Dishwashing systems
Bright Logic D1 (Full Instructions)

CONTENTS

The Bright-Logic D1 Dishwash Unit is an automatic dosing system designed primarily for use with commercial, **SINGLE TANK, SINGLE CYCLE** dishwashing machines.
However advancements to the software mean that when a unit is in **CYCLIC** mode it can also be used with **TUNNEL** and **CONVEYOR** type dishwashing machines. (Software versions 2.00 or higher)

The unit can be selected to operate in one of the following modes:-

Timed/Signalled Mode - Detergent initial charge options; Off, Power-up, Signalled, Auto. Timed detergent top-up charge. Timed rinse charge. Speed control. Pulse settings. Cycle and Run-time counters. Security access codes.

The pumps are initiated by supplying signals of between 12V and 240V AC or DC across the corresponding Inputs of the A Rail and B Rail situated on the Controller board. Signals must be present for the duration of the 1 second signal acceptance time before they are acknowledged.
Auto initial charge option - offers the use of a single signal to activate the initial charge, top up charge and rinse charge. With the inclusion of LK1 (see page 5), a single signal from the rinse solenoid can be taken to input 3 of the Controller board; the top up charge is initiated by the signal becoming 'high', the rinse charge is initiated by the signal becoming 'low' and the initial charge is initiated by the signal remaining 'high' for the duration of the programmed Initial charge signal acceptance.

Note: the rinse pump (pump 2) will take priority in the event of both pumps being signalled together and will over-ride the detergent pump (pump 1) if a signal is received during a detergent pump operation. When the rinse pump has completed an operation, the unit will return to complete any remaining run-time of the detergent pump.

Cyclic Mode - Detergent initial charge options; Off, Power-up, Signalled. Cyclic detergent top-up charge. Cyclic rinse charge. Speed control. Pulse settings. Cycle and Run-time counters. Security access codes.

The pump is initiated by supplying signals of between 12V and 240V AC or DC across the corresponding inputs of the A Rail and B Rail situated on the Controller board. Signals must be present for the duration of the 1 second signal acceptance time before they are acknowledged.
The pump will cycle ON and OFF for the duration that a signal is present across the relevant inputs.

Note: for conveyor machines, when a rinse pump is required, then the detergent pump (pump 1) ON time will take priority over the rinse pump cycle (pump 2) if it overlaps.

Conductivity Mode - Conductivity probe options; Auto, Signalled. Probe controlled detergent charge with 'scanlock' facility. Timed rinse charge. Speed control. Pulse setting (rinse). Run-time counters. Security access codes.

The rinse pump is initiated by supplying a signal of between 12V and 240V AC or DC across the corresponding input of the A Rail and B Rail situated on the Controller board. This signal must be present for the duration of the 1 second signal acceptance time before it is acknowledged.
The probe incorporates an alarm delay that elapses during the operation of the detergent pump. If the pump is still operating after this duration, then a buzzer is sounded and the pumps will stop, a warning is displayed on the screen and the unit will ignore subsequent signals. The buzzer can be silenced by pressing the PRIME key (the unit will remain static). The unit is reset by pressing and holding the PRIME key for 2 seconds.
Two probes can be purchased, a simple conductivity probe or a more advance inductive probe with tank temperature display. Both these kits are to be supplied separately.

Note: the rinse pump (pump 2) will take priority in the event of both pumps being signalled together and will over-ride the detergent pump (pump 1) if a signal is received during a detergent pump operation. When the rinse pump has completed an operation, the unit will return to complete any remaining run-time of the detergent pump.

Important Safety Instructions

Please read the following precautions carefully before using this equipment. This unit contains high voltage circuits that may expose you to the danger of electric shock.

Do not **open the enclosure without** <u>**isolating the signal and supply sources**</u>**.** Ensure that these sources have been isolated for at least 5 minutes before entering the enclosure.
Means for disconnection must be incorporated in accordance with the wiring rules.

Do not mount the unit to unstable, irregular or non-vertical surfaces.

Do not place heavy objects on top of the unit.

Do not attempt to place items (such as screwdrivers) into the moving parts of the Pumphead.

Do not power the unit outside of the values stated on the rating label.

Do not use damaged or frayed cables.

Do not dismantle or modify this equipment.

Always ensure that care is taken when handling chemicals.

<u>For **US** and **Canada**</u>:

This unit must be installed in accordance with local codes, or in the absence of local codes, installed in accordance with the applicable requirements in the National Electrical Code, NFPA 70, Canadian Electrical Code (CEC), Part 1, CSA C22.1, and Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, NFPA 96.

LCD Display

Keypad

Double Pumphead
Pump 1 - Rear CW
Pump 2 - Front CCW

Screw
Cover

12mm
Knock-out

Supply
entry
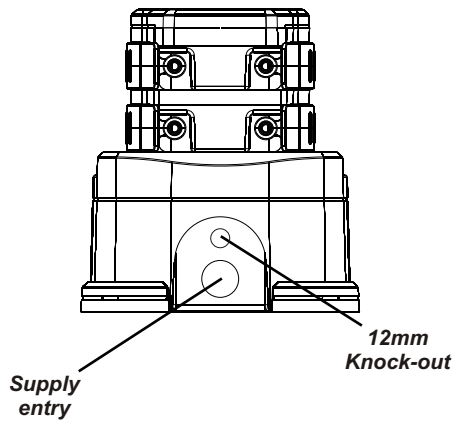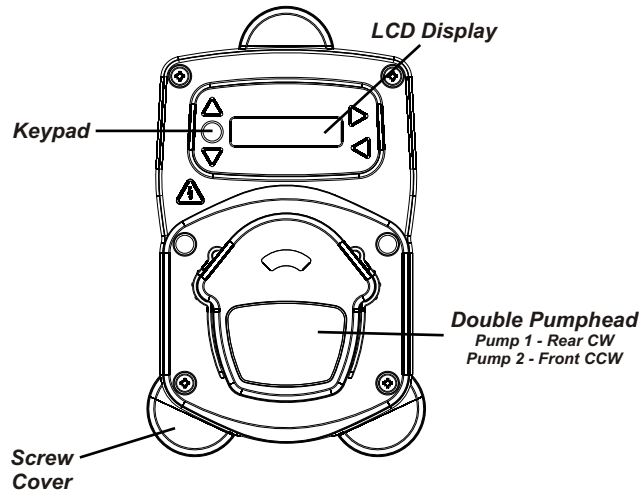
Note - Suitable cable glands and cable size should be used to ensure that the units IP rating is kept

UNIT LAYOUT - *KEYPAD & SCREEN*

Up

Prime

Down

Forward/Accept

Back

1 2 3 4

Input Signal Number
(test screen only)

Used on:
D1

Low Level
Alarm Connections

Buzzer Output

Conductive Probe
Connections

Inductive Probe
Connection

24 V DC Output

Motor Connection

LK1
(Joins inputs 2 &3)

Supply
100-240V AC

A Rail

B Rail
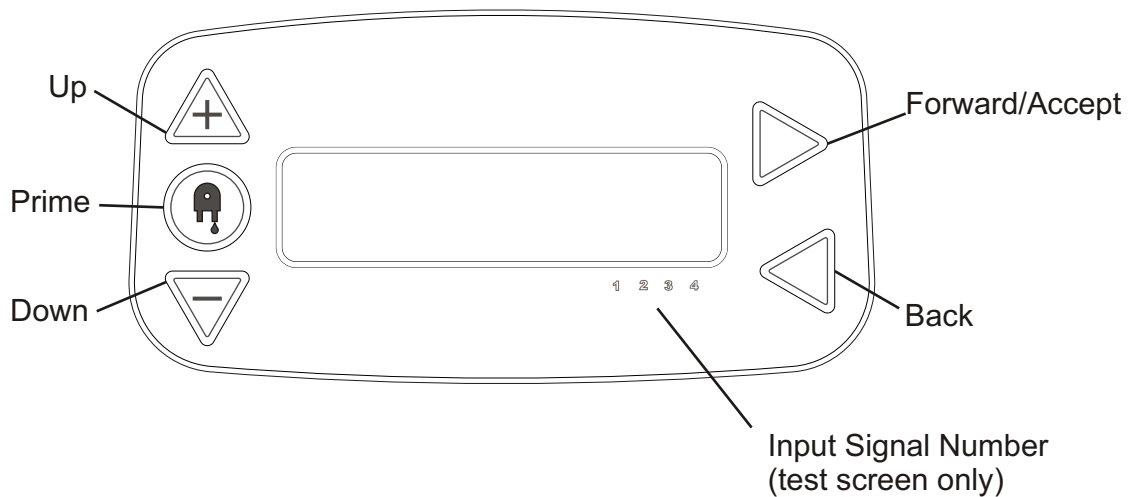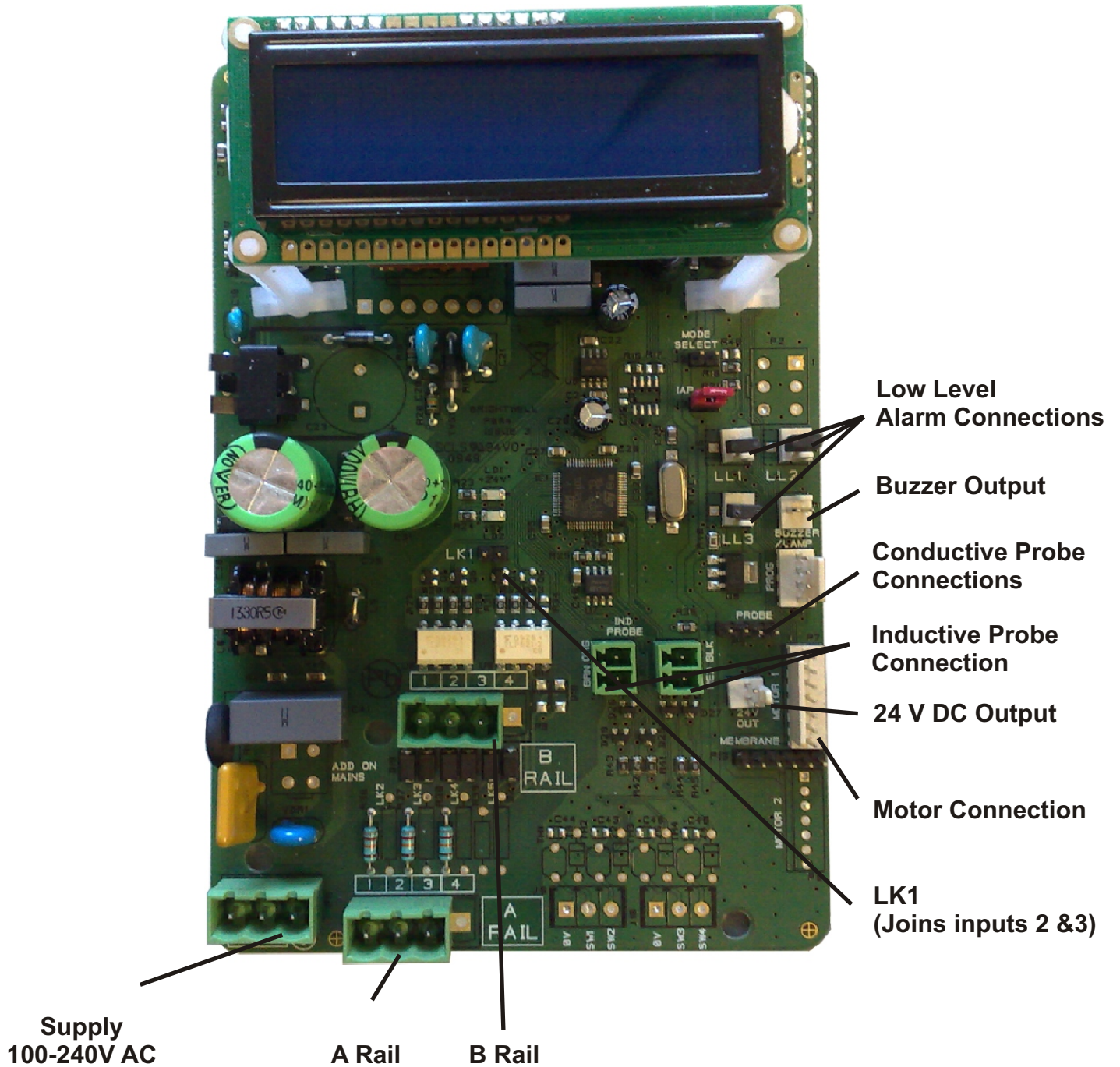
Fix the unit to a vertical wall using the screws provided. Note, some walls will require special fixings.

