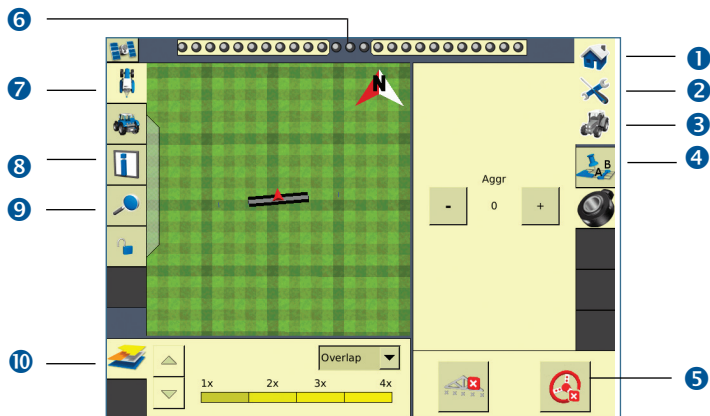



RUN SCREEN



	Item	Description
1	Home	Tap to close a field and return to the start window.
2	Setup and configuration	Tap to change some setup and display options when the field is open.
3	Run icon	Tap to take a picture of the current screen.
4	Active plug-in tab	Show status and control functions for the applications connected to the FmX integrated display. Tap the Tab icon to change the tab.
5	Engage panel	Contains the engage controls for plug-ins such as the Autopilot™ automated steering system, TrueTracker™ implement steering, and the FieldLevel II automated levelling system. You can also control for coverage logging.
6	Offline guidance display	When the vehicle is online, the center indicators are green. When the vehicle moves offline, the indicators change to red and move to either side, depending on the direction to the line.
7	Vehicle view	Tap to toggle between overhead and trailing views.
8	Information dialog	Tap to display a larger amount of permanent text for operations relating to the display while viewing the Run dialog in the upper right-hand corner.
9	Zoom and Pan	Tap to show zoom and pan function buttons. To zoom in and out, tap the magnifying glass; to pan in any direction, tap the arrow buttons. You can also tap the main map window to adjust the zoom level.
10	Coverage theme	Displays the coverage and variety tracking settings. Height, coverage/overlap, variety, and GPS quality can be shown.

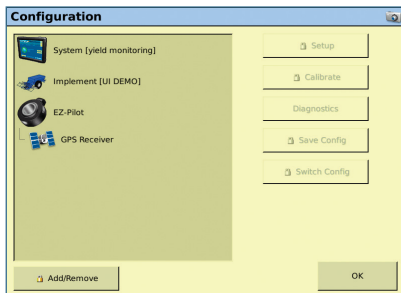
The FmX integrated display has built-in, context-sensitive Help that lets you quickly find information you need about the current screen. To access the Help from any configuration screen, tap . When you are finished with the screen, tap OK.

CONFIGURING THE EZ-PILOT SYSTEM WITH THE FMX INTEGRATED DISPLAY

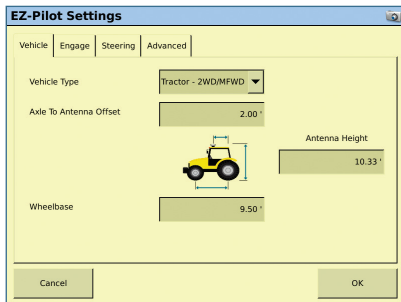
Note: For more information on system calibration and settings, see the EZ-Pilot documentation.

Setting up the system

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



The *EZ-Pilot Settings* screen appears:



2. Enter the following information in the *Vehicle* tab:
 - a. Select a vehicle type from the drop-down list that closely resembles the machine being calibrated.
 - b. Measure the horizontal distance between the front and rear axles (the "wheelbase") and then enter it.
 - c. Measure the antenna height from the ground and then enter it.
 - d. Measure the horizontal distance from the fixed axle, identified in the image, to the antenna and then enter it.

