



## INSTRUCTION MANUAL

**STREAMLINE®**

Codes:

SFC16



English

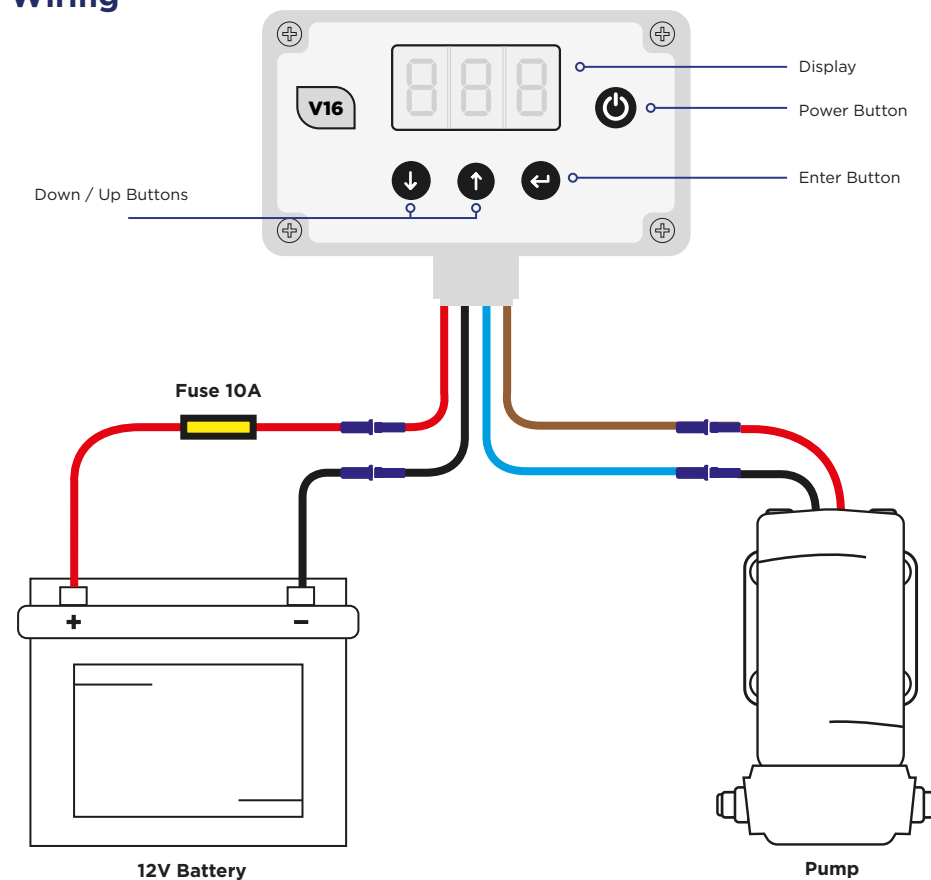
INSTR-SFC16

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## 1 Wiring

### Wiring



Connect the pump controller in accordance with this diagram.

NOTE: only fit the fuse once all connections are made



#### Important

The Fuse for this unit is a 10A Fuse. Make sure correct fuse is fitted in-line, close to the battery end of the RED (positive) wire. Failure to do so will result in damage to the unit.

## Operating Warnings

Adjust the flow settings carefully. Repeated false dead-end detection indicates that the Cal value should be increased (less sensitive).

For safety wire through the pump pressure switch. (The pressure switch can be bypassed if absolutely necessary - the unit will protect itself under normal conditions.)

This is a WATER PUMP controller: it will not work with air in the system. Always prime the system before starting work. If air in the system causes false dead-end detection, increase Cal value until air is removed.

Do not set the Cal value too high. Setting it higher than necessary places extra strain on both the pump and the controller in a dead end situation. This can result in damage to both the pump and your controller.

Specification	Value
Supply Voltage	11 - 15 VDC
Maximum Current	15A
Typical Drive Current	8A
Voltmeter Accuracy	+ - 100mV
Enclosure Material	ABS
Water Resistance	IP65
Dimensions	115 x 65 x 40 (mm)
Working Temperature	0 - 40 Deg C



### Important

Your battery is at risk of permanent damage if you disable low battery cut-off and continue to use your controller for long periods when the battery voltage has fallen below +10.5V.