Ensure that the unit is level and positioned no more than 2 metres above the base of the product, which is to be dispensed.

I**mportant Notes.**
Maximum recommended suction and delivery tubes - 2 metres
Minimum tube size - 6x9mm

⌀ *6mm*

+   *x 3 per Enclosure*

MAXIMUM
2 Metres
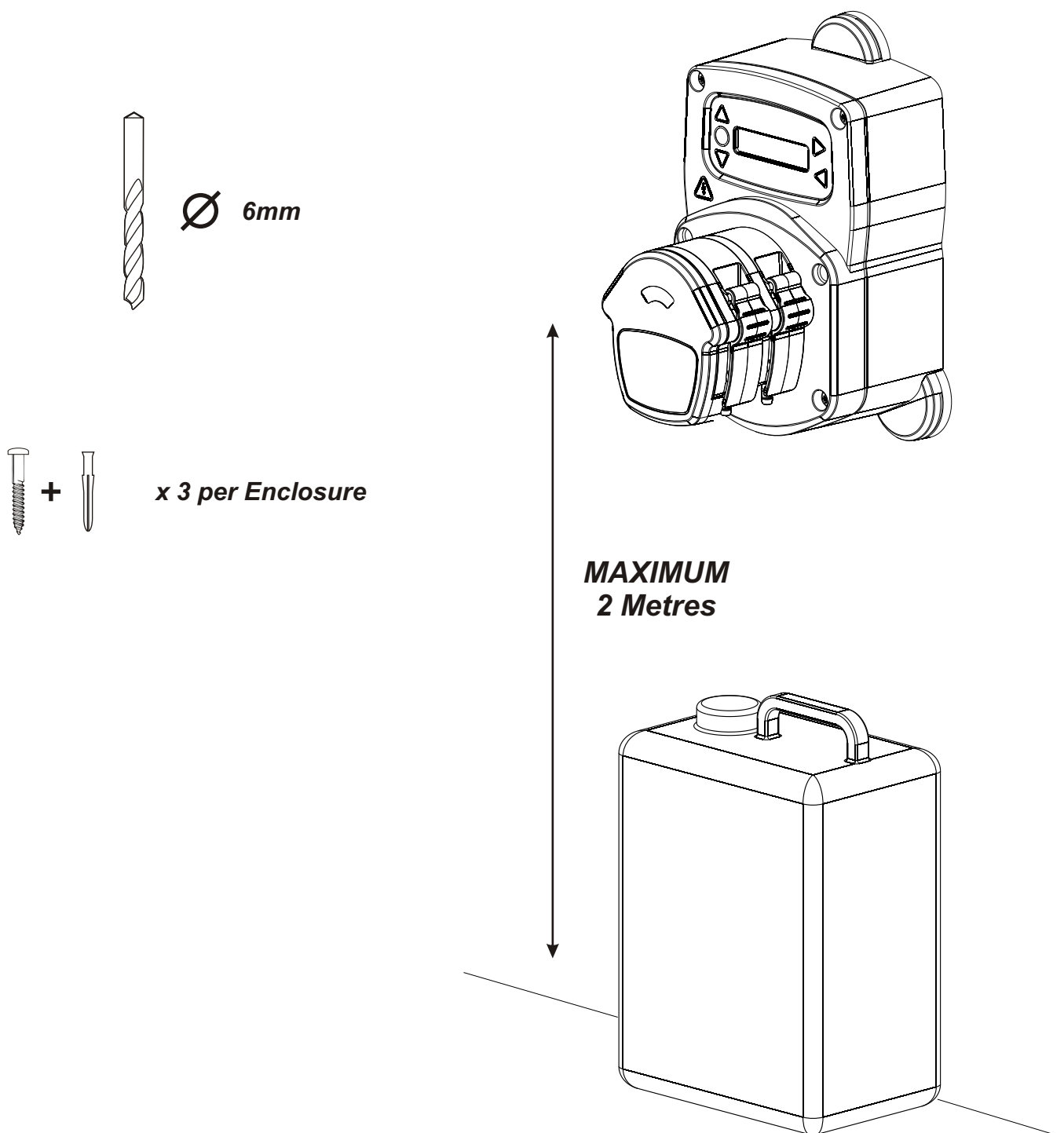
LK1

Can be fitted/removed as required.
When fitted, inputs 2 & 3 are joined to allow a single signal to initiate pumps 1 & 2. This can be connected to either input 2 or 3.
When removed, a separate signal is required to input 2 (for pump 1) and input 3 (for pump 2).
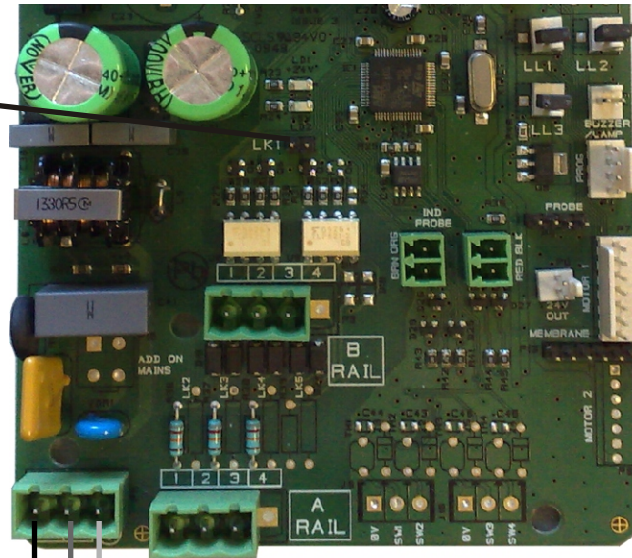
B Rail
Negative connections

A Rail
Positive connections

100V - 240V AC 50/60Hz
Sourced from a point that is Isolated when the machine is off

Recommended Wiring
Max Size = 1.5mm²
Min Size = 0.5mm²
Current = 0.5A

Input Signals Between 12 and 240V AC or DC
Input 1 - Initial Charge
Input 2 - Detergent Pump & Initiates Probe
Input 3 - Rinse Pump

TIMED/SIGNALLED MODE

LK1 in place

Initial charge - connect to an appropriate signal source when selecting the initial charge operation as signalled from the programming parameters.

Solenoid Valve (rinse)
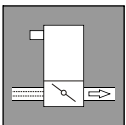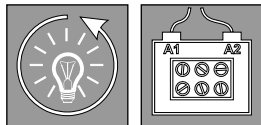
**Auto Mode
Initial Charge**
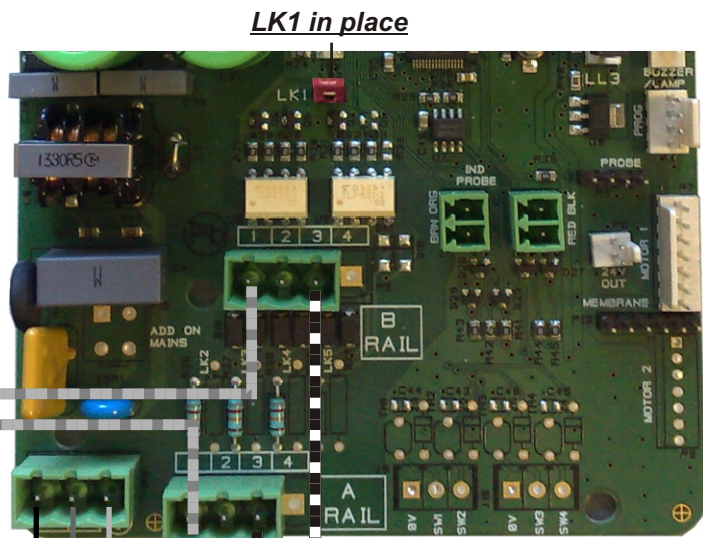
or

Wash Cycle Run Lamp
or
Coil of Wash Contactor

100V - 240V AC 50/60Hz

12 - 240V AC or DC

Saftey Warning
If low voltage signals are used, signal wires to the A and B rails should be routed in separate cable from the main power to the unit.

CYCLIC MODE

LK1 in place

Initial charge - connect to an appropriate signal source when selecting the initial charge operation as signalled from the programming parameters.

