

How To Guide: mojo3D/mojoXact SteerDirect - CAN Configuration

Description

This How To Guide explains how to configure a SteerDirect -CAN product on a mojo3D/mojoXact system. Hardware installation of the kit should be performed before configuration.

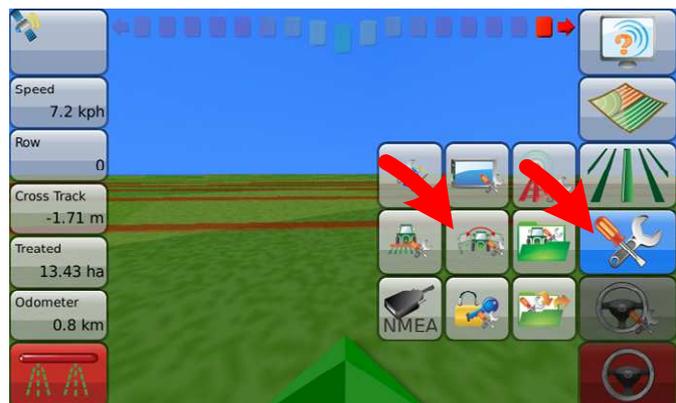
Configuration

When the Leica mojo3D starts up for the first time it will start a configuration sequence designed to guide you through the initial setup of the console.

The Leica mojo3D user manual explains the standard configuration settings, ensure that you select either the Twist or mojoXact as an attached device by selecting the corresponding icon.

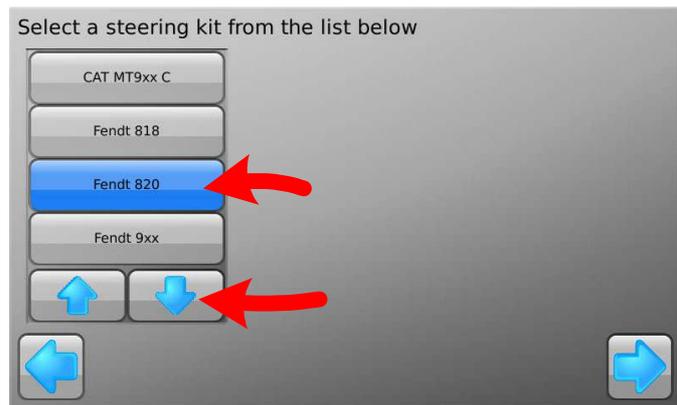


If not configuring the mojo3D and mojoXact for the first time select the vehicle wizard from the main menu.

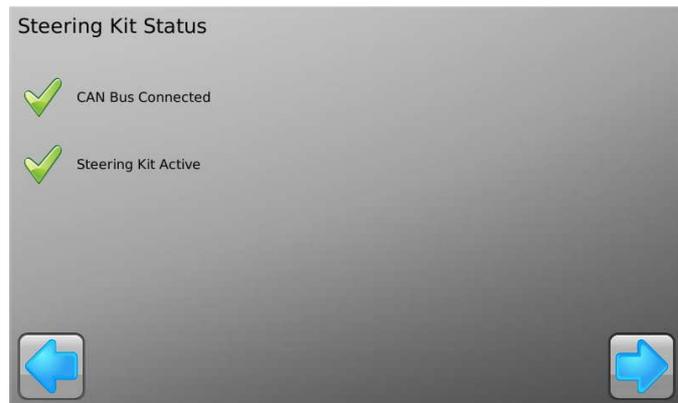


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Once you have reached the steering kit section of the setup sequence please select the vehicle you have installed the SteerDirect-CAN kit on. Press the next arrow to confirm the selection.



