Ag Leader®

SteerCommand Z2/SteadySteer

Operators Manual

PN 2006624—ENG REV. D

SteerCommand Z2

IMPORTANT INFORMATION

TECHNICAL SUPPORT

Contact your Ag Leader Dealer or Ag Leader Technology for technical support.

Telephone: (515) 735-7000

Email: support@agleader.com

LEGAL DISCLAIMER

Read and follow ALL instructions in this manual carefully before installing or operating system.

Take careful note of Safety Information section of this manual and additional safety messages provided throughout this and any other supplemental manuals provided.

Manufacturer disclaims any liability for damage or injury that results from failure to follow instructions, cautions, and warnings set forth herein.

1. There is NO obstacle avoidance system included with manufacturer's product. A person must always be present in operator's seat when system is in use to avoid obstacles such as people, animals, trees, ditches, buildings, etc. and to control vehicle to avoid them if necessary.
2. System does NOT control speed of vehicle. Operator must always adjust speed of vehicle manually so that it is operated at a safe speed that will not cause vehicle to roll over or go out of control.
3. System will take over control of vehicle's steering system when system is activated during testing, calibration, tuning, and automatic steering operations. Vehicle's steering axles, tracks, articulation point, or wheels may move unpredictably when activated. Prior to starting vehicle and/or activating system, verify that all people and obstacles are clear of vehicle to prevent death, injury, or damage to property.
4. Use of system is NOT permitted while vehicle is on public roads or in public areas. Verify that system is powered OFF before driving on roads or in public areas.

SAFETY INFORMATION

WARNING ALERTS

System installer and manufacturer disclaim any responsibility for damage or physical harm caused by failure to adhere to following safety requirements:

- As operator of vehicle, you are responsible for its safe operation.
- System is not designed to replace vehicle's operator.

NOTE!: After installation of system, verify that all screws, bolts, nuts, and cable connections are tight. Verify that all cables and hoses have been secured to prevent them from being damaged. If any hydraulic lines or fittings were loosened during installation, verify that they have been reattached and tightened to prevent oil leaks

WARNING: To understand potential hazards associated with operation of a autosteer equipped vehicle, read provided documentation prior to installing or operating system on a vehicle.

WARNING: To prevent accidental death or injury from being run over by vehicle, never leave vehicle's operator seat with system engaged.

WARNING: To prevent accidental death or injury from being run over by vehicle verify that area around vehicle is clear of people and obstacles before startup, calibration, tuning, or use of system.

WARNING: To prevent accidental engagement of system and loss of vehicle control, shut down system while driving on roads. Never drive on roads or in public areas with system powered up.

WARNING: Verify that you are in a stable position on vehicle's platform or stairs when installing or removing antenna assembly on top of cab so you do not fall. If vehicle does not provide a safe platform, use a ladder to safely access vehicle's roof.

WARNING: To avoid electrical shock hazards, remove antennas from vehicle before driving under low structures or low electrical power lines.

WARNING: High-Pressure Fluid Hazard - If installation requires working on hydraulic system on vehicle, read and understand hydraulic sections of vehicle manufacturer's operators manual before starting installation. Wear hand and eye protection while performing hydraulic system maintenance. Relieve hydraulic system pressure before servicing hydraulic system.

WARNING: If vehicle has a Wheel Angle Senor as part of installation, always shut off vehicle when working around Wheel Angle Sensor while installing, checking, and adjusting Wheel Angle Sensor and rod lengths. Steering mechanism could move suddenly and cause severe injury or death.

System kits include a Steer Control Module (SCM), SCM Power I/O Cable, and User's Manual

System

System is a high precision vehicle interface controller that provides additional functions and features to the display. System is also capable of taking guidance information from the display and the interfacing with a vehicle to tell vehicle where to steer and provide AutoSteer functionality to the display.

This Operator's Manual provides information on how to setup, configure, and manage various settings on the system itself. Refer to this manual for instructions that pertain to system. For information about setting up fields, farms, guidance patterns, and other display related functions, please refer to the Display User Guide for more information.

System can be installed on most agricultural vehicle makes and models. This manual provides basic information on how components are organized and installed. Refer to Installation Manual that comes with vehicle installation kit for more details on complete installation of the system. This manual provides information about navigating through and using screens on the system.

The system is designed to work with multiple display options. Refer to Display User Guide or AutoSteer dealer for specific instructions on how to connect system components to display. Also refer to Display User Guide for information on how to navigate through and operate various screens used on the display.

Installation

This section provides an overview of what is required to complete a system installation. To aid in clarifying complete installation, this section also includes parts and kits that are not included with this vehicle installation kit. A system installation can be broken down into five sub-categories that need to be ordered to complete installation. Four sub-categories are mandatory and one is a list of accessories that add additional features and capabilities.

1. Display Kit
2. Steering Control Module Kit
3. Vehicle Installation Kit
4. Accessory Kit

Display Kit

System is compatible with multiple display options. Displays are ordered as a separate component and include their own installation and operator's instructions. Display Operator's Manual will show how display and display harnesses are installed on a vehicle and how they are connected to system harnesses.

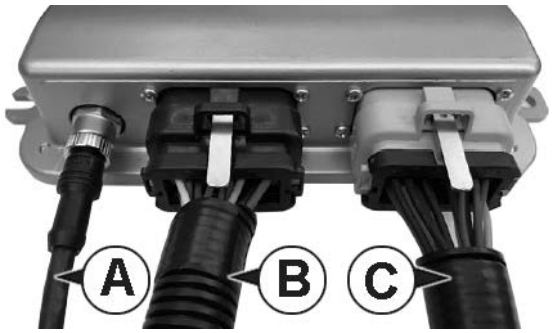
ETHERNET TO DISPLAY—M12 connector that is plugged into Ethernet port on display to provide communications between display and Control Unit.

POWER ACTIVATION—Connected to SCM harness that provides power for the system to power up. When this signal is turned off, system will power down.

UNSWITCHED POWER—Power source that provides 12 volts of unswitched DC power to system. Power source should not be connected to a power supply that is connected to vehicle's ignition. More information can be found in the Display Operator's Manual.

Steering Control Module Kit

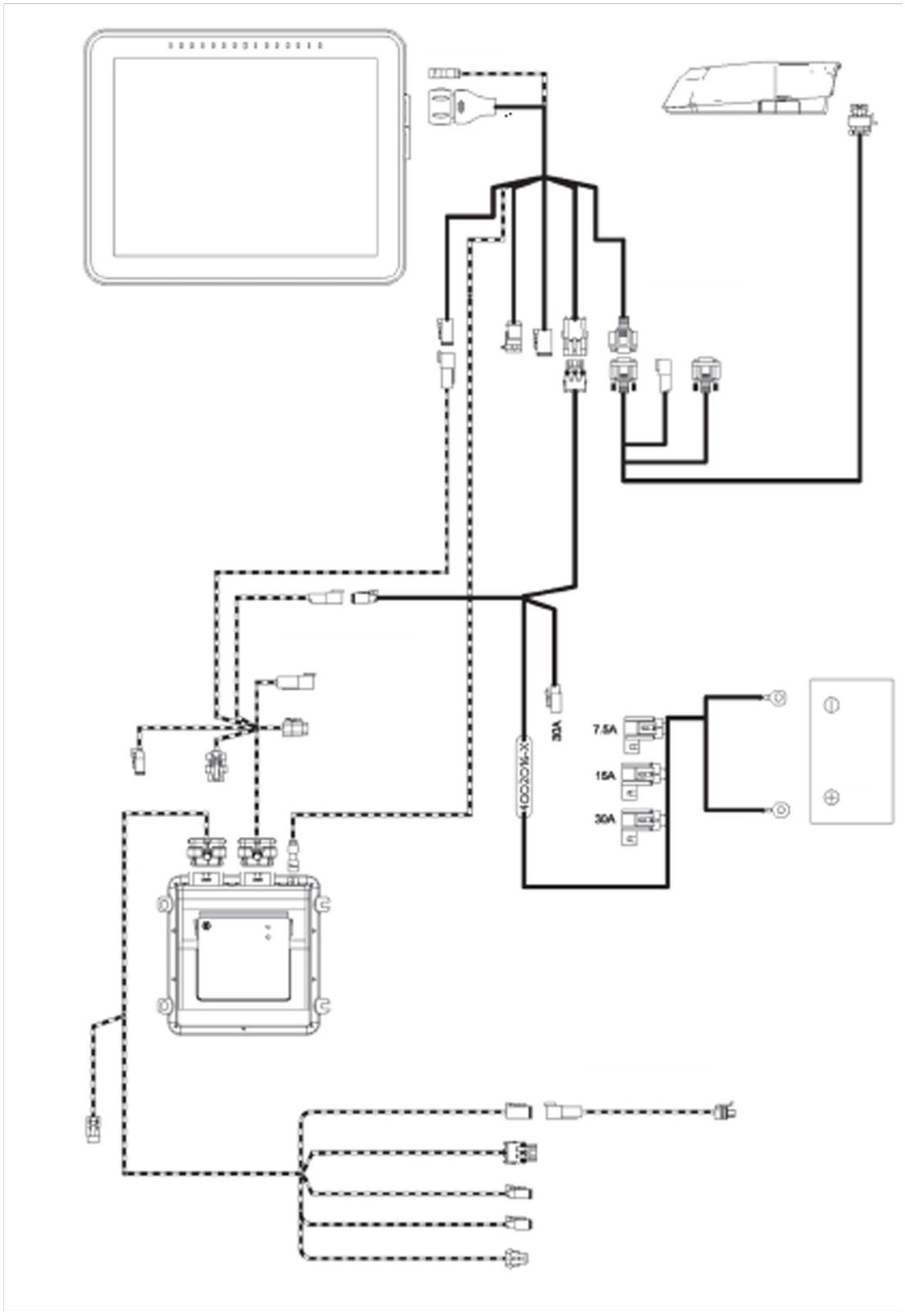
The SCM communicates with the display via Ethernet cable. This cable is connected directly from the SCM to the display.



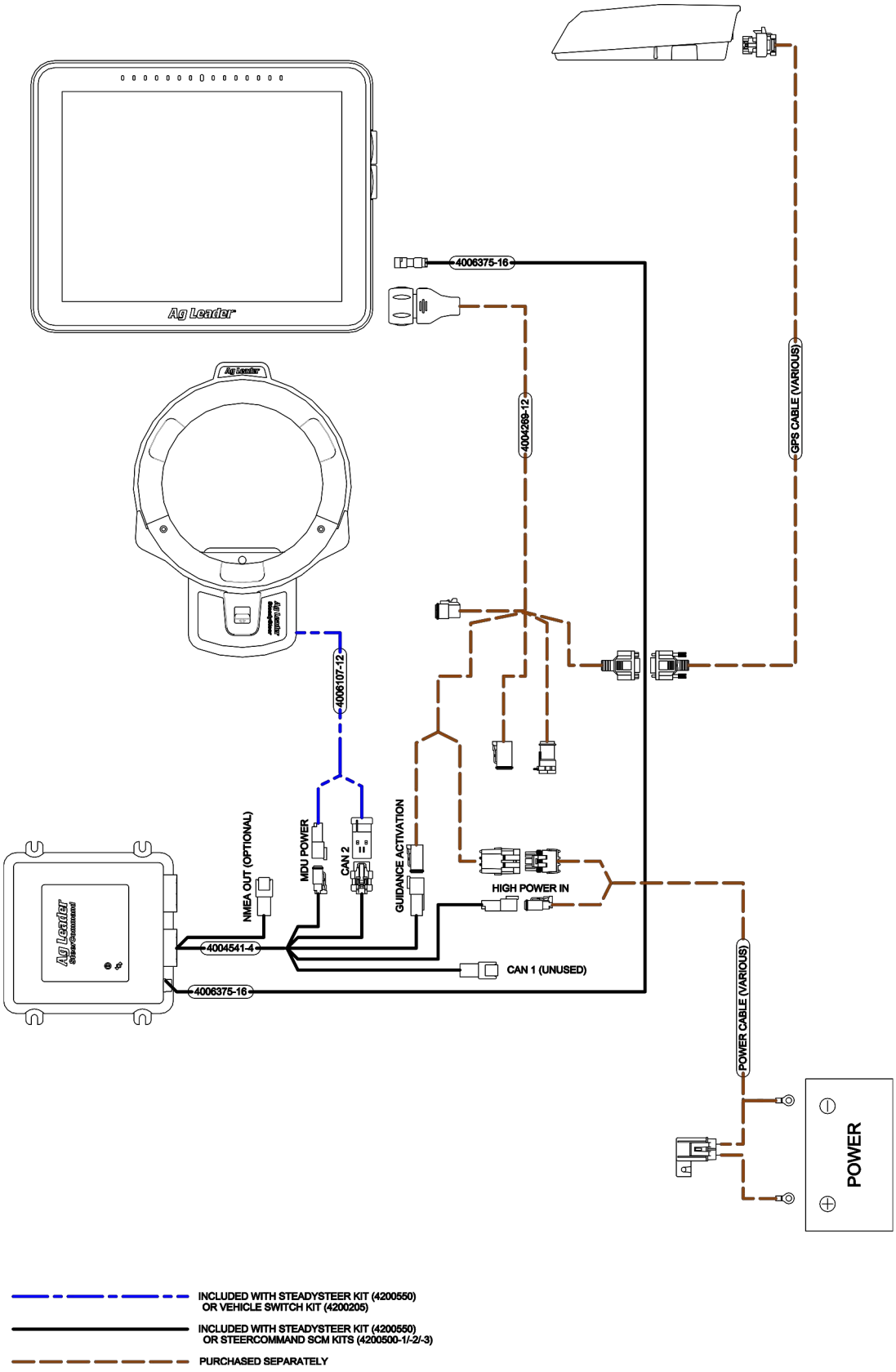
A. Ethernet connection

B. SCM Power I/O connection

C. Vehicle Interface Cable (optional based on install)


7.5A
15A
30A
30A

SteadySteer



NOTE!: System kits include a Steering Control Module (SCM), Main Harness, and User's Manual.

NOTE!: Refer to your dealer for exact part numbers.

Vehicle Installation Kit

System is designed to be compatible with many makes and models of vehicles available in today's agricultural market. The system is brand neutral and can be installed on any manufacturer's vehicle including AGCO, Ag Chem, Case, Challenger, Fendt, John Deere, New Holland, Massey Ferguson, and many others. The system is also capable of being installed on a variety of platforms including articulated tractors, combines, MFWD and standard front axle tractors, floaters, sprayers, swathers, track tractors, and others. The same user interface can be used on all vehicles, regardless of make or model, making it easy for drivers to become familiar with controls even if the system is installed on multiple vehicle types. To make installations simple and reliable, many vehicle-specific installation kits have been designed to fit on each individual make and model. These kits are available for vehicles that come from factory with a factory installed steering system (ex. Steer Ready, CAN Bus, or ISO Ready) as well as options for those vehicles that need a complete steering kit installed. Even if there is not a vehicle-specific kit available for vehicle, properly trained installers can use a generic installation kit to connect system to vehicle. Specific instructions for vehicle installation kits are provided with installation kits. Refer to those instructions when installing vehicle kit.

NOTE!: List of supported vehicle-specific kits is always being expanded. Contact your Ag Leader dealer for latest list of vehicle-specific installation kits to see if vehicle being installed on has a released kit.

Accessory Kit

Refer to installation manual for any Accessories available for Steering Controller

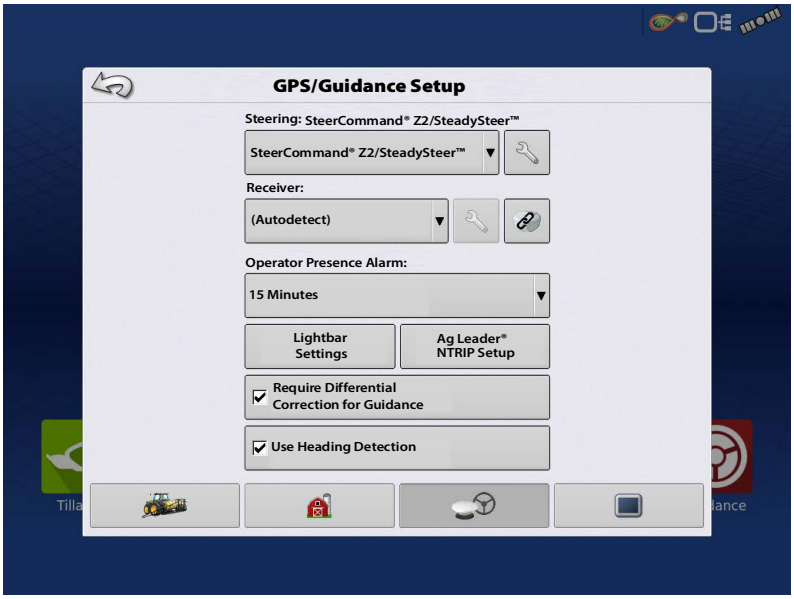
Transferring System from Vehicle to Vehicle

System is designed to be easily transferred from vehicle to vehicle. Specific vehicle kits are available that can be installed on each vehicle so that only display, GNSS Smart Antenna, and Control Unit needs to be transferred from vehicle to vehicle. Each vehicle that system is to be transferred to should have display harness, power harnesses, and vehicle harnesses already preinstalled. Contact your Ag Leader dealer for information about obtaining and installing additional vehicle specific kits. Use the vehicle kit instructions to transfer system from one vehicle to another.

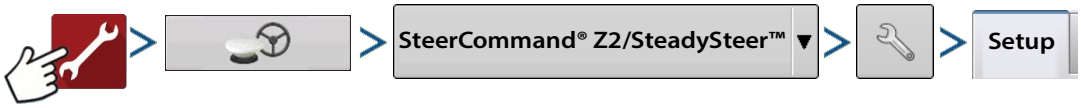
NOTE!: Refer to manual for customer supplied GPS receiver and antenna for instruction on moving them.

Accessing the Autosteer Setup Screen

1. Under the Steering drop-down menu, select SteerCommand Z2/SteadySteer Steering.
2. The Liability Notice appears. Press the green check mark button to accept.
3. Press the wrench button next to the steering system to access the steering menu.



SteerCommand Z2 Setup Tab



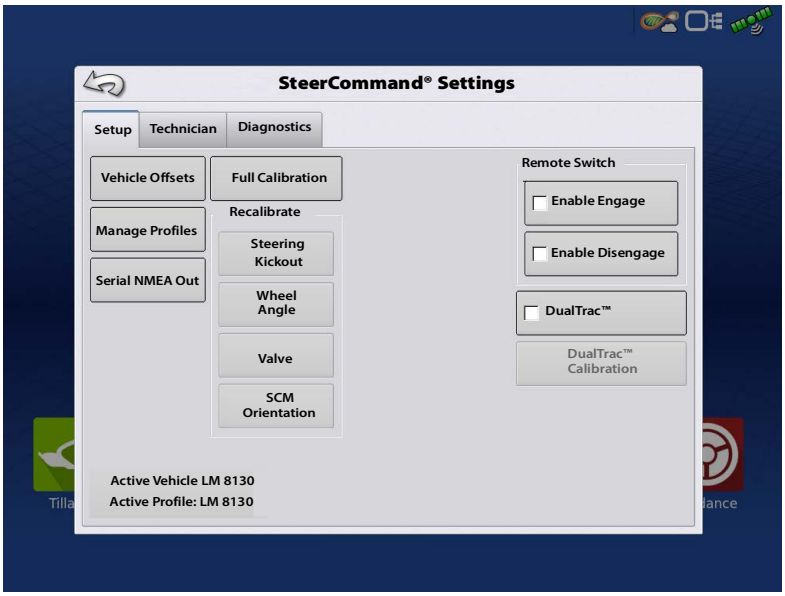
Vehicle Offsets – Edit vehicle offsets and SCM location (antenna, hitch, and wheelbase). Also allows sending SCM location.

Manage Profiles – View and manage steering profiles on the SCM. See Manage Profiles on page 8.

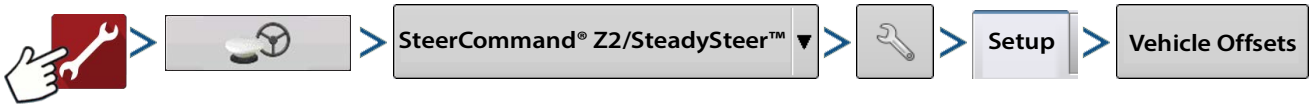
Serial NMEA Out —Export desired baud rate and NMEA messages from SCM. See "Serial NMEA Out" on page 9.

Full Calibration – Begin complete calibration process. See SteadySteer Full Calibration on page 18 or Z2 Auto Steer Full Calibration on page 9.

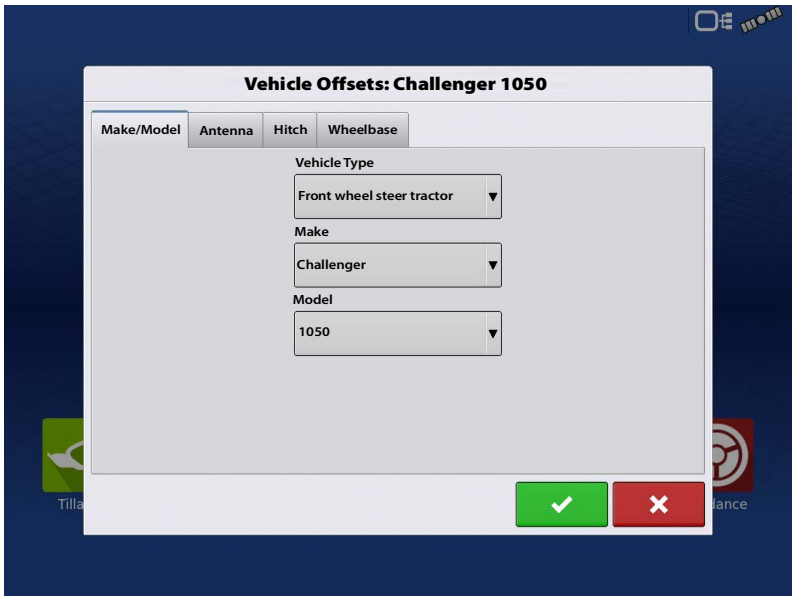
Remote Switch – Enable remote engage/disengage using an external switch, such as a foot pedal or machine AutoSteer engage momentary switch. Must be enabled when using CAN/ISO profiles.