Solenoid Valve (rinse)

or

Rack Switch

100V - 240V AC 50/60Hz

12 - 240V AC or DC
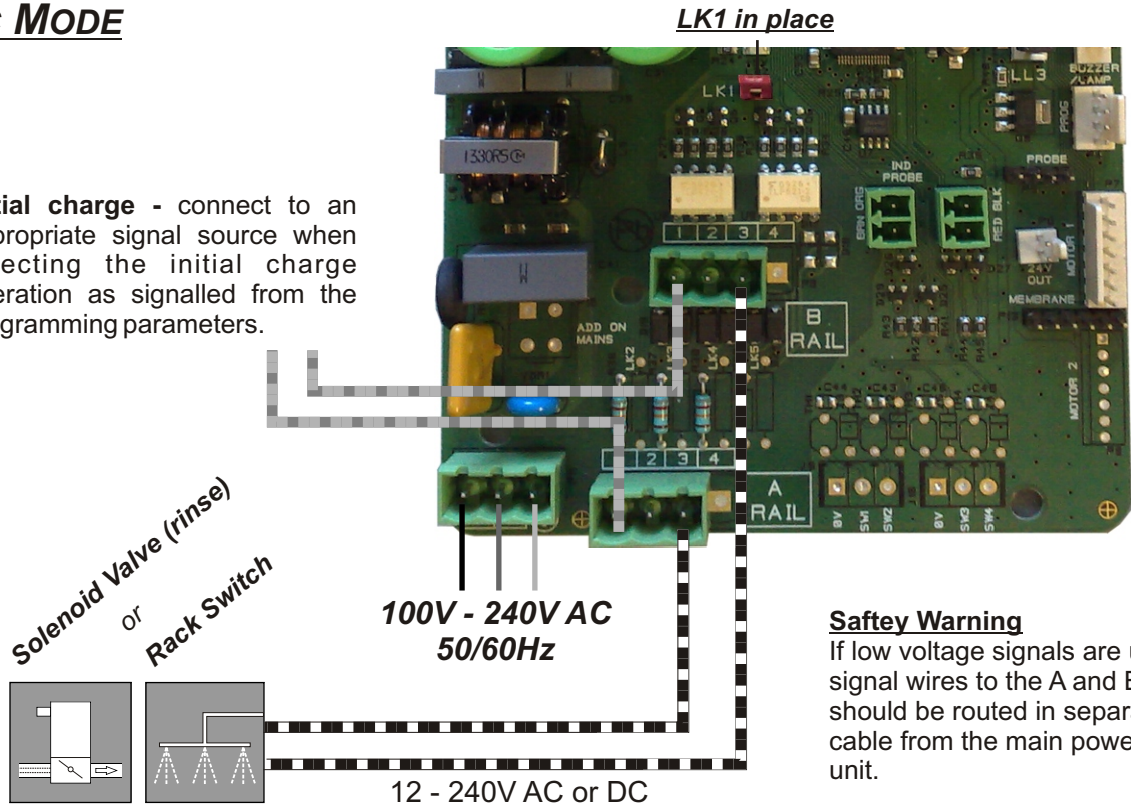
Saftey Warning
If low voltage signals are used, signal wires to the A and B rails should be routed in separate cable from the main power to the unit.

Recommended Wiring
Max Size = 1.5mm²
Min Size = 0.5mm²
Current = 0.5A

CONDUCTIVITY MODE

Probe activation - connect to an appropriate signal source when selecting the probe operation as signalled from the programming parameters (the probe will only function when a signal is present across input 2).
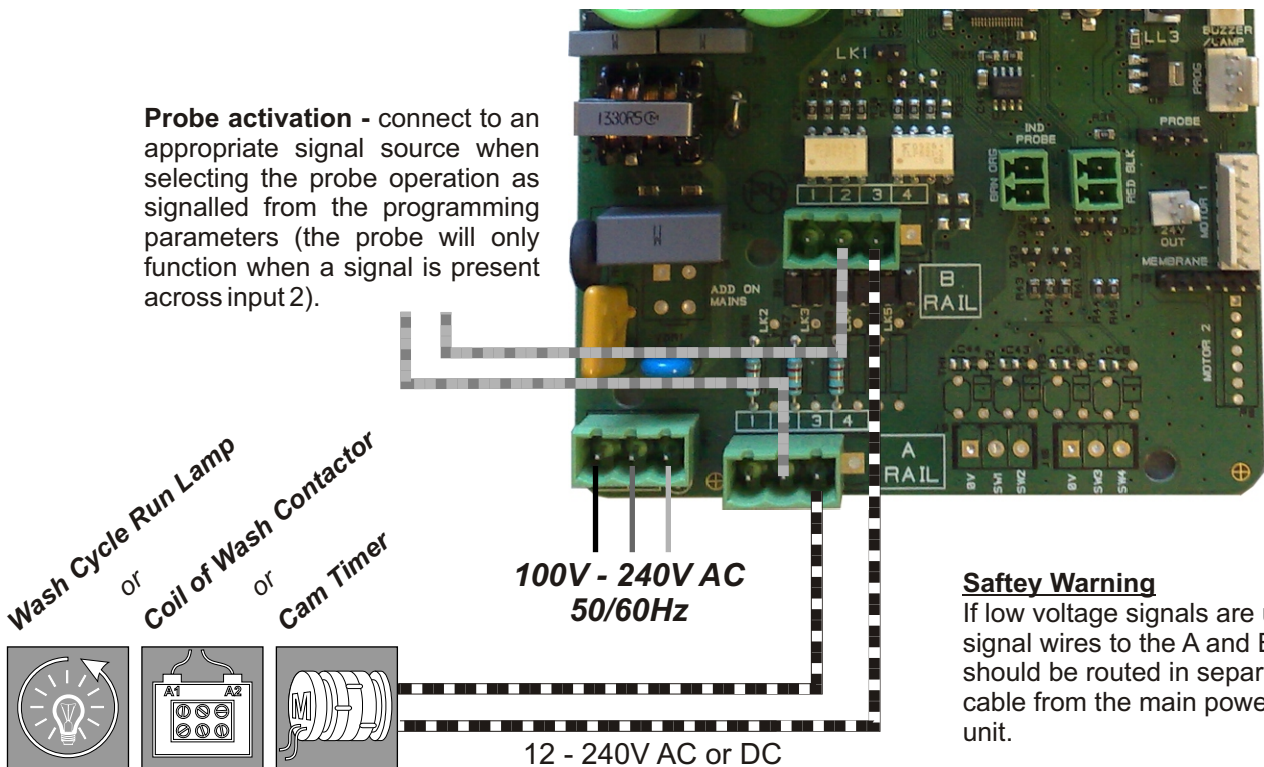
Wash Cycle Run Lamp

or

Coil of Wash Contactor

or

Cam Timer

100V - 240V AC 50/60Hz

12 - 240V AC or DC

Saftey Warning
If low voltage signals are used, signal wires to the A and B rails should be routed in separate cable from the main power to the unit.

The D1 is sent out as a Timed / Signal unit. To change an existing unit press the **UP** and **DOWN** keys simultaneously for 2 seconds.

When prompted, enter the four digit access code using the *UP* and *DOWN* keys to select the number and *FWD/ACCEPT* key to move on.

Press the *UP* and *DOWN* keys to scroll between the three operating modes.

Press *FWD/ACCEPT* to select the displayed mode.

Press *FWD/ACCEPT* to confirm the selection or *BACK* to return to the previous screen.

```
┌──────────────────┐                          ┌──────────────────┐
│ 00000        D1  │                          │ SELECT UNIT TYPE │
│   TIMED/SIGNAL   │                          │  CONDUCTIVITY    │
└──────────────────┘                          └──────────────────┘
    (2 secs)                                           │
┌──────────────────┐   ┌──────────────────┐   ┌──────────────────┐   ┌──────────────────┐   ┌──────────────────┐
│ ACCESS CODE      │   │ ACCESS CODE      │   │ SELECT UNIT TYPE │   │ CYCLIC           │   │ 00000        D1  │
│ ----             │   │ 1111             │   │  CYCLIC          │   │ CONFIRM YES      │   │   CYCLIC         │
└──────────────────┘   └──────────────────┘   └──────────────────┘   └──────────────────┘   └──────────────────┘
                                                       │
                                              ┌──────────────────┐
                                              │ SELECT UNIT TYPE │
                                              │  TIMED/SIGNAL    │
                                              └──────────────────┘
```
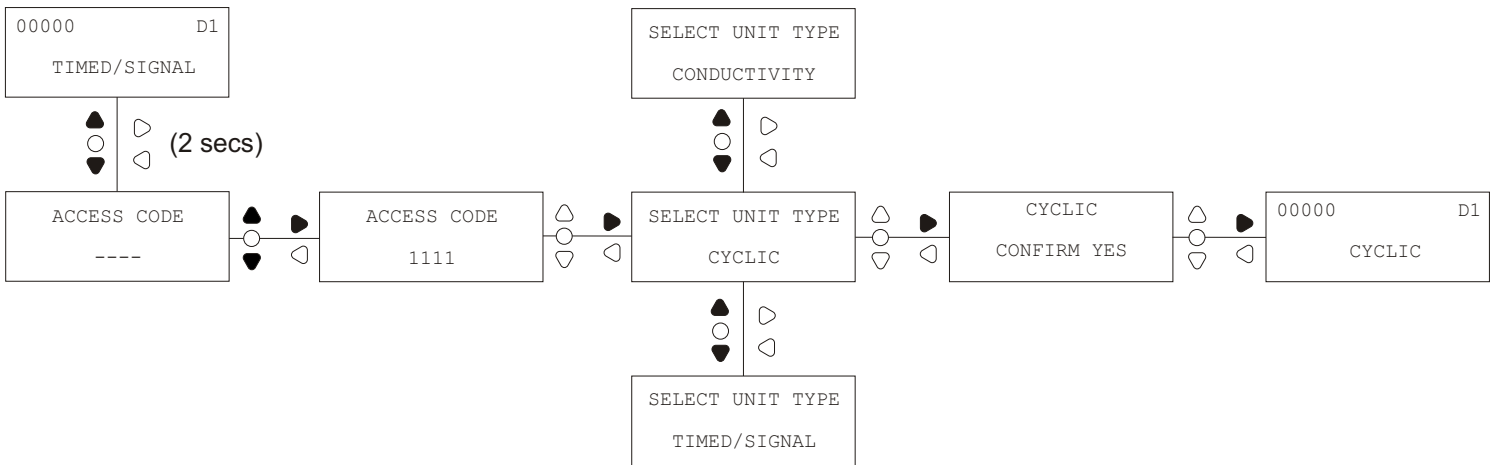
PROGRAMMING - ENTERING PROGRAM MODE

Press the *FWD/ACCEPT* button from the default screen. Enter the correct four digit Access Code using the *UP* and *DOWN* keys to select a number and the *FWD/ACCEPT* key to move on.

