

HV CrimpMaster with Multi Drive Switch Box



User Guide



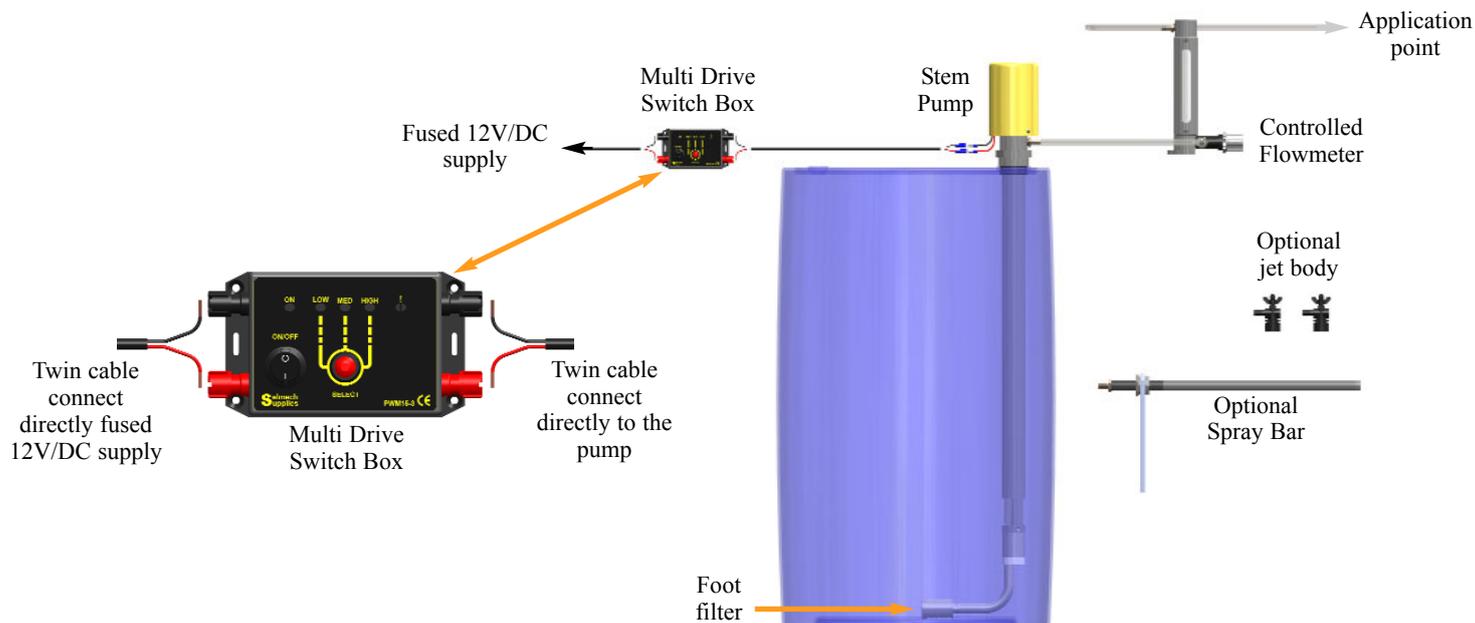
Supplied

- Multi Drive Switch Box with pump drive selector
- CrimpMaster stem pump
- Foot filter
- Controlled Flowmeter
- 10 meters of tubing (to be cut to required lengths)
- 10 meters of cable (to be cut to required lengths)

Setting up the Crimpmaster (Refer to the assembly schematic)

The Crimpmaster additive applicator is typically used with the controlled Flowmeter to apply preservative to home grown forage processed through a crimping machine or auger. Your setup may vary depending on the process you are using but the connections will be the same.

Operate from the tractors electrical system which must be a fused 12 volt DC supply. It is important to ensure that all electrical connections are clean and secure. Poor connections and long cables can reduce the drive voltage to the pump.



