

Vanguard Precision Information Center VM-2500

“Quick Start” Setup and Programming Instructions

There are two separate setup modes on this monitor. It is sometimes confusing to the operator as to which mode he is in, or needs to be in.

- A. **Customer Setup Parameters.** This is where the monitor is configured for the customer's specific use, and is accessed by holding down the setup key while turning the monitor power on.
- B. **Setup Constants.** This is where constants such as row width, implement width and other information is entered. Pressing the setup key when the monitor is already powered up enters this mode.

Customer Setup Parameters

First screen is “Setup” “Speed”. This should have a choice of “r1” or “d1”. For use with radar or the Dj Universal Distance Sensor, always select “d1”. “r1” is only used with a reluctance sensor, which we seldom use.

Second screen is “Setup” “RPM”. This should have a choice of “d1, d2, r1 or r2”. This should be set at “r1”.

Third screen is “Setup” “Hopper 1”. If you are using hopper 1, set “On”. If hopper level 1 is not used, choose “Off”.

Fourth screen is “Setup” “Hopper 2”. Follow above instructions.

Fifth screen is “Setup” “Pressure 1”. Follow above instructions.

Sixth screen is “Setup” “Pressure 2”. Follow above instructions.

Seventh screen is “Setup Avg. Population”. **Population Filter** This is a number between 1 and 100 which determines the amount of averaging the system uses. It is helpful in eliminating large population swings on drills. The higher the number entered, the more averaging, and the less the swing. See Chart for recommended settings

Eighth screen is "Setup" "Population". **Population Gain** This is a population gain factor, which is used in calibration of the drill population. See Chart for recommended settings.

Following are the recommended values:

Planter (Corn)		Filter	Gain
	UHR Sensors	0-15	100%
	High Rate Sensors	0	100%
Planter (Beans)			
	UHR Sensors	40	90%
	High Rate Sensors	30	105%
Drill -			
	UHR Sensors	40	80%
	High Rate Sensors	30	110%
Air Seeder			
	UHR Sensors	35	80 -85%
	High Rate Sensors	30	110%

The filter value smoothes out population swings. The higher the number the less swing from high to lows. Customer may want to adjust up to 60 or more if using a drill with slow transmissions and wide seed meter openings.

The population gain is a fine-tuning of the population. The numbers we give are starting points. It is recommended that the customer adjust these up or down slightly to fine-tune the population readings.

Ninth screen is "Setup" "b1". This is the current boot version number, and is used in troubleshooting. The operator should not change it.

Tenth screen is "Setup" "F1". This is the current Flash version number, and is also used in troubleshooting. The operator should not change it.

Current Version is 6.0 and should read 0699 or 0700. If you have a number lower than 06, you should contact us for monitor updates.

Setup Constants

First screen, "Setup" "IMP". This is a unique code to describe your harness and sensor kit to the monitor. The correct number is normally found on the harness instruction sheet, or from a list included in this **"Quick Start"** section. This number changes the "Number of Rows" and the "Implement Width" from previous entries.

Second screen, "Setup" "Row ___". This screen is used to turn off individual rows in case of sensor failure or for some other specific reason. Normal operation would require all rows to be "on". Row 1 will be displayed. To access other rows, use the "select row" key at the top of the monitor.

Third screen, "Setup" "Population Hi Limit". This is used to set the upper population limit for an alarm. It is suggested that the operator set this high to start with, and work the number down to a level that works best for him.

Fourth screen, "Setup" "Population Lo Limit". This is used to set the lower population limit for an alarm. It is suggested that the operator set this low to start with and work the number up to a level that works best for him.

Fifth screen, "Setup" "Number Rows". This may be set to the number of rows on the implement, but will be overridden by the "IMP" number later. It may be skipped on initial setup. It will eventually show the number of sensors, not the number of rows when the system is properly configured.

Sixth screen, "Setup" "Row Width". This should reflect the actual width of the rows. It should not show the width between sensors. Example 7 ½ " row spacing would be entered as "007.5".

Seventh screen, "Setup" "Imp Width". This may be skipped on the first time through the setup as it is changed when the "IMP" number is entered. After the IMP number is entered, this number should reflect the width of the implement in inches. Example, a 15' drill would be "0180.0".

Eighth screen, "Setup" "RPM". This is the constant for the shaft sensor. If no shaft sensor is used (typical), then all "00's" should be entered. If a shaft sensor is used, this number should be the number of pulses generated by one revolution of the shaft sensor.

Ninth screen, "Setup" "RPM Hi Limit". If no RPM is used, this is ignored, and any number will be ok. If RPM is used, set the number of RPM at which an alarm is desired.

Tenth screen, "Setup" "RPM Lo Limit". If no RPM is used, this is ignored, and any number will be ok. If RPM is used, set the number of RPM at which an alarm is desired.

* If pressure sensors are used, a Hi and Lo Pressure Limit setup will appear here. If pressure is not selected in the "System Preferences" this will go directly to the tenth screen below.

Eleventh screen, "Setup" "Speed Count". This is the distance sensor calibration number. This is obtained by measuring a 400 foot course and driving the course to generate a number. Two or three times and an average is suggested. The 400' is critical. Do not use for example, 200' and double the number.