The unit will enter program mode when the correct Access Code has been entered. Refer to the relevant Section for programming parameter information.

```
┌──────────────────┐        ┌──────────────────┐
│ ACCESS CODE      │        │ ACCESS CODE      │
│ ----             │        │ 1---             │
└──────────────────┘        └──────────────────┘

┌──────────────────┐        ┌──────────────────┐
│ ACCESS CODE      │        │ ENTER QUICK      │
│ 1111             │        │ SETUP MODE       │
└──────────────────┘        └──────────────────┘

┌──────────────────┐
│ ENTER ADVANCED   │
│ SETUP MODE       │
└──────────────────┘
```

Timed/Signal Mode
Page 10

Cyclic Mode
Page 14

Conductivity Mode
Page 12

```
┌─────────────────┐      ┌─────────────────┐      ┌─────────────────┐      ┌─────────────────┐
│ INITIAL CHARGE  │      │ INITIAL CHARGE  │      │ INITIAL CHARGE  │      │ INITIAL CHARGE  │
│     AUTO        │      │    SIGNALLED    │      │    POWER UP     │      │      OFF        │
└─────────────────┘      └─────────────────┘      └─────────────────┘      └─────────────────┘

┌─────────────────┐      ┌─────────────────┐      ┌─────────────────┐
│   I C SPEED     │      │    IC SPEED     │      │   I C SPEED     │      Shaded grey screens are not
│     100%        │      │      100%       │      │     100%        │      shown in quick set up mode.
└─────────────────┘      └─────────────────┘      └─────────────────┘      All screens are shown on
                                                                            advanced set up mode.

┌─────────────────┐      ┌─────────────────┐      ┌─────────────────┐
│  I C RUN-TIME   │      │   IC RUN TIME   │      │   IC RUN TIME   │
│ 00MINS 30SECS   │      │ 00MINS 30SECS   │      │ 00MINS 30SECS   │
└─────────────────┘      └─────────────────┘      └─────────────────┘

┌─────────────────┐      ┌─────────────────┐
│ IC SIGNAL TIME  │      │  IC DELAY TIME  │
│ 00MINS 30SECS   │      │ 00MINS 00SECS   │
└─────────────────┘      └─────────────────┘

                         ┌─────────────────┐
                         │    I C PULSE    │
                         │       01        │
                         └─────────────────┘
```

> Select the required Initial Charge operation using the **UP** and **DOWN** keys to scroll through the options and the **FWD/ACCEPT** key to select.

POWER UP - The Initial Charge will operate once, when power is applied to the unit.

SIGNALLED - The Initial Charge will operate on a signal to Input 1 on the Powerboard.

```
┌─────────────────┐      ┌─────────────────┐
│  TOP UP SPEED   │      │ FLOWRATE: 0000ml│
│     100%        │      │                 │
│                 │      │ DATE: 01/01/01  │
└─────────────────┘      └─────────────────┘

┌─────────────────┐
│  TOP UP TIME    │
│ 00MINS 04SECS   │
└─────────────────┘
```

AUTO - The Initial Charge will operate when a signal remains present on Input 3 on the Controller board for the duration of the programmed Initial Charge signal time Period **(Note: when in AUTO Initial Charge mode, Pump 2 will be initiated when the signal to input 3 is <u>removed</u>).**

OFF - The Initial Charge will not operate.

> Set the Speed (20% - 100%) for the Initial Charge using the **UP** and **DOWN** keys to select and the **FWD/ACCEPT** key to move on.

> When on the speed screen, press **PRIME** to run the Pump for 1 minute at the displayed speed to check the flowrate. Press **UP** and **DOWN** *simultaneously* to enter the flowrate and the date of measurement. Press **FWD/ACCEPT** to select the displayed speed.

> Set the Run-time (00:00 - 99:59 mins/secs) and Delay time (00:00 - 99:59 mins/secs) for the Initial Charge using the **UP** and **DOWN** keys to select the required time and the **FWD/ACCEPT** key to move on.

> Set the Speed (20% - 100%) for the Top Up using the **UP** and **DOWN** keys to select and the **FWD/ACCEPT** key to move on.

> Set the Run-time (00:00 - 99:59 mins/secs) for the Top Up using the **UP** and **DOWN** keys to select and press the **FWD/ACCEPT** key to move on.

Press **PRIME** to run the pump for the set time to check the dosage.

```
┌─────────────────────────┐
│    RINSE RUN TIME        │
│                          │
│    00MINS 04SECS         │
└─────────────────────────┘
         △    ▶
         ○
         ▽    ◁
┌─────────────────────────┐
│    IC TOTAL TIME         │
│                          │
│    00MINS 00SECS         │
└─────────────────────────┘
         △    ▶
         ○
         ▽    ◁
┌─────────────────────────┐
│  TOP UP TOTAL TIME       │
│                          │
│    00MINS 00SECS         │
└─────────────────────────┘
         △    ▶
         ○
         ▽    ◁
┌─────────────────────────┐
│   RINSE TOTAL TIME       │
│                          │
│    00MINS 00SECS         │
└─────────────────────────┘
         △    ▶
         ○
         ▽    ◁
┌─────────────────────────┐
│    SAVE SETTINGS         │
│                          │
│                          │
└─────────────────────────┘
         △    ▶
         ○
         ▽    ◁
┌─────────────────────────┐
│  00000          D1       │
│                          │
│    TIMED/SIGNAL          │
└─────────────────────────┘
```
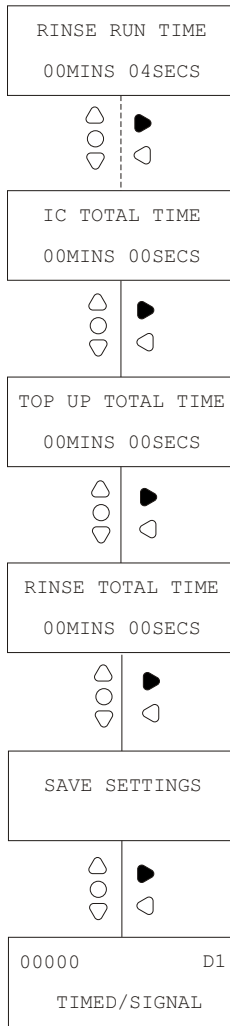
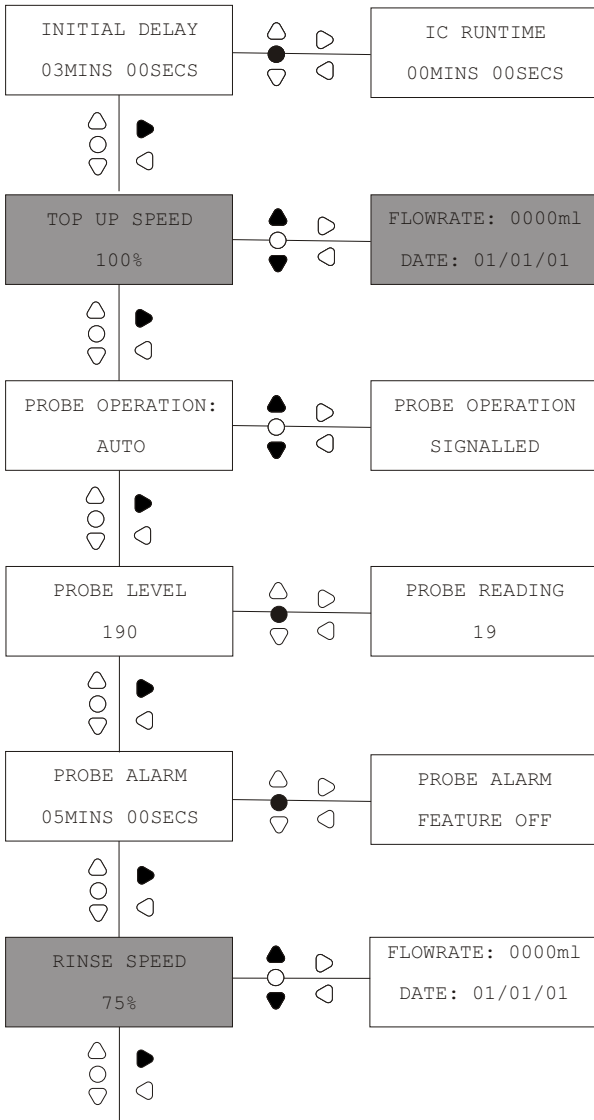**>** Repeat for programming parameters of Rinse Pump

> After programming the parameters for each Pump, the Total Run-time counter for the Initial Charge will be displayed.

> On the Total Run-time screens, use the **UP** and **DOWN** keys to scroll between the Run-time and the Cycles for the displayed Pump.

> Press the **UP** and **DOWN** keys simultaneously to reset the displayed counter back to zero. (Note: The Run-time and Total Cycle counters of the relevant pump will both revert to zero when either is reset)

> Press **FWD/ACCEPT** to display the Run-time and Cycle information for the remaining Pumps.