Vehicle Offsets



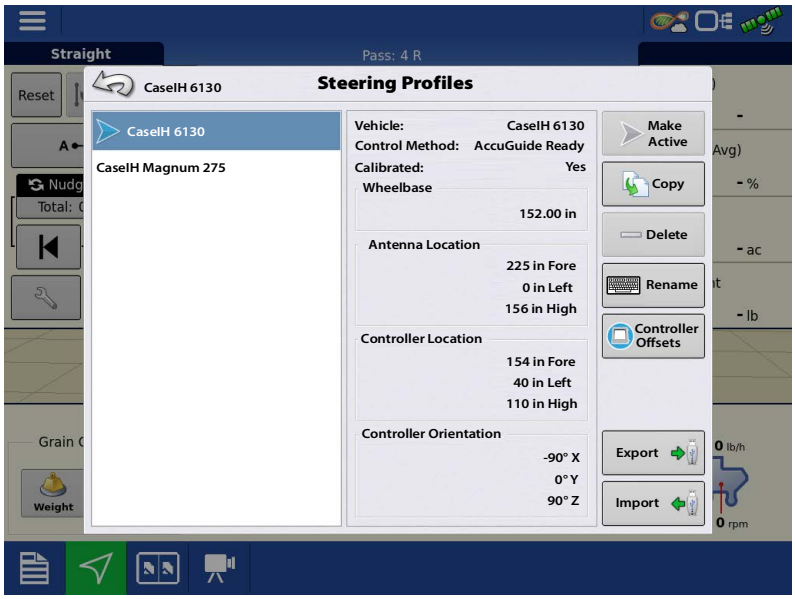
Location used to adjust antenna, hitch, and wheelbase offsets based on the steering profile being used. Changing these values will also change in the configuration.



Manage Profiles

- View, edit, delete, and copy steering profiles saved to the SCM.

Steering Profiles – All steering profiles on the SCM populate within the left scroll list. To view vehicle profile information (not steering profile information), highlight the desired profile blue. Active profile is shown with a blue arrow.



Make Active – Select which profile to make active and use. Active profile is indicated via the blue arrow. It sets the current selected profile to active and applies it to the vehicle currently selected on the run screen.

Copy – Make copy of an active or non-active profile. This copies all settings of the existing profile.

- If different operators prefer different tuning settings, they can copy profiles, adjust each to their liking, then switch between, based on who is operating the machine.
- Multiple vehicles being created for the same physical vehicle such as self-propelled sprayers with different boom widths.
- Once copied, profiles are completely separate. The calibrations copy over on creation, but will have to be done for each profile separately after that.

Delete – Delete a SCM steering profile. Cannot be recovered once deleted.

Rename – Rename a profile to distinguish from others.

Controller Offsets – Allows user to edit the SCM install measurements from centerline of the machine.

Export – Export the a selected steering profile (.agsteer).

Import – Import an .agsteer file for a steering profile.

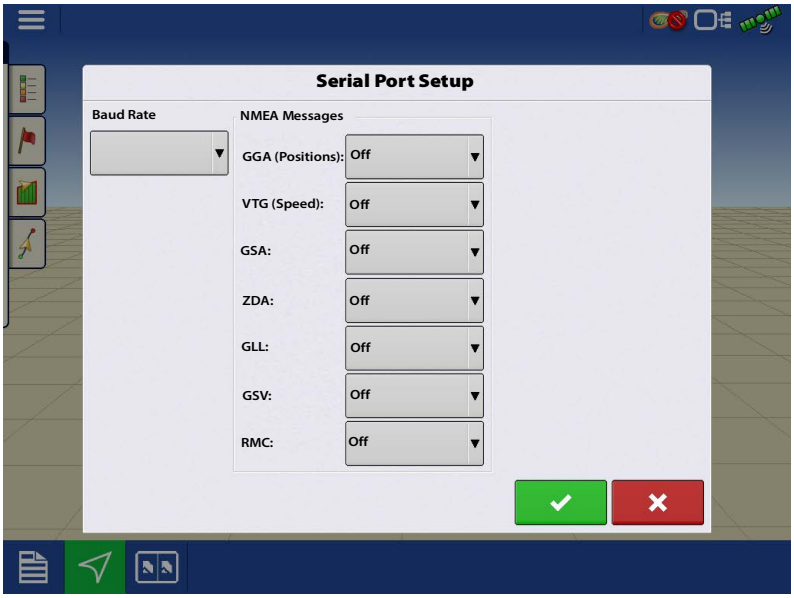
Serial NMEA Out

Serial NMEA Out

Serial port setup allows user to export desired baud rate and NMEA messages from SCM.

NMEA messages are

- Terrain corrected (for the "ground" directly under the antenna)
- Saved independently per profile
- New profile default setting is all NEMA messages off
- NMEA out settings are saved per steering profile. Once the vehicle is calibrated, NMEA out can be used.



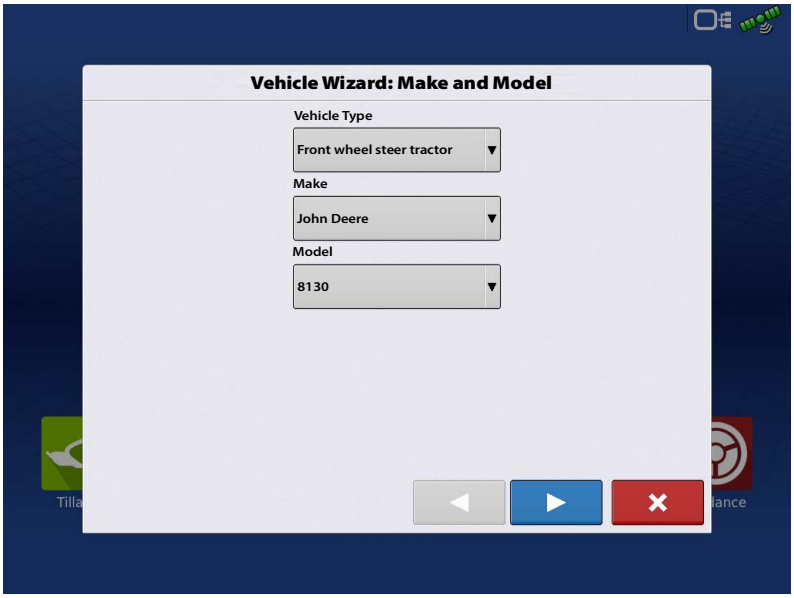
Z2 Auto Steer Full Calibration

Select a Vehicle Type

- Unspecified - not a valid type to complete step
- Front wheel steer tractor
- Articulated tractor
- Track tractor
- Combine
- Sprayer

  List may contain other vehicle types as well.

  If the desired vehicle is not found, select a similar machine or generic.



Once selected, the make and model of the vehicle can be selected.

Press  to continue.

Select Control Method

- SteadySteer

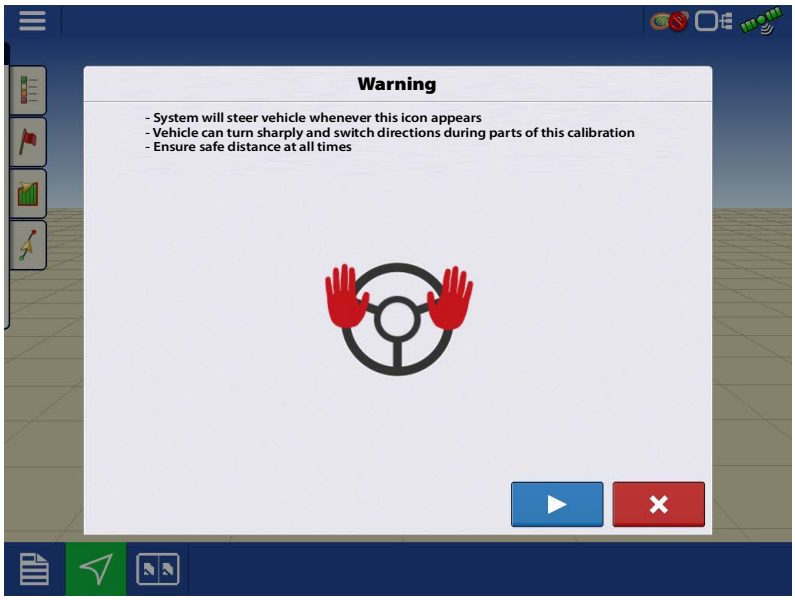
- Integrated
  - Standard Hydraulic
  - CAN
  - Vehicle Specific Control Methods

Warning message appears

Notifies you of what will happen during calibration process.

This icon indicates to have the hands off the steering wheel as the steering system will automatically steer during the calibration step.

Press  to continue.

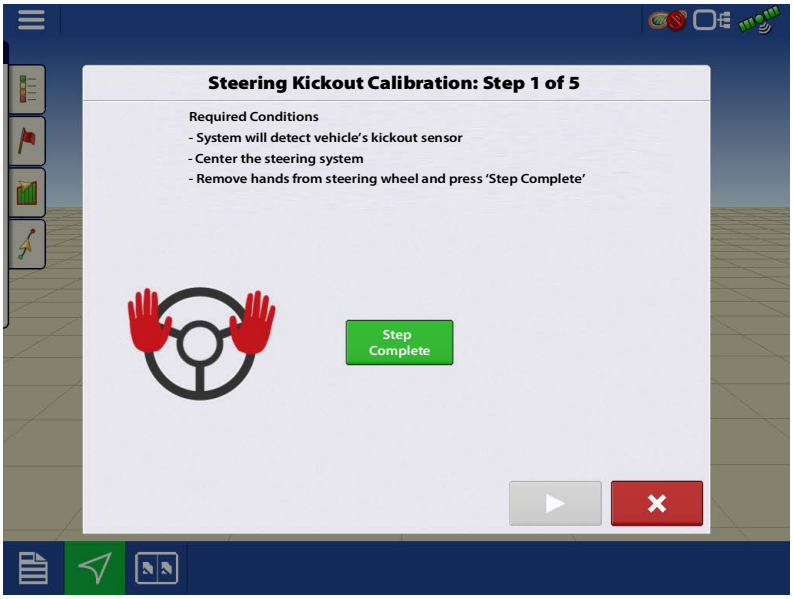


Steering Kickout Calibration

1. System finding the reading when there is no movement of the wheel.

System DOES NOT turn the sheering wheel. System is get a baseline of the steering wheel not moving.

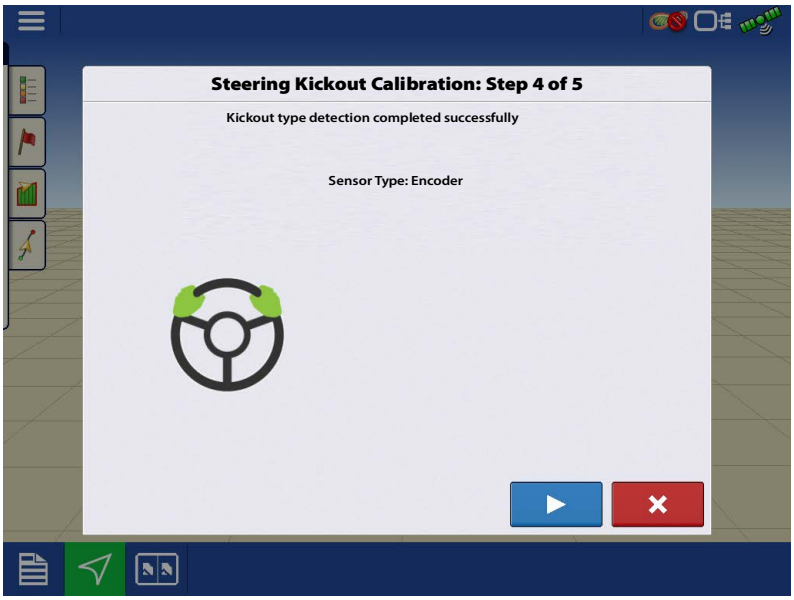
2. The next step, not shown, system asks the operator to move the wheel.



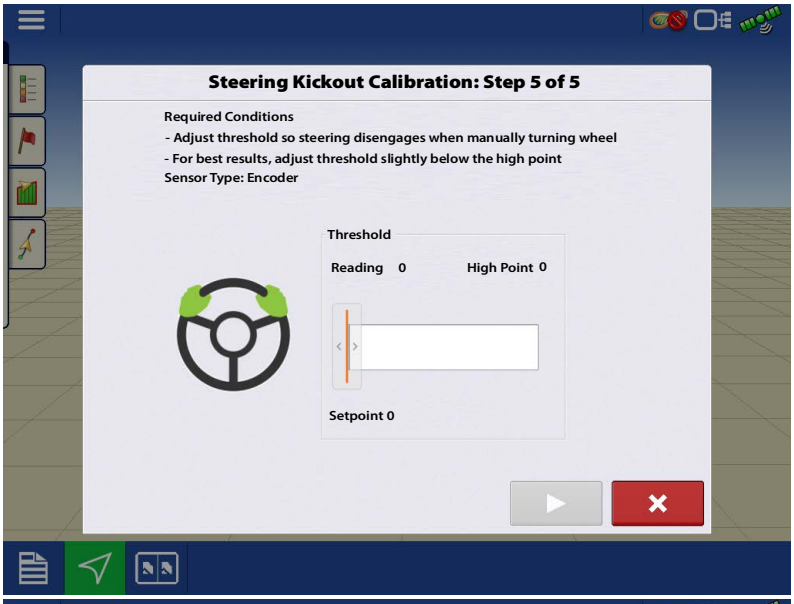
3. Kickout sensor detection completed

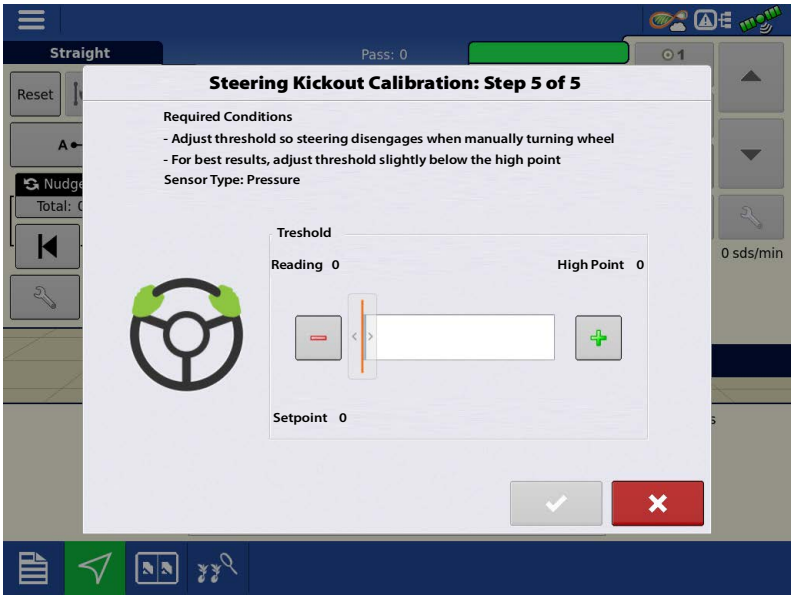
Indicates to operator to manually drive the vehicle for calibration step.

Press  to continue.



Adjusting Kickout - Setting the Threshold





Adjust the slider to set the kick out.

Turn the steering wheel, there will be a sound when the system kicks out.

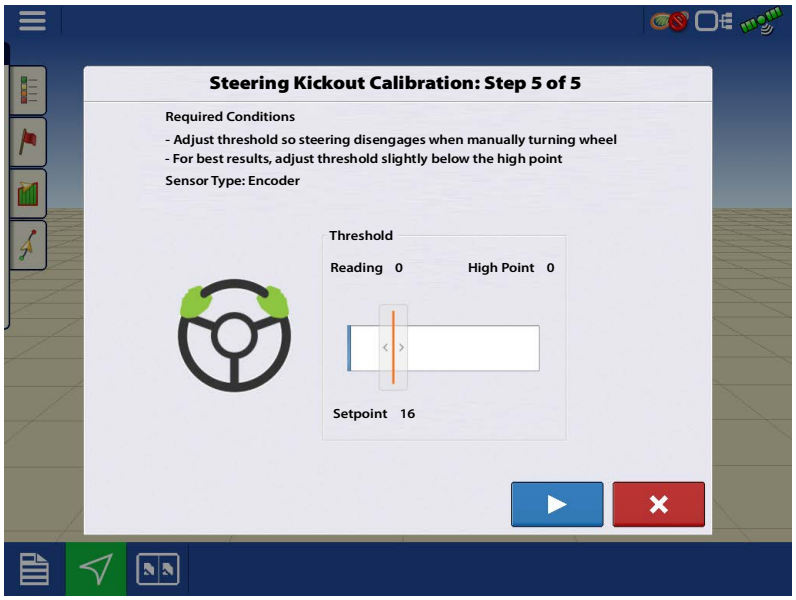
Manually turn the steering wheel and set slightly below the high point.

When the acceptable threshold is set, press the next arrow.

NOTE!: Can be adjusted later.

Press  to continue.

Kickout sensitivity is calibrated.



Wheel Angle Calibration

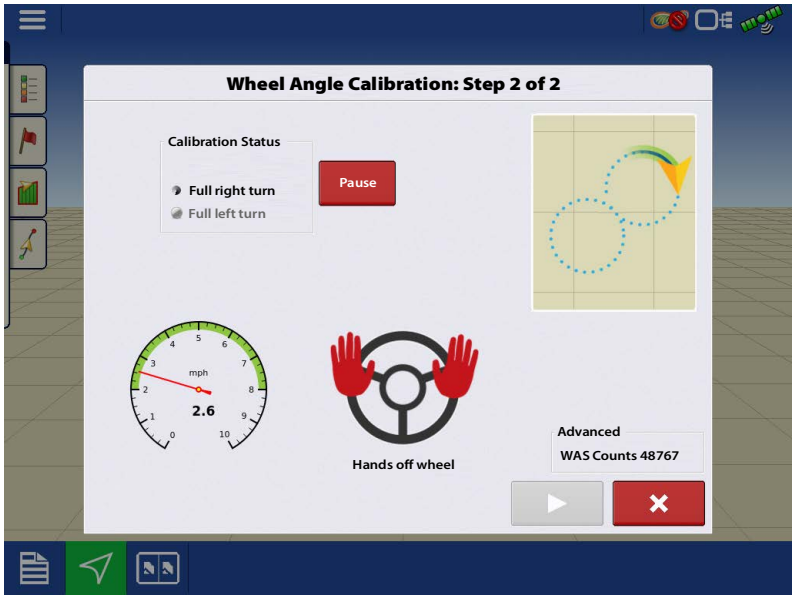
Not required on Track Vehicles

1. Manually drive in straight line within the speed threshold.

The speed range in green must be maintained for SCM calibration. Going above or below will cause calibration to stop/pause. Operator will need to resume after machine is back within the speed range, to continue calibration.

Auto calibration will take control of steering.

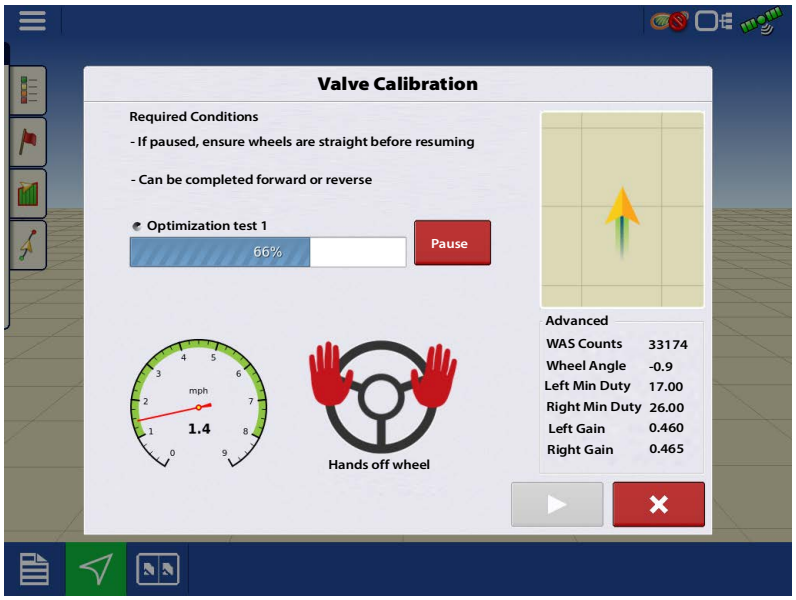
- System will turn full right and full left to determine the minimum turn radius.



Valve calibration

Not performed on ISO machines

- Auto calibration will take control of machine steering. This step can be performed while driving forward or while in reverse. Switching between the two will require resuming the calibration.
- System controls the valve through a series of actions to learn valve characteristics and behaviors for best steering performance.



Wheel Angle Calibration Verification

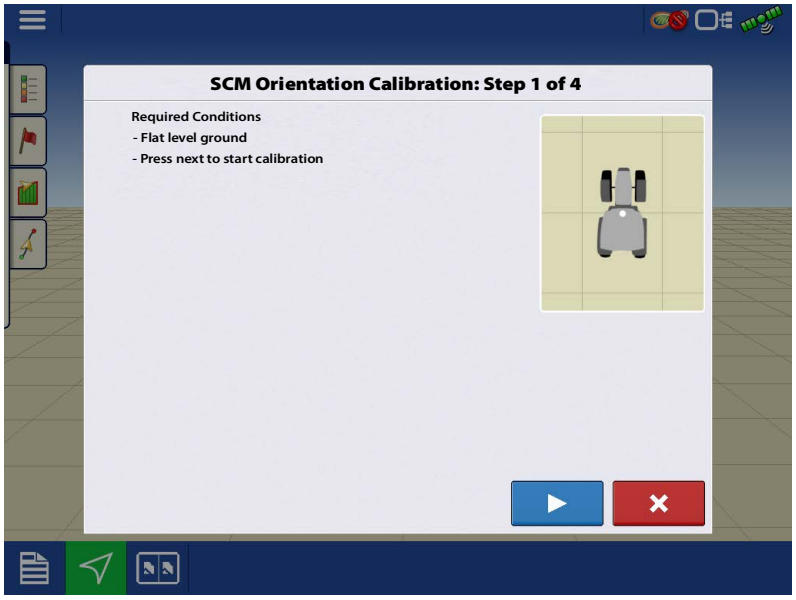
- This calibration ensures that linkage geometry and orientation do not effect steering performance.

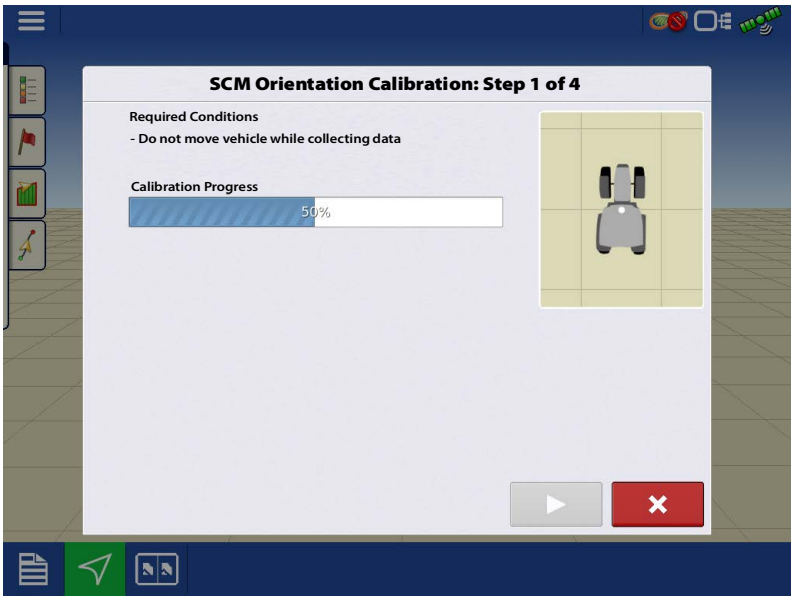
SCM Orientation

- Determines the SCM angles compared to the machine. Careful positioning of vehicle is important for system to determine calibration values for optimal roll corrected steering performance.