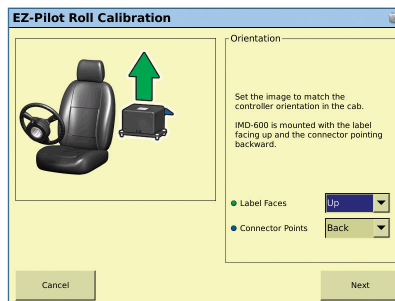
Note: The *Engage Options*, *Steering Settings*, and *Advanced* tabs on this screen are populated automatically with starting values, based on the vehicle type selected.

3. Tap **OK**. The *Configuration* screen appears.

Calibrating T3 terrain compensation

The EZ-Pilot system contains sensors that use T3 terrain compensation technology to provide roll compensation when the vehicle is on a slope or drives over a bump. For roll compensation to work correctly, you must calibrate the controller:

1. Select *Orientation* to calibrate the IMD-600 and perform a Terrain Compensation (T3) calibration.
2. Select the EZ-Pilot plugin and then tap **Calibrate**. The *EZ-Pilot Steering Calibration* screen appears.
3. Select *Orientation*. The *EZ-Pilot Roll Calibration* screen appears:

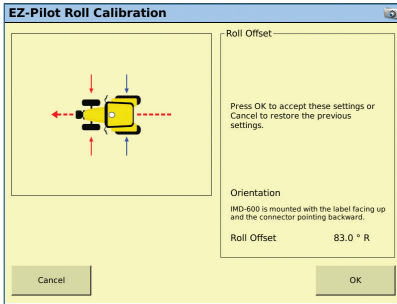


4. Select the direction that the connectors of the IMD-600 face from the drop-down list and then tap **Next**.

Note: For the best accuracy roll compensation, install the EZ-Pilot controller on the floor at the front of the cab with the controller parallel to the vehicle center-line. Installing on the back window is not recommended, as vibration may reduce the accuracy of the terrain compensation.

5. Park the vehicle and mark the inside position of both sets of wheels.

6. Tap **Next**. The display records the roll offset in the first direction. This takes approximately 20 seconds. Do not move the vehicle while the offset is being read:



7. Turn the vehicle around and ensure that the wheels are over the positions marked in Step 5.
8. Tap **Next**. The display records the roll offset in the second direction. This takes approximately 20 seconds. Do not move the vehicle while the offset is being read.
The T3 calibration results appear. The *Roll Offset* value should be between 0° and 4°.
9. Tap **OK** to accept the settings.


Calibrating the EZ-Pilot system

Note: *EZ-Pilot Calibration configures the T3™ roll calibration and the EZ-Pilot system Angle per Turn, Aggressiveness, and Freeplay settings*

Before calibrating the vehicle, do the following:

- Ensure that the vehicle's hydraulic oil is up to operating temperature before beginning. See the vehicle documentation.
- Ensure that the tire pressure is correct.
- Perform initial calibration without an implement or with the booms folded in on a high-clearance sprayer. After initial calibration is completed, the settings can be fine-tuned with the implement or booms folded out.
- Choose a field with the smoothest possible surface and perform calibration at the normal operating speed for the vehicle.

EZ-Pilot calibration requires a straight A-B line. If you do not create an A-B line before you begin the calibration, the system prompts you to open a field and create one.

1. Tap  in the Home screen.
2. In the *Configuration Selection* screen, tap the **Edit** button next to *Display*.
3. Select EZ-Pilot and then tap **Calibrate**.
4. Enter the vehicle settings.
5. Perform T3 roll calibration.
6. Calibrate the EZ-Pilot system settings:
 - a. Calibrate Angle per Turn.
 - b. Calibrate Aggressiveness.
 - c. Calibrate Freeplay Offset.
4. Confirm the calibration settings.

