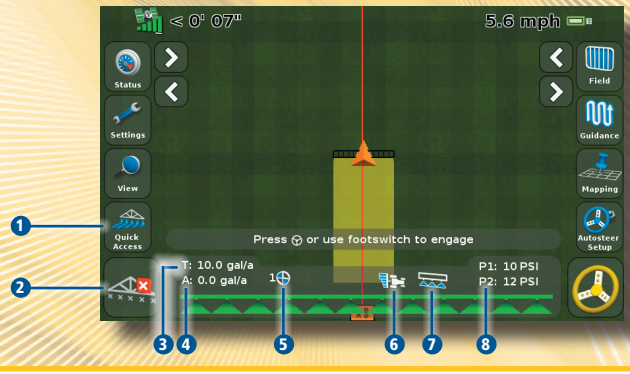
Trimble® CFX-750™ Display with the Field-IQ™ Crop Input Control System

Quick Reference Card

RUN SCREEN

The Trimble® CFX-750™ display is a touchscreen display that is configured and run by tapping the icons that appear on the display screen. The image below shows the run screen when using the Field-IQ™ system.



Item	Description	Notes
1	Quick Access icon	Access common Field-IQ settings.
2	Coverage status	On:  Off:  Inactive:
3	Target rate	The target application rate for the current rate switch position. This is the amount of product that you want to apply.
4	Actual rate	The actual application rate. This is the amount of product that is currently being applied.
5	Rate switch position	Indicates the current position of the rate switch.
6	Section control	Shows the current mode for the controller. Automatic:  Manual: 
7	Master switch status	Master switch on:  Master switch off: 
8	Pressure	P1: The current pressure reported by the primary pressure sensor. P2: The current pressure reported by the secondary pressure sensor.

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QUICK START WIZARD

By default, the Quick Start Wizard appears every time you turn on the CFX-750 display. It enables you to easily confirm or change important system settings before you begin working.

SETUP AND CONFIGURATION

Features can be set up or configured manually from the Run screen by tapping the button.

HELP

The CFX-750 display has built-in, context-sensitive Help that lets you quickly find information you need. To access Help from any configuration screen, tap ?. When you are finished with the Help screen, tap .

Note - *For more information on how to use this product, refer to the* ***CFX-750 Display CD.***

FIELD-IQ SYSTEM FUNCTIONALITY

The Field-IQ crop input control system enables the CFX-750 display to control planters, sprayers, liquid strip-till toolbars, and spinner spreaders.

Additionally, it allows the display to use Tru Count Air Clutches® or Tru Count LiquiBlock® to perform automatic section control, and/or use a prescription with Rawson® drives to control seed or liquid fertilizer rates.

Warning: Anhydrous ammonia (NH3) can cause severe burning, blindness, or death. Before you begin to operate or service equipment that contains NH3, carefully read and follow all safety instructions in the CFX-750 Display User Guide.

Units of measure

Type	Unit	Symbol	Description
Seed	Metric US/Imperial	kS/ha kS/a	Thousands of seeds per hectare Thousands of seeds per acre
Granular seed	Metric US/Imperial	kg/ha lbs/a	Kilograms of seed per hectare Pounds of seed per acre
Liquid application	Metric US/Imperial	L/ha Gal/a	Liters per hectare Gallons per acre
Granular fertilizer	Metric US/Imperial	kg/ha lbs/a	Kilograms of fertilizer per hectare Pounds of fertilizer per acre
NH3	Metric US/Imperial	kg/NH3 lbs/NH3	Kilograms of anhydrous per hectare Pounds of anhydrous per acre
	Metric US/Imperial	kg/N lbs/N	Kilograms of nitrogen per hectare Pounds of nitrogen per acre

Definitions

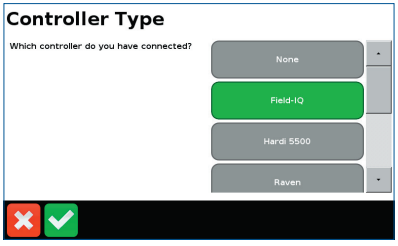
Application	Main functions
Section	A number of rows or spray nozzles controlled by Tru Count Air Clutches, Tru Count LiquiBlock valves, or boom valves. A section can have either a single row/nozzle or multiple rows/nozzles depending on how the system is set up.
Row	The individual row unit that material comes from on the implement. This can be controlled individually (single row section), or as a group with other rows (multiple row section).
Master Switch Box (MSB)	Master on/off/jump start, auto/manual switch, rate selection, and increment/decrement switch.
12-section Switch Box (12SSB)	Required for section control. Manually control sections/rows.
Section Control Module (SCM)	Controls 12 sections/rows per module with up to 4 modules (48 module sections/rows).
Rate and Section Control Module	Controls 12 sections and application rate for spraying, spreading and NH3.
Rawson Control Module	Controls 1 Rawson variable rate drive per module with up to 4 modules.
Implement switch	Included in planter, NH3 and strip-till platform kits.

