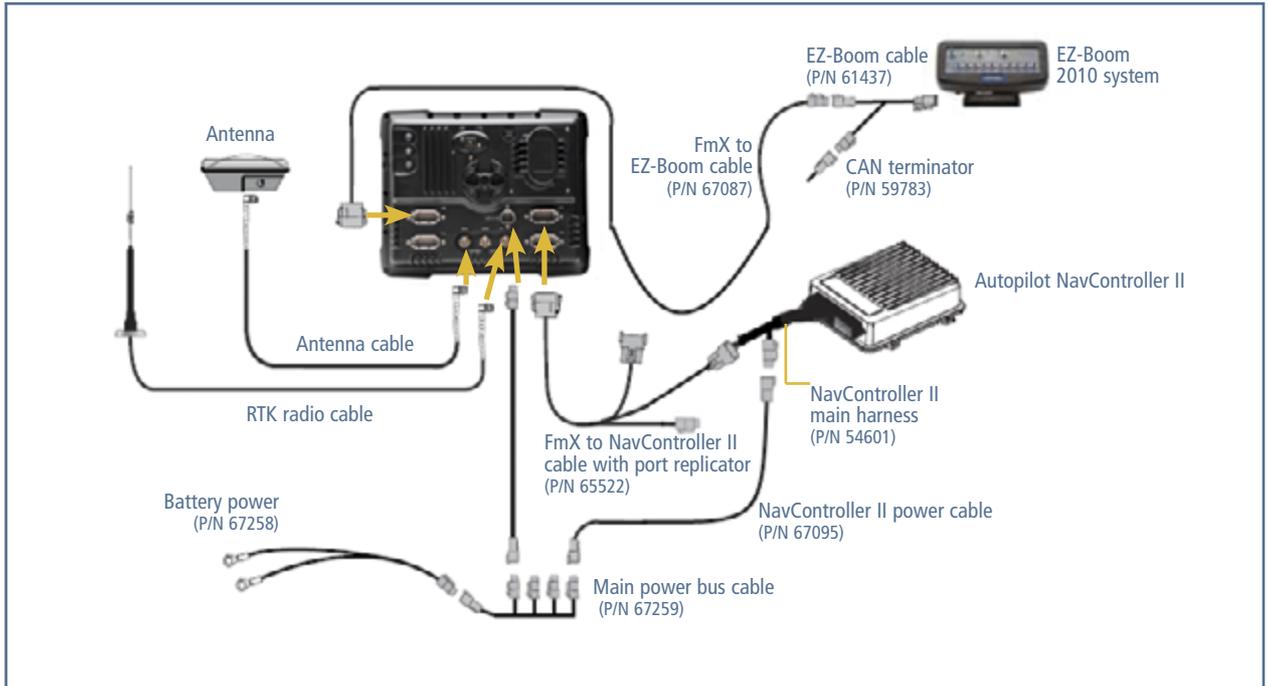# AgGPS Fm X™ Integrated Display

with the *Ag*GPS® EZ-Boom® 2010 System Quick Reference Card

CONNECTING THE SYSTEM

Once the *Ag*GPS® EZ-Boom® 2010 automated application control system has been professionally installed, add the FmX™ integrated display as shown:

Antenna

Antenna cable

RTK radio cable

EZ-Boom cable
(P/N 61437)

EZ-Boom
2010 system

FmX to
EZ-Boom cable
(P/N 67087)

CAN terminator
(P/N 59783)

Autopilot NavController II

NavController II
main harness
(P/N 54601)

FmX to NavController II
cable with port replicator
(P/N 65522)

NavController II power cable
(P/N 67095)

Battery power
(P/N 67258)

Main power bus cable
(P/N 67259)

RUN SCREEN LAYOUT

Status items – These are at the top of the run window and are visible all the time. Tap any text item to toggle to a single status item in a larger font.

Vehicle view icon – Tap to toggle between overhead and trailing views.

Information icon – Tap to display a larger amount of permanent text for operations relating to the display.

Zoom and Pan icons – Tap to show zoom and pan function buttons.

Coverage theme – Panel displays the coverage and variety tracking settings. You can view height, coverage/overlap, variety, and GPS quality.

Home – Use to close a field and return to the start window.

Run icon – Tap to get started in a field.

Active plug-in tabs – Show status and control functions for the applications connected to the FmX integrated display. Tap the Tab icon to change the tab.

Tank refill icon – Tap to open the Tank tab where you can select tank refill options

Engage panel – Contains the engage controls for plug-ins such as Autopilot™, TrueTracker™ implement steering, and FieldLevel II. You can also control for coverage logging.

Boom sections – Shows the status of the individual boom sections.

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# SETTING UP THE EZ-BOOM SYSTEM ON THE FmX DISPLAY

Notes:

For more information on system calibration and settings, see the EZ-Boom documentation.

