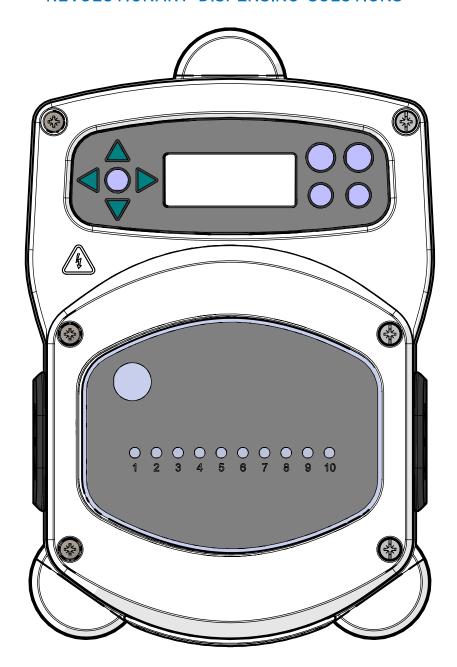
BRIGHTWELL

REVOLUTIONARY DISPENSING SOLUTIONS



Brightlogic 10 Pump Controller Installation Guide

Installation and Setup

Brightwell.co.uk



SAFETY INFORMATION 3

CONTENTS

2

SAFETY INFORMATION	3
SAFETY PRECAUTIONS	
OPERATION	5
UNIT LAYOUT	7
UNIT LAYOUT - MICROBOARD	8
UNIT LAYOUT - RELAY BOARD————————————————————————————————————	9
WIRING	10
INSTALLATION - WIRING 1	11
INSTALLATION - WIRING 2	12
INSTALLATION - HOT & COLD MODE	13
INSTALLATION - WIRING 3	14
PROGRAMMING	15
PROGRAMMING - CONTROLS	16
PROGRAMMING - KEY TO INSTRUCTIONS	16
PROGRAMMING - LANGUAGE SELECTION————————————————————————————————————	
FLOW DIAGRAM - INSTRUCTIONS ————————————————————————————————————	18
FORMULA SELECT - SAFETY PRECAUTIONS	20
FORMULA SELECT - LAYOUT	20
FORMULA SELECT - INSTRUCTIONS	20
FORMULA SELECT - INSTALLATION	21
LOW LEVEL ALARM	22
ADD ON PUMPS & SPECIFICATION ————————————————————————————————————	23

SAFETY INFORMATION



4 SAFETY INFORMATION SAFETY INFORMATION 5

SAFETY PRECAUTIONS

Important Safety Instructions

Please read the following precautions carefully before using this equipment.

This unit contains high voltage components which may expose you to the risk of electric shock.

<u>Do not</u> 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.

<u>Do not</u> 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.

<u>Do not</u> allow the appliance to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.

Do not allow children being supervised to play with the appliance.

<u>Do not</u> use appliance if the supply cord is damaged. This must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

Always ensure that care is taken when handling chemicals.

WARNING

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

OPERATION

10 Pump Controller units are able to control the external operation of alternative equipment rather than Brightlogic pumps. However, it is possible to utilize both type of pumps simultaneously with the controller, if it suits your application. (See page 13)

The units are intended for indoor, fixed installation only. The means of disconnection must be incorporated in the fixed wiring, with an air gap of at least 3mm in each pole.

The pumps are initiated by applying signals of between 90V and 240V AC or DC across the corresponding inputs of the A & B rails on the mainboard.

Note: signals of between 12V and 240V AC or DC can be accepted by removing resistor packs RP1 to RP4 see page 5 or 6.

Features include:

User programmable signal acceptance time

Data management

Auto Formula select modes

3 flush valve outputs, which operate with user assignable pumps/User programmable flush valve times

Each pump can be assigned a single input, multiple inputs or all inputs

Each pump has user selectable Delay Time

Low Level Alarm - The volt free low level contacts are activated when the contact is open (ie empty drum). That means when the contact is closed, the unit is in a safe condition with a full drum of product (ie high float); and when the float drops because product has become low the contact is opened and the unit will signal an alarm condition.