Note: *You may need to run the EZ-Pilot calibration more than once to achieve optimal results.*

RUNNING THE EZ-PILOT SYSTEM

Engaging the system

To engage the EZ-Pilot system, you must have an A-B line defined, and the vehicle must be within the engage limits configured in *EZ-Pilot / Engage Options*.

To manually engage the EZ-Pilot system, press the Engage button on the main guidance screen or on the optional remote control.







Disengaging the system

Turning the steering wheel manually disengages the EZ-Pilot system. Trimble recommends that you check this setting before you start using the system in a new installation by engaging on a line and then turning the wheel until EZ-Pilot disengages. To adjust the amount of force required to disengage the system, change the Override Sensitivity in the *EZ-Pilot Setup* screen. The EZ-Pilot system automatically disengages when:

- The vehicle is outside the engage limits configured in the *Engage Options* screen.
- The system is paused.
- GPS positions are lost.
- The Minimum Fix Quality setting is set to a high accuracy correction method and the system receives low accuracy positions (for example, no corrections).
- To manually disengage the system, do one of the following:
 - Tap the Engage button on the main guidance screen or on the optional remote control.
 - Turn the steering wheel to override the electric motor.
 - Press the optional remote engage foot pedal.

When the system is not in use, hinge the motor away from the steering wheel and secure it with the lock pin.

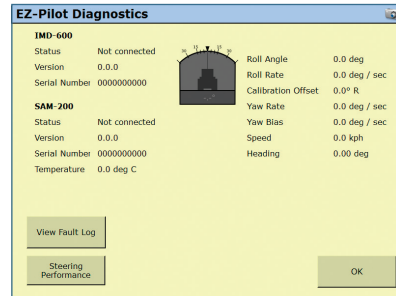
Engage status indicators

Engage status	Engage button color	Vehicle icon color
Ready to engage		
Engaged		
Cannot engage		

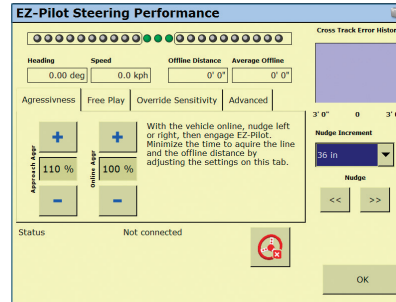
EZ-Pilot plugin diagnostics

The *EZ-Pilot Diagnostics* displays the SCM statistics and inertial information.

1. In the *Configuration* screen, select the EZ-Pilot plugin and then tap **Diagnostics**. The *EZ-Pilot Diagnostics* screen appears. This screen displays the roll and heading of the vehicle as well as the temperature of the steering control module:



2. Tap **Steering Perf**. The *EZ-Pilot Steering Performance* screen appears. This screen is designed for advanced users that understand how to adjust EZ-Pilot performance. If you do not know where to start, Trimble recommends that you adjust the steering parameters in order, stepping through the numbered tabs in sequence:



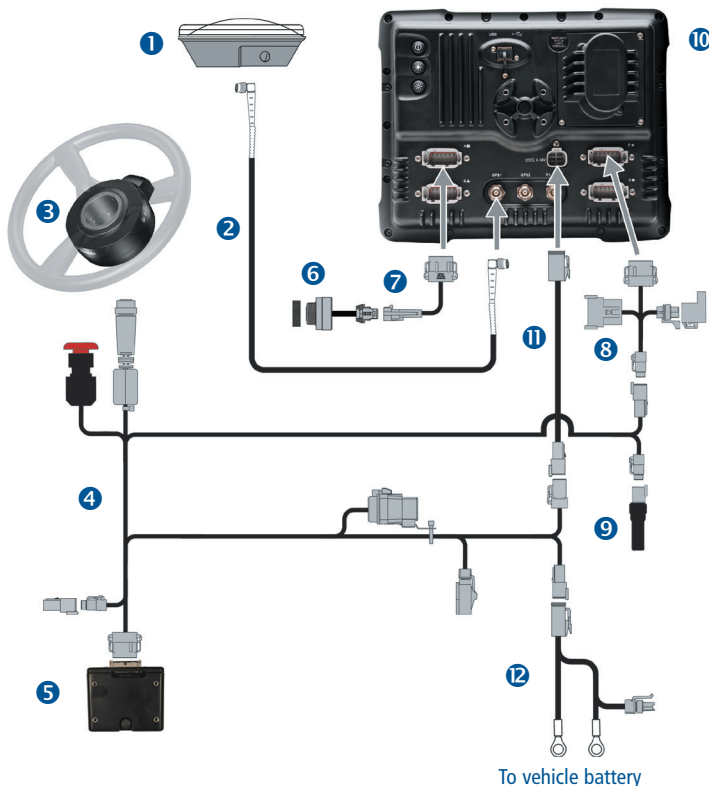
3. To adjust steering settings, tap the appropriate tab and then make the required changes.
4. Tap **OK**.