*If you have any questions regarding settings, tap the **Tips** button or refer to the FmX Integrated Display User Guide.*

Setting up the Implement

To set up the implement for the EZ-Boom system, do the following:

1. In the Home screen, tap the *Run* icon.
2. Tap the **Switch** button next to *Implement*.
3. Do one of the following:
   - Tap **New** to create a new implement.
   - Select an existing implement.
4. When creating a new implement, enter a name for the implement and then tap **OK**.
5. Complete the Implement Setup wizard: Complete each screen and then tap **Next** to proceed to the next screen:
   a. Select the required implement from the *Operations* drop-down list.
   b. In the *Guidance* tab make the required entries in all the fields:
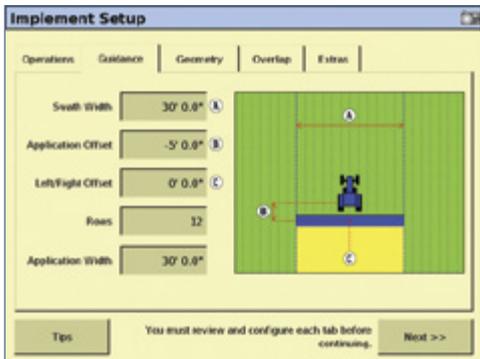
   c. Complete the *Geometry* tab if you are using the TrueGuide™ implement guidance, implement monitoring, or the TrueTracker™ implement steering system. Enter the Antenna Front/Back Offset, Antenna Left/Right Offset, and the Antenna Height.

   d. In the *Overlap* tab make the required entries in all the fields:
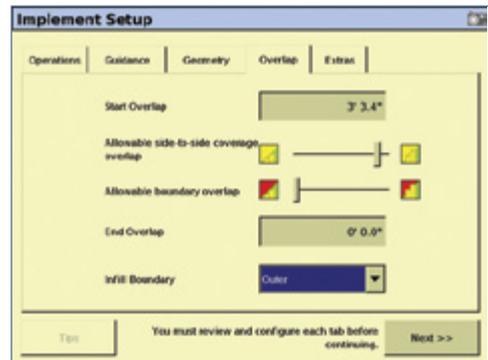
   - Adjust the *Start Overlap* and *End Overlap* based on when the sprayer turns on and off as it enters or leaves the applied area:
   - Adjust *Allowable boundary overlap* for the amount of overlap a section has to be outside the boundary before shutting off.
   - Adjust *Allowable side-to-side coverage overlap* for the amount of side-to-side overlap before shutting off.
   - *Infill Boundary* controls where material stops being applied when approaching the headlands:
     Inner allows the headland to be applied last.
     Outer allows material to be applied to the field boundary if material was not previously applied in the headlands.

   e. In the *Extras* tab, set up the Variety (using the **Variety Setup** button) and the *Remote Log Switch*.

Note: *The Remote Log Switch is not used with the EZ-Boom system*.

6. Select and then add the EZ-Boom plugin if this is not already installed and then tap **OK**:
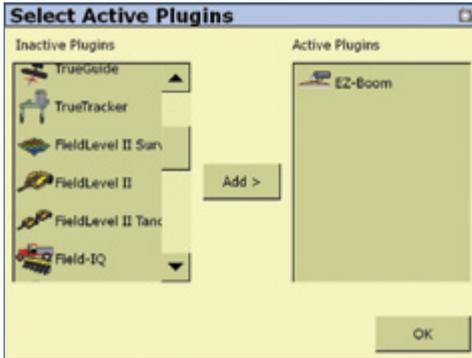

Setting Boom Switching and Rate Control

1. In the *Configuration* screen, select *EZ-Boom* and then tap **Setup**.

2. Select the required *Boom Switching* and *Rate Control* options and then tap **OK**:
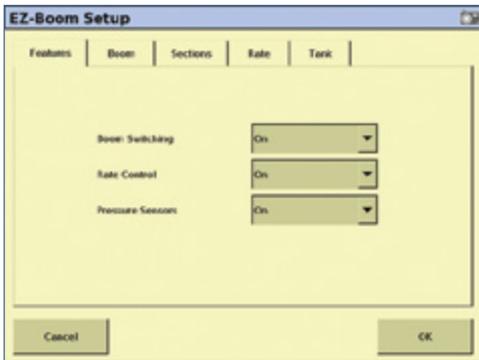
If *Boom Switching* is **on**, the EZ-Boom system controls the boom sections based on the coverage map. If *Rate Control* is **on**, the system controls the application rate.