1. Park vehicle on flat ground.

Press  to continue.

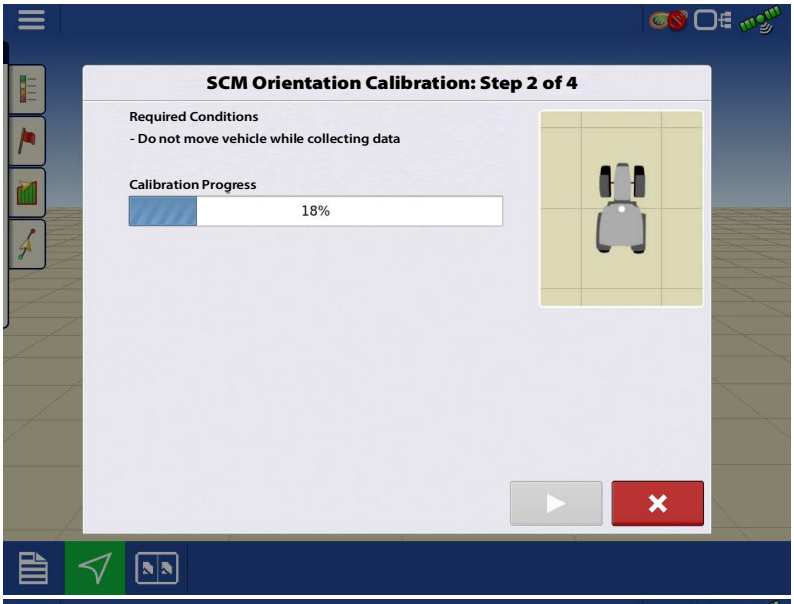




Turn vehicle around so it is parked in the same spot but facing opposite direction

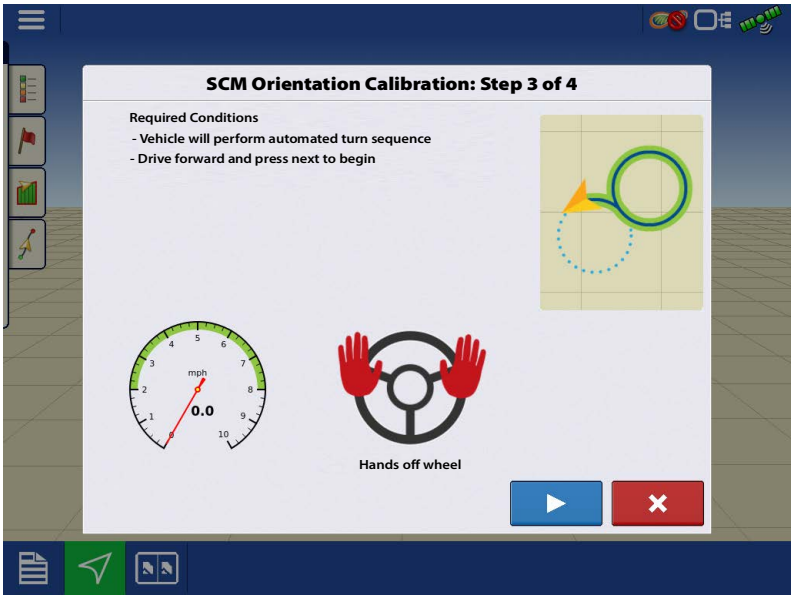
- Position front wheels where back wheels were
- Right side of vehicle should be positioned where left side of vehicle was

Correct positioning of vehicle is important so system can determine correct calibration values.



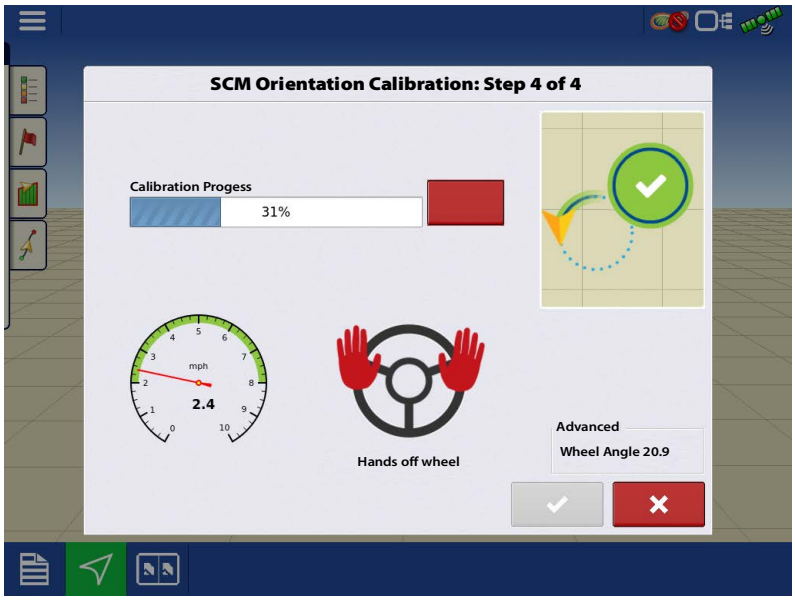
2. SCM will take control of the machine steering and perform automated turn sequence to determine angle in which SCM was installed.

Press  to continue.



Second circle can be performed using the same area as the first circle

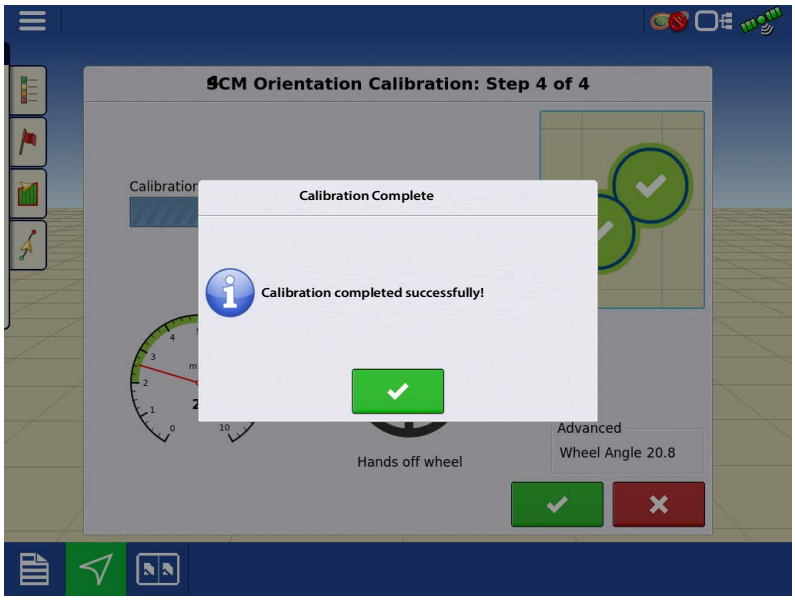
In this step, the system steers the vehicle in two complete circles, one clockwise and one counter-clockwise. To reduce the space required, pause after the clockwise circle is complete, reposition vehicle then resume to allow the counter clockwise circle to be completed in same spot.



Calibration Complete

- If steering performance is not desirable, adjust tuning parameters in Tuning on page 29.
- If steering performance is still not desirable after tuning adjustments, redo full calibration.

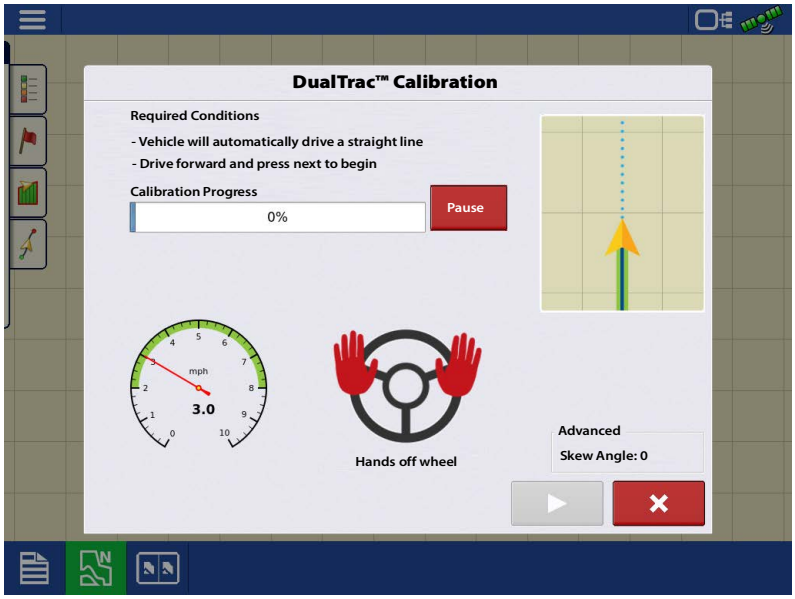
Press  to complete calibration.



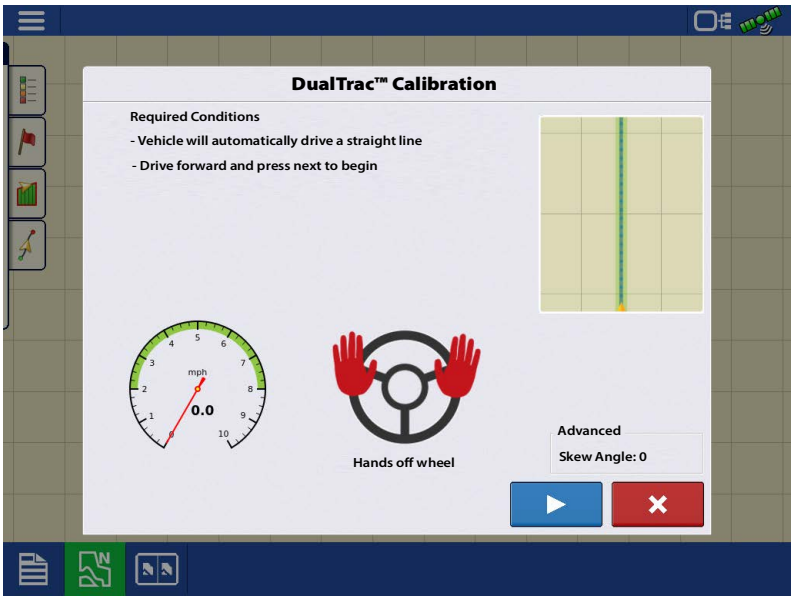
DualTrac Calibration

DualTrac can be calibrated during the Full Calibration or after a calibration has been completed.

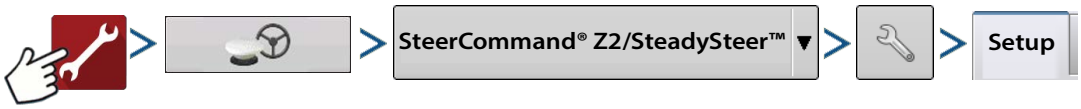
This calibration measures the angle between the DualTrac antennas and the vehicle.



Press  to continue.



SteadySteer Setup Tab



Setup tab when control method set to SteadySteer.

Vehicle Offsets – Edit vehicle offsets and SCM location (antenna, hitch, and wheelbase). Also allows sending SCM location.

Manage Profiles – View and manage steering profiles on the SCM. See Manage Profiles on page 8.

Serial NMEA Out —Export desired baud rate and NMEA messages from SCM. See "Serial NMEA Out" on page 9.

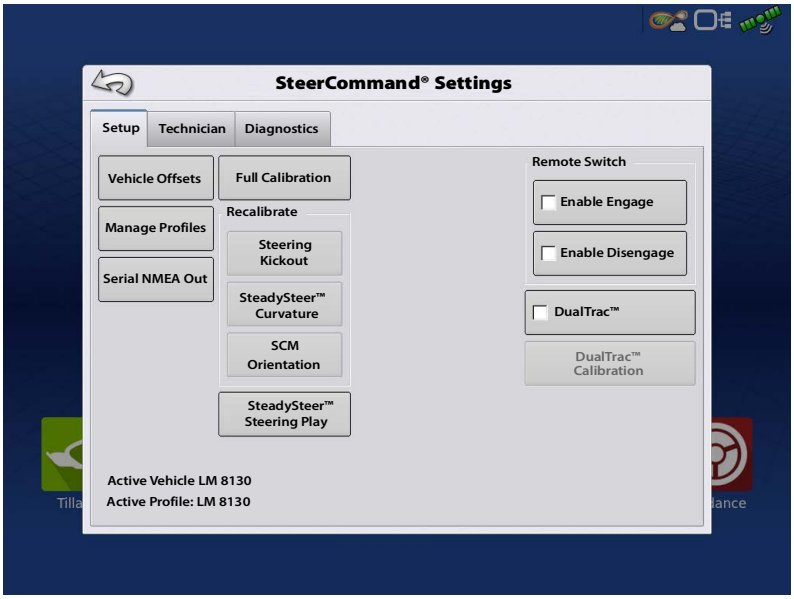
Full Calibration – Begin complete calibration process. See SteadySteer Full Calibration on page 18 or Z2 Auto Steer Full Calibration on page 9.

Steering Kickout – Ability to adjust kickout sensitivity.

SteadySteer Curvature – Ability to calibrate the only the curvature.

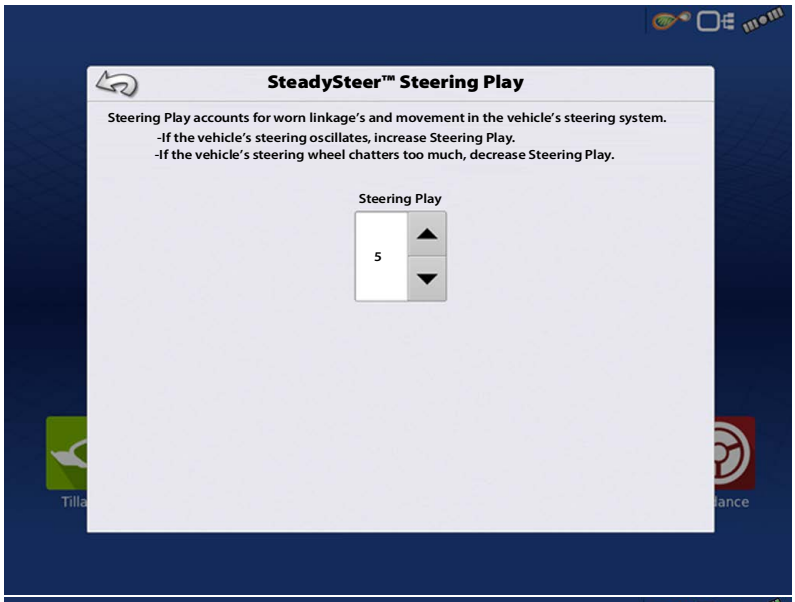
SCM Orientation – Ability to calibrate orientation.

Remote Switch – Enable remote engage/disengage using an external switch, such as a foot pedal or machine AutoSteer engage momentary switch. Must be enabled when using CAN/ISO profiles.



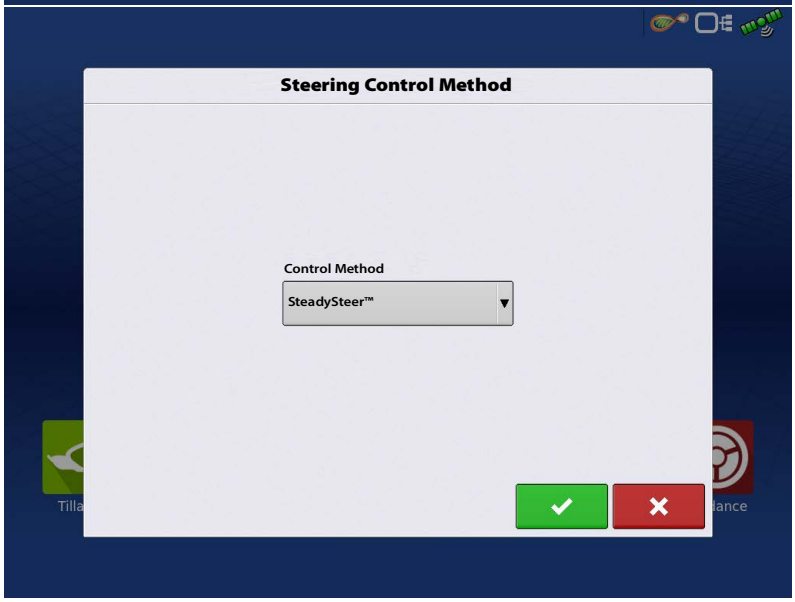
SteadySteer Steering Play

Setting used for steering wheel movement before the wheels turn. Default value set at 5.

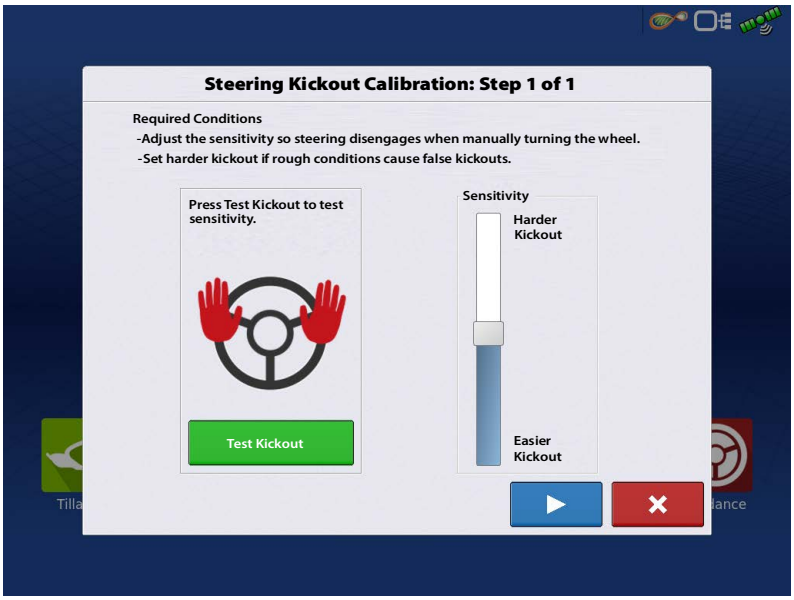


SteadySteer Full Calibration

Select the Control Method of SteadySteer when using the MDU.

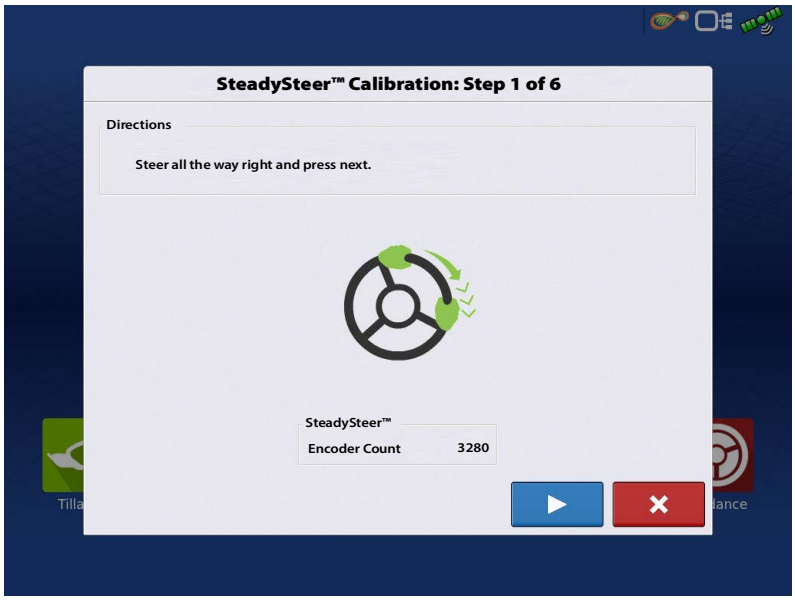


Set the desired kickout sensitivity. When set to a harder kickout, the steering wheel will be harder to turn resulting in more aggressive feedback for kickout. Lowering the kickout will make the steering wheel easier to turn for kickout.

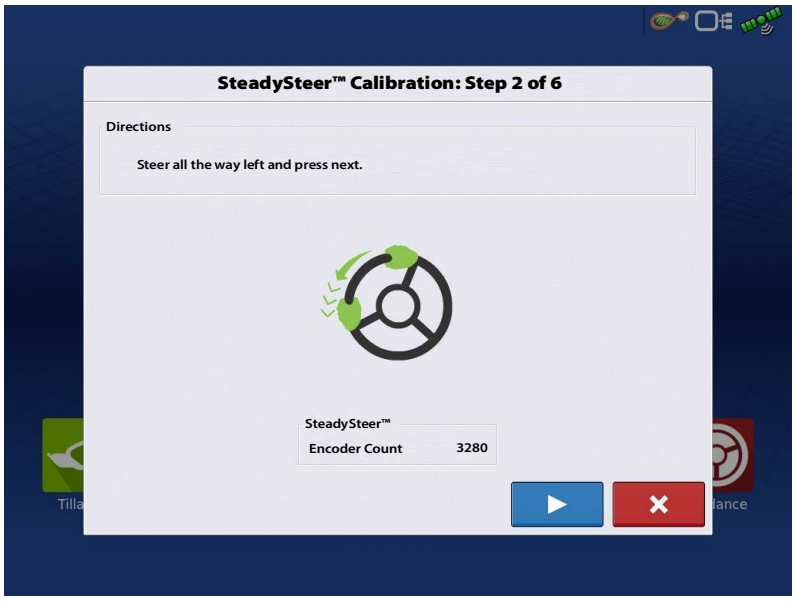


After pressing Test Kickout, the kickout sensitivity can be set.

During the calibration, the SteadySteer counts will be shown.