FAULTS

Fault code	Fault message	Possible cause	Solution
01	Excessive manual overrides	There have been a large number of manual overrides on one swath.	Decrease the <i>Override Sensitivity</i> value in the <i>Engage Options</i> screen
02	Hardware fault	There has been a general hardware fault.	Check all equipment and cables for damage.
03	Controller reset	There was a power brownout (a momentary loss of power).	Ensure that power cables are not damaged and that all connectors are tight Connect power directly to the battery.
		The EZ-Pilot controller has reset unexpectedly	Download the error log.
04	Communication error	The EZ-Pilot controller failed to receive CAN messages from the EZ-Guide® lightbar.	Check that the cable is not damaged and that connectors are tight.
05	Bridge fault	The manual override sensitivity is too low.	Increase the <i>Override Sensitivity</i> value in the <i>Engage Options</i> screen.
		The controller is faulty.	Contact your local EZ-Pilot system reseller for a repair or replacement.
07	Broken motor cable	The motor cable is broken.	Contact your local EZ-Pilot system reseller for a repair or replacement.
08	EEPROM fault	There was a memory error in the EZ-Pilot system controller.	Contact your local EZ-Pilot system reseller for a repair or replacement.
09	No motor connection	The motor or motor cable is not connected to the EZ-Steer system controller.	<ol style="list-style-type: none"> 1. Check that the motor cable is connected to the EZ-Pilot system motor. 2. Check that the motor cable is connected to the EZ-Pilot system controller. 3. Check that all cable connections are secure and that the cables are not damaged.
10	Unknown fault	There was an unknown fault in the EZ-Pilot system.	Contact your local EZ-Pilot system reseller for a repair or replacement
11	System fault	The lightbar failed to receive messages from the controller.	<ol style="list-style-type: none"> 1. Check that none of the cables are damaged. 2. Check that the connectors are tight.
12	Temperature too high	The controller temperature has exceeded the maximum internal operating temperature.	<ol style="list-style-type: none"> 1. Move the controller out of direct sunlight. 2. Ensure that the controller is well ventilated. 3. Turn on the air conditioning and direct the cool air to the controller.

CONNECTING THE SYSTEM

Once the EZ-Pilot steering system has been professionally installed, add the FmX integrated display as shown. For proper operation of the Sonalert, ensure that the EZ-Pilot system is connected to Port B of the FmX display.



No	Description
1	Antenna (P/N 77038-00)
2	Antenna cable (P/N 50449)
3	SAM-200 steering motor (P/N 83382-xx)
4	IMD-600 - SAM-200 to CAN power cable (P/N 76351)
5	IMD-600 (P/N 83390-xx)
6	Sonalert (P/N 43104)
7	Display to Sonalert cable (P/N 84668)
8	FmX to Field-IQ™ cable (P/N 75834)
9	CAN terminator (P/N 59783)
10	FmX integrated display (P/N 94100-xx)
11	Power cable (P/N 66694)
12	Basic power cable (P/N 67258)



P/N 93020-00-E06

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