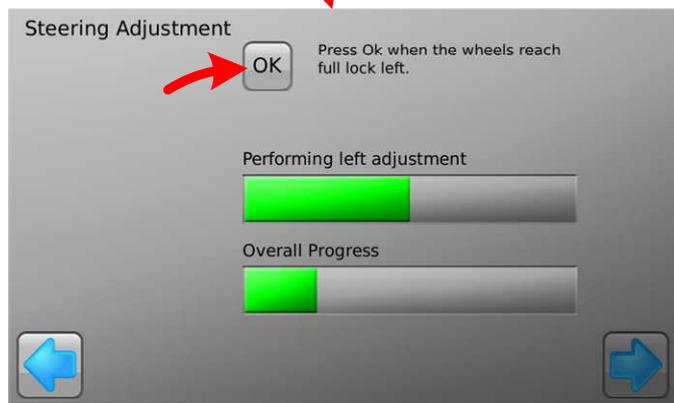
The communication status will be displayed. Please ensure that the CAN Bus is connected and the Steering Kit is Active. If the status is not active verify that the correct vehicle type was selected and the cable installation is complete. If the Steering Kit status is still not active, the Leica mojoXact cannot communicate with the steering kit and the vehicle may not be auto-steer ready.



Proceed through the remaining setup wizard stages following the prompts on screen and the instructions in the user manual.

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A steering adjustment may be required if so follow the instructions on the screen. The steering adjustment may be skipped and redone at a later time if the vehicle is not ready.

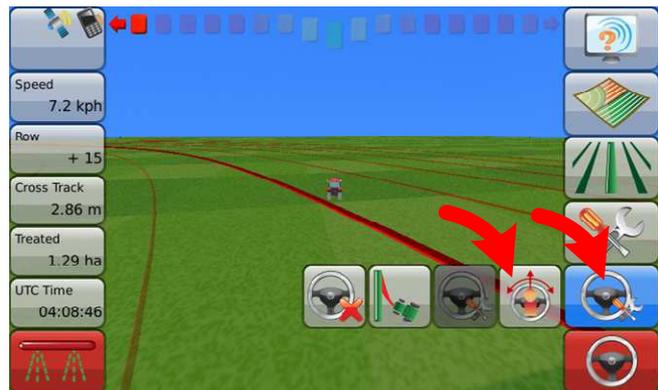


Once the wizard is complete the mojoXact will restart.

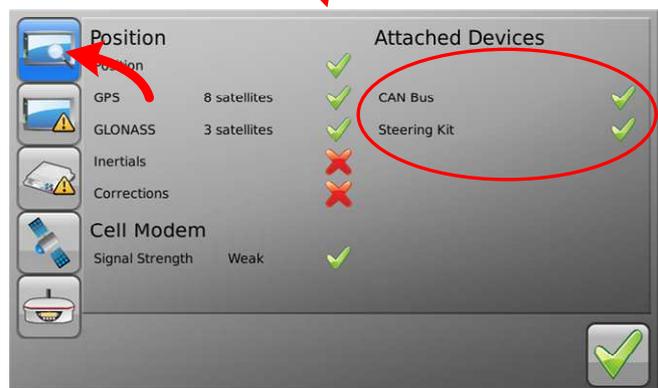
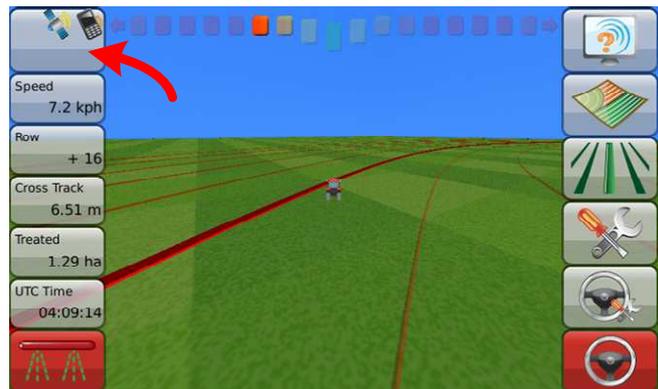
If a steering adjustment is required and has not been done an error will appear. Press the tick icon to perform the adjustment or the cross to perform the adjustment later.



Steering adjustment can also be performed at any time from the main screen.