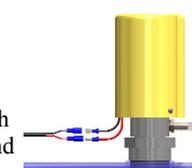
Mounting the Pump

Use the Jubilee clips provided to secure hose on to the hose tails

1. Attach the foot filter to the inlet hose tail of the pump and mount the stem pump securely upright in the additive container.
2. Mount the controlled Flowmeter in a suitable location for easy access. If possible with the lower hose tail at a similar height as the pump outlet hose tail.
3. Work out the length of tubing required to connect the pump to the bottom tail (tap) of the controlled Flowmeter taking care to avoid hot spots and pinch points. Keep it as short as possible to help maintain a consistent flow.
4. Do the same with the tubing from the top tail of the controlled Flowmeter to the application point.
5. Locate the Multi Drive Switch Box in an accessible location free of vibrations.

Connecting to the Multi Drive Switch Box

1. Connect the twin cable supplied blue female spade and female bullet connector end to the pump and work out the length of cable required to connect the pump to the Multi Drive Switch Box and cut it at this point. Route it to avoid hot spots and pinch points.



2. Carefully strip this cable sleeve back 50mm to leave RED and BLACK tails. Strip the ends about 10mm and twist the bare ends.



3. Connect the bare ends RED + and BLACK - from pump to the "APPLICATOR" terminals of the drive Multi Drive Switch Box.

!Ensure correct polarity as damage to drive the Multi Drive Switch Box and or pump will occur if this is not correct.



4. Cut the remaining cable to the length required to connect the "12V/DC SUPPLY" terminals of the drive Multi Drive Switch Box to your 12-volt supply. Route it to avoid hot spots and pinch points

5. Repeat step 2 for this cable.

6. Connect the bare ends RED + and BLACK - from supply to the "12V/DC SUPPLY" side terminals of the Multi Drive Switch Box.

!Ensure correct polarity as damage to the Multi Drive Switch Box and or pump will occur if this is not correct.

7. Connect to your fused 12 volt DC supply

!The connection to your supply should be secure and clean. Ensure the correct polarity RED + and BLACK -



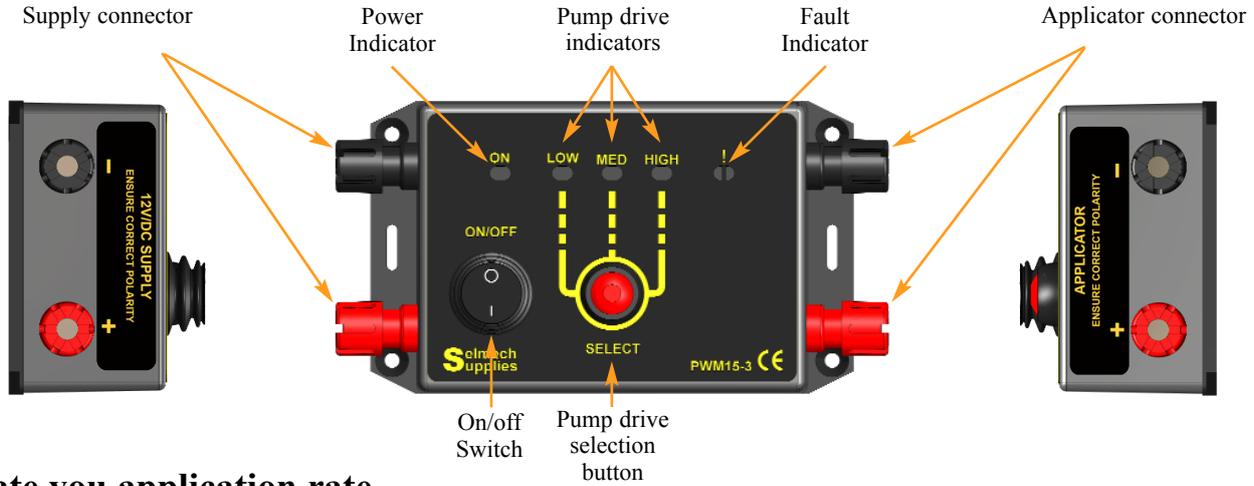
Finally

Before turning on the Multi Drive Switch Box check all connections are the correct polarity and are secure.