## Set Up Auto Calibrate

**Button**
**Display**

Connect your hose and pole + brush to the pump.  
Turn on the controller by pressing the power button.



Press up until the display shows 30.



Press and hold the up and enter buttons to calibrate. CAL will be displayed.



To select Auto Cal continue to press the down button until AUT is displayed. Press the enter button to start. Auto Cal starts from C99.

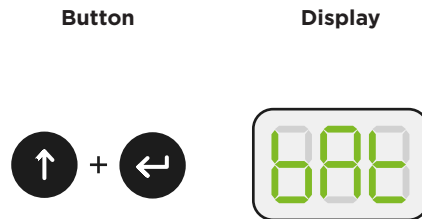


After several moments the calculated CAL value (e.g. C50) will be displayed and the controller is ready to use. Press enter to exit calibration.



The CAL value can be adjusted manually by following the same steps and adjusting the CAL value by pressing the up or down button instead of using AUt.

To enable or disable the low battery cut-off\* (that stops your pump when the battery voltage is below 10.5V) press and hold the down and enter buttons.



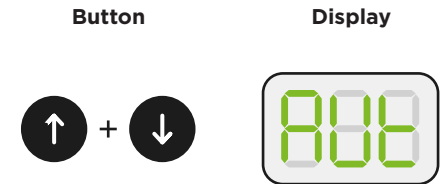
Then use the up or down button to select ON or OFF. Press enter to save.



**NOTE:** 'ON' keeps your battery protected.

## Operation

To select Auto Cal continue to press the down button until AUt is displayed. Press the enter button to start. Auto Cal starts from C99.



Press enter to display the current battery voltage.

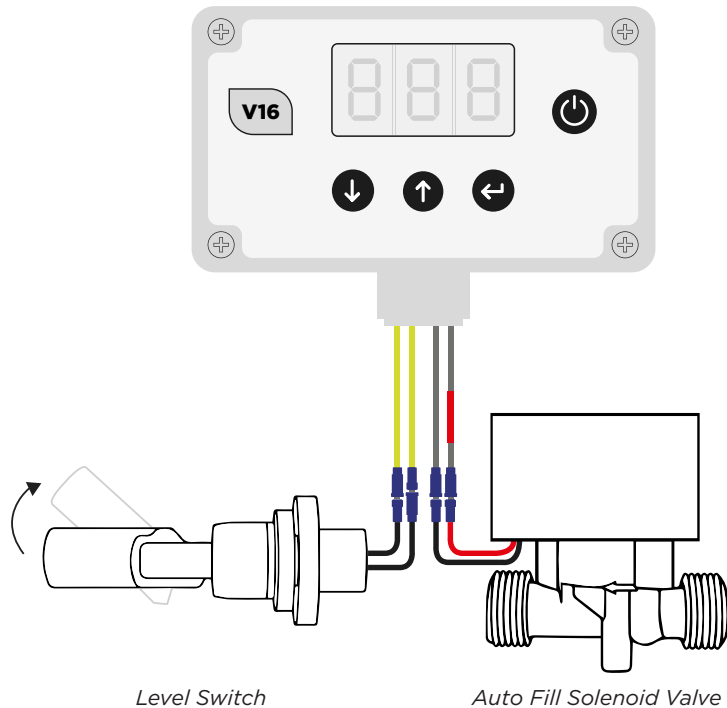


Press enter again to return to the current flow rate.



To turn the controller off, press the power button.





The controller constantly monitors the dead end detection and low battery protection while in fill mode to protect the system. Connect the pump controller in accordance with this diagram.

**NOTE:** only fit the fuse once all connections are made.

**NOTE:** solenoid wire pairs (grey/white/green/pink) must not be shorted/connected together otherwise damage may occur to the controller and invalidate the warranty.

Spring solenoid valves come fitted with grey wires and can be fitted either way round.



### Important

The Fuse for this unit is a 10A Fuse. Make sure correct fuse is fitted inline, close to the battery end of the RED (positive) wire. Failure to do so will result in damage to the unit.

### The controller has two filling modes

1. One time fill (stops when the level switch activates/lifts)
2. Fill on demand (refills every time the level switch drops)

To select the required filling mode press and hold the down and enter buttons. The controller will display the fill on demand (FOD) menu.