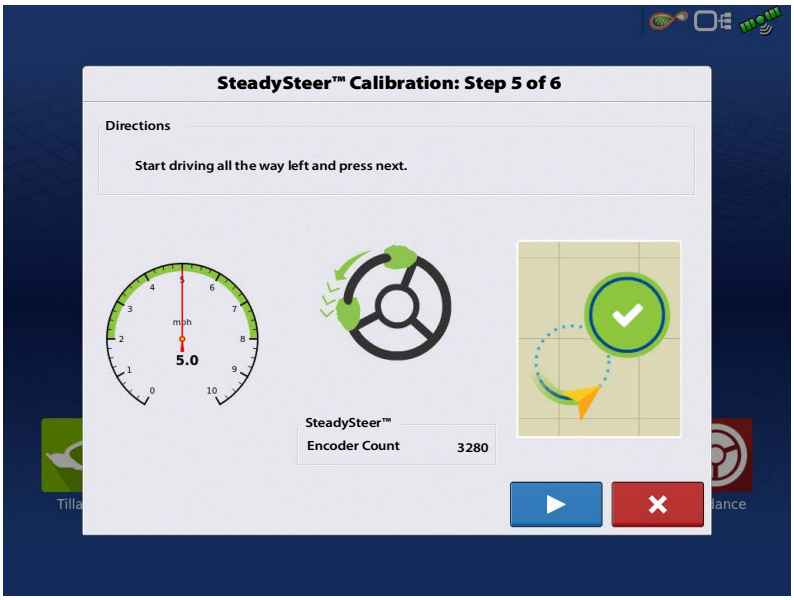


The counts will be seen when moving the steering wheel to the left and to the right.

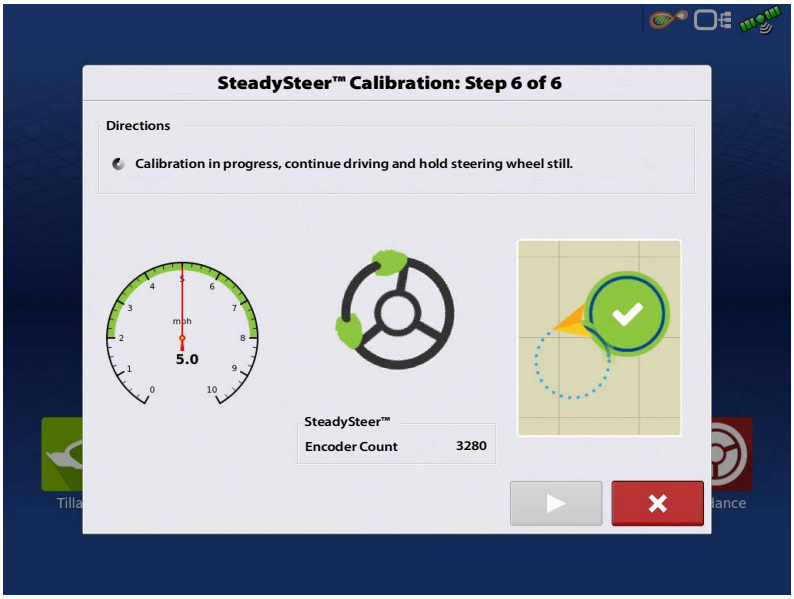


To find the orientation, manually drive in a circle.

Manually drive left in a circle.



Calibration will show continue driving until calibration is complete.

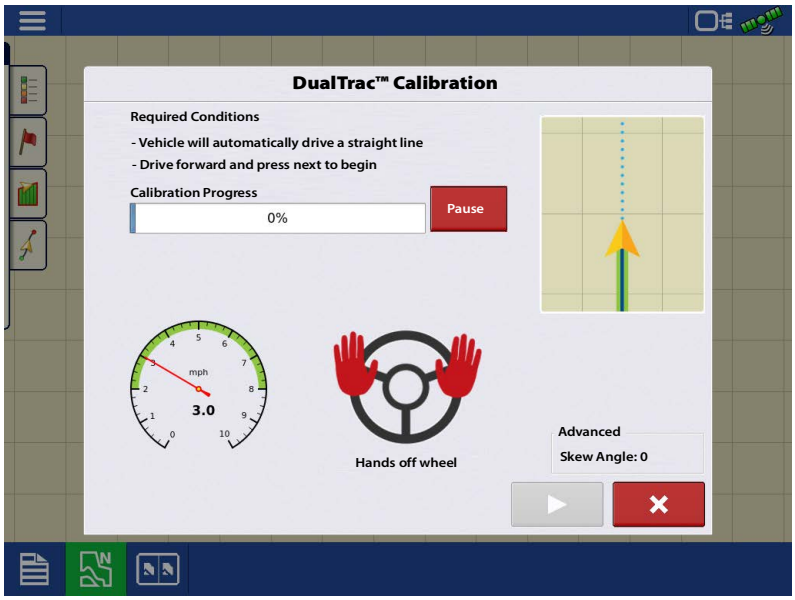


Manually driving all the way to the right in a circle will complete the calibration.

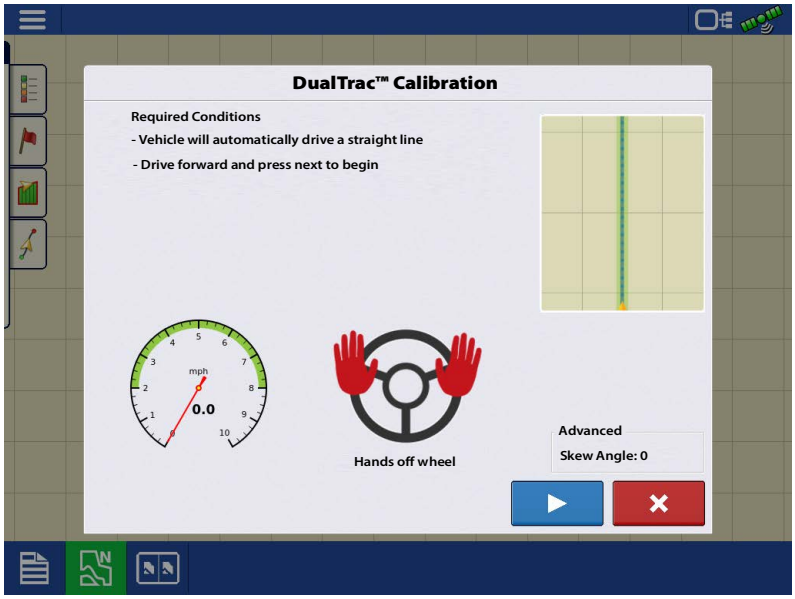
DualTrac Calibration

DualTrac can be calibrated during the Full Calibration or after a calibration has been completed.

This calibration measures the angle between the DualTrac antennas and the vehicle.



Press  to continue.



Technician Tab

The Technician tab allows access to

Feature codes — See "Features" on page 23.

Advanced —(password protected)

Transfer logs —See "Transfer Logs" on page 24.

Create Backup — Export a backup of the SCM to the USB attached to the display. (ibk3 file)

Restore Backup — Import a backup of the SCM from the USB attached to the display. (ibk3 file)

Upgrade — Upgrade the SCM using fw3 file. See "Upgrading SCM Firmware" on page 25.

Upgrade SteadySteer™ — See "Upgrading SteadySteer™ Firmware" on page 25.

Clear Memory — Clear all profiles and settings on the SCM.

Features

Unlocks are listed on the Features page.

Master Steering – Allows for all steering types: Hydraulic, CAN and SteadySteer.

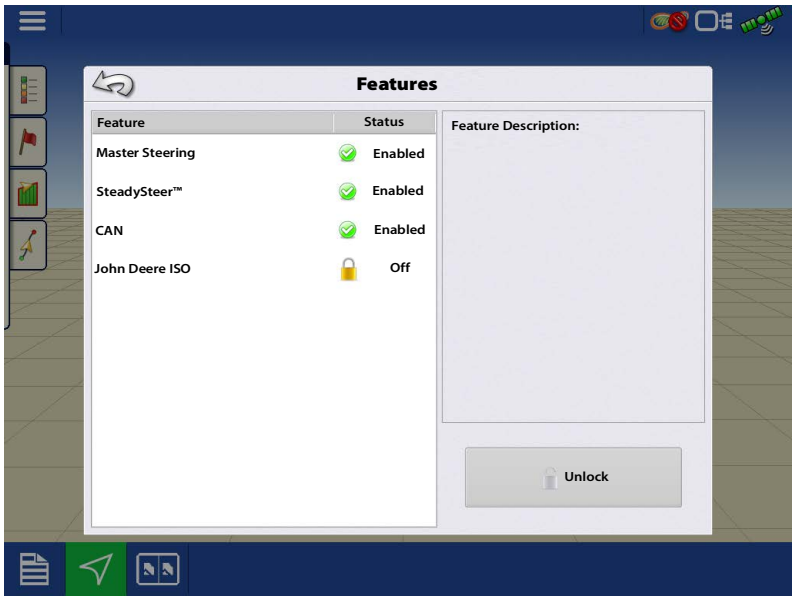
SteadySteer – Allow for the use of the MDU.

CAN – Allows for the SCM to control a CAN steer machine.

John Deere ISO – Required for John Deere ISO steering.

Feature unlocks can be purchased for any SCM through your Ag Leader Dealer. Serial number and registration number are required for each unlock on the SCM.

To unlock, highlight the desired feature and press the Unlock button.

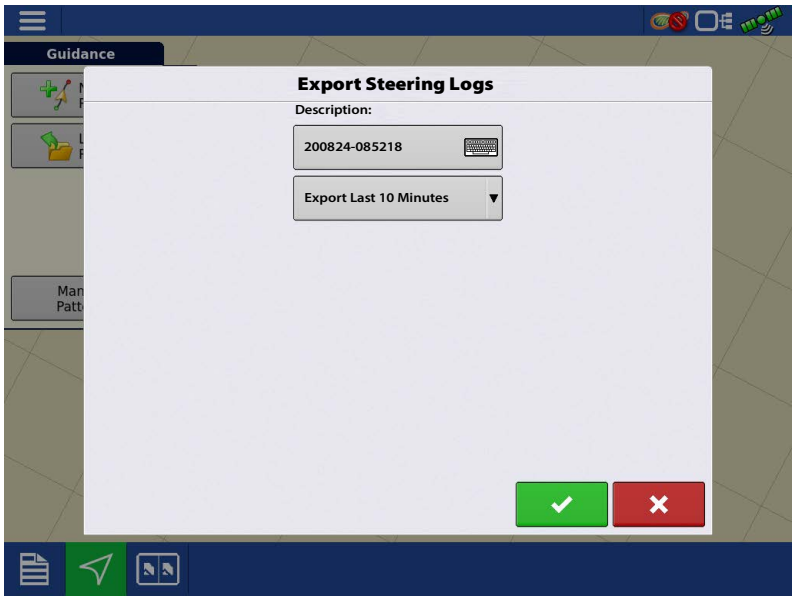


Advanced

Password protected advanced settings screen used by Technicians to analyses and adjust settings.

Transfer Logs

Allows user to export out steering logs, to a USB attached to display, that can be sent to support. The drop down selection can be used to export out logs during a length of time.



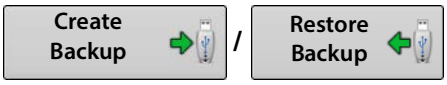
Allows user to export steering logs that can be sent to support. The drop down selection can be used to export logs during a length of time (this is clock-based time not runtime).

Below are a list of the options

- Export Last 10 Minutes
- Export Last 30 Minutes
- Export Last Hour
- Export Last 12 Hours
- Export Last 24 Hours
- Export All
- Export Date Range

Once exported, file will be saved to a folder on the USB with the SCM serial number.

Create/Restore Backup



Create Backup — Export a backup of the SCM to the USB attached to the display. (ibk3 file)

Restore Backup — Import a backup of the SCM from the USB attached to the display. (ibk3 file)

Upgrading SCM Firmware

The SCM has firmware that updates separately than the display firmware. In the Technician tab for the steering menu, there is an Upgrade button. After pressing the button, you will be prompted to select the latest firmware.

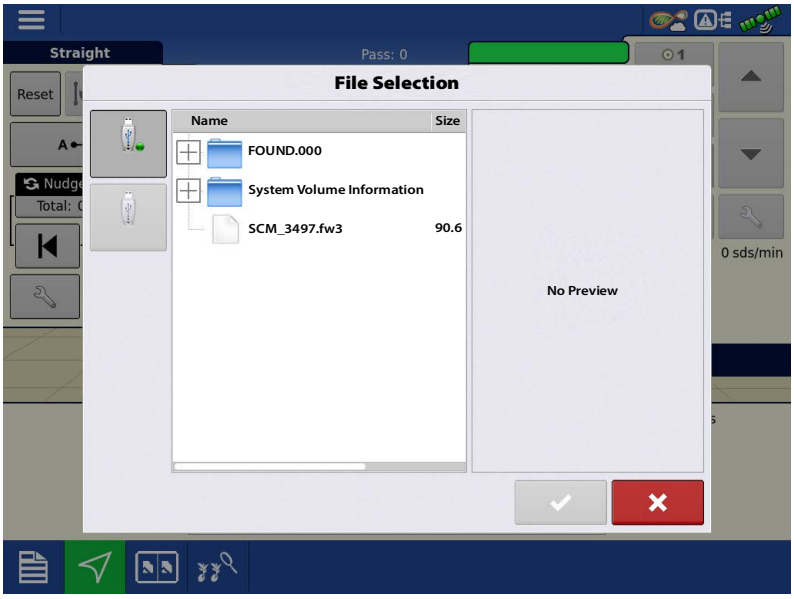
File selection

- Choose file by selecting the folder or plus icon, then highlight file name blue

  - Firmware file format must be .fw3

 - Begin upgrade

 - Cancel upgrade



Upgrading SteadySteer™ Firmware

SteadySteer has firmware that updates separately than the display firmware. In the Technician tab for the steering menu, there is an Upgrade SteadySteer button. After pressing the button, you will be prompted to select the latest firmware.

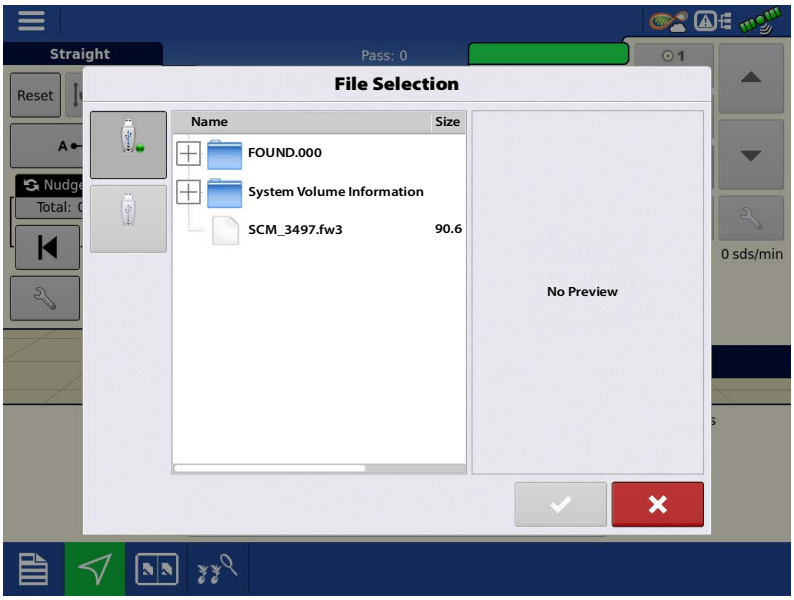
File selection

- Choose file by selecting the folder or plus icon, then highlight file name blue

  - Firmware file format must be .fw3

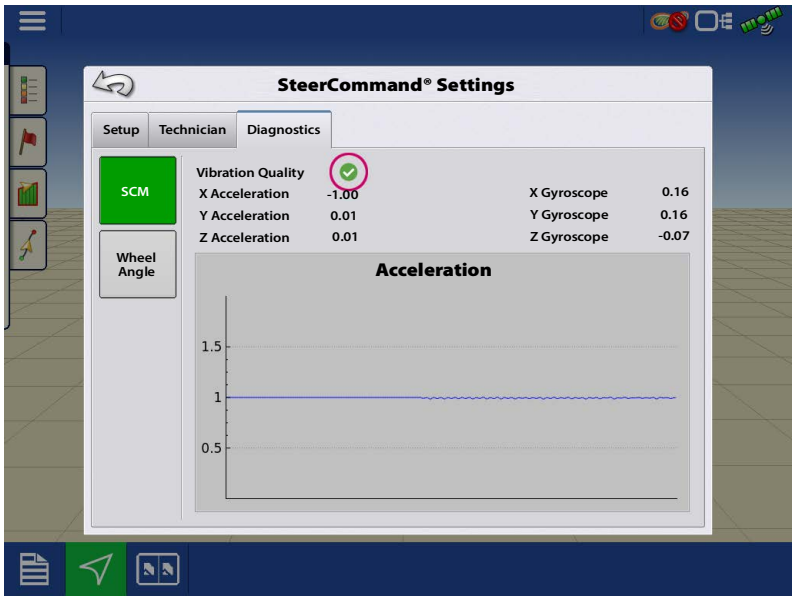
 - Begin upgrade

 - Cancel upgrade



Diagnostics Tab

SCM - Diagnostics



Shows current vibrations the SCM is experiencing and indicates if they may have an impact on steering performance.

Run with machine performing as close to standard operation as possible,

For example, a combine would have the separator engaged and would move through engine RPM ranges.

Indicator, at the top of the screen, shows level of performance

- Green – Vibration is acceptable and has no affect on steering performance.
- Yellow – Vibration is seen but steering performance is not affected.
- Red – Vibration could be too strong/aggressive. Look into improving SCM mounting location.

Wheel Angle - Diagnostics

Wheel angle sensor graph is used to visually see sensor counts while steering wheel is turned. The current sensor counts are also shown at the bottom of the window.

- Red lines on the graph indicate maximum and minimum wheel angle sensor counts after the full calibration.
- Green line indicates wheel angle sensor count when wheels are centered.

Turn Left and Turn Right buttons can be used to tell the SCM to command the wheels to the right or left at desired angles. Button can only be used after the control method is set. Use Stop button to stop turn.

This is helpful in diagnosing a poor Wheel Angle Sensor (WAS)

- if there is a dead spot
- spots where you turn wheel right but WAS goes left for a small amount of time

Valve Diagnostics

Valve diagnostics used when control method is directly controlling a hydraulic valve. The edit button is defaulted to being unchecked.

Left Min Duty – Value from current profile loaded.

Right Min Duty – Value from current profile loaded.

Left Gain – Aggressiveness of valve to the left from profile loaded.

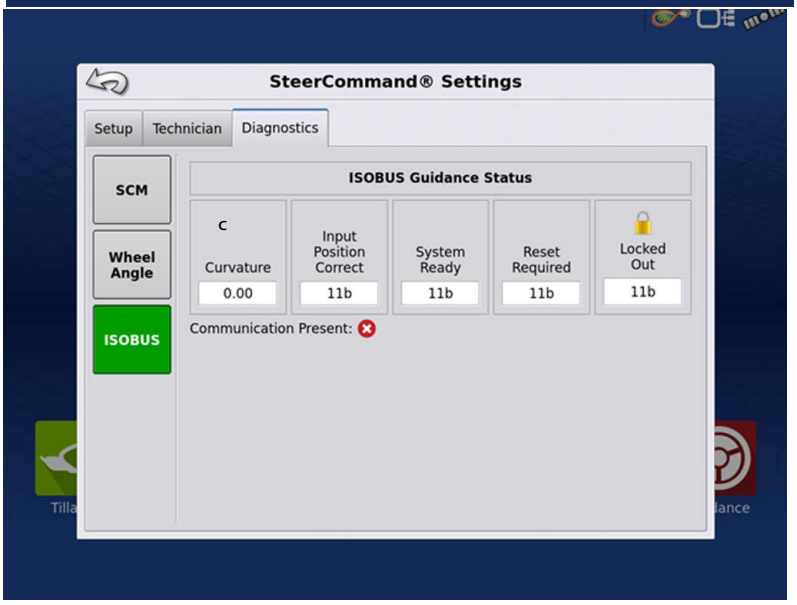
Right Gain – Aggressiveness of valve to the left from profile loaded.

Optimization – Overall aggressiveness of the valve from profile loaded.

ISOBUS Diagnostics

The following are diagnostics only available with ISO/CAN profiles being used.

Curvature – Curvature sent to SCM from vehicle.



Input Position Correct

Correct position	01b
Not correct position	00b
Error indication	10b
Not available	11b
Unknown	00b

System Ready

System ready	01b
System not ready	00b
Error indication	10b
Not available	11b
Unknown	00b

Reset Required

Reset not required	00b
Reset required	01b
Error indication	10b
Not available	11b
Unknown	00b

Locked Out

Not active	00b
Active	01b
Error indication	10b
Not available	11b
Unknown	00b

Communication Present

Green – Communication active with ISO/CAN vehicle.

Red – No ISO communication with vehicle.

SteadySteer Diagnostics

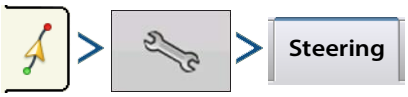
In the Diagnostics of the steering menu, SteadySteer will be shown. Shows the performance of the MDU.

The Wheel Angle button will show the MDU counts when turning right and left.

Guidance Options

Guidance options page allows user to tune vehicle, adjust kickout, report an issue, and turn on/off log coverage when engaged.

Tuning



Approach Angle

Changes the approach angle to the line.

A more aggressive approach angle will bring the vehicle to the line more quickly and may cause a larger overshoot.

Differences in speed will change the angle. For example: An engagement at 5 mph will have a sharper approach angle than at 10 mph engagement.

- Higher speed will not have a sharp approach angle.
- This setting focuses primarily on "Line Acquisition."

Steering Aggressiveness

This is a transitional stage where the system goes from steering the vehicle to the line, to steering the vehicle on the line. This setting determines how quickly the system transitions from getting to the line to following the line. The setting changes overshoot aggressiveness and overshoot distance. It determines how quickly the vehicle turns back to the line from the approach angle.

- High value will cause oscillations.
- Lower the value will make the steering less responsive.
- This setting may be more of a factor when steering at high speeds, on side hills, and on self propelled applicators.

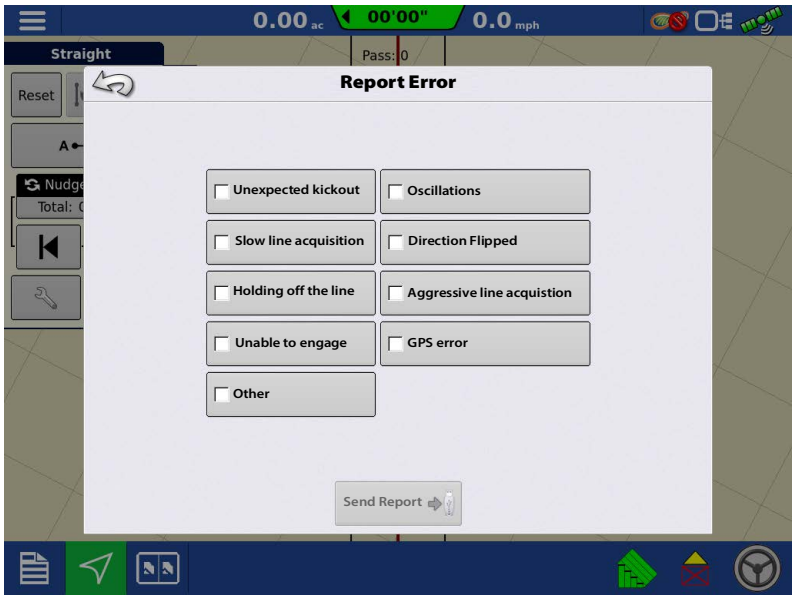
On Line Response

Changes how aggressively the control system responds to the vehicles distance from the path. Higher value may result in weaving/oscillations that get larger over time. Lower value may result in vehicles behavior consistent to one side of the guidance line.

