

# Preservative Flow Controller – Model 485V21 - Quick Reference

## Keypad Functions

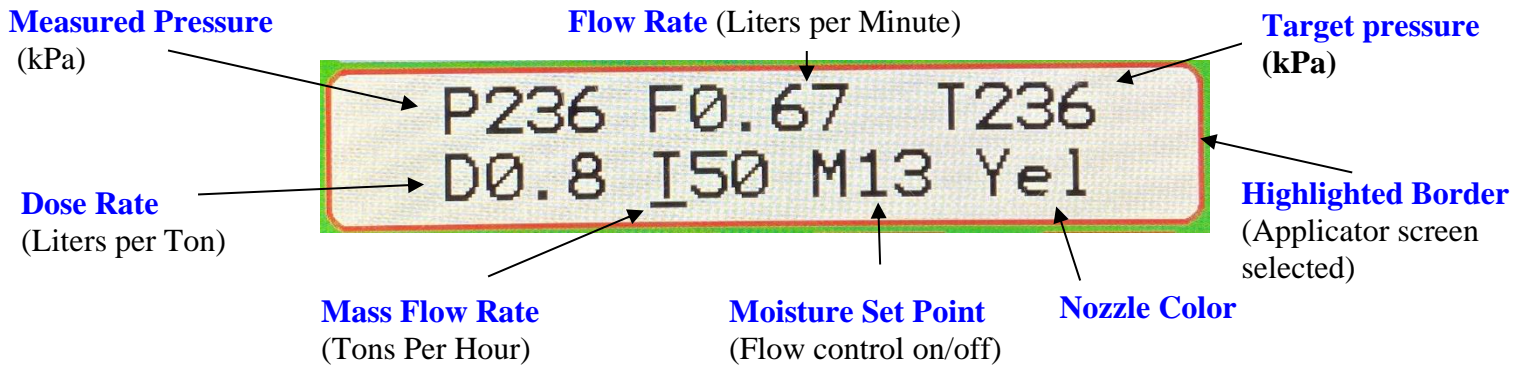
- **MENU** To move through the Menus while in Setup Mode.
- **ITEM** To move through different items within each Menu.
- **FIELD** To select the digit required to edit when editing parameters (items).
- **ENT** To initiate some Item actions.
- **F1** To move between modes at certain Items.
- **↑** To increase the value being highlighted by the cursor.
- **↓** To decrease the value being highlighted by the cursor.

485V21



## Two Operational Modes - Control and Setup

1. **Control Mode.** Upon power up, the applicator screen will display “ENT to prime”. Select the applicator screen by pressing on the tile. The tile border will illuminate red when selected. To stop the priming, just hit **ENT** again. The instrument then automatically goes into Control Mode to begin spraying. The tile shows the instrument is in Control Mode by displaying the current values (as below).



## Using the cursor position to change parameters

- In this mode, the **FIELD** key moves the cursor to different fields (resets to TPH after 5 seconds of inactivity).
- When the cursor is on the TPH: **↑** and **↓** will increase/decrease the TPH being baled.
  - When the cursor is on the nozzle number: **↑** and **↓** will change the number of nozzles.
  - When the cursor is on the nozzle color: **↑** and **↓** will change the color.
  - When the cursor is on the Dose rate: **↑** and **↓** will change the dose rate.

2. **Setup Mode.** Press [**F1**] in Control Mode to get into this Mode. In this mode, changes can be made to the instrument settings (parameters). Each of the parameters is an Item within one of the Menus.

- **Select Menu** - Use the [**MENU**] key to move through the menu list and select the one you need.
- **Select Parameter** - Use the [**ITEM**] key to move through the parameters (items) within each menu.
- **Edit the Parameter** - Use the [**FIELD**] key to select the digit in the parameter (highlighted by underscore) you need to change. Use **↑** / **↓** keys to edit the digit. The value is stored automatically as displayed. ie. you do not use the **ENT** key to enter the new value.