To check the status of the steering kit at any time select the status icon in the top left of the main screen.



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PVED Configuration

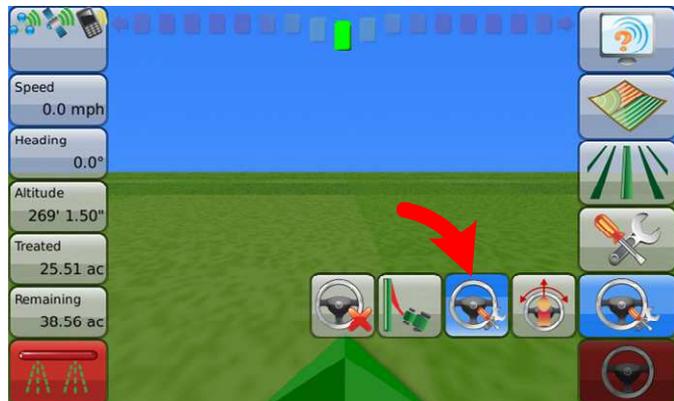
Some machines utilise PVED valves for steering and extra configuration may be required for optimal performance. This section does not apply to machines that don't have PVED valves.

PVED machines are:

- Gleaner Combine Harvesters
- Valtra T Series
- Challenger MT6xxC
- Agco DT2xxB
- Challenger MT9xxC
- Challenger MT9xxB
- Challenger MT6xxB
- Agco DTxxA
- Massey 74xx
- Massey 84xx
- Massey 86xx

To get the best possible steering performance from the controller please update the settings to the recommended ones below. The following updates the settings on the PVED controller itself and not the mojo3D or mojoXact.

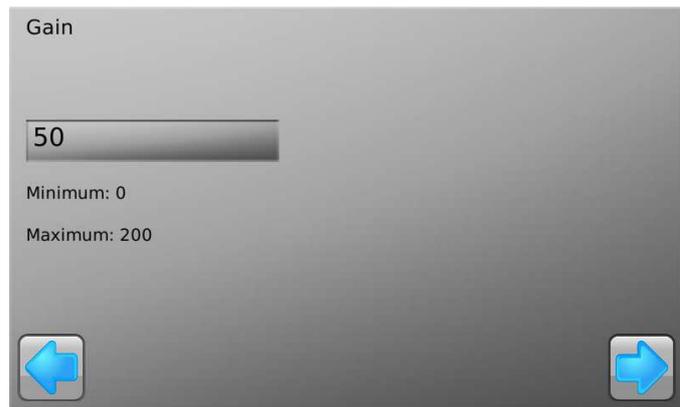
To access the PVED settings via the mojo3D console, select the Steering Settings wizard icon from the steering setup menu.



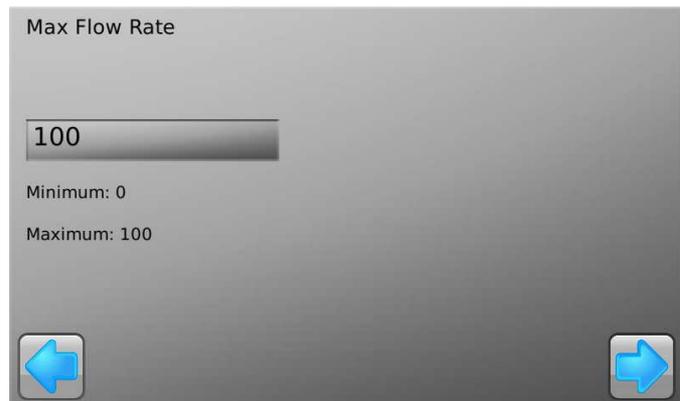
The following settings are available in the Vehicle Settings Steer Kit Wizard; Gain, Maximum Flow, Deadband and Override Check Timeout.