- Increase value if vehicle is "lazy" getting to the line (hangs off one side of the line).
- Decrease value to smooth out oscillations.
- This setting works in conjunction with Steering Aggressiveness.

Report an Issue

User can export out a log of information on an issue they experienced. A USB drive must be inserted in the display. This will flag and export out a 10 minute log (same thing that happens when you export out the 10 minute log in SCM setup.) This log can then be sent into support to be evaluated.



Steering Kickout Adjust

- Allows user to adjust the kickout of the vehicle after it has been calibrated.

Log Coverage While Autosteer is engaged

- Allows user to easily log coverage on the map when autosteer is engaged.

GPS Information

SteerCommand Tab

SCM Build – Shows what firmware version the SCM is currently on.

GPS Status – Will be green when there is differential.

GPS DOP Status – Will be green when DOP levels are below 3.0.

CAN Communication Status – Will be green when communicating with a CAN steer machine.

SteadySteer Communication Status – Will be green when communicating with the MDU.

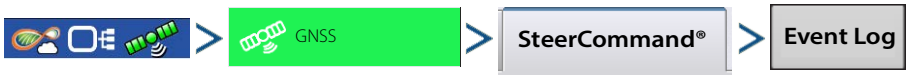
Calibration Status – Will be green if the active profile is calibrated.

SCM Initialized – SCM will initialize when the vehicle speed is greater than 1 mph for 3 seconds.

SCM High Power – Shows the voltage to the SCM of the high current power line.

Active Steering Profile – Shows what profile is currently being used.

Event Log



User will be able to see specifics with how the system is operating. If an error is seen or an issue occurs, by going to the Events Log more specifics can be seen to diagnose the issue.

SCM LED Diagnostics

SCM has been designed with two LEDs that can be used to help determine status of system as well as provide some basic troubleshooting information. On front panel of SCM, LEDs will be off, Green, or Amber.

Power Light

Red	Blinking 1-3 times slowly	Communication is started
	Solid or blinking constantly	SCM has hardware issue
		Trying to upgrade firmware
Amber	Solid for a few seconds	Bootup in process
	Solid for more than a few seconds	Firmware Issue
Green	Blinking	SCM is communicating

Communication Light

Off	No ethernet connected
Blinking	Sending or receiving messages
Fast Blinking	Communication occurring between display and SCM
Slow Blinking	Software issue on SCM or display

Warnings/Errors

Alarm	Trigger Condition	Clear Condition
New Kickout Sensor Detected. Re-Calibrate Kickout Sensor	The operator attempted to engaged steering with the Kickout Watchdog type being different than the SteerCommand Z2/SteadySteer type	Turn wheel to see if kick-out watchdog had detected wrong app or had detected KO sensor wrong originally. Shorted wires can also make an incorrect detection happen on the kick-out watchdog
Turn steering wheel to initialize steering system	The operator attempted to engage steering without first turning the steering wheel for	Turn the steering wheel, attempt to engage again
Operator turned wheel	Condition was met to disengage steering.	If it was an undesired kickout then adjust user kickout settings This toast will only occur disengaging through steering wheel. It will not occur by disengaging with foot switch or through display.

Calibration Related Dialogue

Steering kickout not calibrated	The operator attempted to engage on a line without steering kickout calibrated	Perform steering kickout calibration
Wheel-angle sensor not calibrated	The operator attempted to engage on a line without wheel angle sensor being calibrated	Perform wheel angle sensor calibration
Steering valve not calibrated	The operator attempted to engage on a line without valve calibrated	Perform valve calibration
IMU orientation not calibrated	The operator attempted to engage on a line without IMU calibrated	Perform an IMU calibration
GPS Related Dialogue		
Lost GPS position	While engaged on a line GPS was lost (grey satellite)	Establish connection with receiver again

Engage/Disengage Related Dialogue

Vehicle above the maximum speed to remain engaged	While being engaged, the vehicle speed went above speed limit.	Steering will be automatically disengaged Troubleshooting: The user will be able to engage after reducing speed below speed limit.
Vehicle above the maximum speed to engage	The operator attempted to engage steering above speed limit.	Steering will not be able to engage Troubleshooting: The user will be able to engage after reducing speed below speed limit.
Auto steering is prohibited at this time	The operator attempted to engage while in a situation where engaging was not supported.	Attempt to engage from the run screen. This is known to happen when attempting to engage during a suspended event.

Faulty Wiring Related Dialogue

Valve control fault, check activation switch and valve cable for short or open circuit.	The operator attempted to engage or during an engagement had a power short to ground. Another condition can also be triggered by steering lockout switch.	Address power/ground issue on valve cables or verify steering lockout switch is not on.

InCommand Z2 Warnings

Pop up/warning dialogue		
Alarm	**Trigger Condition**	**Clear Condition**
Calibration Related Dialogue		
Steering kickout not calibrated	The operator attempted to engage on a line without steering kickout calibrated	Perform steering kickout calibration
Wheel-angle sensor not calibrated	The operator attempted to engage on a line without wheel angle sensor being calibrated	Perform wheel angle sensor calibration
Steering valve not calibrated	The operator attempted to engage on a line without valve calibrate	Perform valve calibration
IMU orientation not calibrated	The operator attempted to engage on a line without IMU calibrated	Perform an IMU calibration
GPS Related Dialogue		
DualTrac lost communication with the second receiver	While being engaged on a line, the controller did not see a heading 2A message for four seconds consecutively OR the user attempted to engage without a heading 2A message	Uncheck "Require DualTrac" if you do not have DualTrac OR address your rover not sending the heading 2A message
Lost GPS position	While engaged on a line GPS was lost (grey satellite)	Establish connection with receiver again
Engage/Disengage Related Dialogue		
Vehicle above the maximum speed to remain engaged	While being engaged, the vehicle speed went above 28 mph	-Steering will be automatically disengaged -The user will be able to engage immediately after dropping below 20 mph
Vehicle above the maximum speed to engage	The operator attempted to engage steering above 20 mph	-Steering will not be able to engage -The user will be able to engage immediately after dropping below 20 mph
Auto steering is prohibited at this time.	The operator attempted to engage while in a situation where engaging was not supported.	Attempt to engage from the run screen. This is known to happen when attempting to engage during a suspended event.
Faulty Wiring Related Dialogue		
Valve control fault, check activation switch and valve cable for short or open circuit.	The operator attempted to engage or during an engagement had a power short to ground. Another condition can also be triggered by steering lockout switch.	Address power/ground issue on valve cables or verify steering lockout switch is not on.

Toasts

Alarm	Trigger Condition	Clear Condition
GPS related toasts		
Invalid GPS Data	While being engaged, the raw GPS position was greater than 1.5 meters difference from the roll corrected position	Steering will be automatically disengaged -A known cause of this in the past has been from larger GPS delays sent from display to controller
		The position/heading direction will need to re-initialize, this will take movement for 3 seconds before being able to engage again -A known cause of this in the past has been from quick brake turns or tracked vehicle turning sharp/quick
GPS step change	While being engaged, the raw GPS position was greater than .9 meters but less than 1.5 meters difference from the roll corrected position	Steering will be automatically disengaged -A known cause of this in the past has been from larger GPS delays sent from display to controller
		The user will be able to engage immediately after -A known cause of this in the past has been from quick brake turns or tracked vehicle turning sharp/quick
GPS position is degraded	-The operator was engaged with steering and GPS went to a yellow satellite	After achieving GPS differential the operator will be able to engage again - DOP levels breaching a level of 3 may also cause this and has been problematic in the past
	-Steering will automatically disengage	
Engage requires better GPS signal quality	The operator attempted to engage with a yellow satellite	After achieving GPS differential the operator will be able to engage
Engage/Disengage related toasts		
The maximum engage angle has been exceeded	The operator attempted to engage on a line greater than 87 degrees from vehicle, will not be able to engage	Turn vehicle closer to line under 87 degrees
Please drive the vehicle for the navigation system to initialize	Attempting to engage steering prior to the Kalman filter/heading direction being initialized	You must drive the vehicle continuously for 3 seconds above 1 mph with green satellite prior to engaging steering.
Operator turned wheel	Condition was met to disengage steering	If it was an unexpected kickout than adjust user kickout settings -This toast will only occur disengaging through steering wheel. It will not occur by disengaging with foot switch or through display.
Slope to extreme to steer	The operator attempted to engage steering or was using steering at an angle above 30 degrees	-Steering will not be able to engage/remain engaged
		-The user will be able to engage immediately after dropping below a 30 degree slope

Toasts		
Alarm	**Trigger Condition**	**Clear Condition**
Vehicle not moving	While being engaged, the vehicle was stopped for thirty seconds.	Operator will be able to engage immediately after
Please enter steering setup to perform a vehicle calibration before adjusting kickout	The user attempted to enter steering kickout adjustment from the run screen without a calibrated kickout sensor	Perform vehicle calibrations

SteadySteer Warnings

Pop up/warning dialogue		
Alarm	**Trigger Condition**	**Clear Condition**
Calibration Related Dialogue		
Steering kickout not calibrated	The operator attempted to engage on a line without steering kickout being calibrated	Perform steering kickout
MDU not calibrated	The operator attempted to engage on a line without MDU curvature calibrated	Perform MDU curvature calibration
IMU orientation not calibrated	The operator attempted to engage on a line without IMU calibrated	Perform an IMU calibration
MDU CURVATURE CALIBRATION: No communication with the MDU. Check MDU power and cables.	Attempted to perform MDU curvature calibration with MDU power/CAN off. Upon accepting the warning you will automatically exit the calibration.	Establish power/CAN with MDU and re-calibrate.
MDU CURVATURE CALIBRATION: Wheel turned after MDU calibration started.Make sure wheel is turned all the way to the right. Then hold wheel still and continue	The user turned the steering wheel more than 50 MDU encoder counts during the right calibration. User will be able to resume calibration.	Hold the steering wheel in place during calibration.
MDU CURVATURE CALIBRATION: Detected wheel turning. Wheel needs to be turned all the way and held still during calibration. MDU right and left calibration will have to be restarted	The user turned the steering wheel more than 50 MDU encoder counts during left calibration. The whole curvature calibration will re-start from the beginning.	
IMU CALIBRATION PAUSED: The steering angle is out of range	Lost MDU power/CAN in the middle of IMU calibration. Calibration will automatically be paused.	Establish power/Can with MDU and you can resume IMU calibration in the same spot.
IMU CALIBRATION PAUSED: The vehicle is below the minimum speed	During steps 3 and 4 of IMU calibration, the user was engaged with steering and the vehicle speed dropped below 2 mph. Calibration will automatically be paused and able to resume in same location	Drive the vehicle consistently above 2 mph and press resume
GPS Related Dialogue		
DualTrac lost communication with the second receiver	While being engaged on a line, the controller did not see a heading 2A message for four seconds consecutively OR the user attempted to engage without a heading 2A message	Uncheck "Require DualTrac" if you do not have DualTrac OR address your rover not sending the heading 2A message
Lost GPS position	While engaged on a line GPS was lost (grey satellite)	Establish connection with receiver again
Engage/Disengage Related Dialogue		
Vehicle above the maximum speed to remain engaged	While being engaged, the vehicle speed went above 28 mph	-Steering will be automatically disengaged -The user will be able to engage immediately after dropping below 20 mph
Vehicle above the maximum speed to engage	The operator attempted to engage steering above 20 mph	-Steering will not be able to engage -The user will be able to engage immediately after dropping below 20 mph

Pop up/warning dialogue

Alarm	Trigger Condition	Clear Condition
Auto steering is prohibited at this time	The operator attempted to engage while in a situation where engaging was not supported.	Attempt to engage from the run screen. -This is known to happen when attempting to engage during a suspended event.

Faulty Wiring Related Dialogue

Current control failure. Service required.	The operator attempted to engage or during an engagement had a power short to ground.	

Toasts

Alarm	Trigger Condition	Clear Condition
GPS related toasts		
Invalid GPS Data	While being engaged, the raw GPS position was greater than 1.5 meters difference from the roll corrected position	Steering will be automatically disengaged -A known cause of this in the past has been from larger GPS delays sent from display to controller
		The position/heading direction will need to re-initialize, this will take movement for 3 seconds before being able to engage again -A known cause of this in the past has been from quick brake turns or tracked vehicle turning sharp/quick
GPS step change	While being engaged, the raw GPS position was greater than .9 meters but less than 1.5 meters difference from the roll corrected position	Steering will be automatically disengaged -A known cause of this in the past has been from larger GPS delays sent from display to controller
		The user will be able to engage immediately after -A known cause of this in the past has been from quick brake turns or tracked vehicle turning sharp/quick
GPS position is degraded	-The operator was engaged with steering and GPS went to a yellow satellite	After achieving GPS differential the operator will be able to engage again -DOP levels breaching a level of 3 may also cause this and has been problematic in the past
	-Steering will automatically disengage	
Engage requires better GPS signal quality	The operator attempted to engage with a yellow satellite	After achieving GPS differential the operator will be able to engage
Engage/Disengage related toasts		
MDU Reset Detected	Going from a state of no MDU communication to communicating (Power off to power on)	
The maximum engage angle has been exceeded	The operator attempted to engage on a line greater than 87 degrees from vehicle, will not be able to engage	Turn vehicle closer to line under 87 degrees

Toasts		
Alarm	**Trigger Condition**	**Clear Condition**
Please drive the vehicle for the navigation system to initialize	Attempting to engage steering prior to the Kalman filter/heading direction being initialized	You must drive the vehicle continuously for 3 seconds above 1 mph with green satellite prior to engaging steering.
Please drive the vehicle to initialize the steering position	Attempting to engage steering without the MDU encoder position being initialized	With MDU powered on, drive the vehicle continuously for 2 seconds above 1mph to initialize steering position
Operator turned wheel	Condition was met to disengage steering	If it was an unexpected kickout than adjust user kickout settings -This toast will only occur disengaging through steering wheel. It will not occur by disengaging with foot switch or through display.
Slope to extreme to steer	The operator attempted to engage steering or was using steering at an angle above 30 degrees	-Steering will not be able to engage/remain engaged -The user will be able to engage immediately after dropping below a 30 degree slope
Vehicle not moving	While being engaged, the vehicle was stopped for thirty seconds.	Operator will be able to engage immediately after
Please enter steering setup to perform a vehicle calibration before adjusting kickout	The user attempted to enter steering kickout adjustment from the run screen without a calibrated kickout sensor	Perform vehicle calibrations

EU Declaration of Conformity

- Ag Leader Technology affirms under its sole responsibility that the product(s) identified herein fulfill the essential requirements of all relevant directives and regulations of the Official Journal of the European Union.
- This declaration relates exclusively to the product in the state which it was placed on the market and excludes components which are added and/or carried out subsequently by the final user.

Relevant Union Harmonization Legislation	Short Name	Document Number
Electromagnetic Compatibility Directive	EMC	2014/30/EU
Restriction of the use of certain Hazardous Substances	RoHS	2011/65/EU
Registration, Evaluation, Authorization and Restriction of Chemicals	REACH	1907/2006/EC

In Community Contact	Headquarters Contact
Ag Leader Technology Sluisweg 11 6582 AG Heumen Malden The Netherlands Phone: +31 24 3434134	Ag Leader Technology, Inc. 2202 South Riverside Dr. Ames, IA, USA 50010 Phone: +1 515-735-7000 Fax: +1 515-735-7001

Product Name(s)	T/V *	Model Numbers **	Rev
SteerCommand Z2	Type	4004773-1	B, C
SteerCommand Z2	Variant	4004773-X	B, C
SteadySteer	Type	4005857	D

* The type is a worst-case representation of all variants.

** For Model Numbers containing X, X is a required number, 1 or greater, that indicates labeling options, a location code, or custom settings that in no way affect fulfillment of the essential requirements of the legislation.

Kit(s): 4200500-1, 4200500-2, 4200500-3, 4200550, 4200550-X

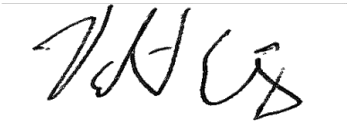
Equipment Description: SteerCommand Z2 agricultural steering control modules with optional Steady Steer agricultural mechanical drive unit

Standards Used: BS/ISO 14982:2009, DIN EN 16590:2014 Parts 1-4

Other Tests: ISO 7637-2:2011, ISO 11452-2:2004, ISO 11452-4:2011
ISO 10605:2008

Place of Issue: Ames, IA, USA

Date of Issue: 11/02/2020



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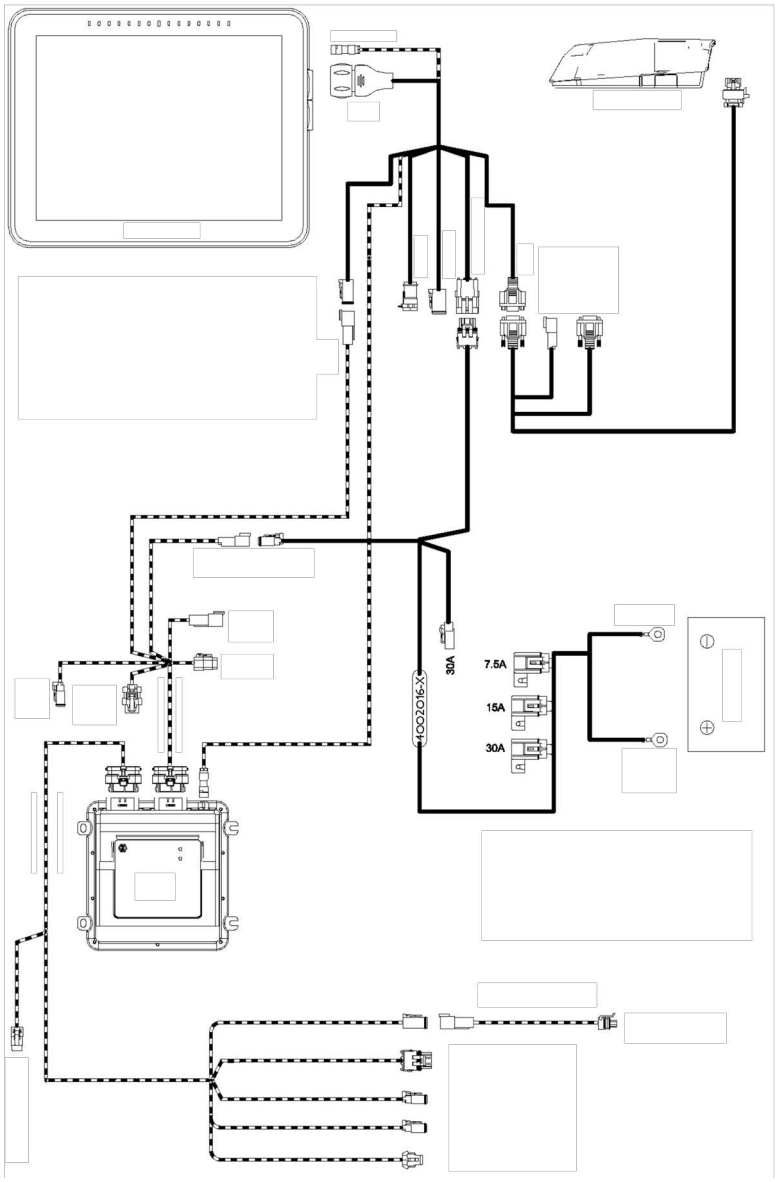
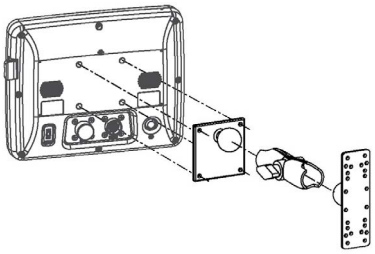
Technical Specifications and Safety Notifications

English

SteerCommand Z2 System



Mounting Brackets



Fuse Type Blade Style (ATO/ATC) 5 A rating 15 A rating Operating Voltage 9-16 V DC Max Current Rating InCommand 4.0 A	Technical Specifications Do not exceed the specifications below: • Storage Temperature: - 4° to +176°F (-20° to +80°C) • Operating Temperature: 14° to +156°F (-10° to +70°C) • Environmental Protection Rating: IP67 • No Protective Grounding required • Use 150V minimum insulation rating for external circuits

Safety Notice: Read these safety instructions and the User Manuals thoroughly, and follow the instructions.

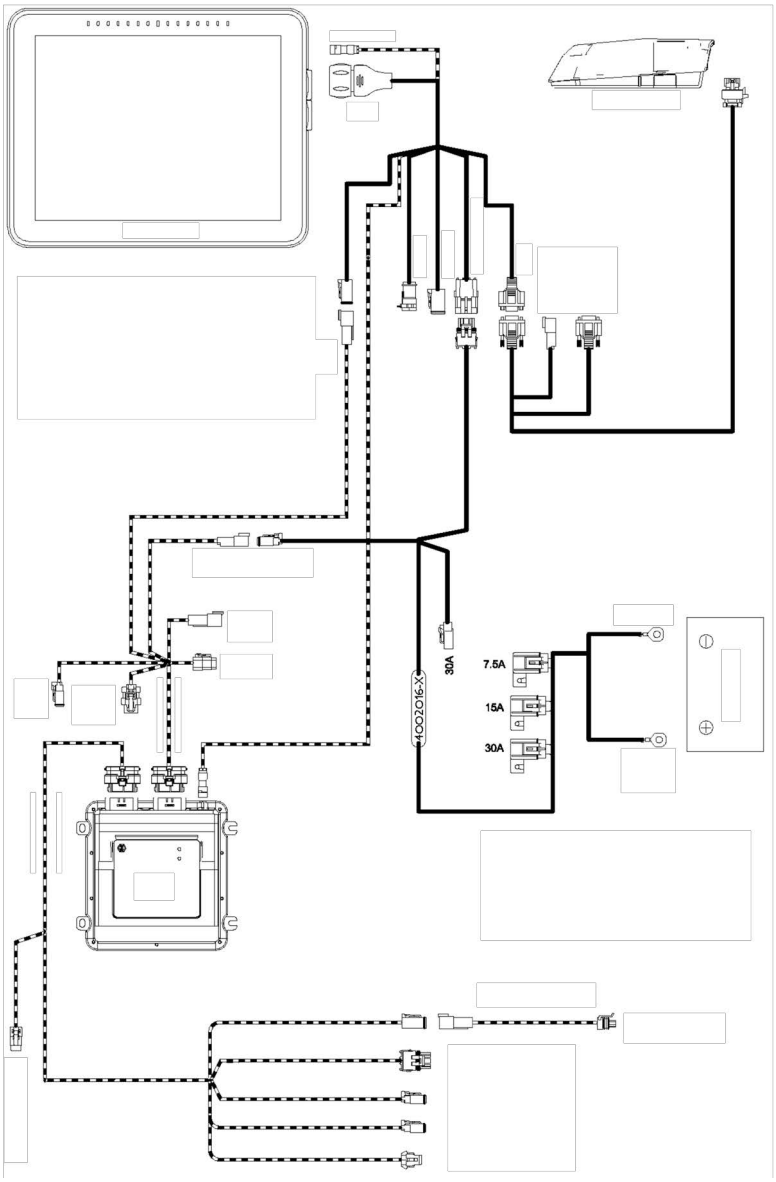
Steering System refers to the SteerCommand Z2, SteadySteer.