SETTING UP AND CALIBRATING THE FIELD-IQ SYSTEM

The CFX-750 display automatically detects the Section Control Modules and/or the Rawson Control Modules installed on the implement. When you use the wizard to set up your Field-IQ system, the screens that appear may differ according to the modules you have installed. If during the setup, a screen appears that you are unsure of, you can either:

- Tap to go back and check the previous screen(s).
- Tap to discard all of the changes and start again.

1. In the guidance screen, tap and then tap **Implement**.
2. In the *Controller Type* screen, tap **Field-IQ**:



3. In the *Field-IQ Hardware Summary* screen, tap to continue through the setup wizard.
4. In the *Application Controller Mode* screen, select what you are using the implement for. The options are row crop planting, liquid, granular seed, granular spreading, and anhydrous.

Note - *If you change the Application Controller Mode, the display erases any previous calibrations.*

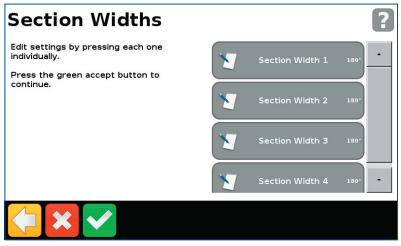
5. In the *Rate and Section Control* screen, select:
   - Section Control Only
   - Rate Control Only
   - Both

Note - *If you have not installed at least one section control box and at least one Rawson control box or a Rate and Section box, both options will not appear.*

6. In the *Implement Measurements* screen, edit each of the setting items. The items that appear in this screen depend on the Application Controller Mode chosen previously. In this part of the wizard, you must enter accurate values for each of the following:

For ...	Indicate ...
Rate Control	Where on your implement each module is located. For each module, the width of the section it will control.
Section Control	Where on your implement each module is located. For each module, the number of sections it will control.

7. Once you have completed the wizard, you can adjust your section widths if necessary:



Field-IQ Hydraulics Test

After the setup wizard is complete, the display tests the hydraulics of your system. During this test you must run the motor(s) at the minimum and maximum RPM and make sure the motor(s) achieve these RPM.

WARNING: MOVING PARTS DURING THIS TEST! Please stay clear of the implement. Ensure the implement is raised, the transmission is in PARK and the emergency brake is applied before continuing.

Calibrating the Field-IQ system

After the hydraulics test is complete, the display calibrates your system. The available calibrations are:

- Field-IQ Rawson Control Module
- Servo Pump or PWM Pump
- Pressure Sensors
- Implement Lift Switch

When the calibration is complete, save the data to a configuration file and export it to the USB drive.

ADVANCED SETUP

Use the *Advanced* option in the *Implement* screen to configure the following options:

Controller and Material Type Selection

Select this option to return to the *Controller Type* screen.

Implement Setup

Use this option to adjust the following settings:

- *Rate Control Module Setup*. If you select this option, the display returns you to the *Rate Control* screen in the Field-IQ setup wizard.
- *Implement Measurements Setup*. If you select this option, the display returns you to the *Implement Measurements* screen in the Field-IQ setup wizard.
- *Section Control Module Setup*. If you select this option, the display returns you to the *Section* screen in the Field-IQ setup wizard.
- *Implement Application Setup*. If you select this option, the display returns you to the *Implement Application* screen in the Field-IQ setup wizard.
- *Auxiliary Valve Setup*. If you select this option, the display allows you to enable an Auxiliary Valve.
- *Pressure Sensor Setup*. If you select this option, the display allow you to set up and calibrate up to two pressure sensors.

Section Switching Setup

Use this option to view and adjust the following settings:

Setting	Description
Coverage switching overlap	Control the amount of side-to-side section overlap allowed before the section will be switched by the system. Enter a value between 1 - 99%.
Boundary switching overlap	Control the amount of overlap on a boundary before the boom section is switched off. Enter a value between 1 - 99%.
On/Off valve latency	Tune the section switching to allow for hardware delays. Enter a time between 0.0 - 10.0 seconds.
Intentional overlap	Set a distance to be overlapped when moving to an unsprayed area or out of a sprayed area. Enter a distance between 0′ 00″ - 32′ 10″ (0.00 - 10.00 m).

Field-IQ System Status

Select this option to view the status for the following:

- Master Switch Module
- Rate Control Module
- OEM Switch Interface
- Section Switch Module
- Section Control Module
- Accessories

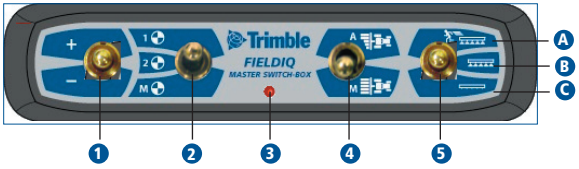
Once you have enabled, configured and calibrated your Field-IQ crop input control system, the Run screen appears (see page 1). This allows you to control the application.

OPERATION

Once you have enabled, configured and calibrated your Field-IQ crop input control system, the Run screen appears (see page 1). This allows you to control the application.