Operating the Crimpmaster

Crimpmaster Multi Drive Switch Box

The NEW Crimpmaster Multi Drive Switch Box has 3 drive settings. These allow you to set the drive to the motor which best suits your application rate. Make sure you use this option as it allows you to run the pump at the lowest drive rate which is kinder on the pump motor. Refer to the calibration guide to help choose the best drive rate. This is a guide only and you should carry out your own test when you have the system set up as it is to be used to select the optimum drive. The Crimpmaster is a low pressure pump and the final output will vary depending on the position of the pump in relation to the application point.



Calculate your application rate

It is important to know the application rate per tonne of your additive. This should be provided by the supplier of your additive.

1. Work out how many tonnes per hour (t/hr) of forage is being treated. (example: - 15 t/hr)
2. Multiply that by the litres per tonne (l/t) of additive to be applied. (example: - 8 l/t x 15 t/hr = 120 l/hr)
3. Divide that by 60 to give you the application rate in litres per minutes (l/m). (example: - 120 l/t / 60 = 2.0 l/m)
4. Refer to the calibration chart and use this figure to select the drive rate on the Multi Drive Switch Box and adjust the controlled flowmeter.

For Your Figures

Tonnes of forage to be treated per hour	x	Additive application rate per tonne	=	Litres or additive per hour	/	Divide by 60 to convert to minutes	=	Litres of additive to be applied per minute
15	x	8	=	120	/	60	=	2.0
	x		=		/		=	
	x		=		/		=	
	x		=		/		=	

Setting the application rate

Refer to the calibration guide and set the pump drive level to the lowest setting that will deliver the application rate calculated by pressing the SELECT button which will scroll through the levels.



Adjust the tap on the flowmeter to align the top of the weight to the number on the scale that relates to you calculated application rate. If you can not achieve the output at the the lower drive level suggested go to the next drive level and readjust the flowmeter.



The calibration guide assumes that the electrical supply is adequate. Poor connections and long cables can reduce the drive voltage to the pump.

Attachment of tubing, Flowmeter, spray jets, etc. will reduce the final output.

! Always do your own calibration check with the additive you are applying

Monitor the flow

Continue to monitor the flow through the flowmeter as the flow rate will drop as the additive container empties and adjust the flowmeter tap to compensate for this.

Calibration guide in litres per minute (l/m) open flow

High Volume Flowmeter
Scale reference from top of weight

		Scale	Output l/m
PUMP DRIVE LEVEL	LOW	1	1.3
		2	1.7
		3	2.1
PUMP DRIVE LEVEL	MED	4	2.5
		5	2.8
		6	3.2
PUMP DRIVE LEVEL	HIGH	7	3.7
		8	4.0
		9	4.5
		10	5.0
		FULLY OPEN	Approx 10.0

Safety

1. Read and follow any warnings or guidance supplied with the additive.
2. Wear protective clothing when handling additive or the pump that is being used with additive.
3. Switch off the pump before removing from the barrels or remove tubing or any nozzles or filters.
4. Do not contaminate skin, clothing, ponds or waterways with additive.
5. Do not allow the tubing to become kinked or blocked.
6. Never use a higher rated fuse than the one fitted.
7. Make sure all electrical connections are clean secure and of the correct polarity before turning on the Multi Drive Switch Box.
8. This pump **SHOULD ONLY** be used for spraying liquids recommended by the suppliers. **DO NOT** use with **SULPHURIC ACID** or **DIESEL**..

