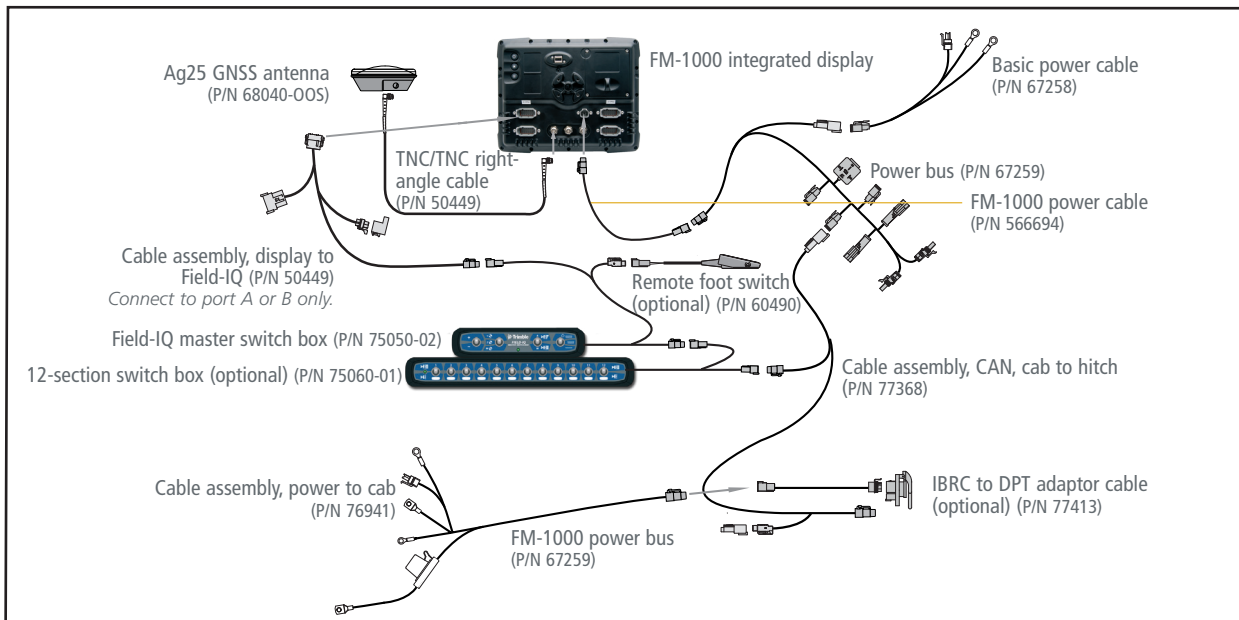


FM-1000™ Integrated Display

with the Field-IQ™ Crop Input Control System Quick Reference Card

CONNECTING THE SYSTEM



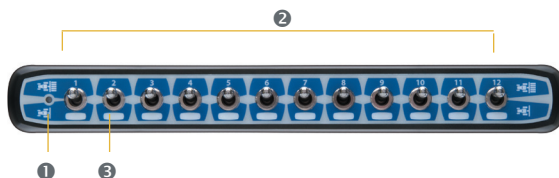
Note: For more information on system calibration and settings, see the Field-IQ chapter in the FM-1000 Integrated Display User Guide.

Field-IQ Master Switch Box



Item	Positions	
1	Increment/decrement switch	
2	Rate switch	Rate 1, Rate 2, Manual Rate
3	LED indicator	
4	Automatic/Manual section control switch	You can switch from Automatic to Manual mode while traveling.
5	Master switch	Off, On, Jump Start Use the jump start function if you lose a GPS signal or you want to start applying before your implement is up to speed.

Field-IQ 12-section Switch Box (optional)