The unit has two operating modes; - Standard Mode & Relay Mode:

Standard Mode - Used with a standard host machine.

The relevant pump will operate when a signal is present for the duration of the signal acceptance time and is equal to the programmed pulse setting.

The pump will then remain static for the period of the delay time, before operating at the programmed speed, for the programmed run time or chemical dosage.

The pump will not operate again until the unit has reset. The unit can be selected to reset after the operation of the final pump (eg. pump 4 of a 4 pump unit) or on a signal to input 10.

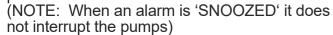
Relay Mode - Used with a computer controlled host machine. (Intelligent machine)

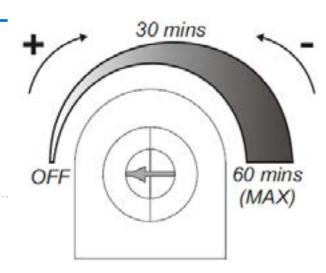
The pumps will operate for the duration that a signal is present across the corresponding inputs. Input 1 operates pump 1, input 2/pump 2, etc. The data management, flush valve and machine interrupt features will remain.

OPERATION

Silencing the alarm

Silencing the alarm
Press the 'Snooze' button on the front panel momentarily, this silences the buzzer for the set period selected. After the snooze period has elapsed, the alarm will resume again until the sensors no longer indicate an alarm condition. However, the active channel indicators will stay on throughout the entire alarm period until the sensors no longer indicate an alarm condition. If the 'Snooze' is set to 'OFF' the alarm doesn't repeat after the 'SNOOZE' button has been pressed pressed.





Setting the 'Snooze' period Set the 'Snooze' time by adjusting the pot. It ranges from being off (fully anti-clockwise) to 60 mins (fully clockwise).