> After the Run-time and Cycle information for all of the Pumps, the Save Settings screen will be displayed. Press **FWD/ACCEPT** on this screen to display the default screen and return to the units operating mode.

```
┌─────────────────────┐   △  ▷   ┌─────────────────────┐
│   INITIAL DELAY      │   ● ─    │    IC RUNTIME        │
│   03MINS 00SECS      │   ▽  ◁   │    00MINS 00SECS     │
└─────────────────────┘          └─────────────────────┘
         │ △  ▶
         │ ○
         │ ▽  ◁
┌─────────────────────┐   ▲  ▷   ┌─────────────────────┐
│   TOP UP SPEED       │   ○ ─    │  FLOWRATE: 0000ml    │
│   100%               │   ▼  ◁   │  DATE: 01/01/01      │
└─────────────────────┘          └─────────────────────┘
         │ △  ▶
         │ ○
         │ ▽  ◁
┌─────────────────────┐   ▲  ▷   ┌─────────────────────┐   △  ▷   ┌─────────────────────┐
│  PROBE OPERATION:    │   ○ ─    │  PROBE OPERATION     │   ● ─    │  ACTIVATION TEMP     │
│  AUTO                │   ▼  ◁   │  SIGNALLED           │   ▽  ◁   │  0 C                 │
└─────────────────────┘          └─────────────────────┘          └─────────────────────┘
         │ △  ▶
         │ ○
         │ ▽  ◁
┌─────────────────────┐   △  ▷   ┌─────────────────────┐
│   PROBE LEVEL        │   ● ─    │   PROBE READING      │
│   190                │   ▽  ◁   │   19                 │
└─────────────────────┘          └─────────────────────┘
         │ △  ▶
         │ ○
         │ ▽  ◁
┌─────────────────────┐   △  ▷   ┌─────────────────────┐
│   PROBE ALARM        │   ● ─    │   PROBE ALARM        │
│   05MINS 00SECS      │   ▽  ◁   │   FEATURE OFF        │
└─────────────────────┘          └─────────────────────┘
         │ △  ▶
         │ ○
         │ ▽  ◁
┌─────────────────────┐   ▲  ▷   ┌─────────────────────┐
│   RINSE SPEED        │   ○ ─    │  FLOWRATE: 0000ml    │
│   75%                │   ▼  ◁   │  DATE: 01/01/01      │
└─────────────────────┘          └─────────────────────┘
         │ △  ▶
         │ ○
         │ ▽  ◁
```

> Set the Initial Delay period using the **UP** and **DOWN** keys to select the required time and the **FWD/ACCEPT** key to move on.

When on Initial delay screen, press **PRIME** button to enable the inital charge run time screen, this will allow a signal to be applied to input 1 to trigger an initial charge.

> Set the Speed (20% - 100%) for the Top up using the **UP** and **DOWN** keys to select and the **FWD/ACCEPT** key to move on.

> To use the temperature activation feautre press the **PRIME** button to access the screen. Using the **UP** and **DOWN** keys enter the temperature that will activate the pumps. **_(Inductive probe only)_**

> Select the required Probe operation using the **UP** and **DOWN** keys to scroll through the options and the **FWD/ACCEPT** key to select.

AUTO - The Probe will initiate the Top up to operate if the concentration level falls below the programmed value when the unit is powered.

SIGNALLED - The Probe will initiate the Top up to operate if the concentration level falls below the programmed value when a signal is present on Input 2.

If a conductive probe is fitted.
> Set the Probe Concentration (00 - 250) using the **UP** and **DOWN** keys to select the required level. Conducted range of 0-8.5 ms. If an Inductive probe is fitted set the probe concentration from 0.000 ms to 200 ms.

Scanlock - The **PRIME** key can be pressed on this screen to display the current probe reading. If the current probe reading is correct for the required concentration, then the **PRIME** key can be pressed and held for 2 seconds to store this value. This is how we recomend the conductive probe is set up.
The inductive probe will also display the tank temperature

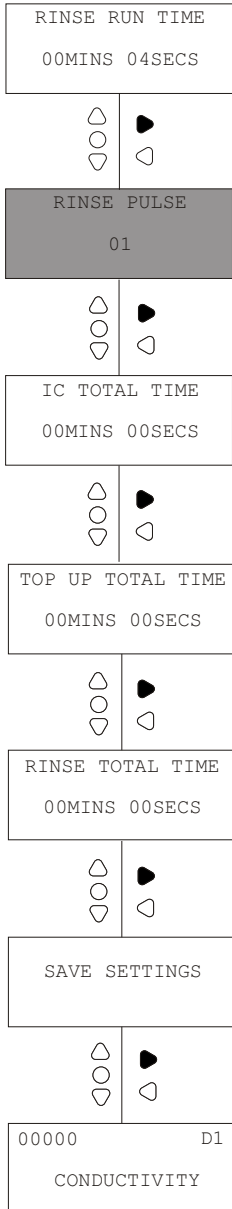Press the **FWD/ACCEPT** key to move on.

> Set the Alarm Delay (00:00 - 99:59 mins/secs) for the Probe using the **UP** and **DOWN** keys to select and press the **FWD/ACCEPT** key to move on.

Pressing the **PRIME** button on the probe alarm screen disables the alarm.

```
┌─────────────────────┐
│   ALARM DELAY        │
│   ELAPSED            │
└─────────────────────┘
```

> Set the Speed (20% - 100%) for Rinse using the **UP** and **DOWN** keys to select and the **FWD/ACCEPT** key to move on.

> When on the speed screen, press **TEST** to run the Pump for 1 minute at the displayed speed to check the flowrate. Press **PRIME** to enter the flowrate and the date of measurement. Press **FWD/ACCEPT** to select the displayed speed.

Shaded grey screens are not shown in quick set up mode. All screens are shown on

```
   RINSE RUN TIME

    00MINS 04SECS
```

△ ▶
○
▽ ◁

```
   RINSE PULSE

        01
```

△ ▶
○
▽ ◁

```
   IC TOTAL TIME

    00MINS 00SECS
```

△ ▶
○
▽ ◁

```
  TOP UP TOTAL TIME

    00MINS 00SECS
```

△ ▶
○
▽ ◁

```
  RINSE TOTAL TIME

    00MINS 00SECS
```

△ ▶
○
▽ ◁

```
   SAVE SETTINGS
```

△ ▶
○
▽ ◁

```
  00000          D1

     CONDUCTIVITY
```

> Set the Run-time (00:00 - 99:59 mins/secs) for the Rinse using the **UP** and **DOWN** keys to select and press the **FWD/ACCEPT** key to move on.

> Set the Pulse (ALL - 100) using the **UP** and **DOWN** keys. Press **FWD/ACCEPT** to select the displayed pulse.

> After programming the parameters for each Pump, the Run-time counter for the Top up will be displayed.

> Press the **UP** and **DOWN** keys simultaneously to reset the displayed counter back to zero.

> Press **FWD/ACCEPT** to display the Run-time information for the remaining Pumps.

> After the Total Run-time information for all of the Pumps, the Save Settings screen will be displayed. Press **FWD/ACCEPT** on this screen to display the default screen and return to the units operating mode.

⚠️

Do not alter the length of cable to the probe.
If the cable is altered it is not guaranteed the probe will function correctly.
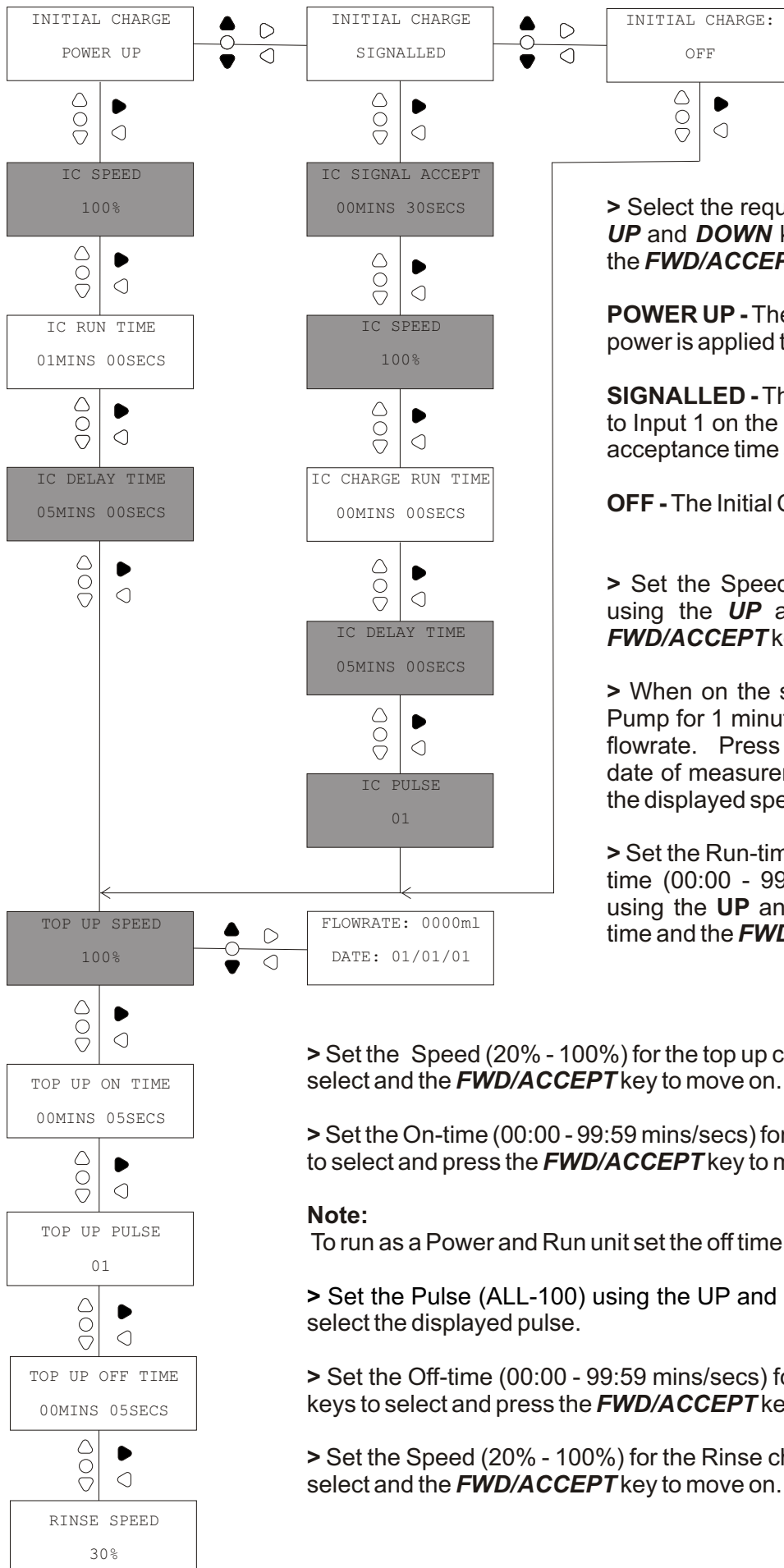
```
INITIAL CHARGE      INITIAL CHARGE      INITIAL CHARGE:
   POWER UP            SIGNALLED             OFF
```

Shaded grey screens are not shown in quick set up mode. All screens are shown on advanced set up mode.

```
  IC SPEED          IC SIGNAL ACCEPT
    100%             00MINS 30SECS
```

> Select the required Initial Charge operation using the *UP* and *DOWN* keys to scroll through the options and the *FWD/ACCEPT* key to select.

```
 IC RUN TIME           IC SPEED
01MINS 00SECS            100%
```

POWER UP - The Initial Charge will operate once, when power is applied to the unit.