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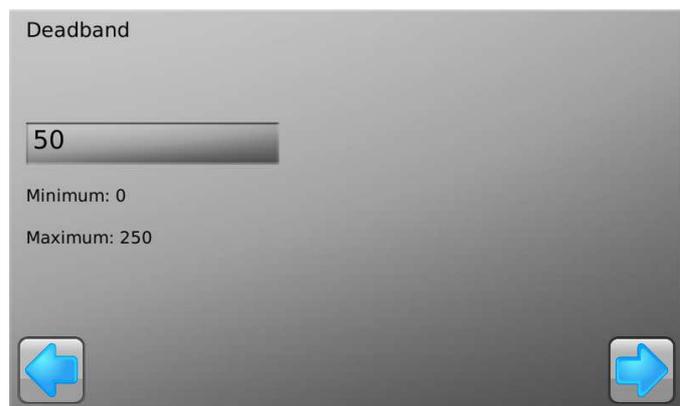
The gain adjusts how quickly the desired curvature is achieved. A gain value that is too low may lead to the vehicle oscillating around the line at higher speeds and a value that is too high may result in the wheels being too twitchy.



The maximum flow rate affects the speed of the steering actuator to move towards the desired steering curvature.



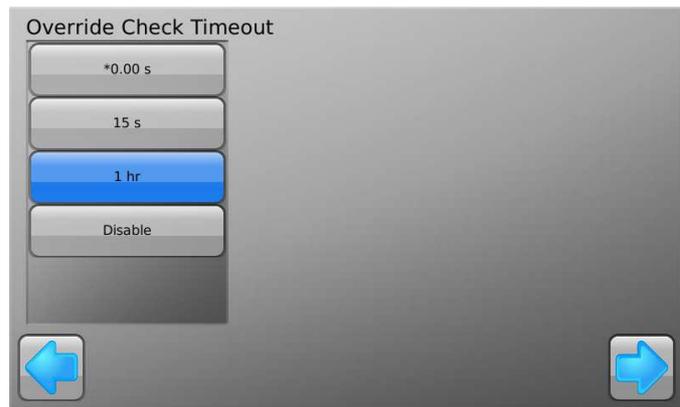
The deadband controls the band around the desired curvature where the controller will stop steering. A value that is too low may lead to the vehicle oscillating around the line at higher speeds and a value that is too high may result in the wheels being too twitchy. It is recommended that this value be left at the default.



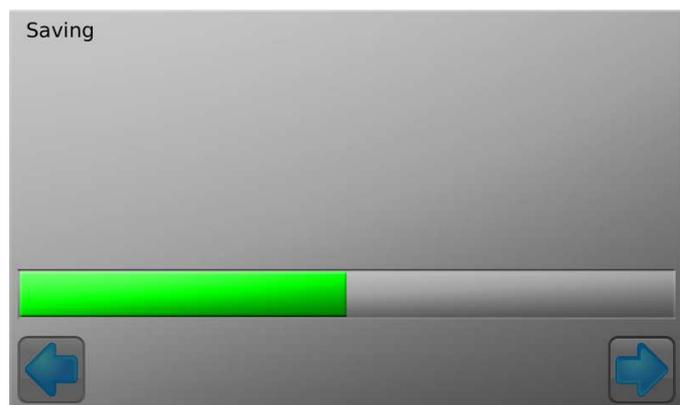
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The PVED has a built in test to ensure the override sensor it working correctly. The override check timeout sets the amount of time that the wheel must move a certain amount in. If the value is too low the timeout will occur often and the user will be unable to engage steering before moving the wheel. It is recommended that the value be set to 1 hour, this will ensure that the sensor is tested on start up of the machine and the user will always be able to engage steering.



Once the override check timeout is set, the settings will be saved to the PVED controller. If the saving process fails the settings have not been saved to the PVED.



Once the saving is complete the user must cycle the power on the controller for the settings to take effect.

Turn the power off to the controller by disengaging the roading switch. The roading switch will be found inside the cab of the machine.

Wait until the CAN steering fault error is displayed. Then switch the roading switch back on to restore CAN communications. The updated settings will have now taken effect.

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