UNIT LAYOUT

Section

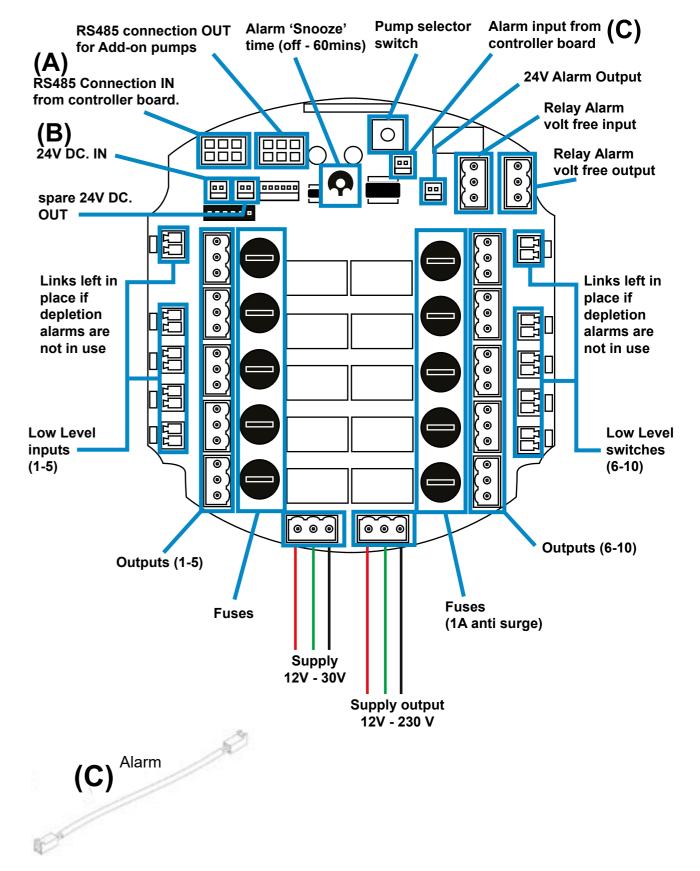


8 UNIT LAYOUT UNIT LAYOUT

UNIT LAYOUT - MICROBOARD

Used on: L1-10 L1-10/H Wireless USB Module LCD Display 24V Output (B) RS232 COMMS (A) Pump Add on connection RS485 **Supply Indicator** Lamp (5v&24v) **Safety Stop** Connectors (x3)Safety Stop **Jumpers Isolation Switches** (Inputs 1-10) Alarm Output (C) Connector B Rail (Negvative) (Inputs 1-10) Motor Connectors Mains Out LK3 & LK4 **Formula Select** 00000 Keypad Flush Valve Power Supply A Rail (Positive) Auto **Connectors Connector** 100-240v (AC) (Inputs 1-10) Formula (x3)Select (AFS)

UNIT LAYOUT - RELAY BOARD

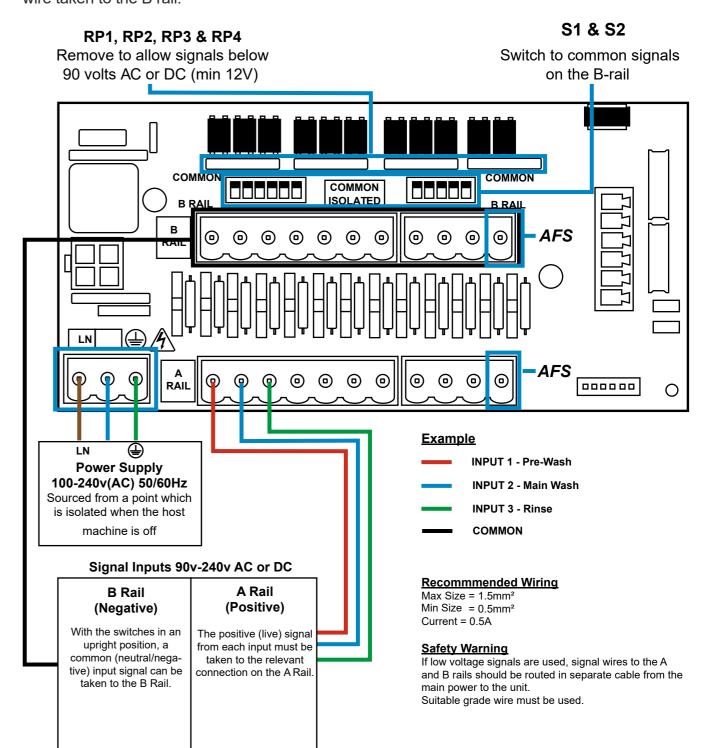


10 WIRING WIRING 11

INSTALLATION - WIRING 1

In most cases, the interface board or solenoids in the host machine will have a common (i.e their negative terminals are all linked by a common wire).

The switches S1 & S2 can be left switched to common (up position), and the single (common) wire taken to the B rail.