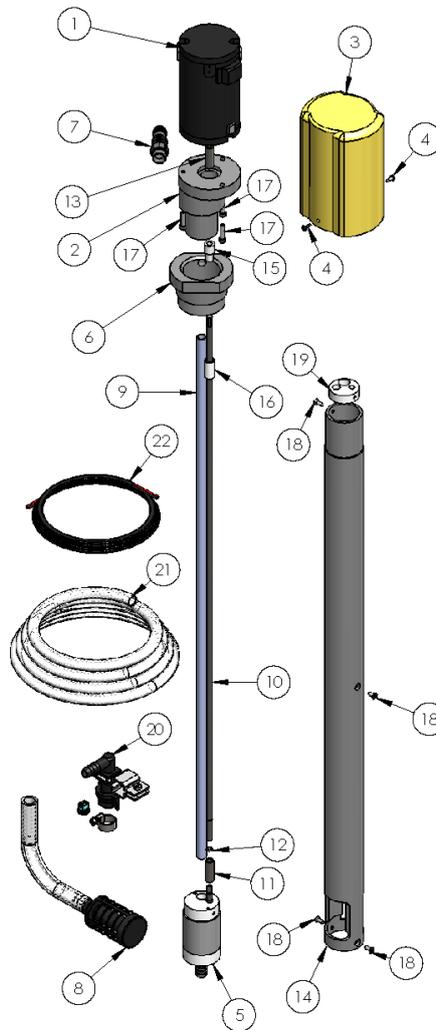
Maintenance

1. Always flush out the system with clean water after use.
2. Store in a clean dry place with the motor end upright.
3. Never allow the pump to stand for long periods while filled with additive.



15 AMP
Mini Blade
type

Pump Parts Diagram

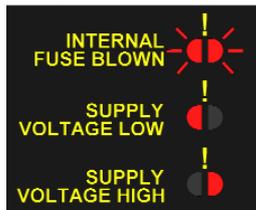


ITEM NO.	PartNo	DESCRIPTION	QTY.
1	SS12	Flowmaster motor	1
2	MME	Motor mounting eccentric	1
3	SSX50	Flowmaster motor cover	1
4	-	NO8X12mm p/hd SS self tapping screw	2
5	SS27	Gear pump unit high volume	1
6	-	Barrel nut	1
7	SSX348	HV hose tail	1
8	SSX113	Foot filter	1
9	SSX209	Delivery tube	1
10	SSX8	Drive shaft	1
11	SSX13	Drive shaft gear pump coupling sleeve	1
12	SSX8a	Drive shaft 'O' ring	1
13	SSX26	Motor coupler	1
14	-	Flowmaster support tube	1
15	-	Labyrinth seal male	1
16	-	Labyrinth seal female	1
17	-	M5 x 20 SS skt cap screw	3
18	-	No8 x 12mm SS csk self tapping screw	4
19	-	Centre bearing	1
20	SS16a	Single jet pack with a selection of jets	1
21	SSX16	10m half inch id tube	1
22	SSX22	10 metre cable	1



Fault Diagnosis

The Multi Drive Switch Box fault indicator will alert you if there is a problem with the supply or if the internal fuse is blown.



If the internal fuse has blown check for reasons why this may have happened before replacing and turning the Multi Drive Switch Box on. **! Never use a higher fuse than 15 Amps.**

If the supply voltage is low check your supply and all connections. **! Could be caused by inadequate cable or poor connections.**

If the supply voltage is high. **! Could be caused by faulty tractor regulator or unregulated power supply.**

Fault	Diagnosis	Remedy
Motor will not run	Fuse blown	Check the internal control box fuse and for reasons why it has blown before replacing.
	Supply Low voltage indicator illuminated	Check supply and wiring connections
	Wires incorrectly connected or damaged	Check the wiring is connected correctly
	Seized or damaged motor	Contact Selmech
Motor runs but poor or no output	Pump leads incorrectly connected causing the pump to run backwards	Connect leads correctly. This could have damaged the Multi Drive Switch Box and or the pump.
	Foot filter blocked	Foot filter
	Tubing kinked	Remove kink and re-route tubing
	Jet blocked or wrong size jet	Clean jet or fit bigger jet
	Drive shaft disconnected	Make sure the drive shaft connector sleeve is in place and retained by the rubber o ring
	Barrel level low or empty	Readjust controlled flowmeter or refill barrel

WARRANTY

Provided installation is carried according to these instructions a warranty of 1 year from date of delivery applies. This covers faulty manufacture only and does not cover wear and tear through normal use or mechanical or chemical damage that has occurred to parts through misuse or unauthorised attempts to repair the unit. In the case of faulty manufacture, claims are limited to repair of the unit and its return to the customer.