adjusts itself to actual water usage.

Not currently available

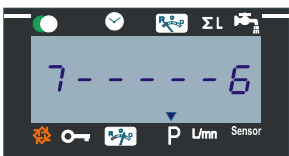


Immediate Sensor



Sets the control to initiate regeneration immediately on receipt of a valid external sensor signal. If this option is selected then pressing the Programme button again takes you to a sub setting for the required duration of the sensor signal. If the signal has to be maintained for 5 minutes then use the Set arrow buttons to provide the following display 7 - 5 - - 5.0

Delayed Sensor



Sets the control to initiate regeneration at the Time of Day (set later in the programming sequence) following a valid external sensor signal. If this option is selected then pressing the Programme button again takes you to a sub setting for the required duration of the sensor signal. If the signal has to be maintained for 5 minutes then use the Set arrow buttons to provide the following display 7 - 6 - - 5.0

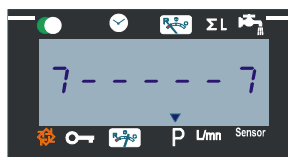
MODEL 3200ET

Quick Start - Level 2 Programming

Immediate Meter with Day Override

To be used only with great caution.

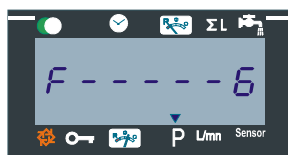
AVOID if possible.



Sets the control to initiate regeneration in the same way as option 2 but with an automatic 4 day override. In other words, if a regeneration has not occurred within 4 days then regardless of water volume, it will initiate. However, regeneration will pause after the Brine / Rinse cycle and will remain paused until there is service flow detected. It will then complete the regeneration sequence and return the system to the service position. **IMPORTANT:** If this option is used then you cannot install a "No hard water to service" prevention device or option (e.g. 3150 or 3900 NBP pistons or external shut down valves).

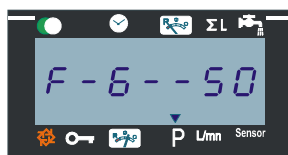
Depress the **Programme** button

Flow Meter Size / Type Definition



NOTE: If option 6 is selected, indicating the use of a non Fleck meter, then when you next depress the **Programme** button you must set the volume value (in litres) represented by each meter pulse. For example, if the meter pulse signal represents 50 litres then using the **Set** arrow buttons, establish the display F - 6 - - 50

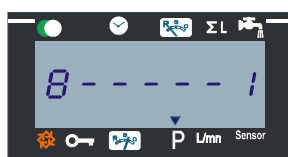
Depress the **Programme** button



This display will show F - - - - 6 which tells the control that an external pulse meter is installed. However, there are selectable pre-defined parameters that apply to various Fleck "Hall Effect" meters which can be selected using the **Set** arrow buttons to make any changes.

F - - - - 0	Fleck 3/8in. meter assy
F - - - - 1	Fleck 3/4in. meter assy
F - - - - 2	Fleck 1in. meter assy
F - - - - 3	Fleck 1½in. meter assy
F - - - - 4	Fleck 2in. meter assy
F - - - - 5	Fleck 3in. meter assy
F - - - - 6	Other pulse type meter

Blending Valve Facility / Location



This display will show 8 - - - - 1 which sets the system to assume that no hard water is being blended.

Optionally, you can change this using the Set arrow buttons as follows:

8 - - - - 2 Sets the system to assume that blending occurs **BEFORE** the meter system. In this case the control calculates the volume of hard water required to achieve the blended supply based on parameters that are set later in this programming sequence - level #1

8 - - - - 3 Sets the system to assume that blending occurs **AFTER** the meter system. **NOTE:** As far as the control is concerned, this is identical to option 1 but it can be used as a reminder that blending is provided but that it does not form part of the control functionality.

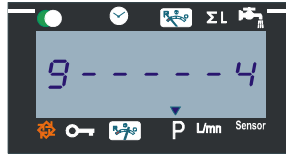
Depress the **Programme** button

MODEL 3200ET

Quick Start - Level 2 Programming

System Type

This display will show



which is appropriate for Fleck simplex commercial valves. Other options are available but they should be ignored. Please ensure that only option 4 is selected, using the **Set** arrow buttons if required.

Depress the **Programme** button

Programme Protection

This display will show PL - - - OFF

This option can be toggled ON or OFF by using the Set arrow buttons.