WIRING



12 WIRING WIRING 13

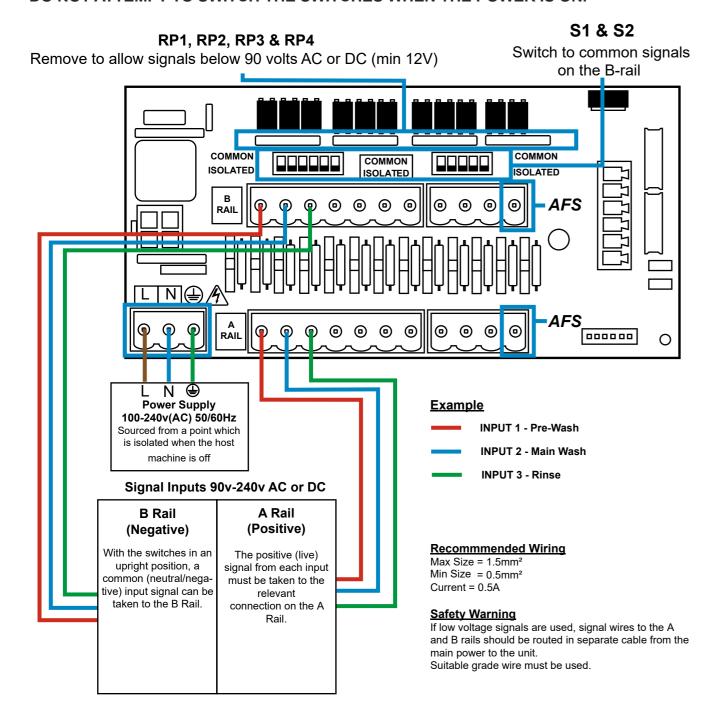
INSTALLATION - WIRING 2

In some cases, the interface board or solenoids in the hose machine are **not** common. **For example:** The softener solenoid on some machines is not linked via a common wire to the other solenoids.

If this is the case, the signal must be isolated from the common B rail on the Board. This is done by switching the appropriate switch (S1 & S2 to isolated, ie. Downward position). If in doubt switch the appropriate switch for each incoming signal source.

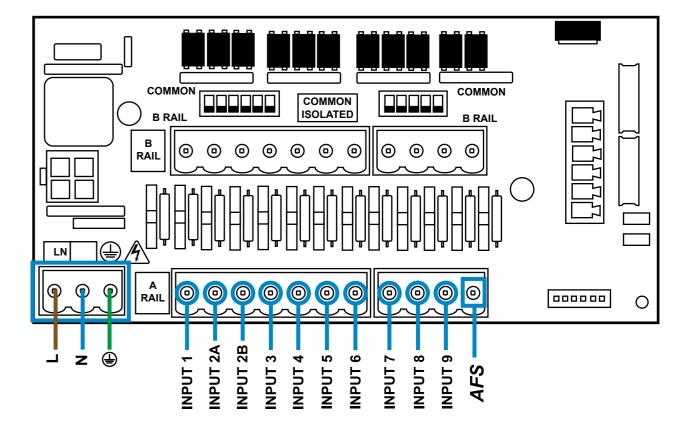
FAILURE TO SWITCH THE APPROPRIATE SWITCH WOULD RESULT IN UNIT FAILURE.

DO NOT ATTEMPT TO SWITCH THE SWITCHES WHEN THE POWER IS ON.



INSTALLATION - HOT & COLD MODE

If you are wiring for Hot & Cold mode, please note that the number of trigger inputs from the machine will be changed. Input 2 & 3 will change to 2A & 2B allowing for two signals to come in from the machine for hot and cold water. This changes the total inputs from 10 to 9, as shown below. Input 11 will remain as Auto Formula Select.



14 WIRING PROGRAMMING 15

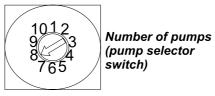
INSTALLATION - WIRING 3

Selecting the number of relay outputs

Use a small screwdriver to turn the pump selector switch until the number on it corresponds with the number of relay outputs required.

E.g if 8 relays are to be used turn the switch to the number 8.

Always use the lowest numbered pump outputs making output 1 the first pump.