SIGNALLED - The Initial Charge will operate on a signal to Input 1 on the Controller board, in this mode a signal acceptance time and pulse can be set

```
IC DELAY TIME      IC CHARGE RUN TIME
05MINS 00SECS         00MINS 00SECS
```

OFF - The Initial Charge will not operate.

> Set the Speed (20% - 100%) for the Initial charge using the *UP* and *DOWN* keys to select and the *FWD/ACCEPT* key to move on.

```
                    IC DELAY TIME
                    05MINS 00SECS
```

> When on the speed screen, press *TEST* to run the Pump for 1 minute at the displayed speed to check the flowrate. Press *PRIME* to enter the flowrate and the date of measurement. Press *FWD/ACCEPT* to select the displayed speed.

```
                      IC PULSE
                        01
```

> Set the Run-time (00:00 - 99:59 mins/secs) and Delay time (00:00 - 99:59 mins/secs) for the Initial Charge using the **UP** and **DOWN** keys to select the required time and the *FWD/ACCEPT* key to move on.

```
TOP UP SPEED        FLOWRATE: 0000ml
    100%
                    DATE: 01/01/01
```

> Set the Speed (20% - 100%) for the top up charge using the *UP* and *DOWN* keys to select and the *FWD/ACCEPT* key to move on.

```
TOP UP ON TIME
 00MINS 05SECS
```

> Set the On-time (00:00 - 99:59 mins/secs) for Pump 1 using the *UP* and *DOWN* keys to select and press the *FWD/ACCEPT* key to move on.
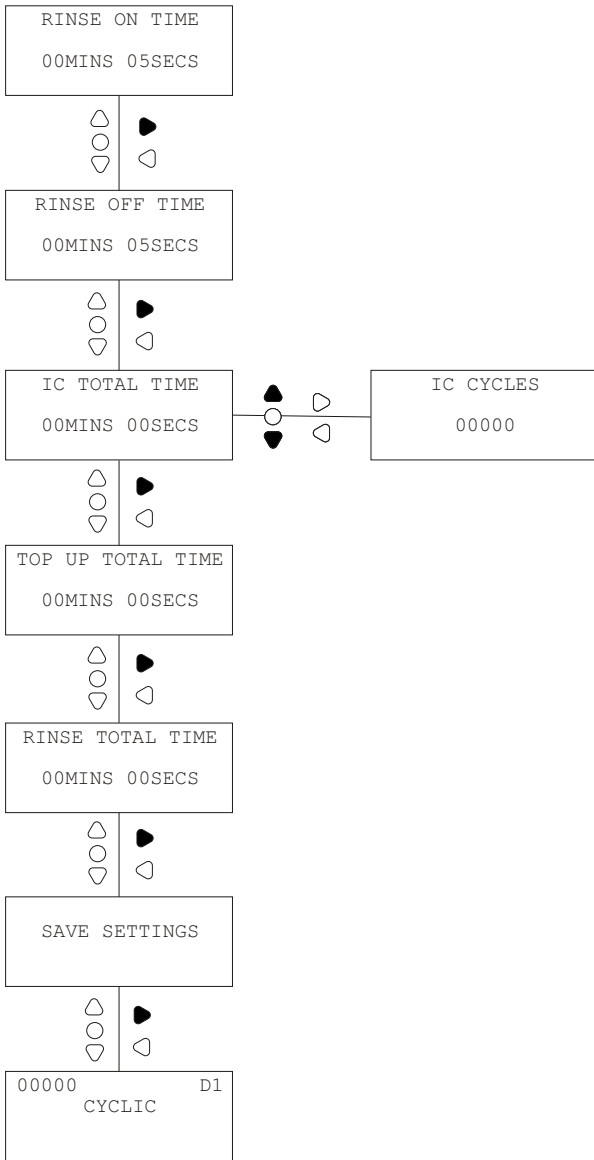
Note:
 To run as a Power and Run unit set the off time to zero.

```
TOP UP PULSE
     01
```

> Set the Pulse (ALL-100) using the UP and DOWN keys. Press *FWD/ACCEPT* to select the displayed pulse.

```
TOP UP OFF TIME
 00MINS 05SECS
```

> Set the Off-time (00:00 - 99:59 mins/secs) for the Top up using the *UP* and *DOWN* keys to select and press the *FWD/ACCEPT* key to move on.

```
RINSE SPEED
    30%
```

> Set the Speed (20% - 100%) for the Rinse charge using the *UP* and *DOWN* keys to select and the *FWD/ACCEPT* key to move on.

```
┌─────────────────────┐
│  RINSE ON TIME      │
│                     │
│  00MINS 05SECS      │
└─────────────────────┘
         △  ▶
         ○
         ▽  ◁
┌─────────────────────┐
│  RINSE OFF TIME     │
│                     │
│  00MINS 05SECS      │
└─────────────────────┘
         △  ▶
         ○
         ▽  ◁
┌─────────────────────┐          ┌─────────────────────┐
│  IC TOTAL TIME      │  ▲  ▷     │  IC CYCLES          │
│                     │  ○        │                     │
│  00MINS 00SECS      │  ▼  ◁     │  00000              │
└─────────────────────┘          └─────────────────────┘
         △  ▶
         ○
         ▽  ◁
┌─────────────────────┐
│  TOP UP TOTAL TIME  │
│                     │
│  00MINS 00SECS      │
└─────────────────────┘
         △  ▶
         ○
         ▽  ◁
┌─────────────────────┐
│  RINSE TOTAL TIME   │
│                     │
│  00MINS 00SECS      │
└─────────────────────┘
         △  ▶
         ○
         ▽  ◁
┌─────────────────────┐
│  SAVE SETTINGS      │
│                     │
│                     │
└─────────────────────┘
         △  ▶
         ○
         ▽  ◁
┌─────────────────────┐
│  00000         D1   │
│      CYCLIC         │
│                     │
└─────────────────────┘
```

> Set the On-time (00:00 - 99:59 mins/secs) for Pump 2 using the *UP* and *DOWN* keys to select and press the *FWD/ACCEPT* key to move on.

> Set the Off-time (00:00 - 99:59 mins/secs) for the Rinse using the *UP* and *DOWN* keys to select and press the *FWD/ACCEPT* key to move on.

> After programming the parameters for each Pump, the Run-time counter for the Initial Charge will be displayed.
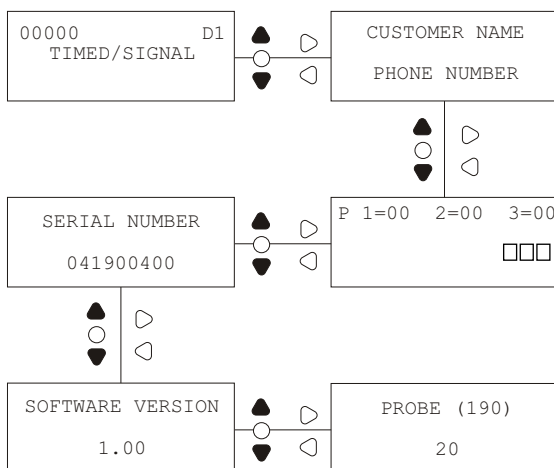
> On the Total Run-time screen for the Initial Charge, use the *UP* and *DOWN* keys to scroll between the Run-time and the Total Cycles (the Total Cycles screen is only available for the Initial Charge).

> Press the *UP* and *DOWN* keys simultaneously to reset the displayed counter back to zero (Note: The Total Run-time and Total Cycle counters of the relevant Pump will both revert to zero when either is reset).

> Press *FWD/ACCEPT* to display the Run-time information for the remaining Pumps

> After the Run-time information for all of the Pumps, the Save Settings screen will be displayed. Press *FWD/ACCEPT* on this screen to display the default screen and return to the units operating mode.

DEFAULT DISPLAY SCREENS

```
┌─────────────────────┐          ┌─────────────────────┐
│  00000         D1   │  ▲  ▷     │  CUSTOMER NAME      │
│    TIMED/SIGNAL     │  ○        │                     │
│                     │  ▼  ◁     │  PHONE NUMBER       │
└─────────────────────┘          └─────────────────────┘
                                           ▲  ▷
                                           ○
                                           ▼  ◁
┌─────────────────────┐          ┌─────────────────────┐
│  SERIAL NUMBER      │  ▲  ▷     │ P 1=00  2=00  3=00  │
│                     │  ○        │                     │
│  041900400          │  ▼  ◁     │               □□□   │
└─────────────────────┘          └─────────────────────┘
         ▲  ▷
         ○
         ▼  ◁
┌─────────────────────┐          ┌─────────────────────┐
│  SOFTWARE VERSION   │  ▲  ▷     │  PROBE (190)        │
│                     │  ○        │                     │
│  1.00               │  ▼  ◁     │      20             │
└─────────────────────┘          └─────────────────────┘
```

Unit information and the signal test screen can be viewed by pressing *UP or Down* from the default screen.

The unit will stay on the selected screen when power cycled.

Pulse test screen:
The screen will also show the unit receiving signals in "real time", via the 4 cursors along the bottom of the screen, which will illuminate when any signal is present.
This saves the engineer from having to use a voltmeter to check each input.
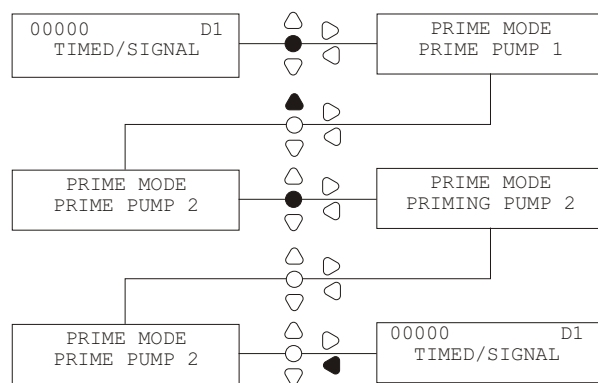
Note:
Probe screen is only shown in Conductivity mode.

The Pumps are Primed from the Keypad. Press the **PRIME** key to display the Prime Mode screen.

From this screen, press and hold the **PRIME** key to prime pump 1. Press the **UP** or **DOWN** key to select pump 2 and hold the **PRIME** key to prime pump 2. The screen will display the pump number whilst it is Priming.