NOTE: OFF is the recommended option here because if you set it to ON then the only way to subsequently cancel that setting requires clearing ALL programmed settings. However, if site circumstances dictate that Programme Protection should be active then the following results will apply:

Available Level #1 adjustable settings:-

- ⇒ Raw Water Hardness
- ⇒ Treated Water Hardness After Mixing
- ⇒ Regeneration Time
- ⇒ Time of Day

Available viewable displays:-

- ⇒ Flow Rate display
- ⇒ Days since last regeneration
- ⇒ Previous service volume used display
- ⇒ Reserve capacity display
- ⇒ Previous days volume used display

Think very carefully before setting protection ON. If you do and you subsequently need to re-programme the protected settings then depress the Programme button for 25 seconds. This will wipe all previous settings which must then be re-established.

Depress the **Programme** button

You are now returned to the service mode and you should now proceed to setting the Installation level #1 parameter programming.

MODEL 3200ET

Trouble Shooting - Level 2 Programming

If, after setting up your control, you find that on completion of a regeneration cycle the system immediately starts another cycle then if a meter system was defined in level #2 you need to check that the system capacity setting is greater than the water hardness setting - both defined in level #1 programming.

Explanation: If you have made a mistake in button operation or you have mixed up your units of measurement then you might have created a situation when the control calculates whereby system capacity is always below the input water hardness. This causes the system to continually cycle.

Solution: Putting a jumper wire across low voltage terminals 7 & 8 creates a lockout signal. After completion of a regeneration cycle it will be "held" and you can now enter level #1 programming and recheck your settings. When you have completed the check, remove the jumper and the system will go through another cycle and then stop in the service position as it should normally do.

MODEL 3200ET

Quick Start - Level 1 Programming

This is where you define the system operating environment. The options you are presented with are determined by your definitions in level #2 programming under Regeneration Initiation Type. In each case you will get a series of parameters relevant to your previous selection, followed by a common series of parameters. The three primary front end options are dealt with first, followed by the guidance for the common parameters.

Entering level #1 programming

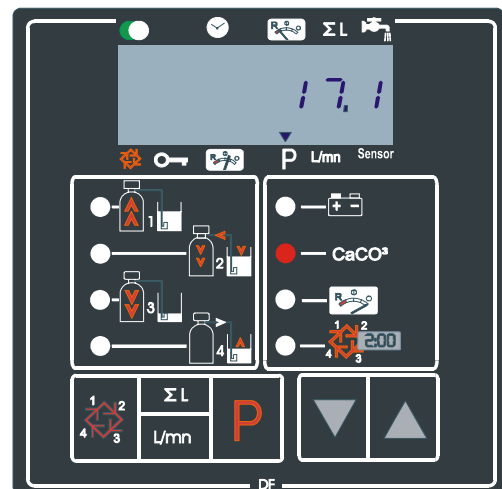
Depress the Programme button for 5 seconds.

If immediate meter options were defined then you will get the following sequence of options:

The Programme arrow on the lower edge of the display will illuminate and the display will show the default Water Hardness (usually 17.1)

Water Hardness

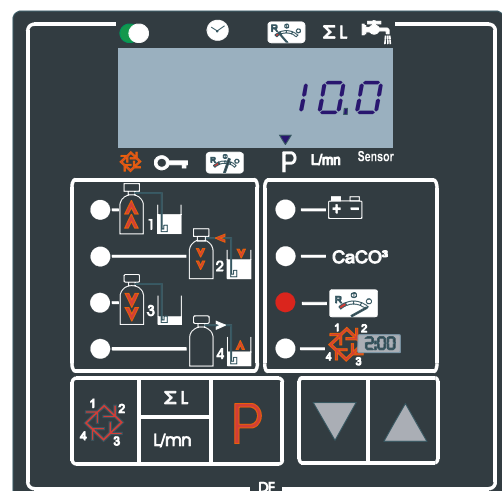
The red Water Hardness indicator will be illuminated. Adjust the value to the actual site water hardness using the Set arrows. The unit of measurement MUST be mg/l as CaCO_3 (ppm)



Depress the **Programme** button

System Capacity

The red System Capacity indicator will illuminate. Adjust the value to the calculated softening capacity of the system using the Set arrow buttons. The unit of measurement MUST be in Grams of CaCO_3