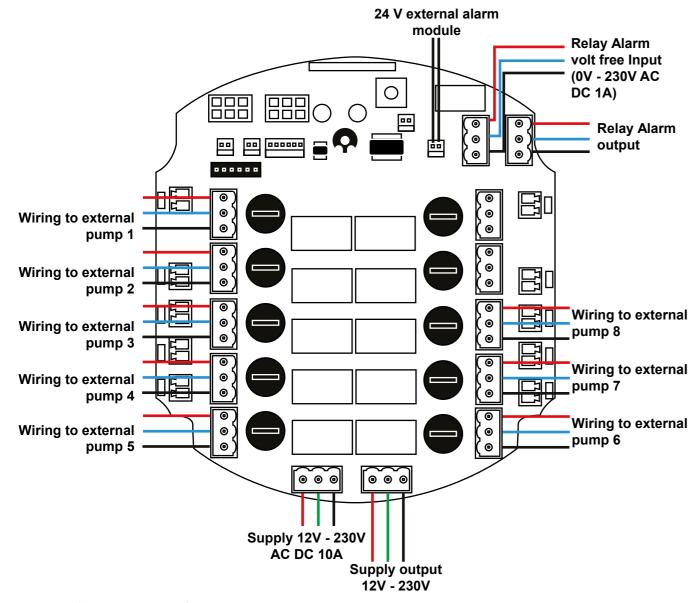


Relay connectors

There are 10 relay outputs available (volt free - 230V AC/DC 1A).

The output voltage is determined by the supplied input voltage.

E.g if the input voltage is 230V, then <u>all</u> the output voltages would be 230V.



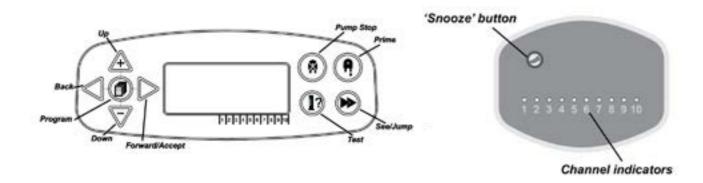
Volt free Alarm Relay Contacts

The built in relay allows the switching of an external device when an alarm is active. The volt-free contacts are capable of switching a maximum loads of 2A at 230VA

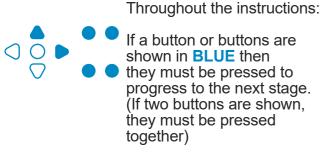
PROGRAMMING



PROGRAMMING - CONTROLS

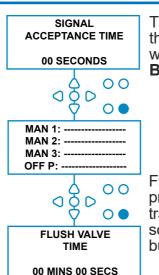


PROGRAMMING - KEY TO INSTRUCTIONS





If buttons are shown in GREY, they are used individually to achieve the desired result. (ie. Either/or)



Throughout the instructions, there are several screens which are highlighted **BOLD**.

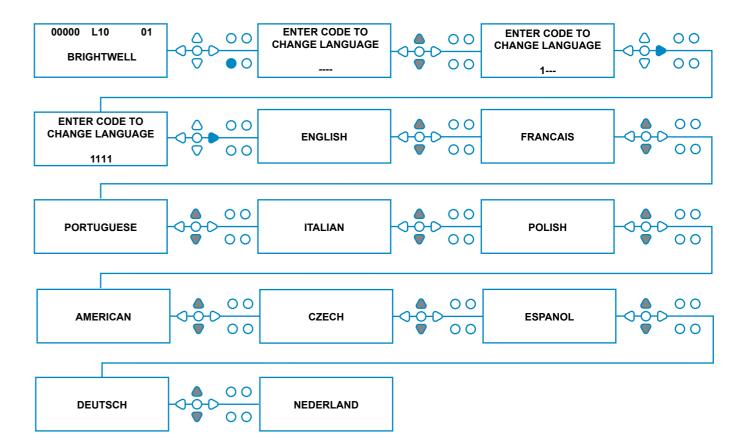
From any point within the program, the user can transition to the next **BOLD** screen via the **SEE/JUMP** button.

PROGRAMMING - LANGUAGE SELECTION

French, German, Spanish, Dutch, Czech, Polish, American, Italian or Portuguese.

From the default screen, press and hold the **TEST** key for 2 seconds. The access code screen will then be displayed. Enter the correct four-digit access code using the **UP** and **DOWN** keys to select a number and the **FWD/ACCEPT** key to move (see page 15).