Twelfth screen, "Setup" "Test Rows" This is a manual test of the sensors that replicates the test that is done at power up. Use the "Start-Stop" switch to initiate the test.

Thirteenth screen, "Units" or "Unit5". This screen is only used to change to Metric. No change is normally needed.

The operator will always need to touch the "setup" key after entering constants. If information is entered and the operator goes directly to the population screen, the newly entered data will not be saved.

When significant changes in type or variety of seed occurs, the monitor needs to be powered down and re-started in order to re-calibrate. It is often best to run with the new seed for a short time for the old seed to work through the system. This procedure is particularly important when seed size changes significantly.

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“Quick Start”

IMPlément Type Configuration

Monitor Setup Codes

Drill Harness using Conventional High Rate Sensors

<u>Harness Kit</u>	<u>Code</u>
750-200 (2 Sensor)	47
750-200-4 (4 Sensor)	49
2750-200H (4 Sensor)	49
2750-200H-4 (8 Sensor)	12
2750-200 (4 Sensor)	49
2750-200-4 (8 Sensor)	12
455-200 (6 Sensor)	06
455-200-4 (12 Sensor)	17
1854-200 (8 Sensor)	12
1850-200 (12 Sensor)	17
KX18-200 (2 Sensor)	47
KX18-200-4 (4 Sensor)	49
KX3-200 (6 Sensor)	06
KX3-200-4 (12 Sensor)	17
UX18-200 (2 Sensor)	47
UX18-200-4 (8 Sensor)	12
GP2-200 (4 Sensor)	49
GP2-200-4 (8 Sensor)	12
GP3-200 (6 Sensor)	06
GP3-200-4 (12 Sensor)	17
1823-200 (8 Sensor)	12
1805-200 (10 Sensor)	16
1830-200 (6 Sensor)	06
4804-200 (4 Sensor)	49
4808-200 (8 Sensor)	12
4812-200 (12 Sensor)	17
4816-200 (16 Sensor)	22
4818-200 (18 Sensor)	36
4824-200 (24 Sensor)	25
4832-200 (32 Sensor)	26
4836-200 (36 Sensor)	27

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IMPlément Type Configuration

Monitor Setup Codes

Drill Harness using Ultra High Rate Sensors

<u>Harness Kit</u>	<u>Code</u>
750-700 (2 Sensor)	47
750-700-4 (4 Sensor)	49
2750-700H (4 Sensor)	50
2750-700H-4 (8 Sensor)	55
2750-700 (4 Sensor)	51
2750-700-4 (8 Sensor)	56
455-700 (6 Sensor)	54
455-700-4 (12 Sensor)	60
1854-700 (8 Sensor)	55
1850-700 (12 Sensor)	17
KX18-700 (2 Sensor)	47
KX18-700-4 (4 Sensor)	49
KX3-700 (6 Sensor)	54
KX3-700-4 (12 Sensor)	60
UX18-700 (2 Sensor)	47
UX18-700-4 (4 Sensor)	49
GP2-700 (4 Sensor)	51
GP2-700-4 (8 Sensor)	56
GP3-700 (6 Sensor)	54
GP3-700-4 (12 Sensor)	60
1823-700 (8 Sensor)	12
1830-700 (6 Sensor)	06
1805-700 (10 Sensor)	58
1850-700 (12 Sensor)	60
1854-700 (4 Sensor)	51
4824-700 (24 Sensor)	25

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Monitor Setup Codes

Common Planter Harness Configurations

<u>Harness Kit</u>	<u>Code</u>
4 Row	1
Kinze 3 Front/ 4 Rear	2
4 Front / 3 Rear	3
4 Front / 3 Rear Skip	4
4 Front / 5 Rear	5
6 Row	6
Kinze 5 Front / 6 Rear	7
6 Front / 3 Rear	8
6 Front / 5 Rear	9
6 Front / 5 Rear Skip	10
6 Front / 7 Rear	11
8 Row	12
Kinze 7 Front / 8 Rear	13
8 Front / 5 Rear	14
8 Front / 7 Rear	15
10 Row	16
12 Row	17
Kinze 11 Front / 12 Rear	18
12 Front / 9 Rear	19
12 Front / 11 Rear	20
Great Plains 12 Front/ 11 Rear.....	21
16 Row	22
Kinze 15 Front / 16 Rear	23
Kinze 16 Front /16 Rear	24
24 Row	25
32 Row	26
36 Row	27

Harness Kit

Code

Black Machine 8/9 Straight	28
Black Machine 8/9 Fold	29
Black Machine 8/11 Straight	30
Black Machine 8/11 Fold.....	31
Black Machine 12/13 Straight.....	32
Black Machine 12/13 Folded	33
Black Machine 16/17 Straight.....	34
Black Machine 16/17 Folded	35
18 Row Central Fill	36
6 Row Central Fill w/ 7 Row Splitter	37
6 Row Central Fill	38
24 Row Central Fill	39
8 Row Central Fill w/ 7 Row Splitter	40
8 Row Central Fill w/ 9 Row Splitter.....	41
8 Row Central Fill	42
16/31 Row Wide (16 Rows)	43
16/31 Row Wide (31 Rows)	44
8/15 Row Wide (8 Rows)	45
8/15 Row Wide (15 Rows)	46
23 Row Rear Fold	63