Depress the **Programme** button

MODEL 3200ET

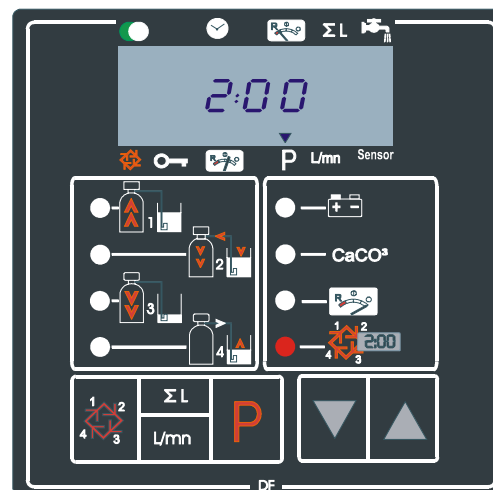
Quick Start - Level 1 Programming

If time only related options were defined then you will get the following sequence of options:

The Programme arrow on the lower edge of the display will illuminate and the display will show the default Regeneration Time (usually 2:00)

Regeneration Time

The red Regeneration Time indicator will be illuminated and the display will show 2:00 which represents 2:00am. Adjust the required time if required using the Set arrow buttons.



If time and meter related options were defined (*delayed meter for example*) then you will get a combination of the previous options which you set up as described above.

Depress the **Programme** button
You now go to the common parameters

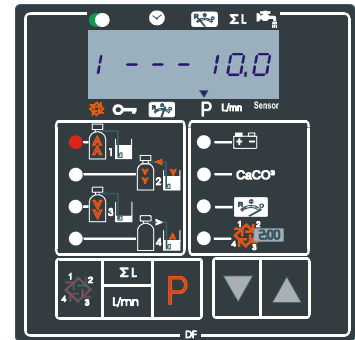
MODEL 3200ET

Quick Start - Level 1 Programming

Backwash

The red Backwash indicator will now illuminate and the display will show 1 --- 10.0 which represents cycle #1 and 10 minutes cycle duration. Adjust the cycle duration to the required time using the Set arrow buttons

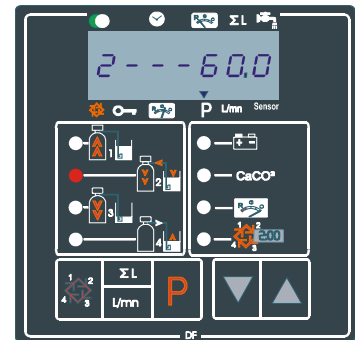
Depress the **Programme** button



Brine / Rinse

The red Brine / Rinse indicator will now illuminate and the display will show 2 --- 60.0 which represents cycle #2 and 60 minutes cycle duration. Adjust the cycle duration to the required time using the Set arrow buttons

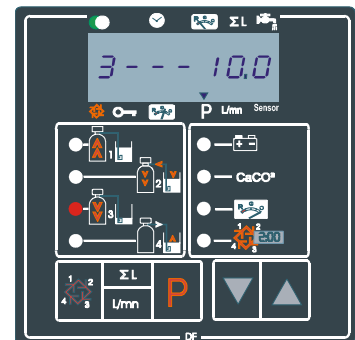
Depress the **Programme** button



Rapid Rinse

The red Rapid Rinse indicator will now illuminate and the display will show 3 --- 10.0 which represents cycle #3 and 10 minutes cycle duration. Adjust the cycle duration to the required time using the Set arrow buttons

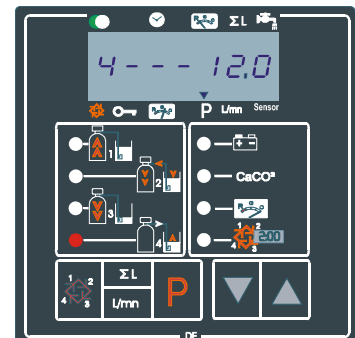
Depress the **Programme** button



Tank Fill

The red Tank Fill indicator will now illuminate and the display will show 4 --- 12.0 which represents cycle #4 and 12 minutes cycle duration. Adjust the cycle duration to the required time using the Set arrow buttons

Depress the **Programme** button



MODEL 3200ET

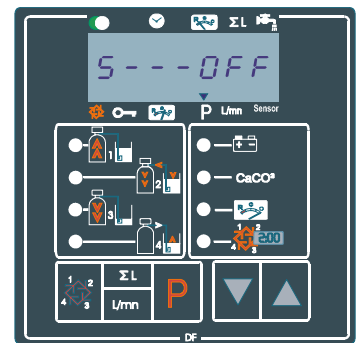
Quick Start - Level 1 Programming

Redundant function

The next function has no red indicator and the display must be set to show 5 - - -OFF using the Set arrow buttons.

Depress the **Programme** button

You are now returned back to the normal service position



MODEL 3200ET