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



FLOW DIAGRAM - INSTRUCTIONS

FLOW DIAGRAM - INSTRUCTIONS CYCLE TIMEOUT SET RESET TO 60 MINS FEATURE OFF **②** PROGRAM 01 SET INPUT 02 SET RESET TO INPUT 10 ④ PROGRAM 01 SET INOUT 01 PULSE COUNT 001 PROGRAM 01 SET INPUT 01 SET PUMP 01 DISABLE PROGRAM 01 SET INPUT 01 SET PUMP 02 DISABLE PROGRAM 01 SET INPUT 01 SET RESET TO LAST PUMP PROGRAM 01 SET INPUT 02 INPUT1/PUMP1 SET DELAY TIME INPUT1/PUMP1 DOSAGE SET INPUT 01 SET PUMP 01 ENABLE D 00000mL 00MINS 00SECS INPUT1/PUMP1 SET RUN TIME 00MINS 45SECS 02 I/P1234567890 PUMP 1 PUMP 2 PUMP 3 AUTO FORMULA SELECT MODE SET RESET DELAY SET UP TIME SAVE SETTINGS 00MINS 30SECS \odot AUTO FS SIGNAL ACCEPTANCE TIME 1 SEC AUTO FORMULA SELECT MODE RESET FORMULA TO PREVIOUS PROGRAM D RESET FORMULATO D PROGRAM 02 RESET FORMULA TO D PROGRAM 01 \odot FORMULA TO · D -PROGRAM 00

FORMULA SELECT - SAFETY PRECAUTIONS

Important Safety Instructions

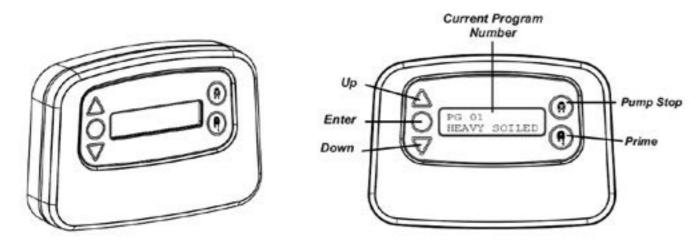
Please read the following precautions carefully before using this equipment.

<u>Do not</u> attempt to fit the module without first isolating the signal and supply sources from the host unit.

Do not use damaged or frayed cables.

<u>Do not</u> dismantle or modify this equipment.

FORMULA SELECT - LAYOUT



FORMULA SELECT - INSTRUCTIONS

The BrightLogic laundry Formula Select module (optional) allows remote selection of up to 20 different wash programs, program names can be displayed by uploading via the computer program.

The Formula Select module can also be used to prime and stop the pumps.

The desired program must be selected, using the UP and DOWN keys on the module and pressing enter, before beginning the wash cycle.

Resetting options

There are four options available to reset the formula select:

Reset Formula to Program 01 - (default setting)

Reset Formula to Program 00 - (blank program)

Reset Formula to Program 02 - (set to any program number)

Reset Formula to Previous program - (resets to the previous program)

The unit can be manually reset by pressing the up and down keys together for 1 second.

Without a Formula Select module

If there is no formula select installed then the programs can still be selected from the unit itself. From the default screen press the **PROGRAM** button to toggle the correct program.

FORMULA SELECT - INSTALLATION

Fit the module to a suitable surface, in an accessible area, using the self-adhesive Velcro provided.

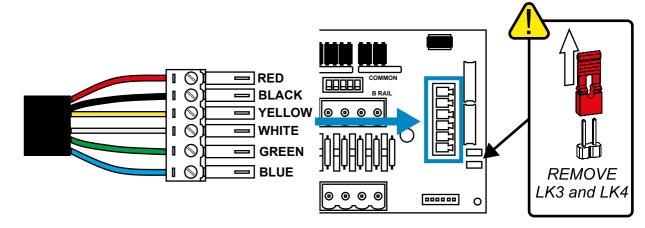
Before fitting, please ensure that the power to the unit has been isolated.

