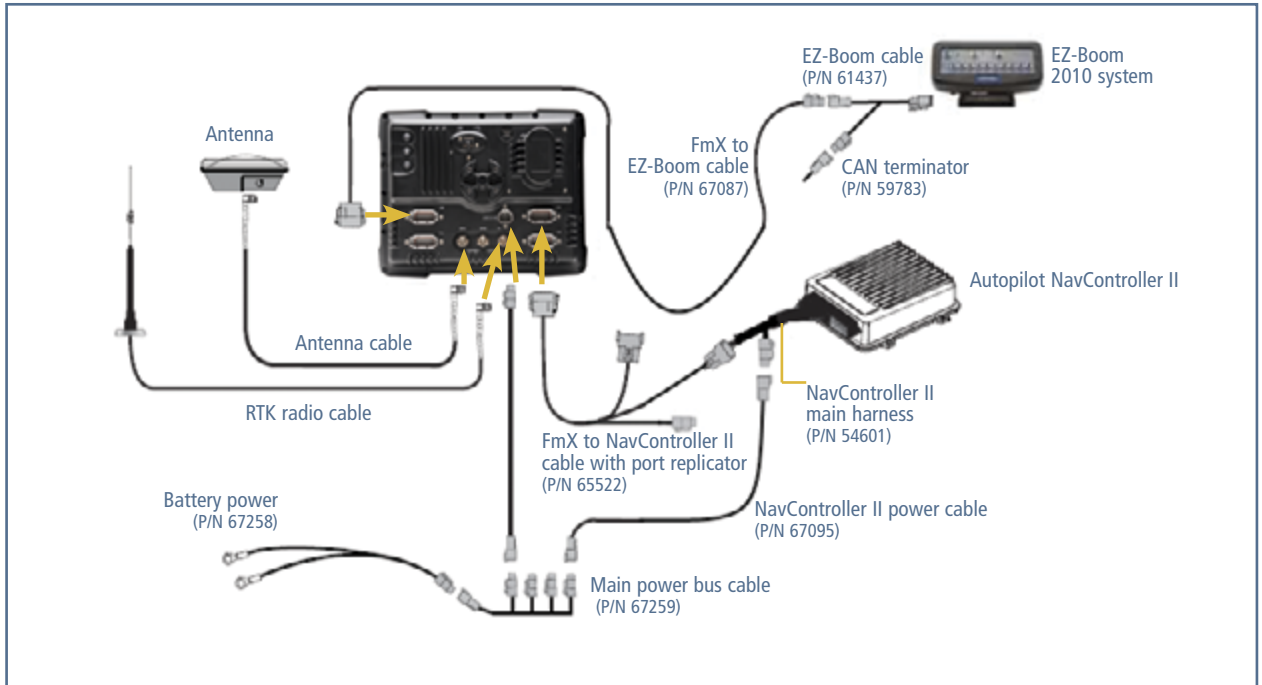


with the AgGPS® EZ-Boom® 2010 System Quick Reference Card

CONNECTING THE SYSTEM

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



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.

SETTING UP THE EZ-BOOM SYSTEM ON THE FmX DISPLAY

Notes:

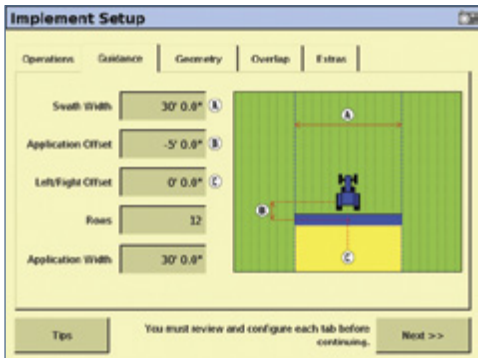
For more information on system calibration and settings, see the EZ-Boom documentation.