- Only an operator who is fully authorized to drive the vehicle can use the Steering System.
- The operator must not exceed the safe speed limit for the terrain on which the vehicle is operating.
- The operator must always be aware of his actions when operating the Steering System.
- When installing the Steering System do not force the components as this can result in damage to the components.
- Always follow the instructions in the installation, operation, and maintenance manuals.
- Only trained personnel should install the Steering System.
- Always inventory the components delivered to ensure all the correct components are present. Never use replacement components. Only use original components.
- If there are any questions regarding the safe operation of the Steering System or the instructions in the manuals, immediately contact your authorized dealer or technical support.
- Always use the correct tools to install the Steering System.
- To prevent injury, use caution when installing the Steering System.
- Do not use or operate the Steering System in unsafe weather conditions.
- Do not use or operate the Steering System on unsafe terrain.
- Only an operator who is trained, experienced or authorized can use or operate the Steering System.
- Before using the Steering System, the operator must have sufficient knowledge of how to operate the systems in a safe manner.
- When installing the Steering System, all safety precautions must be clearly understood. If there are any loose, missing or damaged parts they should not be used.
- Before using the Steering System, verify all functions are checked and controlled to ensure they are working correctly. When there is any doubt, do not take any risks - always contact your authorized dealer or technical support.
- Before operating the Steering System, verify all functions of the Operator Presence Switch to ensure it functions correctly.
- Powering the Steering System ON or OFF must be done by following the correct prescribed procedures.
- If any vehicle or system function is abnormal, for example if excessive vibrations or noise occur, immediately stop the vehicle, power OFF the Steering System and contact your authorized dealer or technical support.
- When maintaining or cleaning the Steering System, it must be completely powered OFF and are free of any electrical currents.
- The operator of the Steering System in conjunction must read and understand all safety instructions so they can react in case of an emergency.
- The authorized dealer must always carry out maintenance or repairs on the Steering System.
- During repair or replacement of components on the Steering System, only original components must be used.
- Operator or maintenance personnel must always wear the correct personal protection equipment when working on the Steering System.
- Maintenance personnel must always use the recommended cleaning materials and accessories when the Steering System is cleaned.
- Unsafe conditions or situations with the Steering System must be reported to your authorized dealer or technical support.
- Objects cannot be placed on or in the area of the Steering System.
- During installation, calibration, and tuning of the Steering System the vehicle wheels may turn to the left and right. Be sure all people and obstacles are clear of the wheels before proceeding.
- Put the vehicle seat and steering wheel in the normal operating position and verify that Mechanical Drive Unit does not interfere with any controls.
- The operator must read and acknowledge the Automatic Steering Liability Notice each time the system is powered ON.
- If there are any questions regarding the safe operation of the Steering System or the operating instructions, contact your authorized dealer or technical support.
- The operator must keep alert for obstacles in the path of the vehicle. The Steering System cannot identify or avoid obstacles.
- The operator must remain in the operator’s chair in the vehicle while the Steering System is engaged.
- Only use the Steering System in an open field. The systems must be powered OFF when the vehicle is on any type of roadway.

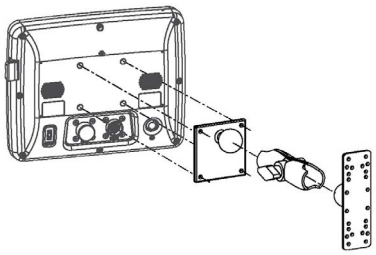
Liability Notice Ag Leader Technology cannot be held responsible or liable in any way for any damages and / or accidents that occur through the malfunction of the machine on which it is installed, malfunction of the machine components, machine attributes (e.g. trailers), third party interference(s) or acts of the operator outside the intended use such as prescribed by Ag Leader Technology.

Dansk (Danish)

SteerCommand Z2 system



Montering Holdere



Sikringstype	Tekniske specifikationer
Bladstil (ATO/ATC) Klassificering: 5 A Klassificering: 15 A Driftsspænding: 9-16 V DC Nominel maksimal strøm InCommand 4,0 A	Gå ikke ud over specifikationerne nedenfor: • Opbevaringstemperatur -20° til +80° C (-4° til +176° F) • Driftstemperatur: 10° til +70° C (14° til +156° F) • Klassificering for miljømæssig beskyttelse: IP67 • Der kræves ikke beskyttende jordforbindelse • Brug minimum en 150 V isoleringsklassificering for eksterne kredsløb Sikkerhedsmeddelelse: Læs disse sikkerhedsvejledninger og brugervejledninger grundigt, og følg vejledningerne.

Sikkerhedsmeddelelse: Læs disse sikkerhedsvejledninger og brugervejledninger grundigt, og følg vejledningerne.

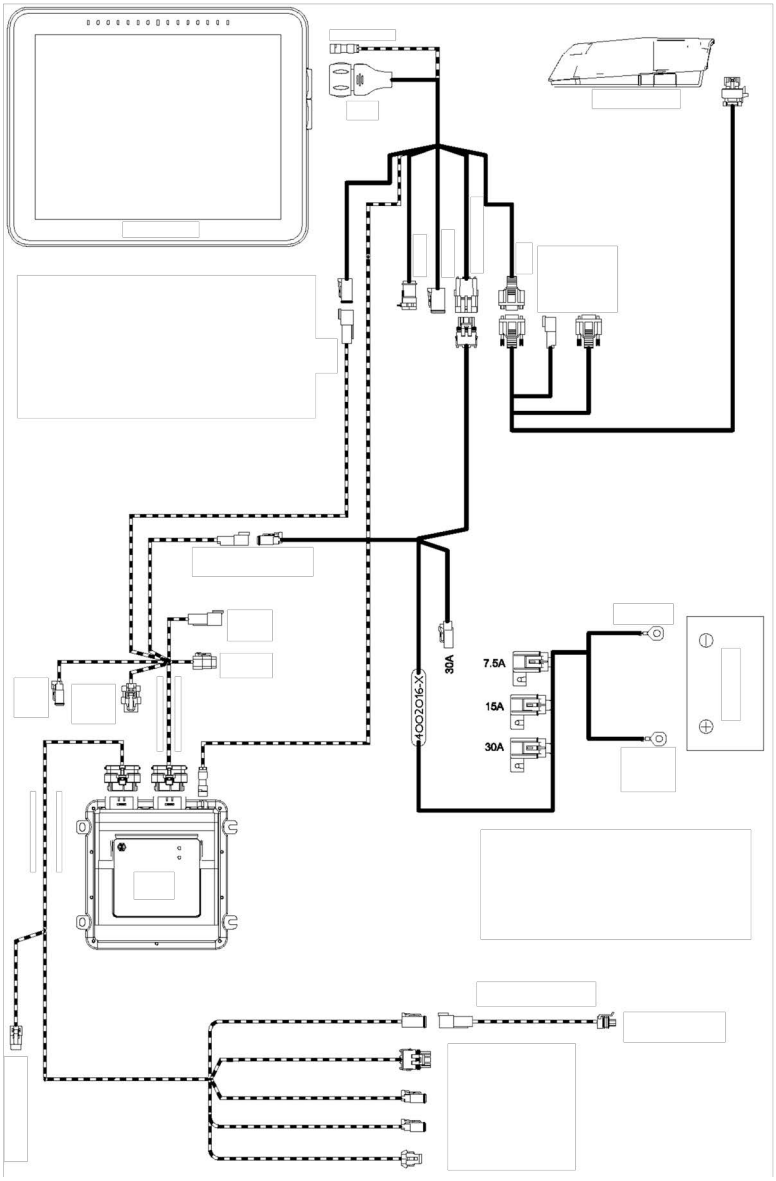
Styringssystem refererer til det SteerCommand Z2, SteadySteer.

- Styringssystemet må kun bruges af en operatør, der er fuldt ud autoriseret til at køre køretøjet.
- Operatøren må ikke overstige hastighedsgrænsen for sikker kørsel for det terræn, hvor køretøjet bruges.
- Operatøren skal altid være opmærksom på hans/hendes handlinger under brug af styringssystemet.
- Under installation af styringssystemet må komponenterne ikke forceres, da det kan beskadige komponenterne.
- Følg altid vejledningerne i installations-, brugs- og vedligeholdelsesvejledningerne.
- Installationen af styringssystemet må kun udføres af uddannet personale.
- Kontroller altid ved modtagelse af forsendelser, at alle bestilte dele er modtaget, for at sikre, at alle de korrekte dele er tilstede. Brug aldrig andre komponenter som erstatning. Brug kun originaldele.
- Hvis der er spørgsmål angående sikker brug af styringssystemet, eller omkring vejledningerne i vejledningen, skal du straks kontakte din autoriserede forhandler eller teknisk support.
- Under installation af styringssystemet skal man altid bruge det korrekte værktøj.
- For at undgå personskader skal man være forsigtig under installation styringssystemet.
- Brug ikke styringssystemet i vejrforhold, der skaber usikre arbejdsforhold.
- Brug ikke styringssystemet i vejrforhold, der skaber usikre arbejdsforhold.
- Styringssystemet må kun bruges af en operatør, der er uddannet, har erfaring eller er autoriseret.
- Inden styringssystemet bruges, skal operatøren have tilstrækkeligt med viden om, hvordan systemerne betjenes på sikker vis.
- Alle sikkerhedsforanstaltninger skal være forstået ved installation af styringssystemet. Hvis der er løse, manglende eller beskadigede dele, må de ikke benyttes.
- Inden brug af styringssystemet skal det verificeres, at alle funktioner er blevet kontrolleret for korrekt funktion. Hvis der er tvivl om nogen ting, må der ikke fortsættes. Tag ingen risiko - kontakt altid din autoriserede forhandler eller tekniske support.
- Inden brug af styringssystemet skal det verificeres, at alle funktioner for kontakten for operatørens tilstedeværelse fungerer korrekt.
- Tænding og slukning af styringssystemet skal gøres på korrekt vis, efter de beskrevne procedurer.
- Hvis nogen af køretøjets eller systemets funktioner er unormale, hvis f.eks. der er overdrevne vibrationer eller støj, skal køretøjet straks stoppes, og styringssystemet skal slukkes. Kontakt din autoriserede forhandler eller teknisk support.
- Under vedligeholdelse eller rengøring af styringssystemet skal de være helt slukkede og den elektriske strøm skal være afbrudt.
- Operatøren af styringssystemet skal læse og forstå alle sikkerhedsvejledninger, så han/hun ved, hvad de skal gøre i en nødsituation.
- Den autoriserede forhandler skal altid udføre vedligeholdelse eller reparationer på styringssystemet.
- Under reparation eller udskiftning af komponenter i styringssystemet må der kun bruges originaldele.
- Operatør og personale, der udfører vedligeholdelsen, skal altid være udstyret med korrekt personligt beskyttelsesudstyr når der arbejdes på styringssystemet.
- Personalet, der udfører vedligeholdelsesarbejdet, skal altid bruge de anbefalede rengøringsmidler og tilbehør når styringssystemet rengøres.
- Usikre forhold eller situationer omkring styringssystemet skal rapporteres til din autoriserede forhandler eller teknisk support.
- Der må ikke anbringes objekter på eller i området for styringssystemet.
- Under installation, kalibrering og tuning af styringssystemet kan det forekomme, at køretøjets hjul drejer til venstre og højre. Sørg for, at alle personer og objekter holdes væk fra hjulene inden der fortsættes.
- Sæt køretøjets sæde og rat i normal driftsposition og verificer, at MDU (Mechanical Drive Unit) ikke griber forstyrrende ind i kontrolanordningernes funktion.
- Operatøren skal læse og acceptere ansvarserklæringen for den automatiske styring, hver gang systemet tændes.
- Hvis der er spørgsmål angående sikker brug af styringssystemet, eller omkring vejledningerne i vejledningen, skal du kontakte din autoriserede forhandler eller teknisk support.
- Operatøren skal til alle tider være opmærksom på eventuelle forhindringer i køretøjets bane. Styringssystemet kan ikke identificere eller undgå forhindringer.
- Operatøren skal forblive i operatørens sæde inden i køretøjet mens styringssystemet er aktiveret.
- Brug kun styringssystemet i en åben mark. Systemerne skal slukkes når køretøjet befinder sig på en kørebane, uanset hvilken slags.

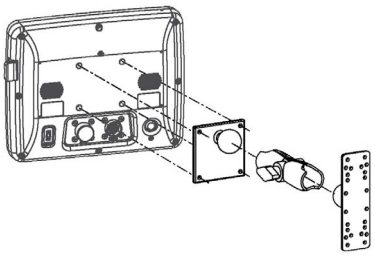
Ansvarlighedserklæring Ag Leader Technology kan ikke holdes ansvarlig eller forpligtet på nogen måde for nogen form for skader og/eller ulykker, fra fejlfunktion af den maskine, som systemet er installeret på, eller fejlfunktion af maskinens komponenter, maskinens attributter (f.eks. en anhænger), tredjeparts-forstyrrelser eller operatørhandlinger udenfor de tilsigtede, som beskrevet af Ag Leader Technology.

Deutsch (German)

SteerCommand Z2 System



Montage-halterungen



Sicherungstyp Flachsicherung (ATO/ATC) 5 A 15 A **Betriebsspannung** 9 – 16 V Gleichspannung Maximalstrom InCommand 4,0 A	Technische Daten Achten Sie darauf, dass die nachstehenden Spezifikationen nicht überschritten werden: •Lagerungstemperatur: -20 bis 80 °C •Betriebstemperatur: -10 bis 70 °C •Schutzart: IP67 •Keine Schutzerde erforderlich •150 V-Minimalisolierung bei externen Schaltungen nutzen

Sicherheitshinweis: Lesen Sie Sicherheitshinweise und Bedienungsanleitungen gründlich durch, halten Sie sich an sämtliche Anweisungen.

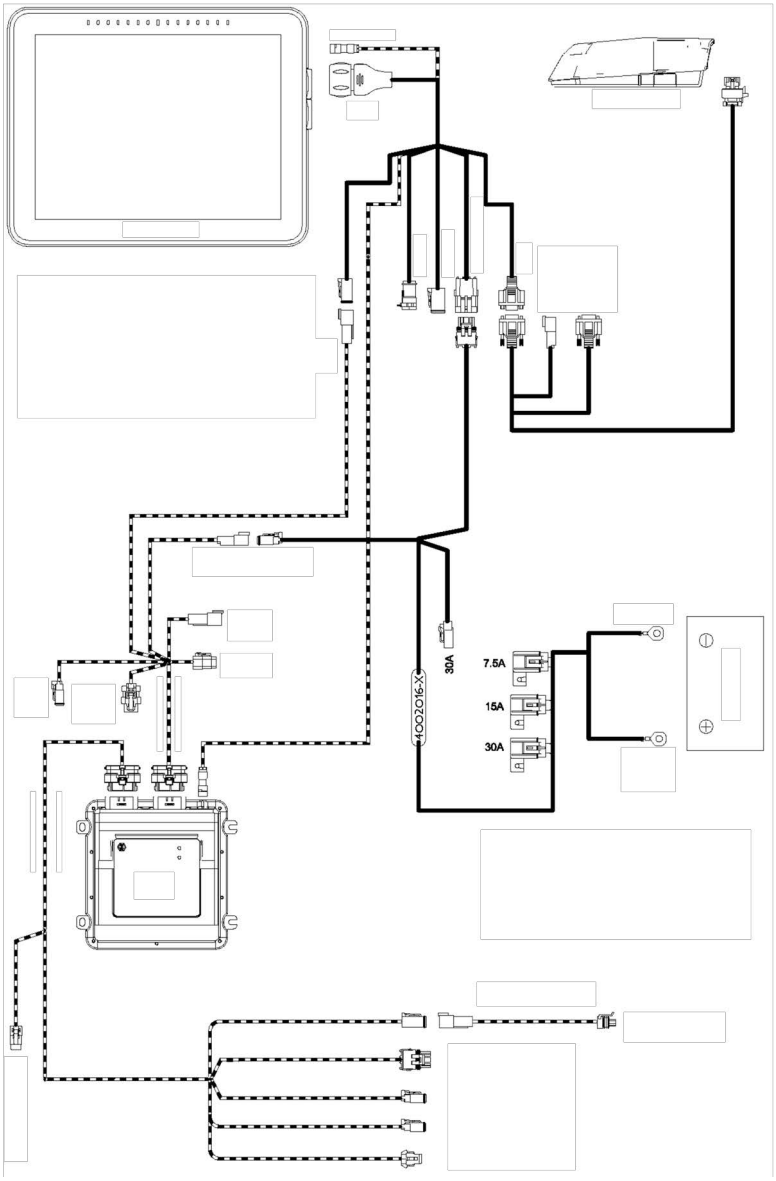
Lenkungssystem/Steuerungssystem bezieht sich auf das SteerCommand Z2, SteadySteer.

- Das Lenkungssystem darf nur von Personen bedient werden, die zur Führung des entsprechenden Fahrzeugs berechtigt sind.
- Das Sicherheitstempolimit des Geländes, auf dem das Fahrzeug eingesetzt wird, darf nicht überschritten werden.
- Anwender des Lenkungssystems müssen sich bei der Bedienung jederzeit in vollem Umfang ihrer Handlungen bewusst sein.
- Wenden Sie bei der Installation des Lenkungssystems keinerlei Gewalt an – dies kann zu Beschädigungen der Komponenten führen.
- Halten Sie sich grundsätzlich an die Anweisungen der Installations-, Betriebs- und Wartungsunterlagen.
- Das Lenkungssystem sollte ausschließlich von geschultem Personal bedient werden.
- Überprüfen Sie grundsätzlich den Lieferumfang der gelieferten Komponenten; überzeugen Sie sich davon, dass die richtigen Komponenten vorhanden sind. Verwenden Sie ausschließlich Originalkomponenten; versuchen Sie niemals, Originalkomponenten durch andere Komponenten zu ersetzen.
- Bei Fragen zur sicheren Bedienung des Lenkungssystem und bei Fragen zu den Anweisungen der Bedienungsanleitungen wenden Sie sich bitte unverzüglich an Ihren autorisierten Händler oder an den technischen Kundendienst.
- Setzen Sie bei der Installation des Lenkungssystems grundsätzlich die richtigen, passenden Werkzeuge ein.
- Damit es nicht zu Verletzungen kommt, führen Sie die Installation des Lenkungssystems mit Sorgfalt und Vorsicht aus.
- Verwenden Sie das Lenkungssystem nicht bei unsicheren Wetterbedingungen.
- Verwenden Sie das Lenkungssystem nicht in unsicherem Gelände.
- Das Lenkungssystem darf nur von Personen bedient werden, die entsprechend ausgebildet wurden, über die nötige Erfahrung verfügen und zur Nutzung oder Bedienung autorisiert wurden.
- Vor Beginn des Arbeitseinsatzes muss sich der Bediener in ausreichendem Umfang über die sichere Bedienung des Lenkungssystems informieren.
- Bei der Installation des Lenkungssystems müssen sämtliche Sicherheitsvorkehrungen voll und ganz verstanden und beachtet werden. Lose, beschädigte oder unvollständige Teile dürfen nicht eingesetzt werden
- Überprüfen Sie vor dem Einsatz des Lenkungssystems sämtliche Funktionen und Eigenschaften auf einwandfreie Funktion. Falls auch nur der geringste Zweifel bestehen sollte, gehen Sie kein Risiko ein – wenden Sie sich grundsätzlich an Ihren autorisierten Händler oder den technischen Kundendienst.
- Überprüfen Sie sämtliche Funktionen des Bedienerpräsenzschalters vor dem Einsatz des Lenkungssystems auf einwandfreie Funktion.
- Das Lenkungssystem muss grundsätzlich mit den vorgegebenen Schritten ein- und ausgeschaltet werden.
- Bei anormalen Fahrzeug- oder Systemfunktionen – beispielsweise bei übermäßigen Vibrationen oder starker Geräuschentwicklung – stoppen Sie das Fahrzeug sofort, schalten das Lenkungssystem AUS und wenden sich an Ihren autorisierten Händler oder an den technischen Kundendienst.
- Vor Wartung und Reinigung des Lenkungssystems muss das System vollständig ABGESCHALTET und stromlos gemacht werden.
- Anwender des Lenkungssystems müssen sich mit sämtlichen Sicherheitshinweisen gründlich vertraut machen, damit bei Notfällen entsprechend richtig reagiert werden kann.
- Wartungsarbeiten und Reparaturen des Lenkungssystems müssen grundsätzlich durch den autorisierten Händler ausgeführt werden.
- Bei Reparaturen und Instandsetzungen von Komponenten des Lenkungssystems dürfen nur Originalteile verwendet werden.
- Bei sämtlichen Arbeiten am Lenkungssystem ist das Tragen geeigneter persönlicher Schutzausrüstung zwingend vorgeschrieben.
- Bei der Reinigung des Lenkungssystems dürfen nur zugelassene/empfohlene Reinigungs- und sonstige Hilfsmittel eingesetzt werden.
- Falls sich beim Einsatz des Lenkungssystems unsichere Situation ergeben sollten, muss dies Ihrem autorisierten Händler oder dem technischen Kundendienst möglichst unverzüglich mitgeteilt werden.
- Auf dem Lenkungssystem sowie in dessen Nähe dürfen keine Gegenstände abgestellt werden.
- Bei Installation, Kalibrierung und Abstimmung des Lenkungssystems können sich die Räder des Fahrzeugs nach links und rechts bewegen. Achten Sie darauf, dass sich keine Personen oder Hindernisse in der Nähe der Räder befinden, bevor Sie fortfahren.
- Bringen Sie Fahrzeugsitz und Lenkrad in die gewohnten Betriebspositionen, vergewissern Sie sich, dass die Mechanical Drive Unit (MDU) keine Bedienelemente berührt.
- Bei jedem Einschalten des Systems muss der Hinweis zur Haftung zum automatischen Steuerungssystem vom Bediener gelesen und bestätigt werden.
- Bei Fragen zur sicheren Bedienung des Lenkungssystem und bei Fragen zu den Bedienungshinweisen wenden Sie sich bitte an Ihren autorisierten Händler oder an den technischen Kundendienst.
- Auf Hindernisse in Fahrtrichtung des Fahrzeugs ist grundsätzlich zu achten. Hindernisse können vom Lenkungssystem weder erkannt noch umfahren werden.
- Beim Einsatz des Lenkungssystems darf der Bediener den Fahrersitz nicht verlassen.
- Nutzen Sie das Lenkungssystem ausschließlich auf dem offenen Feld. Die Systeme müssen ABGESCHALTET werden, sobald das Fahrzeug auf Straßen oder Wegen gleich welcher Art eingesetzt wird.