## Flushing System with Water

**THE SYSTEM MUST BE FLUSHED WITH WATER AT THE COMPLETION OF EVERY SPRAYING SESSION. AT THE END OF THE SEASON, THE PRESERVATIVE TANK MUST ALSO BE FLUSHED WITH WATER.**

### To flush the system with a garden hose leaving the chemicals in the additive tank:

1. Turn the regulator valve off (clockwise), otherwise water will flow into the chemical tank.
2. Turn the three way tap under the tank to the OFF position.
3. Turn the three way tap for the hose towards the hose.
4. Turn on the hose and pump by operating in normal control mode.
5. Run for at least 5 minutes through the spray nozzle.
6. Turn the system off.
7. Turn the hose tap back towards the tank and leave the tank tap as is.



### To flush the system including the chemical tank:

1. Empty the chemical tank and fill with at least 5 litres of water. Squirting around the sides of the tank to make sure it is clean.
2. Turn on the pump by operating in normal control mode and empty the tank via the spray nozzle.
3. Turn the system off, and also turn the tap under the chemical tank off.

Menu	Item	Explanation	Range	Default
<b>Setup Menu</b>				
	F1 for Control	Enters the Control Mode	N/A	N/A
	SW Version	Current software version	R/O	V21.00
<b>Set Parameters</b>				
	Dose Rate	Sets the dose rate in litres per minute	0 .0 to 10.0	0.8
	SG	Specific Gravity of the additive being used	0.8-1.5	1.34
	Nozzle	Sets the colour of the nozzle you are using	Orange to White	Yellow
	Nozzle Qty	Number of nozzles you are using	1-3	1
	Prime Time	Time to prime system (seconds)	0 to 600	90
	Mset	Moisture set point (units only) above which the applicator will turn on (if hay is present)	0-30	0
	Mchoice	Choice between “Average” and “Now” moisture making the Mset decision	Avg/Now	Avg
	Mwait	Seconds allowed to receive a new moisture value before the system decides no value is coming and it turns on	0-30	30
	Mignore	The applicator is on all the time, so long as hay is detected	Yes/No	No
	Press Low	Lower limit for a pressure alarm. (Target Press – measured Press) > Press low 0= not being used (no alarm)	0 to 100	20
	Press High	Upper limit for a pressure alarm. (measured Press - Target Press) > Press Hi 0= nor being used (no alarm)	0 to 100	20
	Prs Offset	This Pressure Offset value can be changed to correct the target pressure (Txxx) if you do a flow test and find the flow rate does not match the target flow rate.	-100 to 100	000.0
	Flow stop S (optical sensor)	From this item you can select if you are using a sensor to automatically stop the flow when there is no hay and if it is active high or active low. (See manual for operation description)	No High Low	No

**Error Codes:** Error codes appear on the top line of the applicator tile. These include High and low pump speed (HiSpeed, LoSpeed) High and Low pressure (HiPres, LoPres) and high and low flow rate if a flow rate sensor is used (HiFlow, LoFlow).

Some typical examples are as below.

**LoSpeed | HiPres:** likely means a blocked nozzle or taps turned off, or something else blocking the flow.

**HiSpeed | LoPres:** **Pump running** - look for: loose check valve | open bypass valve | blocked filter | leaking hose | air in the system | tank tap off  
**Pump not running** - look for: pump failure | wiring to pump | pump driver electronics

**HiSpeed | HiPres:** means lack of control, and probably means there is some parameter in memory that is not set properly

**LoSpeed | LoPres:** means lack of control, and probably means there is some parameter in memory that is not set properly

**For more information on error conditions and fault finding refer to the Owner's Manual.**

#### **Flow Rate Calculations:**

If you wish to determine the required flow rate in a manual mode there is a readily available tool you may wish to use:

iPhone App (free): Go to the iTunes Store and search for “Spray Nozzle Calculator”

Android App (free): Go to the Play Store and search for “Spray Nozzle Calculator”

**This reference card is not a substitute for the Operating Manual, refer to the manual for details.**