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

Setting up the Implement

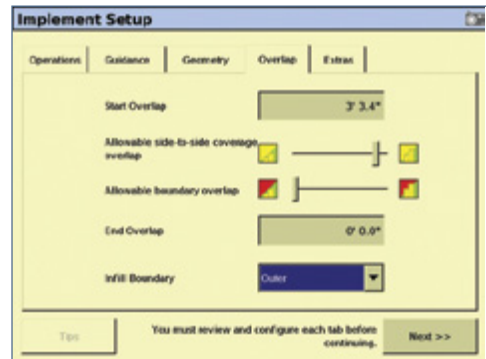
To set up the implement for the EZ-Boom system, do the following:

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:

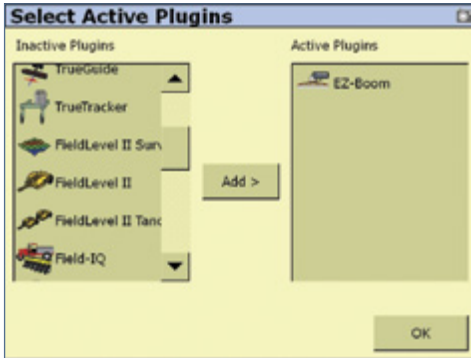


- Adjust the *Start Overlap* and *End Overlap* based on when the sprayer turns on and off as it enters or leaves the applied area:
- Adjust *Allowable boundary overlap* for the amount of overlap a section has to be outside the boundary before shutting off.
- Adjust *Allowable side-to-side coverage overlap* 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*.

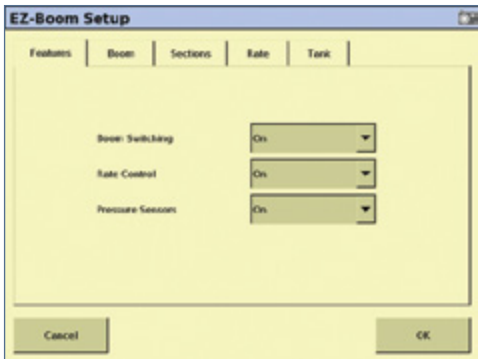
Note: The *Remote Log Switch* is not used with the EZ-Boom system.

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

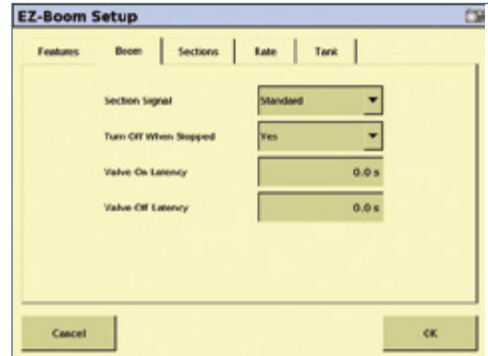
1. In the *Configuration* screen, select *EZ-Boom* and then tap **Setup**.
2. Select the required *Boom Switching* and *Rate Control* options and then tap **OK**:



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.

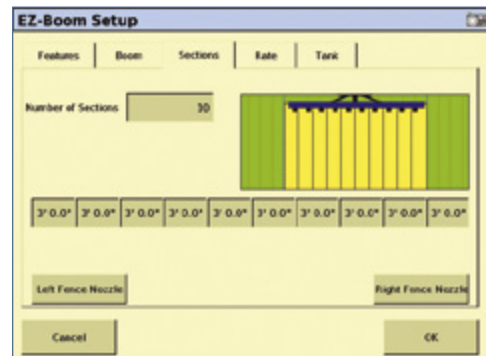
Setting Valve Latency

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

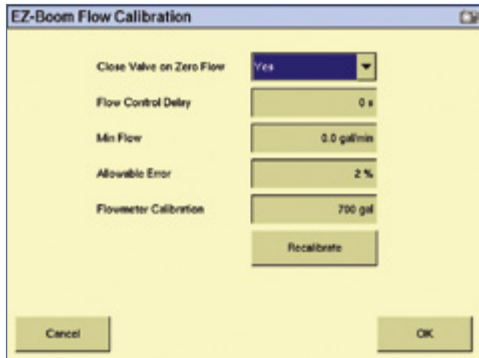
1. In the *Configuration* screen, select *EZ-Boom* and then tap **Calibrate**.
2. Select *Valve Calibration* and then tap **Start**:

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**:



The 'EZ-Boom Flow Calibration' screen contains the following settings:

- Close Valve on Zero Flow: Yes
- Flow Control Delay: 0 s
- Min Flow: 0.0 gal/min
- Allowable Error: 2 %
- Flowmeter Calibration: 700 gal

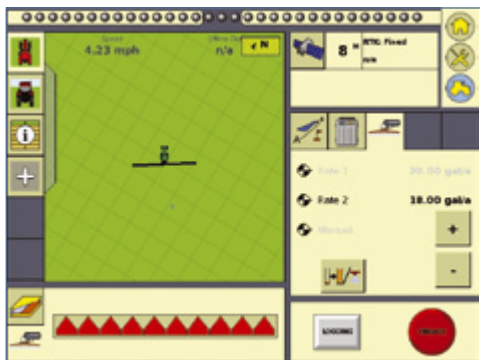
Buttons include 'Recalibrate', 'Cancel', and 'OK'.