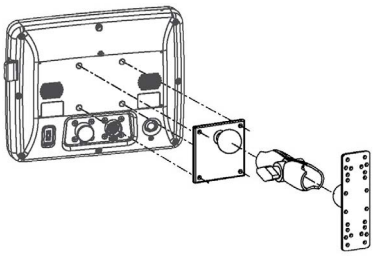
Haftungsausschluss Ag Leader Technology haftet nicht für jegliche Schäden oder Unfälle, die durch Fehlfunktionen des Trägerfahrzeugs, Zusatzeinrichtungen (z. B. Anhänger), durch Eingriffe Dritter oder nicht von Ag Leader Technology vorgeschriebene Handlungen des Bedieners verursacht werden.

Español (Spanish_Argentina)

Sistema SteerCommand Z2



Soportes de montaje



Tipo de fusible Estilo lámina (ATO/ATC) Capacidad nominal 5 A Capacidad nominal 15 A **Voltaje de operación** 9-16 V CC Capacidad nominal máxima de corriente InCommand 4,0 A	Especificaciones técnicas No exceda las siguientes especificaciones: • Temperatura de almacenamiento: Entre -4° y +176°F (entre -20° y +80°C) • Temperatura de funcionamiento: Entre 14° y +156°F (entre -10° y +70°C) • Especificación de protección ambiental: IP67 • No se requiere tierra de protección • Use una especificación de aislamiento mínima de 150 V para circuitos externos

Aviso de seguridad: Lea bien las instrucciones de seguridad y los Manuales del usuario y siga las instrucciones.

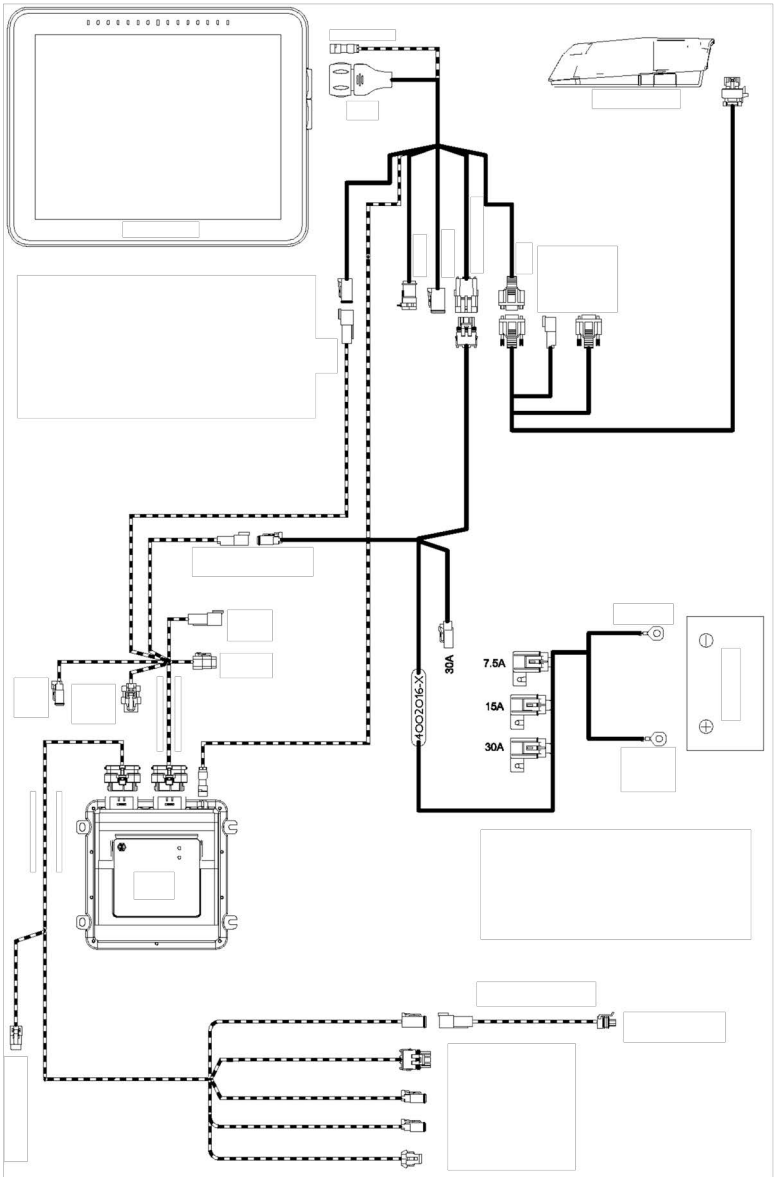
El sistema de mando se refiere al SteerCommand Z2, SteadySteer.

- Solo un operador plenamente autorizado para manejar el vehículo puede usar el Sistema.
- El operador no debe exceder el límite seguro de velocidad para el terreno en el que opera el vehículo.
- El operador siempre debe tener presente sus acciones al operar el Sistema.
- Al instalar el Sistema, no fuerce los componentes ya que esto puede resultar en daños a los componentes.
- Siga siempre las instrucciones de los manuales de instalación, operación y mantenimiento.
- Únicamente personal capacitado debe instalar el Sistema.
- Haga siempre un inventario de los componentes entregados para garantizar que todos los componentes correctos estén presentes. Nunca use componentes de repuesto. Use solo componentes originales.
- Si tiene preguntas con respecto a la operación segura del Sistema, o de las instrucciones de los manuales, comuníquese de inmediato con su distribuidor autorizado o con Soporte técnico.
- Use siempre las herramientas correctas para instalar el Sistema.
- Para prevenir lesiones, tenga precaución al instalar el Sistema.
- No use u opere el Sistema en condiciones climáticas no seguras.
- No use u opere el Sistema en terrenos no seguros.
- Solo un operador capacitado, experimentado o autorizado puede usar u operar el Sistema.
- Antes de usar el Sistema, el operador debe tener suficientes conocimientos sobre cómo operar los sistemas de manera segura.
- Al instalar el Sistema se deben comprender claramente todas las precauciones de seguridad. Si hay alguna pieza que esté floja, deteriorada o faltante, no se debe usar.
- Antes de usar el Sistema, verifique que se revisen y controlen todas las funciones para garantizar que trabajan correctamente. En caso de duda, no asuma riesgos, comuníquese siempre con su distribuidor autorizado o con Soporte técnico.
- Antes de operar el Sistema, verifique todas las funciones del Interruptor de presencia del operador para garantizar que funciona correctamente.
- Para encender o apagar el Sistema, se deben seguir los procedimientos correctos prescritos.
- Si algún vehículo o función del sistema opera en forma anormal, por ejemplo, si ocurren vibraciones excesivas o ruido, detenga el vehículo de inmediato, apague el Sistema y comuníquese con su distribuidor autorizado o con Soporte técnico.
- Al hacerle mantenimiento o limpieza , el sistema debe estar completamente apagado y libre de corriente eléctrica.
- El operador del Sistema debe leer y comprender todas las instrucciones de seguridad para poder reaccionar en caso de emergencia.
- El mantenimiento o reparación al Sistema debe siempre ser realizado por el distribuidor autorizado.
- Durante la reparación o el reemplazo de los componentes del Sistema sólo se deben usar componentes originales.
- El operador o el personal de mantenimiento deben siempre llevar puesto equipos de protección personal al trabajar con el Sistema.
- El personal de mantenimiento debe siempre usar los materiales de limpieza y accesorios recomendados al limpiar el Sistema .
- Las condiciones o situaciones no seguras con el Sistema deben ser notificadas a su distribuidor autorizado o a Soporte técnico.
- No se pueden colocar objetos en el Sistema o en el área de tales sistemas.
- Durante la instalación, calibración y sintonización del Sistema , las ruedas del vehículo pueden girar a la izquierda y derecha. Asegúrese de que no haya personas ni obstáculos en el área de las ruedas antes de proceder.
- Coloque el asiento del vehículo y el volante de mando en posición de operación normal y compruebe que la Unidad de accionamiento mecánico (MDU) no interfiera con ninguno de los controles.
- El operador debe leer y aceptar el Aviso de responsabilidad de mando automático cada vez que se enciende el sistema.
- Si tiene preguntas con respecto a la operación segura del Sistema, o de las instrucciones de operación, comuníquese de inmediato con su distribuidor autorizado o con Soporte técnico.
- El operador debe mantenerse alerta en caso de obstáculos en la trayectoria del vehículo. El Sistema no pueden identificar o evitar obstáculos.
- El operador debe mantenerse en el asiento del operador del vehículo mientras se conecta el Sistema .
- Use el Sistema solamente en campo abierto. Los sistemas deben estar apagados mientras el vehículo se encuentra en algún tipo de carretera.

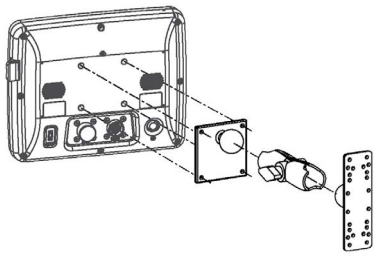
Aviso de responsabilidad: Ag Leader Technology de ninguna manera se hace responsable por cualesquiera daños y/o accidentes que ocurran por el funcionamiento indebido de la máquina en el que el sistema se encuentre instalado, por el funcionamiento indebido de los componentes de la máquina, características de la máquina (por ej. remolques), interferencias de terceros o actos del operador fuera del uso previsto prescrito por Ag Leader Technology

Français (French)

Système SteerCommand Z2



Supports de fixation



Type de fusible À lame (ATO/ATC) 5 A 15 A **Tension de service** 9 à 16 V c.c. **Courant nominal max.** InCommand 4,0 A	Respecter les caractéristiques suivantes : • Température de stockage : -20 à +80 °C (-4 à +176 °F) • Température de service : -10 à +70 °C (14 à +156 °F) • Indice de protection : IP67 • Aucune mise à la terre requise • Les circuits externes doivent présenter une caractéristique d'isolement minimale de 150 V

Avis de sécurité* : Lisez soigneusement ces consignes de sécurité ainsi que le Manuel d'utilisation et respectez les instructions.

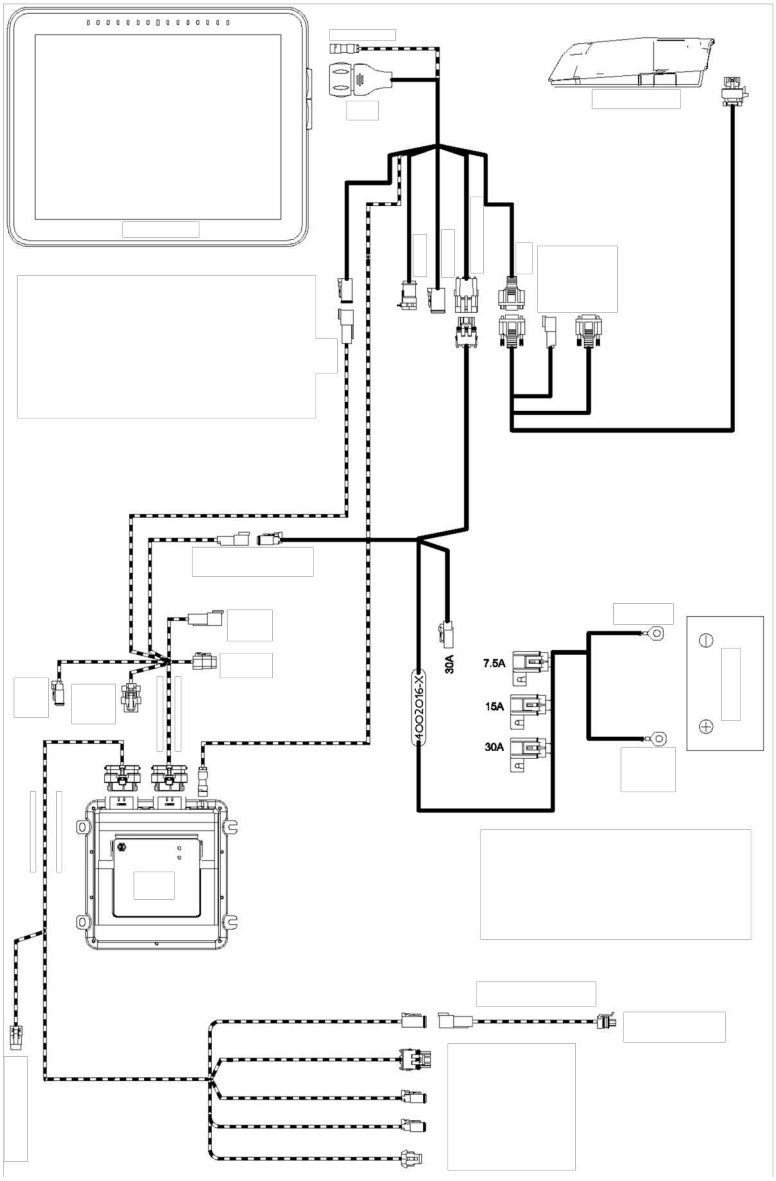
Seul un opérateur possédant toutes les capacités à conduire le véhicule peut se servir du système deSteerCommand Z2, SteadySteer.

- L'opérateur ne doit pas dépasser la limite de vitesse de sécurité définie pour le véhicule en fonction du terrain.
- Ne forcez sur aucun composant au cours de l'installation du système, les composants concernés pourraient être endommagés.
- Suivez toujours les instructions contenues dans les manuels d'installation, d'exploitation et d'entretien.
- Seul du personnel qualifié doit installer le système.
- Répertoriez toujours les composants livrés pour vous assurer qu'aucun d'entre eux ne manque. N'utilisez jamais de composants de substitution. Utilisez uniquement des composants d'origine.
- En cas de question concernant l'utilisation dans des conditions de sécurité optimales du système ainsi que sur les instructions du mode d'emploi, n'hésitez pas à consulter votre vendeur agréé ou le support technique.
- Utilisez toujours les outils appropriés pour installer le système.
- Pour éviter tout dommage corporel, soyez prudent au cours de l'installation du système.
- N'utilisez ou n'actionnez pas le système lors de conditions climatiques dangereuses.
- N'utilisez ou n'actionnez pas le système sur un terrain dangereux.
- Seul un opérateur qualifié, expérimenté et agréé peut se servir du système.
- Avant toute utilisation du système, l'opérateur doit posséder une connaissance suffisante de l'utilisation en toute sécurité de ces systèmes.
- Au cours de l'installation du système, toutes les consignes de sécurité doivent être parfaitement comprises. Les pièces desserrées, manquantes ou endommagées ne doivent pas être utilisées.
- Avant d'utiliser le système, le fonctionnement de toutes les fonctions doit être vérifié. En cas de doute, ne prenez aucun risque et consultez votre vendeur agréé ou le support technique.
- Avant d'utiliser les systèmes, vérifiez toutes les fonctions du commutateur de présence, tout doit fonctionner correctement.
- Les opérations de mise sous tension ou d'arrêt du système doivent être effectuées en respectant les procédures appropriées.
- Si toute fonction du véhicule ou du système s'avère être anormale, par exemple des vibrations ou des bruits importants, arrêtez immédiatement le véhicule, mettez le système hors tension et prenez contact avec votre vendeur agréé ou le support technique.
- Au cours des opérations d'entretien ou de nettoyage des systèmes , ces derniers doivent être hors tension et exempt de tout courant électrique.
- Le vendeur agréé doit toujours entreprendre les opérations d'entretien et de réparation du système.
- Seuls des composants d'origine doivent être utilisés au cours de la réparation ou du remplacement du système.
- Au cours de travaux sur le système, l'opérateur ou le personnel d'entretien doit toujours porter l'équipement de protection individuel approprié.
- Le personnel d'entretien doit toujours utiliser les produits et accessoires de nettoyage recommandés pour le nettoyage du système
- Les conditions ou situations dangereuses relatives au système doivent être reportées à votre vendeur agréé ou au support technique.
- Aucun objet ne doit être placé sur ou à proximité du système.
- Au cours de l'installation, de la calibration et du réglage du système, les roues du véhicule vont tourner à gauche et à droite. Veillez à ce que les personnes et obstacles soient tenus éloignés des roues avant de procéder à ces opérations.
- Placez le siège du véhicule et le volant en position normale d'utilisation et vérifiez que l'unité d'entraînement mécanique n'interfère pas avec les commandes.
- L'opérateur doit lire et valider l'Avis de responsabilité du pilotage automatique à chaque fois que le système est mis sous tension.
- En cas de question concernant l'utilisation dans des conditions de sécurité optimales du système ainsi que sur les instructions d'utilisation, n'hésitez pas à consulter votre vendeur agréé ou le support technique.
- L'opérateur doit rester attentif aux obstacles survenant sur le chemin du véhicule. Le système de ne peut détecter ou éviter les obstacles.
- L'opérateur doit toujours rester dans le siège du conducteur, dans le véhicule, lorsque le système est activé.
- Utilisez uniquement le système en plein champ. Le système doit être mis hors tension lorsque le véhicule se trouve sur une chaussée.

Avis de responsabilité Ag Leader Technology ne saurait être tenu responsable, de quelle que façon que ce soit, pour tous dégâts ou accidents pouvant survenir à la suite d'un dysfonctionnement de la machine sur laquelle le dispositif est installé, une défaillance des composants de la machine, des attributs de la machine (remorques, …), des interférences de systèmes tiers ou d'actions de l'opérateur non conformes à l'usage normal indiqué par Ag Leader Technology

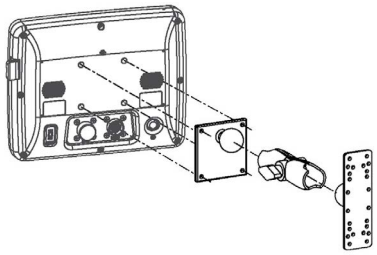
Italiano (Italian)

Sistema SteerCommand Z2



Montaggio

StaffeMontage-steun



Tipo di fusibile	Specifiche tecniche
Tipo a lama (ATO/ATC)	Non superare le seguenti specifiche:
Livello 5 A	• Temperatura di conservazione:
Livello 15 A	da -4° a +176°F (da -20° a +80°C)
Tensione di funzionamento	• Temperatura di esercizio:
9 –16 V CC	da 14° a +156°F (da -10° a +70°C)
Corrente massima nominale:	• Valutazione indice di protezione: IP67
InCommand 4,0 A	• Non è necessaria la protezione con messa a terra
	• Per i circuiti esterni utilizzare l'isolamento 150V circuits

Avviso di sicurezza: Leggere attentamente le istruzioni sulla sicurezza e il manuale di istruzioni per l'utente e osservare le indicazioni riportate.

Il sistema sterzante fa riferimento al sistema SteerCommand Z2, SteadySteer.

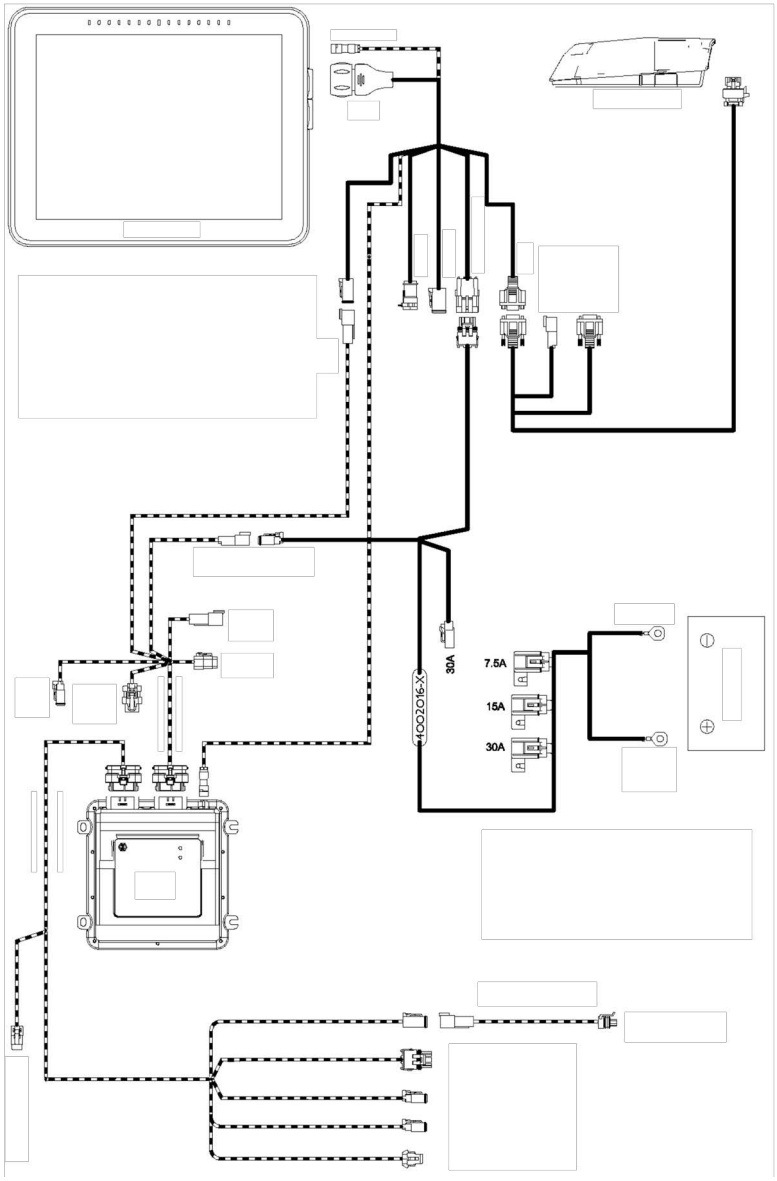
- Il sistema sterzante deve essere utilizzato esclusivamente da operatori autorizzati alla guida del veicolo.
- L'operatore non deve superare il limite di velocità di sicurezza indicato per il terreno operativo.
- Durante l'utilizzo del sistema sterzante, l'operatore deve essere sempre consapevole delle proprie azioni.
- Durante l'installazione del sistema sterzante, prestare attenzione a non forzare i componenti, in quanto potrebbero danneggiarsi.
- Osservare sempre le istruzioni riportate nei manuali di installazione, funzionamento e manutenzione.
- L'installazione del sistema sterzante deve essere effettuata esclusivamente da personale esperto.
- Effettuare sempre l'inventario dei componenti forniti, in modo da garantire che tutti i componenti corretti siano disponibili. Non utilizzare mai componenti sostitutivi. Utilizzare esclusivamente componenti originali.
- Per eventuali domande inerenti il funzionamento sicuro del sistema sterzante o per le istruzioni riportate nei manuali, non esitare a contattare il concessionario autorizzato locale o il supporto tecnico.
- Per eseguire l'installazione del sistema sterzante utilizzare sempre gli strumenti corretti.
- Per evitare eventuali lesioni personali, prestare sempre la massima attenzione durante l'installazione del sistema sterzante.
- Non utilizzare o attivare il sistema sterzante se le condizioni atmosferiche sono rischiose.
- Non utilizzare o attivare il sistema sterzante se il terreno è accidentato.
- Il sistema sterzante deve essere utilizzato esclusivamente da operatori autorizzati.
- Prima di avviare le attività, l'operatore deve aver acquisito sufficiente familiarità con la modalità di funzionamento sicura del sistema sterzante.