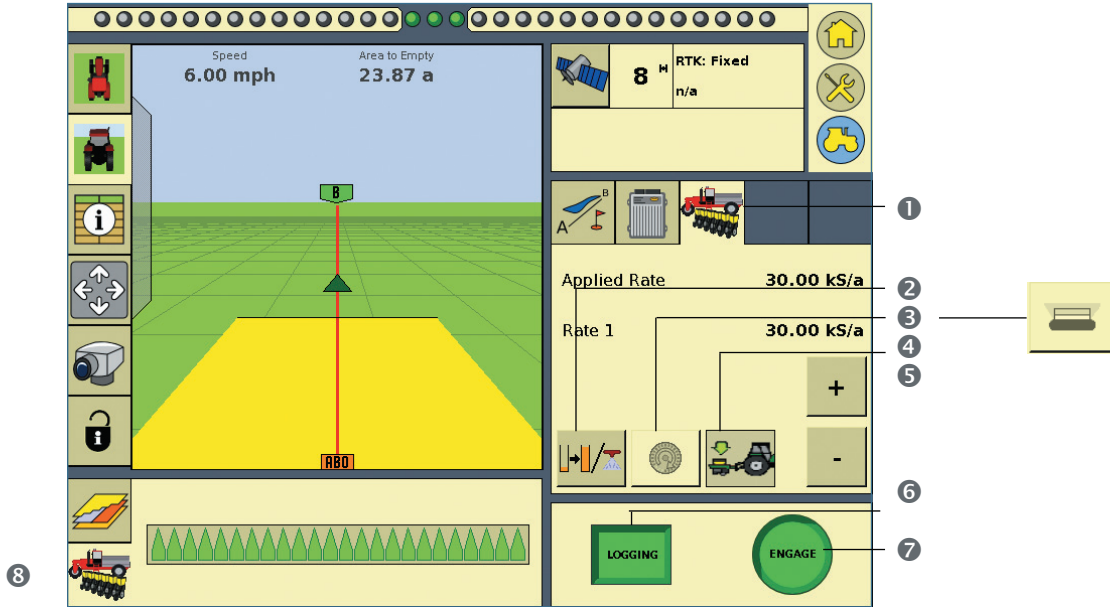


Item	
1	LED indicator
2	Section switches
3	Space to write which row the switch controls.

If the Master Switch section switch is set to...	And the 12-section switch box position is ...	Then ...
Automatic	Up / On	Section controlled by the display.
	Down / Off	Section off.
Manual	Up / On	Section turned on
	Down / Off	Section off

OPERATING IN THE FIELD

Run screen



Item	Description	
1	Field-IQ Plugin tab	
2	Tank/Bin button	Shows capacity, warning level, current volume, and the Refill Tank/Bin button.
3	Fill Meter button	Turns the seed meter one revolution. On the Spinner Spreading Run screen this is replaced by the Gate opening button (shown above), which sets the current value of the gate opening.
4	Implement Switch Status	Increases and decreases the application rate by the amount specified during setup.
5	Increase/Decrease buttons	Increases and decreases the application rate by the amount specified during setup.
6	Logging button	Green – Logging enabled. Gray – Logging disabled.
7	Engage button	Green – Auto guidance engaged. Gray – Auto guidance can be engaged. Red – Auto guidance cannot be engaged.
8	Field-IQ Status tab	Shows the engage status of each row on the implement. Green – Engaged. Gray – Section closed due to overlap. Red – Not engaged / Section manually turned off

Before starting

Before configuring the Field-IQ plugin setup on the FM-1000 integrated display, ensure that:

- all components of the system are installed on the vehicle and implement.
- the Field-IQ plugin has been added to the FM-1000 integrated display configuration.

From the *Home* screen, tap the Run icon. Next to Implement, tap **Edit**. The *Configuration* screen appears. Ensure that the Field-IQ icon appears in the list. If the icon does not appear tap **Add/Remove** to add the plugin to the configuration.

- the implement setup has the correct option selected.

From the *Home* screen, tap the Run icon. Next to Implement, tap **Edit**. The *Configuration* screen appears. Select the implement from the list on the left and then tap **Setup**. The *Implement Setup* screen appears. In the *Operations* tab, select the correct option (For planting, select the Planting option. For liquid strip-till, select the Strip Tillage option. For spinner spreading, select the Spreading option.) Tap **OK**.

Features tab

The screenshot shows the 'Field-IQ Setup' screen with the 'Features' tab selected. The screen has a yellow background and a blue header. Below the header are five tabs: Features, Boom, Rate, Tank/Bin, Hardware, and Sectors. The 'Features' tab is active. There are four settings listed: 'Application Type' with a dropdown menu showing 'Planter', 'Boom Switching' with a dropdown menu showing 'On', 'Rate Control' with a dropdown menu showing 'On', and 'Implement Lift' with a dropdown menu showing 'Enabled'. At the bottom of the screen are two buttons: 'Cancel' on the left and 'OK' on the right.

Select the following:

1. *Application Type*
2. *Boom Switching*:
 - On: Automatic Section Control is active.
 - Off: Automatic Section Control is not active.
3. *Rate Control*:
 - On: Rate Control is active.
 - Off: Rate Control is not active.
4. *Implement Lift*:
 - Enabled: Implement switch controls coverage logging.
 - Disabled: Implement switch is not used.

Boom tab

1. *Section Signal*:
 - Standard: Using a Tru Count inverter box.
 - Inverted: Using Tru Count clutches, Tru Count Liqui-Block vales, or John Deere row clutches.

Caution – Selecting the incorrect value causes the system to operate opposite of the required result.

2. *Turn Off When Stopped*:
 - Yes: Turns off sections when the GPS speed is zero (recommended).
 - No: Sections remain active when the GPS speed is zero.
3. *On Latency*:
 - Default value is 0.0 seconds. Increase the On Latency value to compensate for mechanical delay in the system (more common for larger systems).
4. *Off Latency*:
 - Default value is 0.0 seconds. Increase the Off Latency value to compensate for mechanical delay in the system (more common for larger systems).