Field-IQ master switch box

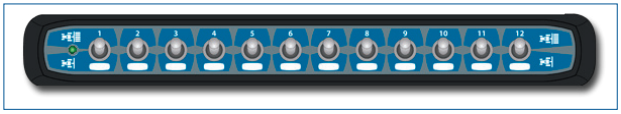
All systems must have a Field-IQ master switch box.



	Switch	Functions
1	Increment/ decrement	Increases the applied amount by a set amount (the amount set in the Setup screen, Rate tab).
2	Rate	Choose preset Rate 1, preset Rate 2, or Manual rate.
3	LED indicator	Red – Unit on, not communicating with the display. Green – Unit on, communicating with the display. Yellow – Unit initializing communications.
4	Automatic/ Manual	Automatic mode – Display automatically opens and closes sections when entering areas of overlap, non-apply zones, or crossing boundaries. Manual mode – Sections are controlled manually.
5	Master	**A.** Jump start (top position). Sections and rate ready to be commanded by the display; the system overridden to use preset control speed. Use if you lose a GPS signal or want to start applying before the implement is up to speed. **B.** On (middle position). Sections and rate ready to be commanded by the display. **C.** Off (lower position). Sections are closed, rate set to zero.

Field-IQ 12-section switch box

The 12 section switch box is required for section control. For rate control only, the switch box is optional.



Only one section switch box can be used on each system. Each section switch is automatically assigned to the corresponding module. The modules are read from left to right. For example, switch 1 assigns to the module furthest on the left when standing behind the implement.

The section switches have different functions, depending upon the status of the master Automatic/Manual section switch on the master switch box.

When the Automatic/Manual section switch is in the ***Automatic*** position:

- If the section switch is in the on/up position the section(s) assigned to it are commanded automatically by the CFX-750 display.
- If the section switch is in the off/down position the section(s) assigned to it are commanded to be off.

When the Automatic/Manual section switch is in the ***Manual*** position:

- If the section switch is in the on/up position, the section(s) assigned to it are commanded to be on. This overrides the CFX-750 display and coverage logging is ignored.
- If the section switch is in the off/down position, the section(s) assigned to it are commanded to be off. This overrides the CFX-750 display and coverage logging is ignored.

The LED has the following status indicators:

- Green – The unit is powered and is communicating with the CFX-750 display.
- Yellow – The unit is initializing communications with the CFX-750 display.
- Red – The unit is powered but not communicating with the CFX-750 display.

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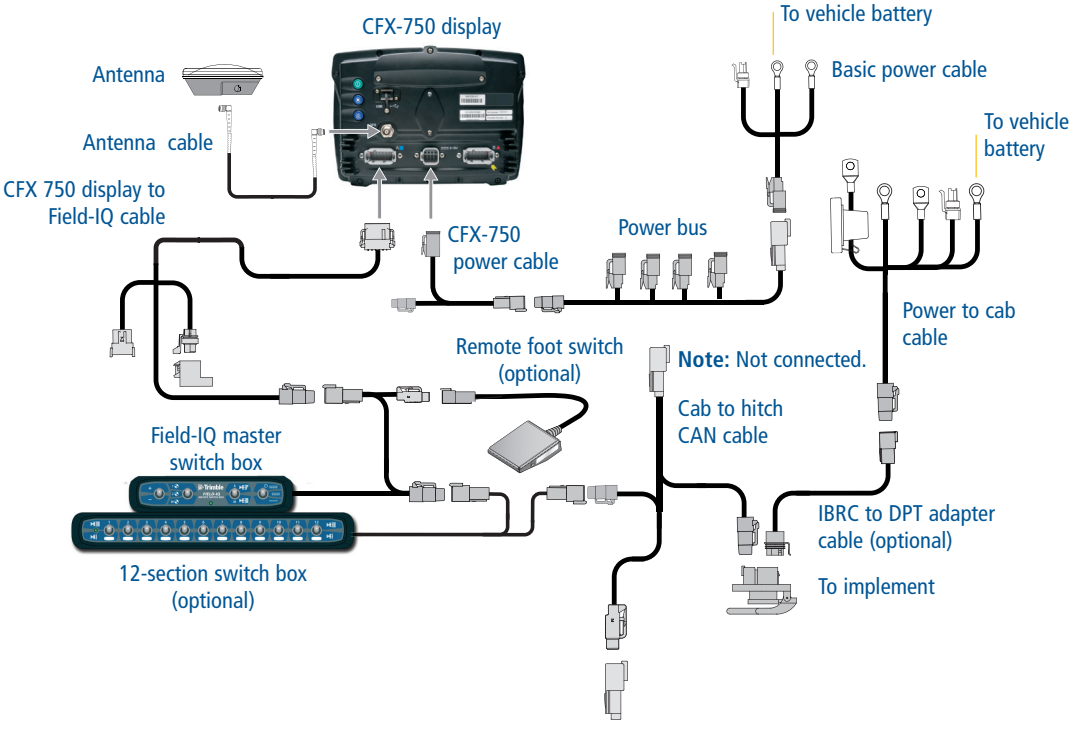
CONNECTING THE SYSTEM



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