Press the **BACK** key to return to the default screen. (The unit will return to the default screen if a key is not pressed for 10 seconds)
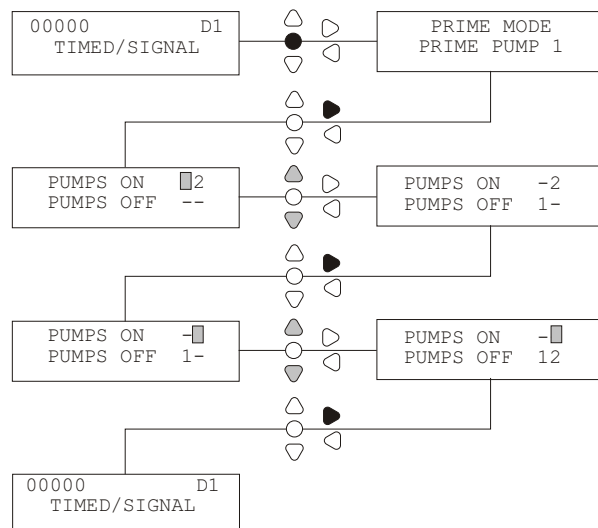
```
00000        D1                    PRIME MODE
TIMED/SIGNAL                      PRIME PUMP 1

PRIME MODE                         PRIME MODE
PRIME PUMP 2                      PRIMING PUMP 2

PRIME MODE                        00000        D1
PRIME PUMP 2                      TIMED/SIGNAL
```

STOPPING THE PUMPS

The Pumps can be stopped from the Keypad. Press the **PRIME** key to display the Prime Mode screen.

From this screen, press the **FWD/ACCEPT** key to enter Pump Stop Mode. The screen will display the Pumps as ON or OFF.

Press the **UP** or **DOWN** key to move pump 1 from On to Off. To move to Pump 2 press the **FWD/ACCEPT** key. Again press the **UP** or **DOWN** key to stop Pump 2. Press the **FWD/ACCEPT** key to return to the default screen. (The unit will return to the default screen if a key is not pressed for 10 seconds)

Any pumps that are OFF will be displayed, flashing, at the bottom of the default screen.

```
00000        D1                    PRIME MODE
TIMED/SIGNAL                      PRIME PUMP 1

PUMPS ON   ▢2                     PUMPS ON   -2
PUMPS OFF  --                     PUMPS OFF  1-

PUMPS ON   -▢                     PUMPS ON   -▢
PUMPS OFF  1-                     PUMPS OFF  12

00000        D1
TIMED/SIGNAL
```
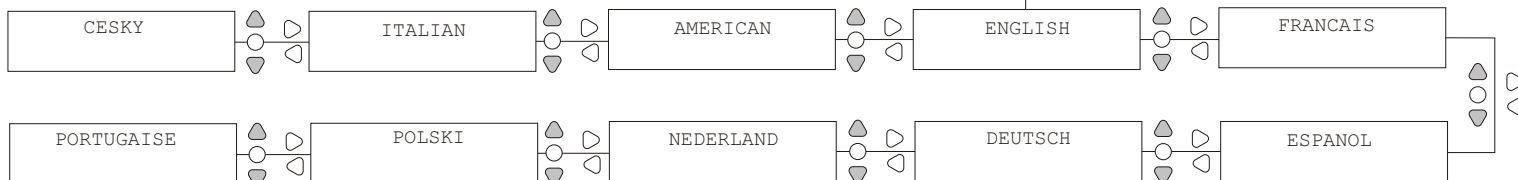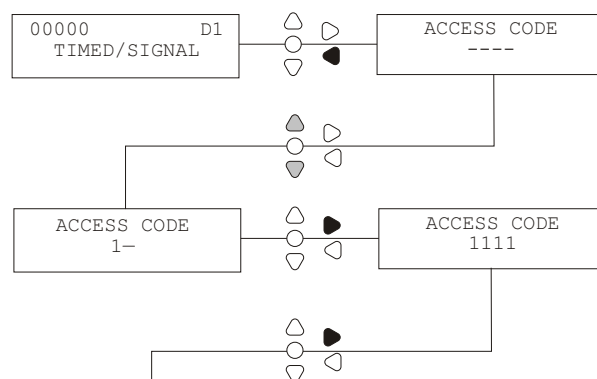
LANGUAGE SELECTION

It is possible to select the displayed language as English, French, German, Spanish, Dutch, Polish, Czech, Italian, American or Portuguese.

From the default screen, press and hold the **BACK** key for 2 seconds. This will display the access code screen. Enter the correct four digit Access Code using the **UP** and **DOWN** keys to select a number and the **FWD/ACCEPT** key to move on.

Use the **UP** and **DOWN** keys to scroll through the language options. Press the **FWD/ACCEPT** key to select the displayed language.

```
00000        D1                    ACCESS CODE
TIMED/SIGNAL                         ----

ACCESS CODE                        ACCESS CODE
   1—                                1111
```

```
CESKY      ITALIAN      AMERICAN      ENGLISH      FRANCAIS

PORTUGAISE  POLSKI      NEDERLAND     DEUTSCH      ESPANOL
```
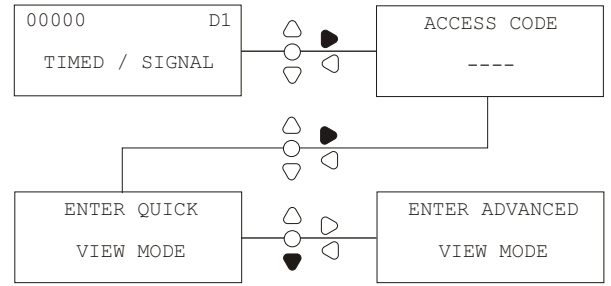
VIEW MODE

If you wish to view the Program Settings and Cycle Counters without editing them, this can be done through the VIEW MODE.

From the default screen, press the **FWD/ACCEPT** key, it will change to the ACCESS code screen, press **FWD/ACCEPT** key again to enter VIEW MODE.

Use the **FWD/ACCEPT** key to scroll through the Settings and Cycle Counters.

Note:
This feature can be disabled (see below).

```
┌────────────────────┐              ┌────────────────────┐
│ 00000          D1  │    △   ▶     │    ACCESS CODE     │
│                    │──○──────────│                    │
│  TIMED / SIGNAL    │    ▽   ◁     │      ----          │
└────────────────────┘              └────────────────────┘

                         △   ▶
                        ─○──────────
                         ▽   ◁

┌────────────────────┐              ┌────────────────────┐
│   ENTER QUICK      │    △   ▷      │  ENTER ADVANCED    │
│                    │──○──────────│                    │
│    VIEW MODE       │    ▼   ◁     │    VIEW MODE       │
└────────────────────┘              └────────────────────┘
```

DISABLE MODE (PUMP STOP, PRIME, VIEW)

When on the default screen press **FWD/ACCEPT** key to show the Access code screen, then press PRIME to show the ENABLE MODE PIN screen,
Input the security access code as normal.
The PUMP STOP - DISABLE screen will be shown.
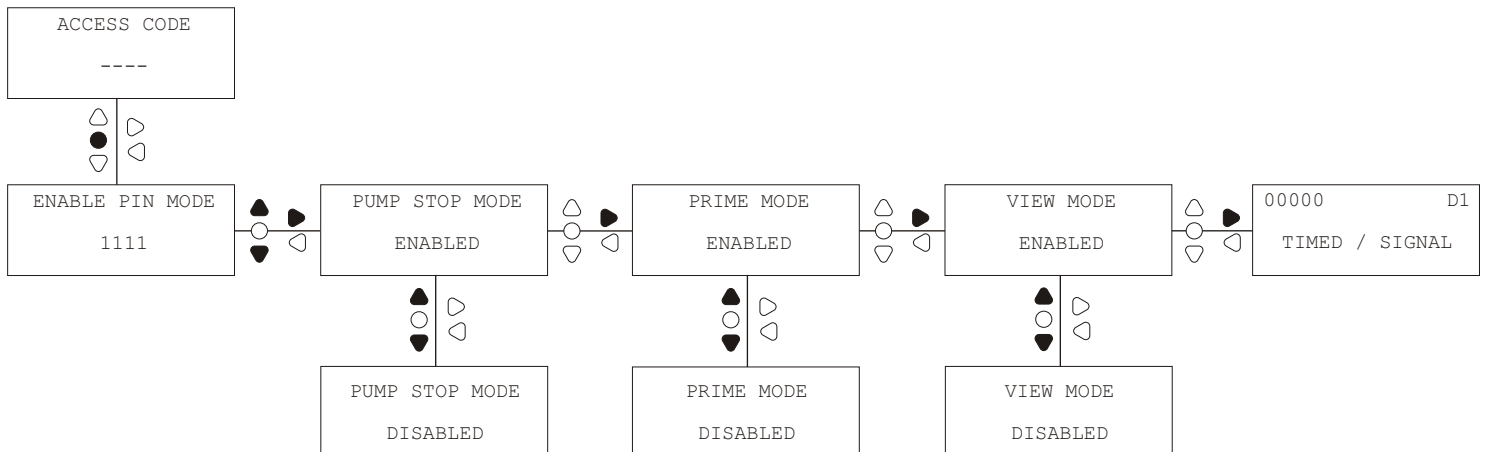
To disable the PUMP STOP mode:

From the PUMP STOP - DISABLE screen, Use the **UP/DOWN** keys to ENABLE or DISABLE the pump stop mode.
Press the **FWD/ACCEPT** key to confirm your selection and move on to the PRIME - DISABLE screen.

To disable the PRIME mode:

From the PRIME - DISABLE screen, Use the **UP/DOWN** keys to ENABLE or DISABLE the prime mode.
Press the **FWD/ACCEPT** key to confirm your selection and move on to the VIEW MODE - DISABLE screen.