Rate tab

The *Rate* tab is only visible if you have at least one Field-IQ Rawson control module installed.

1. *Rate 1 and Rate 2* fields:
 - Application rate to be used when the Rate Switch in the Field-IQ master switch box.
2. *Rate Increment* field:
 - Increment to be used each time you press the Increment/Decrement switch on the Master Switch Box or display.
3. *Rate Snapping* list:
 - Enabled: Shows the applied rate the same as the target rate (if the applied rate is within 10% of the target rate).
 - Disabled: Shows the actual applied value.

Tank/Bin tab

The *Tank/Bin* tab is only visible if at least one Field-IQ Rawson control module is installed. Select the following:

1. *Tank/Bin Capacity*:
 - Total tank/bin capacity.
2. *Warning Level*:
 - Level at which you will receive notification when the capacity level drops below the assigned value. *Current Volume*: Current volume of the tank/bin.

Tips –

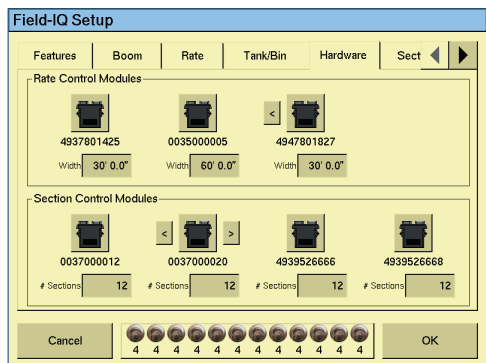
Tap **Refill Tank/Bin** to set the current volume to the tank/bin capacity.

Tap **Manual Flush** to engage the Rawson Variable Rate Drive continuously without moving the implement to empty the tank/bin contents.

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Hardware tab



Note – The numbers beneath each switch are the number of sections assigned to the switch. In this example, switch 1 controls rows 1 through 4, switch 2 controls rows 5 through 8, and so forth). The numbers are automatically assigned and cannot be changed. If you are not using the 12-section switch box, a “virtual” switch box is shown that allows you to use the touchscreen to turn on turn off sections.

1. Adjust the width value for each rate control module by tapping the *Width* box. Enter the appropriate value and then tap **OK**.

2. Adjust the sections value for each section control module by tapping the Sections box. Enter the appropriate value and then tap **OK**.
3. Verify that the serial numbers of the modules match the order that the modules are mounted in the implement. If required, swap the position of the modules on the screen: Tap the module icon and use the arrows to move the modules. The modules are shown as seen when looking from behind the implement in the direction of travel.

Sections tab

1. Enter the number of rows controlled for each section.
2. If the implement has more than 12 sections, use the buttons below the 12 section fields to scroll to the other sections.

Override tab

1. *Jump Start Speed:*
Controls the speed to be used when the Master switch is put in the jump start position.
2. *Minimum Override Speed:*
This setting maintains the application rate when the implement's actual speed drops below the value entered. It is used to ensure consistent material flow during slow speeds that may reach the physical limitations of the system.

CALIBRATING THE RAWSON MODULES

Planter calibration

The Field-IQ Calibrate option only appears on the Configuration screen if you have at least one Field-IQ Rawson control module installed.

1. From the *Configuration* screen, select the Field-IQ plugin and then tap **Calibrate**.
2. From the *Field-IQ Calibration* screen, select the Rawson Control Module to be calibrated.
3. In the *Seeds Per Disk* field, enter a value.
4. Enter a value in the *Gear Ratio* field or tap **Calculate**.
5. Use the Gear Ratio Calculator to determine the planter drive gear ratio and then tap **OK**. The *Calibration Constant* field contains a calculated value that the system determines during calibration. To start out, we recommend that you leave the value at 1.000. After the calibration test, the system may adjust this number.
6. Place a clean empty container under the rows that contain seeds to capture the seeds dispensed during the calibration.

Caution – Moving parts during this operation. Ensure the implement is safe to operate.

7. Tap **Test**.
 8. In the *Number of Seed Meter Revolutions* field, enter a value and then tap **Start**. The higher the number of revolutions the more accurate the calibration. We recommend 5 to 10 revolutions.
 9. Follow the on-screen prompts of operating the master switch. After the system turns the specified number of revolutions, enter the number of seeds dispensed per row and then tap **Continue**.
 10. The next screen shows the minimum and maximum speeds for the target rate specified. Tap **OK** and then either press **Test** to repeat the calibration or tap **OK** to continue.
 11. Tap **OK**.
- Repeat Step 1 through Step 9 for other Rawson Control Modules that need calibration.



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