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 EZ-Boom controller screen shows a speed of 4.23 mph. On the right side, there are two rate settings:

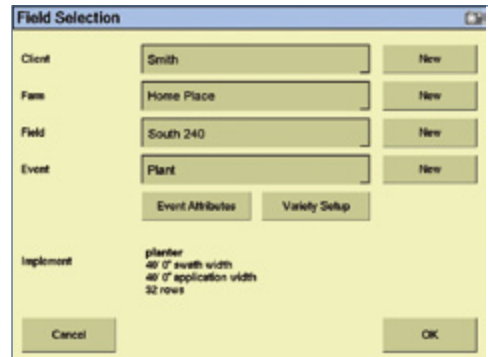
- Rate 1: 20.00 gal/a
- Rate 2: 18.00 gal/a

Plus and minus buttons are visible next to these rates for adjustment.

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**



The 'Field Selection' screen allows for the following selections:

- Client: Smith
- Farm: Home Place
- Field: South 240
- Event: Plant

Buttons include 'New' for each field, 'Event Attributes', 'Variety Setup', 'Cancel', and 'OK'.

3. On the *Run* screen, tap **Swaths**. The *Swaths management* screen appears.

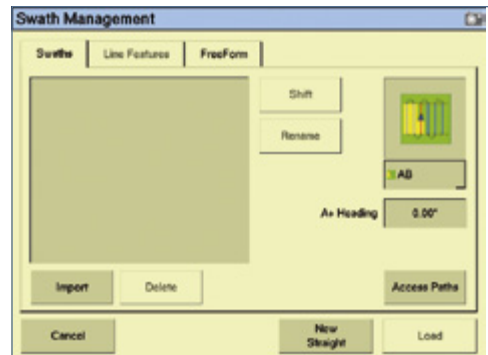


The Run screen shows a speed of 5.04 mph. On the right side, there are several management options:

- Boundary
- Fence
- Swaths
- Stole
- Weed
- Pause

Buttons include 'RUNNING' and 'STOP'.

4. From the drop-down box, select the pattern type (AB, Curve, Pivot, or Headland) and then tap **New Straight**:



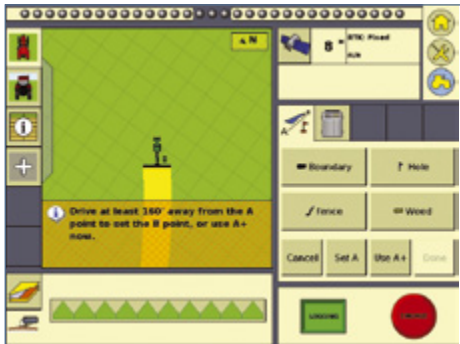
The 'Swath Management' screen has tabs for 'Swaths', 'Line Features', and 'FreeForm'. It includes the following controls:

- Shift
- Rename
- AB (selected in the dropdown)
- As Heading: 0.00°
- Import
- Delete
- Access Paths
- Cancel
- New Straight
- Load

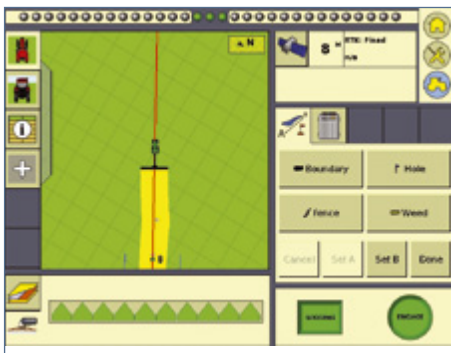
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Note: Use the Headland pattern when you do not want the application to operate outside the field boundary. If you select this pattern, the EZ-Boom system shuts off boom sections outside the field boundary. If you select another pattern, the EZ-Boom system shuts off sections only when it is in a covered area.

- On the Run screen, tap **Set A** and follow the on-screen instructions to finish the pattern.



- 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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