To disable the VIEW mode:

From the VIEW MODE - DISABLE screen, Use the **UP/DOWN** keys to ENABLE or DISABLE the view mode.
Press the **FWD/ACCEPT** key to confirm your selection and move back to the TEST MODE screen.

```
┌────────────────┐
│  ACCESS CODE   │
│                │
│     ----       │
└────────────────┘
       △   ▷
      ─●──────
       ▽   ◁

┌──────────────┐   △  ▶   ┌──────────────┐   △  ▶   ┌──────────────┐   △  ▶   ┌──────────────┐   △  ▶   ┌──────────────┐
│ENABLE PIN MODE│──○──────│PUMP STOP MODE │──○──────│  PRIME MODE  │──○──────│  VIEW MODE   │──○──────│ 00000     D1 │
│     1111     │   ▼  ◁   │   ENABLED    │   ▽  ◁   │   ENABLED    │   ▽  ◁   │   ENABLED    │   ▽  ◁   │TIMED / SIGNAL│
└──────────────┘          └──────────────┘          └──────────────┘          └──────────────┘          └──────────────┘
                          ▲  ▷                      ▲  ▷                      ▲  ▷
                         ─○──────                  ─○──────                  ─○──────
                          ▼  ◁                      ▼  ◁                      ▼  ◁
                          ┌──────────────┐          ┌──────────────┐          ┌──────────────┐
                          │PUMP STOP MODE │          │  PRIME MODE  │          │  VIEW MODE   │
                          │   DISABLED   │          │   DISABLED   │          │   DISABLED   │
                          └──────────────┘          └──────────────┘          └──────────────┘
```

Signal Acceptance - Length of time that a signal must be present on an Input before it is acknowledged. 1 second, not adjustable.

Run-Time - Adjustable time period for which a pump will operate on acceptance of a trigger signal.

Speed - Adjustable rotation rate at which each pump will operate.

Pulse - Signal number that a pump is to operate on. Pulse counter returns to zero after the operation of the pump (Example: if pulse is set to '02' then the associated pump will operate on every second signal).

Cycle Counters - Provides a record of the number of cycles and length of time that has been completed by each pump.

Prime - Run the pump to fill the suction and delivery tubes.

Pump Stop - Switch the pumps off in case of failure and prevent operation during maintenance.

Activation temperature - (only available in conductivity mode) A set temperature that the water in the tank must reach before the pump 1 is activated.

Power Supply	Voltage	100V to 240V AC
	Frequency	50 - 60Hz
	Current	@100V - 0.33A
		@240V 0.11A
	Power	30W
Fusing		Resettable 0.75A
Motor		Brushless - 24V DC, 600mA
Pump		Maximum 6.4mm Silicone - 350ml/min, 3mm Silicone - 100ml/min at 100%
		(Flowrate taken using water at 100% speed)
Enclosure		GFPP - IP 45
Weight (approx.)		1.4kg
Approvals		EMC 89/336/EEC - EN61000-6-2:2005 & EN61000-6-3:2007
		LVD 72/23/EEC - EN60335-1:2002+A2:2006
		DMGR.E334192 - DMGR7.E334192 - XACN2.E336386 - XACN8.E336386

75mm

5.3mm

103.5mm

225mm

5.3mm

165.2mm

110mm

152.5mm
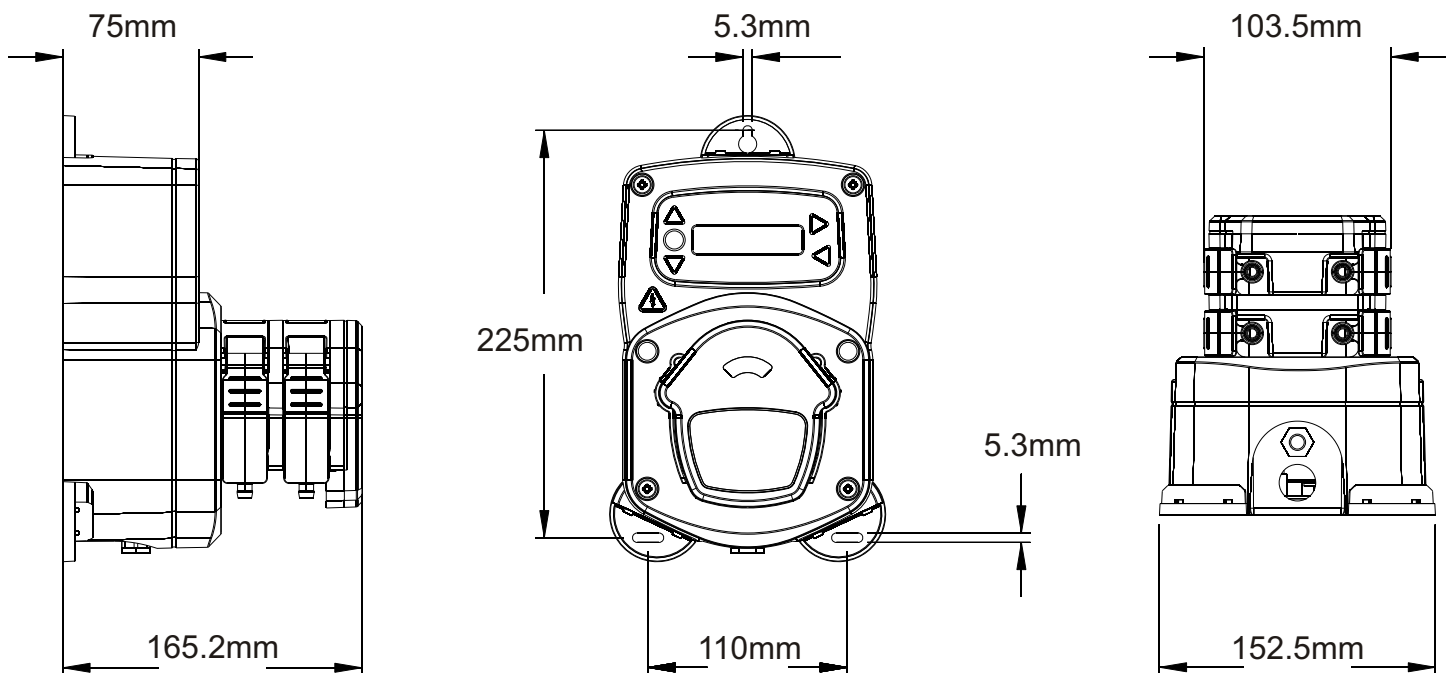
NOTES

DECLARATION OF CONFORMITY

EU DECLARATION OF CONFORMITY

The EU Directives covered by this Declaration

2004/108/EEC Electromagnetic Compatibility Directive.
2006/65/EEC Low Voltage Equipment Directive.

The Products Covered by this Declaration

BrightLogic® L6 *(generic to L1 to L5)*   **BrightLogic® D3** *(generic to D1,D2, IPD2)*
BrightLogic® L10 *(generic to L7 to L9) = EN6100-6-4:2007 instead of EN6100-6-3:2007*
BrightLogic® Low level alarm   **BrightLogic® Controller**

Basis on which Conformity is being Declared

The products identified complies with the requirement of the above EU Directives by meeting the following standards:

BS EN 6100-6-3:2007 Electromagnetic compatibility Generic emission standard

Radiated Disturbance EN55011:2009   -CISPR 16-2-3 & CISPR 16-2-1
Conducted Disturbance, ac port   -Class B

      EN61000-3-2:2006 inc A2:2009   Mains Harmonics - Class A
      EN61000-3-3:1995   Mains Voltage Flicker

BS EN 6100-6-2:2005 Electromagnetic compatibility Generic immunity standard

      EN61000-4-2:2001   Electrostatic discharge
      EN61000-4-3:2006   Radiated RF interference
      EN61000-4-4:2004   Fast transients bursts
      EN61000-4-5:2006   Surges
      EN61000-4-6:2007   Conducted RF field
   EN61000-4-11:2004   Voltage dips and interruptions

BS EN 60335-1:2002 + A11:04 + A1:04 + A12:06 + A2:06 + A13:08 & EN62233:2008 (EMF) Saftey of household and similar electrical appliances

The products above comply with the essential requirements of the directives specified.

Signed:... Authority:...Director of Design... Date:..2|3|11...................

The attention of the specifier, purchaser, installer, or user is drawn to special measures and limitations to use, which must be observed when the product is taken into service to maintain compliance with the above directives.

WEE DIRECTIVE

GB
IRL
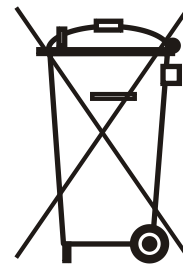
Environment protection first !
Your appliance contains valuable materials which can be recovered or recycled.

Leave it at a local civic waste collection point.

F

Participons à la protection de L'environnement
Votre appareil contient de nombreux matériaux valorisables ou recyclables.

Confiez celui-ci clans un point de collecte ou à défaut dans us centre service agréé pour clue son traitement soit effectué.

D
A

Schützen Sie die Umwelt !
Ihr Gerät enthält mehrere unterschiedliche, wiederverwertbare Wertstoffe.

Bitte geben Sie Ihr Gerät zum Entsorgen nicht in den Hausmüll, sondern bringen Sie es zu einer speziellen Entsorgungsstelle für Elektrokleingeräte (Wertstoffhof).

E

ii Participe en la conservación del medio ambiente !!
Su electrodoméstico contiene materiales recuperables y/o reciclables.

Entréguelo al final de su vida útil, en un Centro de Recogida Especifico o en uno de nuestros Servicios Of iciales Post Venta donde será tratado de forma adecuada.

I

Partecipiamo alla protezione dell'ambiente
Il vostro apparecchio è composto da diversi materiali che possono essere riciclati.

Lasciatelo in un punto di raccolta o presso un Centro Assistenza Autorizzato.

NL

Wees vriendelijk voor het milieu !
i Uw apparaat bevat materialen die geschikt zijn voor hergebruik.

Lever het in bij het milieustation in uw gemeente of bij onze technische dienst.

PL

Bierzmy czynny udzial w ochronie środowiska !
Twoje urządzenie jest zbudowane z materialów, które mogą być poddane ponownemu przetwarzaniu lub recyklingowi.

W tym celu należy je dostarczyć do wyznaczonego punktu zbiórki.

CZ

Podilejme se na ochrane životniho prostředi !
Váš přístroj obsahuje četné zhodnotitelné nebo recyklovatelné materiály.

Sveřte jej sbernému mistu nebo, neexistuje-li, smluvnimu servisnimu středisku, kde a nim bude naloženo odpovidajicim způsobem.

BRIGHTWELL®

Guarantee
All Brightwell dispensers are guaranteed for two years from date of purchase against defects in materials and faulty workmanship. Peristaltic tubing is not guaranteed.

Chemical compatibility
We are pleased to offer advice on chemical compatibility, however our guarantee does not cover problems caused by chemical incompatibility.

Safety first
Always follow the chemical manufacturer's Health and Safety Instructions when using chemicals.

Technical and design specifications
Specifications within this catalogue are subject to alteration without notice.

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www.brightwell.co.uk

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