Open the lid of the main enclosure.

Pass the cable through the gland situated on the bottom of the unit and run it to the vicinity of the Formula Select connection socket on the board (bottom right).

Note:

Screened cable should be used.

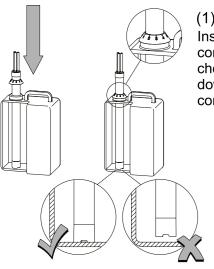


Fit the green connector with the coloured wire in the order shown above. Plug the connector into the correct socket and tighten the gland to grip the cable.

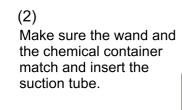
REMOVE links LK3 & LK4

LOW LEVEL ALARM

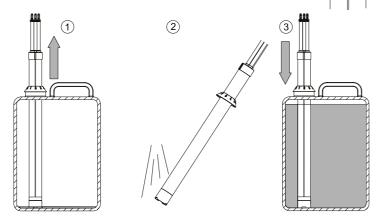
Low Level wands are used to detect when a product has emptied. To use a low level alarm, plug your device into the correct Low Level alarm input and remove the corresponding link to activate it. (NOTE: When an alarm is triggered it doesn't interrupt the pumps)

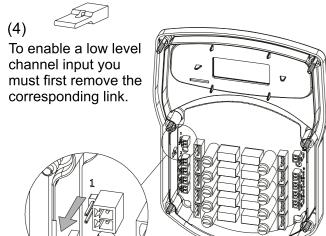


(1)
Insert the wand into the container and push the chemical identification slide down until it reaches the container.

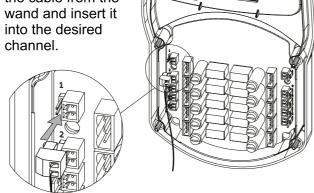


(3)
When a container becomes empty, remove the wand, wash it under water and put it back into a new container.





(5)
Then attach the 2-way connector to the cable from the wand and insert it into the desired channel.

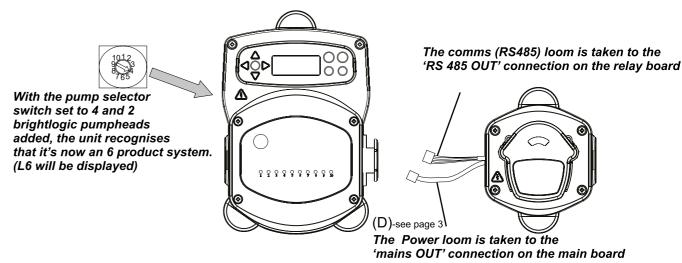


ADD ON PUMPS & SPECIFICATION

Brightlogic pumps can be added to your unit in order to combine the use of relay outputs with the new Brightlogic pumpheads.

Simply adjust the pump selector switch to the desired number of relay outputs, then connect the Brightlogic addon pump modules to the main unit and plug in. The software detects the additional pump(s) and automatically updates the controls to show the correct number of pumps.

(The maximum combined number of pumps and relay outputs is still 10.)



Power Supply	Voltage	100V - 240V AC
	Frequency	50 - 60Hz
	Current @ 240	V 10A Max
	Power	Controller 2400W
Output	Flush Valve	24V DC, 1.25A (30W) MAX.
	Buzzer/Lamp	24V DC, 500mA (10W) MAX.
Fusing		Controller - 10 Relays 230AC - 1A
Enclosure		GFPP - IP44
Weight (approx.)		1.2 kg
Approvals		EMC 89/336/EEC - EN61000-6-2:2005 & EN61000-6-4:2007

LVD 72/23/EEC - EN60335-1:2002 +A11:04 +A12:06 +A13:08 EN62233:2008 +A2:2006