Setting Valve Latency

1. Tap the *Boom* tab:
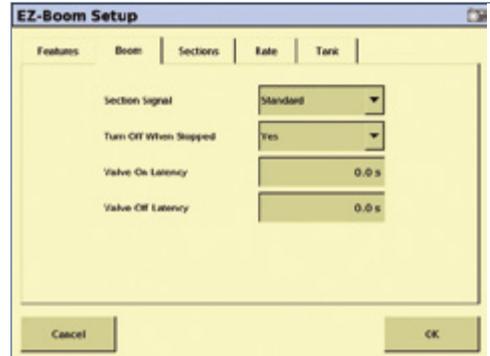
2. Do one or more of the following:

– Set the **Section Signal**: This setting controls whether the system sends a high or a low signal to close a section valve.

Select **Standard** (Sprayers) when using:

- Motorized and solenoid valves (typically used in sprayers)
- A Tru Count inverter box

Select **Inverted** when using:

- Tru Count Clutches
- Tru Count Liqui-Block valves
- John Deere row clutches

– Set the *Valve On / Off Latency*: If required, set a delay (in seconds) between when you send a command to the sprayer and when it starts spraying.

– Set *Turn Off When Stopped*: This controls whether the section stays on or turn off when the GPS speed is 0 mph

3. Tap **OK**.

Setting up the Sections
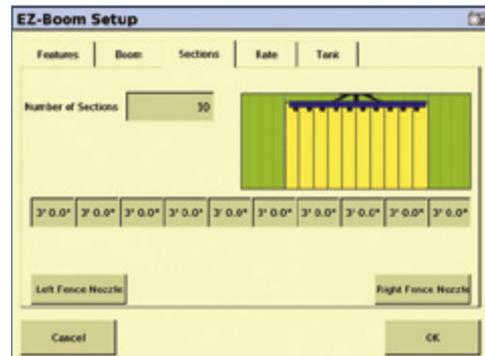
1. In the *Configuration* screen, select *EZ-Boom* and then tap **Setup**.

2. Tap the *Sections* tab:

3. Select the number of sections, and then set the width of the sections.

4. If required, tap the **Left Fence Nozzle** and **Right Fence Nozzle** buttons to enable them (the nozzles are at the ends of the boom).

Setting the Application Rate

1. Select the *Rate* tab:

2. Select *Rate 1* and *Rate 2*. These are the value that will be used when the Rate switch in EZ-Boom is set to Rate 1 or Rate 2.

3. Enter a *Rate Increment*. This sets the value the rate will change by when you press the increase or decrease button or switch.

4. Select whether you want to turn *Rate Snapping* on or off. This controls if you want the displayed rate to be shown as on-target when within 10% of the target rate.

5. Tap **OK**.

Setting Tank Volume

1. Select the *Tank* tab:

2. Select the *Volume* field and then use the touch screen to enter a new value.

3. Enter the *Tank Capacity* - this is the size of the sprayer tank.

4. Enter the *Warning Level* - this is the volume at which the display warns that the tank volume is getting low.

5. Tap **OK**.
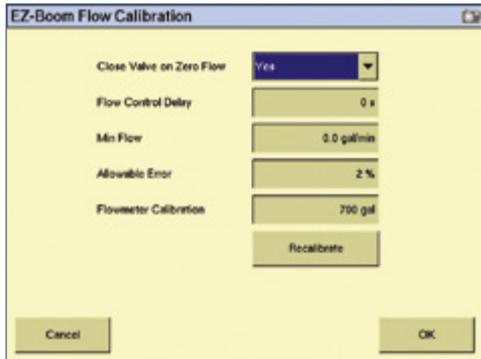
Valve calibration

1. In the *Configuration* screen, select *EZ-Boom* and then tap **Calibrate**.

2. Select *Valve Calibration* and then tap **Start**:

Note: Reference the EZ-Boom 2010 Getting Started Guide Definitions chapter for a list of default values to use for the Valve Type, Response 1 and Response 2 and Threshold fields.

3. In the Valve Type field, select the type of control valve used on the application, for example In-line Servo.

4. In the *Response 1 / Response 2* fields, adjust to increase or decrease the response of the valve. A larger value means a faster, less accurate response. Response 1 is used for larger changes and Response 2 for smaller changes. The threshold value defines when to use Response 1 or Response 2.

5. Tap **OK**.

Flow Calibration

1. Select *Flow Calibration* and then tap **Start**:

Note: You must complete the Flow Calibration before application.

2. Enter the *Flow Control Delay* in seconds.
3. Enter the existing *Flowmeter Calibration* number provided with the flowmeter.
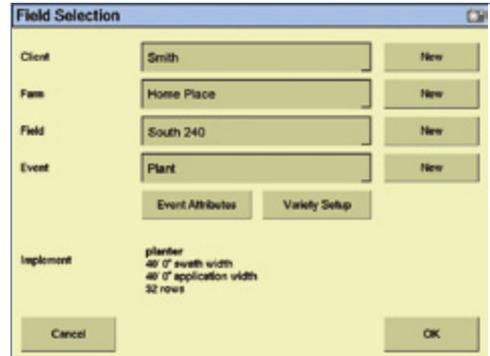4. Tap **OK**.