Press up or down to change between on and off. Off will set the controller to 'one time fill'. On will set the controller to 'fill on demand'.

Press enter to display the next setting. Fill Delay will only appear when FOD is set to on.



Fdy is the time delay in minutes from the tank reaching full and the filling re-starting should the water level drop. You can set this delay from 0-10 minutes with the up and down buttons. Setting to '0' turns the delay off. Press enter to set.



### Auto Fill Operation

To start filling the tank (when FOD is off) press and hold the up and down buttons. This will activate the solenoid valve allowing water to fill the tank until the float switch detects that the tank is full.



The tank can be filled when the unit is on (even when pumping) or when the unit is turned off. While the solenoid valve is on and the tank is filling, the display will flash FIL.








To manually stop the tank filling press and hold the up and down buttons again. The display will stop showing FIL.



Fill on demand is effectively a tank level control that keeps the tank topped up to the level switch. The solenoid valve will be turned off if the unit detects a low battery (below +10.5V).



## Controller Messages

Message	Description
	An error has occurred while using AutoCal. This will happen when the motor is not connected or the enter button has been pressed to cancel it.
	Pressure switch activated or pump disconnected
	A dead end has been detected. If this is not the case, try increasing the calibration value.
	This message will start to flash when the battery is low (<11.0V). If the battery is below 10.5V the pump will be disabled to protect the battery (unless low battery cut-off is disabled)
	An over current has been detected, the controller has shut down the pump to protect itself. Lower the flow rate and check the hose for blockages.

## Why Streamline®?

### Flexibility

- Streamline® systems can be built according to customers' exact requirements
- For non-standard systems, the user's needs or specifications are listened to and turned into reality.

### Quality

- Whilst price is important, quality is remembered long after price is forgotten
- We insist on sourcing brand name products from around the world, only of a reputable quality, and bring them together under the Streamline® name
- All Streamline® products carry a full one year's warranty, according to the manufacturers' standard terms and conditions of sale.

### Service

- We have an in-house technical helpline able to answer most of your questions relating to the capabilities and functionalities of all Streamline® products
- If we get it wrong, we will put it right. If you are sent a wrong item, we will immediately attend to sending you the correct item and arrange a collection of the wrong item without any quibbles
- Streamline® is backed by a comprehensive range with massive stocks providing you with a 'one stop shop' for all your requirements.



**MANUFACTURED  
IN THE  
UNITED KINGDOM**



**CHECKED AND  
TESTED BY  
QUALITY CONTROL**

## Streamline® Warranty

The warranty on all Machines and Equipment is for 1 year (12-months) from RECORDED DATE OF PURCHASE.

THIS WARRANTY EXCLUDES NORMAL MAINTENANCE ITEMS, including but not limited to HOSES, FILTERS, O-RINGS, DIAPHRAGMS, VALVES, GASKETS, CARBON BRUSHES and damage to motors and other components as a result of failure to replace normal maintenance items. THIS LIST IS NOT EXHAUSTIVE.

If Streamline® receives notice of such defects during the warranty period, Streamline® will either, at its opinion, repair or replace components which prove to be defective.

Replacement parts will only be supplied under warranty, upon the inspection and approval of the defective parts by Streamline®.

Should it be necessary to supply replacement parts before the opportunity to inspect, these will be charged at current prices and credit will only be issued upon subsequent inspection and warranty approval by Streamline®.

The customer is responsible for the cost of return of the defective part. If warranty is approved, Streamline® will pay for the cost of the repaired or replacement part.

This warranty excludes the following conditions and circumstances which are at the discretion of Streamline®:

Wear and tear, misuse, abuse improper maintenance, frost damage, the use of chemicals other than those supplied or approved by Streamline®, improper installation or repair, unauthorised modification, incidental or consequential costs, loss or damage, service, labour or third party charges, the cost of returning defective parts to Streamline®.

This warranty constitutes the exclusive remedy of any purchaser of a Streamline® unit and is in lieu of all other warranties, express or implied, including without limitation any implied warranty of merchantability or fitness for use, to the fullest extent permitted by law. In no event shall any implied warranty of merchantability or fitness for use exceed the term of the applicable warranty stated above and Streamline® shall have no other obligation or liability.

### Important

Unfortunately these rights cannot be transferred to a third party.



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