Adjusting the Application Rate

Press the plus and minus buttons on the *EZ-Boom* tab to increase or decrease the rate on the go:
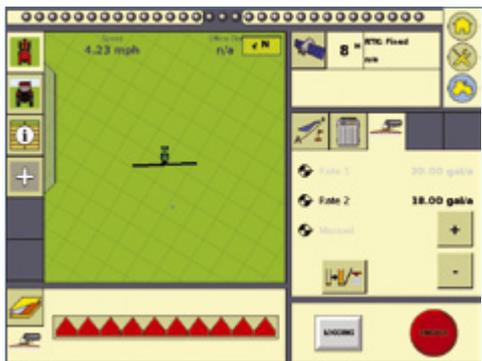
The +/- switch on the EZ-Boom controller will also adjust the rate on the go.

Getting started in a field

1. Tap .
2. Select or create client, farm, field, and event names for the operation and then tap **OK**

3. On the *Run* screen, tap **Swaths.** The *Swaths management* screen appears.
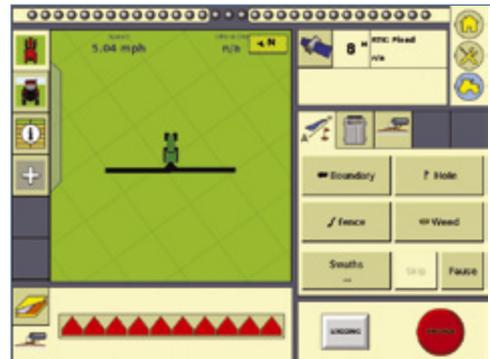
4. From the drop-down box, select the pattern type (AB, Curve, Pivot, or Headland) and then tap **New Straight:**
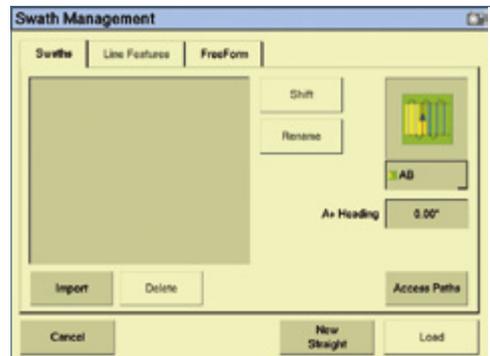
Note: Use the Headland pattern when you do not want the application to operate outside the field boundary. If you select this pattern, the EZ-Boom system shuts off boom sections outside the field boundary. If you select another pattern, the EZ-Boom system shuts off sections only when it is in a covered area.

5. On the *Run* screen, tap **Set A** and follow the on-screen instructions to finish the pattern.
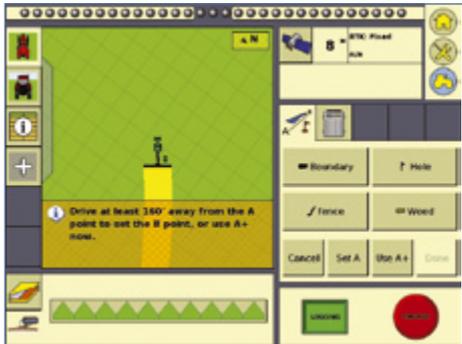
6. Once the new swath has been created, tap **Engage** to engage the Autopilot or EZ-Steer® system. The Ez-Boom sections are controlled manually by the switches on the EZ-Boom system.
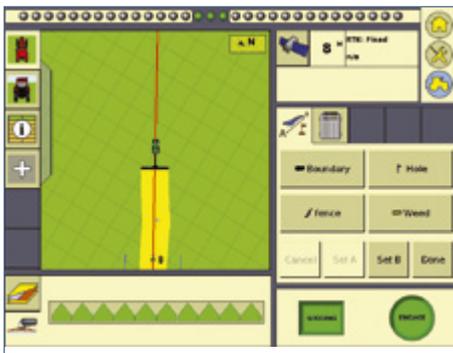
Use the switches as follows:

– Tap the Increase/Decrease switch to increase or decrease the rate from the run screen. You do not need to tap the Increase/Decrease switch on the EZ-Boom system.

– Tap the Tank button to open the *Tank* tab where you can select quick refill options.

Boom sections

If the section is ...	Then ...
Red 	Section switches or the master switch are shut off on the EZ-Boom controller and no power is outputted to the sections.
Grey 	Sections are in a covered area or the EZ-Boom controller is reading zero flow from the flow meter. Power may or may not be sent out to the sections.
Green 	Sections are on and the EZ-Boom controller is outputting power to turn the section on.

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