- Durante l'installazione del sistema sterzante, è necessario aver compreso interamente tutte le misure sulla sicurezza. Se alcuni componenti sono allentati, mancanti o danneggiati, non procedere con l'utilizzo.
- Prima di utilizzare il sistema sterzante, è necessario verificare tutte le funzioni, in modo da assicurarne il corretto funzionamento. In caso di dubbi, non esporsi mai a rischi e contattare sempre il proprio concessionario locale o il supporto tecnico.
- Prima di avviare il sistema sterzante, verificare che tutte le opzioni dell'interruttore presenza operatore siano funzionanti.
- L'attivazione e la disattivazione del sistema sterzante devono essere effettuate seguendo le procedure indicate.
- In caso di funzionamento anomalo del veicolo o del sistema, ad esempio in presenza di rumori o vibrazioni eccessive, arrestare immediatamente il veicolo, disattivare il sistema sterzante e contattare il proprio concessionario locale o il supporto tecnico.
- Durante gli interventi di manutenzione o di pulizia del sistema sterzante, è necessario che questo sia completamente disattivato e privo di alimentazione elettrica.
- L'operatore del sistema sterzante deve aver letto e compreso interamente le istruzioni sulla sicurezza, in modo da poter intervenire in caso di emergenza.
- Gli interventi di manutenzione o di riparazione sul sistema sterzante devono essere eseguiti sempre dal concessionario autorizzato.
- Per la riparazione o la sostituzione dei componenti sul sistema sterzante, utilizzare esclusivamente componenti originali.
- Per eseguire le operazioni sul sistema sterzante, l'operatore o il personale per la manutenzione devono sempre indossare un'attrezzatura di protezione.
- Durante l'intervento di pulizia del sistema sterzante, il personale di manutenzione deve utilizzare sempre il materiale e gli accessori per la pulizia consigliati.
- Eventuali condizioni o situazioni rischiose relative al sistema sterzante devono essere comunicate al proprio concessionario autorizzato o al supporto tecnico.
- Non posizionare oggetti al di sopra o all'interno dell'area del sistema sterzante.
- Durante l'installazione, la calibrazione e la messa a punto del sistema sterzante, le ruote del veicolo potrebbero girare verso destra o sinistra. Prima di procedere con l'operazione, assicurarsi che nell'area circostante non vi siano persone od ostacoli.
- Collocare il sedile e il volante del veicolo nella posizione operativa normale e verificare che l'unità di comando meccanico (MDU) non interferisca con i comandi.
- Tutte le volte che il sistema viene attivato, l'operatore deve leggere e comprendere interamente l'Avviso di responsabilità dello sterzo automatico.
- Per eventuali domande inerenti il funzionamento sicuro del sistema sterzante o per le istruzioni operative, non esitare a contattare il concessionario autorizzato locale o il supporto tecnico.
- L'operatore deve prestare attenzione agli ostacoli lungo il percorso del veicolo. Il sistema sterzante non è in grado di individuare o evitare gli ostacoli.
- Quando il sistema sterzante è innescato, l'operatore deve rimanere nella propria postazione sul veicolo.
- Utilizzare il sistema sterzante solamente in campo aperto. Disattivare i sistemi quando il veicolo si trova su qualsiasi tipo di strada.

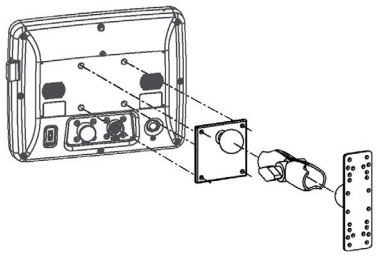
Avviso di responsabilità: Ag Leader Technology non sarà in nessun caso ritenuta responsabile per eventuali danni e/o incidenti causati dal malfunzionamento della macchina su cui è stato installato il sistema, dal malfunzionamento dei componenti della macchina, dalle parti aggiuntive della macchina (ad es. i rimorchi), dalle interferenze di terze parti o da azioni eseguite dall'operatore che non rientrino nell'uso convenuto, così come indicato da Ag Leader Technology.

Magyar (Hungarian)

SteerCommand Z2 rendszer



Rögzítő Bilincsek



Biztosíték típusa Késes (ATO/ATC) 5 A névleges 15 A névleges **Üzemi feszültség** 9 -16 V DC Max. névleges áram InCommand 4,0 A	Műszaki adatok Ne lépje túl az alábbi feltételeket: • Tárolási hőmérséklet: -4° és +176°F (-20° és +80°C) között • Üzemi hőmérséklet: 14° és +156°F (-10° és +70°C) között • Környezetvédelmi besorolás: IP67 • Nincs szükség védőföldre • A külső áramkörök esetében legalább 150 voltos szigetelési szilárdság szükséges

Biztonsági figyelmeztetés: Alaposan olvassa át ezeket a biztonsági utasításokat és a Felhasználói kézikönyveket, és tartsa be az utasításokat.

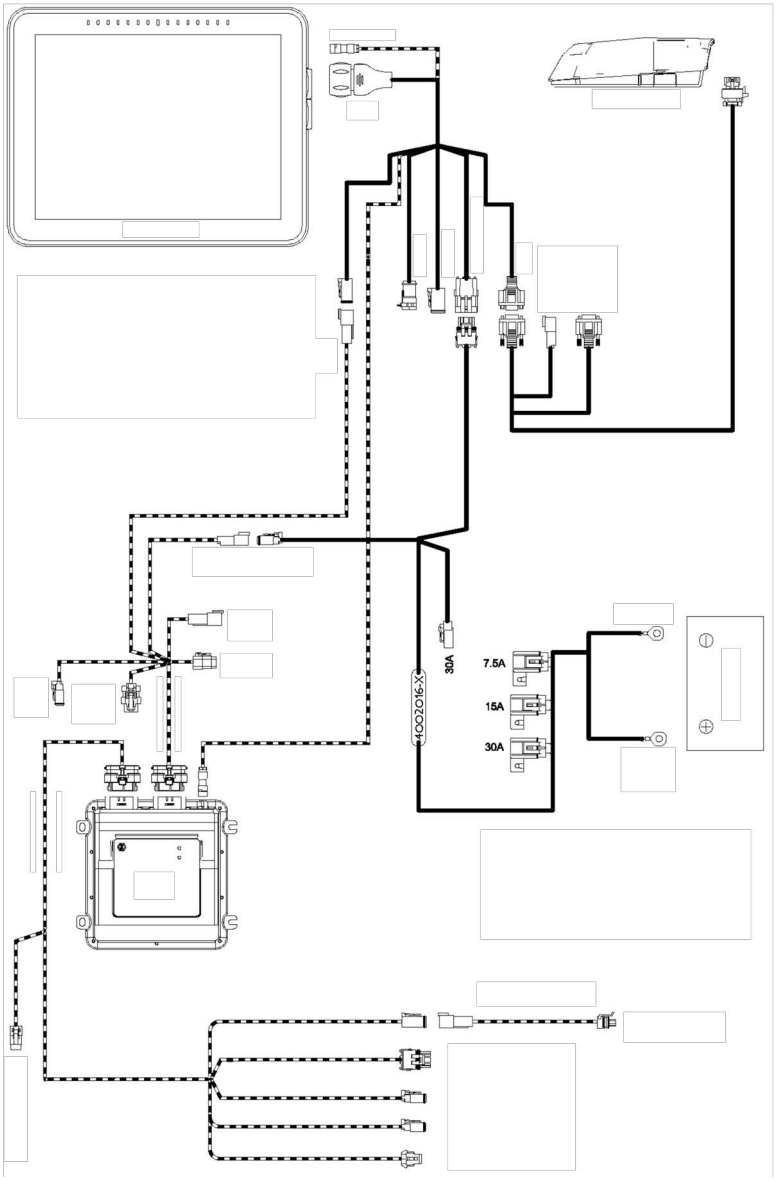
A kormányzási rendszer (robotpilóta) az SteerCommand Z2, SteadySteer.

- Csak a jármű vezetésére felhatalmazott személy használhatja a kormányzási rendszert.
- A kezelő nem lépheti túl a munkavégzés terepén megengedett biztonságos sebességhatárt.
- A kezelőnek mindig tudatában kell lennie a kormányzási rendszer használata során megtett intézkedéseinek.
- A kormányzási rendszer telepítésekor ne erőltesse az alkatrészeket, mert ez az alkatrészek meghibásodásához vezethet.
- Mindig tartsa be a telepítési, üzemeltetési és karbantartási kézikönyvekben levő utasításokat.
- Csak szakképzett személy telepítse a kormányzási rendszert.
- Mindig vegye számba a leszállított alkatrészeket, hogy a megfelelő elemek állnak-e rendelkezésre. Soha ne használjon utángyártott alkatrészeket. Csak eredeti alkatrészeket használjon.
- Ha kérdések merülnek fel a kormányzási rendszer biztonságos használatával vagy a kézikönyvek utasításaival kapcsolatban, akkor azonnal keresse a hivatalos forgalmazót vagy a műszaki ügyfélszolgálatot.
- Mindig a megfelelő szerszámokat használja a kormányzási rendszer szereléséhez.
- Balesetek elkerülése érdekében körültekintően járjon el a kormányzási rendszer szerelésénél.
- Ne használja és ne üzemeltesse a kormányzási rendszert nem biztonságos időjárási körülmények között.
- Ne használja és ne üzemeltesse a kormányzási rendszert nem biztonságos terepviszonyok között.
- Csak a jármű vezetésére kioktatott, tapasztalt és illetékes kezelő használhatja vagy üzemeltetheti a kormányzási rendszert.
- A munkatevékenység megkezdése előtt a kezelőnek elegendő ismerettel kell rendelkeznie a kormányzási rendszer biztonságos használatával kapcsolatban.
- A kormányzási rendszer szerelése során minden biztonsági óvintézkedést be kell tartani. Az esetlegesen meglazult, hiányzó vagy sérült alkatrészeket nem szabad használni.
- A kormányzási rendszer használata előtt minden funkció üzemképességét ellenőrizni kell a helyes működés érdekében. Kétségek esetén ne kockáztasson, hanem keresse a hivatalos forgalmazót vagy hívja a műszaki ügyfélszolgálatot.
- A kormányzási rendszer használata előtt ellenőrizze a Jelenlét-kapcsoló minden funkcióját a helyes működés érdekében.
- A kormányzási rendszer BE és KI kapcsolása csak az előírt helyes eljárással történhet.
- Ha bármelyik jármű vagy rendszerfunkció rendellenességet mutat – például túl nagy rezgések vagy zajok lépnek fel – akkor azonnal állítsa le a járművet és kapcsolja KI a kormányzási rendszert és keresse a hivatalos forgalmazót vagy hívja a műszaki ügyfélszolgálatot.
- A kormányzási rendszert karbantartása vagy tisztítása során teljesen KI kell kapcsolni és feszültségmentesíteni kell.
- A kormányzási rendszert használó kezelőnek minden biztonsági utasítást el kell olvasnia és tudomásul kell vennie, hogy megfelelően tudjon reagálni veszélyhelyzet esetén.
- Mindig a hivatalos forgalmazónak kell elvégeznie a kormányzási rendszer karbantartását és javítását.
- A kormányzási rendszer javítása vagy alkatrészcseréje során csak eredeti alkatrészeket szabad használni.
- A kormányzási rendszeren történő munkavégzés során a karbantartó és javító személyzetnek mindig viselnie kell a megfelelő személyi védőfelszerelést.
- A kormányzási rendszeren történő takarítás során a karbantartó személyzetnek mindig az ajánlott tisztító anyagokat kell használni.
- A kormányzási rendszer nem biztonságos állapotát vagy helyzetét jelenteni kell a hivatalos forgalmazónak vagy a műszaki ügyfélszolgálatnak.
- Nem helyezhetők el tárgyak a kormányzási rendszeren vagy a közelében.
- A kormányzási rendszer telepítése, kalibrálása és hangolása során a jármű kerekei balra és jobbra elfordulhatnak. Az ilyen lépések előtt győződjön meg róla, hogy senki és semmi ne legyen a kerekek közelében.
- A jármű ülését és kormánykerekét helyezze normál üzemi helyzetbe és ellenőrizze, hogy a Mechanical Drive Unit (mechanikai meghajtó egység) (MDU) nem ütközik-e más kezelőszervekkel.
- A rendszer minden bekapcsolása során a kezelőnek el kell olvasnia és tudomásul kell vennie az Automatikus kormányzás felelősségi figyelmeztetését.
- Ha kérdések merülnek fel a kormányzási rendszer biztonságos használatával vagy a kézikönyvek utasításaival kapcsolatban, akkor azonnal keresse a hivatalos forgalmazót vagy a műszaki ügyfélszolgálatot.
- A kezelőnek figyelnie kell a jármű útvonalába eső tárgyakra. A kormányzási rendszer az akadályokat nem ismeri fel és nem kerüli ki.
- A kezelőnek a jármű vezetőülésében kell maradnia, amíg a kormányzási rendszer aktiválva van.
- A kormányzási rendszert csak a nyílt táblákon használja. A bármilyen fajtájú közútra történő kihajtás előtt kapcsolja KI a rendszert.

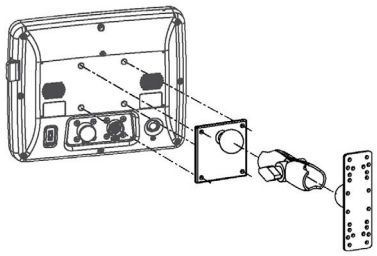
Felelősségi nyilatkozat A Ag Leader Technology semmilyen módon nem tehető felelőssé semminemű kárért és/vagy balesetért, amely annak a gépnek az üzemzavarából ered, amelyre a telepítve van, a gép alkatrészeinek üzemzavarából, a gép jellemzőiből (pl. trélerek) ered, harmadik fél által okozott inteferenciá(k)ból vagy a kezelőnek a Ag Leader Technology által előírt rendeltetésszerű használattól eltérő cselekedeteiből ered.

Nederlands (Dutch)

SteerCommand Z2 systeem



Montage-steun



Type zekering	Technische specificaties
Steekzekering (ATO/ATC)	Overschrijd onderstaande specificaties niet:
5 A	• Temperatuur in opslag:
15 A	-20° tot +80°C
Bedrijfsvoltage	• Temperatuur in bedrijf:
9 - 16 V DC	-10° tot +70°C
Max. nominaal stroombereik	• Milieubeschermingsgraad: IP67
InCommand 4,0 A	• Geen aarding vereist
	• Gebruik 150 V isolatiegraad voor externe circuits

Veiligheidskennisgeving: Lees deze veiligheidsinstructies en de Gebruikershandleidingen grondig door en volg de instructies.

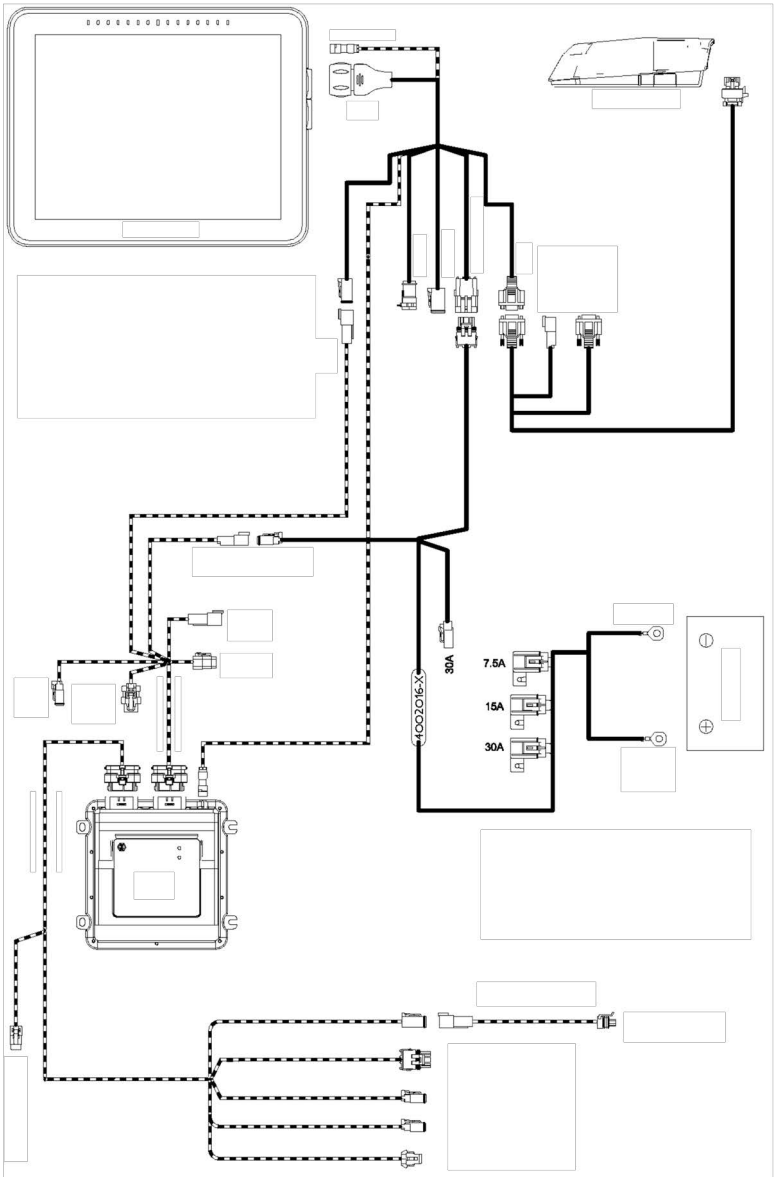
Besturingssysteem verwijst naar het SteerCommand Z2, SteadySteer.

- Alleen een operator die geheel bevoegd is om het voertuig te besturen, mag het besturingssysteem gebruiken.
- De operator mag de veilige snelheidslimiet voor het werkterrein niet overschrijden.
- De operator moet zich steeds bewust zijn van zijn/haar acties bij het gebruik van het besturingssysteem.
- Wanneer u het besturingssysteem installeert, mag u de componenten niet forceren omdat dit kan leiden tot schade aan de componenten.
- Volg altijd de instructies in de installatie-, gebruiks- en onderhoudshandleidingen.
- Alleen opgeleid personeel dient het besturingssysteem te installeren.
- Maak altijd een inventaris van de geleverde componenten om u ervan te verzekeren dat de juiste componenten aanwezig zijn. Gebruik nooit vervangende componenten. Gebruik alleen originele componenten.
- Als u vragen hebt over de veilige werking van het besturingssysteem of de instructies in de handleidingen, neemt u onmiddellijk contact op met uw geautoriseerde dealer of de technische ondersteuning.
- Gebruik altijd het juiste gereedschap voor de installatie van het besturingssysteem.
- Wees voorzichtig bij de installatie van het besturingssysteem om letsels te voorkomen.
- Gebruik of bedien het besturingssysteem niet bij onveilige weersomstandigheden.
- Gebruik of bedien het besturingssysteem niet als het terrein onveilig is.
- Alleen een opgeleide, ervaren of bevoegde operator mag het besturingssysteem gebruiken of bedienen.
- Voordat de operator het besturingssysteem gebruikt, moet hij/zij over voldoende kennis beschikken om de systemen op een veilige manier te bedienen.
- Alle voorzorgsmaatregelen op het gebied van veiligheid moeten goed begrepen zijn bij de installatie van het besturingssysteem. Losse, ontbrekende of beschadigde onderdelen dienen niet te worden gebruikt.
- Ga voor het gebruik van het besturingssysteem na indien alle functies zijn gecontroleerd om de juiste werking ervan te verzekeren. Neem geen risico's bij twijfel: neem altijd contact op met uw geautoriseerde dealer of de technische ondersteuning.
- Controleer voor het gebruik van het besturingssysteem alle functies van de Aanwezigheidsschakelaar voor de operator om u ervan te verzekeren dat deze schakelaar juist werkt.
- Het in- en uitschakelen van het besturingssysteem moet gebeuren met behulp van de juiste, voorgeschreven procedures.
- Als het voertuig of het systeem niet zoals verwacht werkt (bijvoorbeeld buitensporige trillingen of overmatig geluid), stopt u onmiddellijk het voertuig, schakelt u het besturingssysteem UIT en neemt u contact op met uw geautoriseerde dealer of de technische ondersteuning.
- Bij het onderhoud of de reiniging van het besturingssysteem moet het systeem volledig uitgeschakeld zijn en spanningsloos zijn.
- De operator van het besturingssysteem moet alle veiligheidsinstructies lezen en begrijpen zodat hij/zij op gepaste wijze kan reageren in een noodgeval.
- De geautoriseerde dealer moet altijd onderhoudswerkzaamheden aan of reparaties van het besturingssysteem uitvoeren.
- Tijdens de reparatie of de vervanging van componenten van het besturingssysteem mogen alleen originele componenten worden gebruikt.
- De operator of het onderhoudspersoneel moet altijd de juiste beschermingsuitrusting dragen bij werkzaamheden aan het besturingssysteem.
- Onderhoudspersoneel moet altijd de aanbevolen reinigingsmiddelen en -accessoires gebruiken bij de reiniging van het besturingssysteem.
- Onveilige omstandigheden of situaties met het besturingssysteem moeten aan uw geautoriseerde dealer of de technische ondersteuning worden gemeld.
- Er mogen geen objecten op of in de buurt van het besturingssysteem worden geplaatst.
- Tijdens de installatie, kalibratie en afstelling van het besturingssysteem draaien de wielen van het voertuig mogelijk naar links en rechts. Verzeker u ervan dat er zich geen personen of obstakels in de buurt van de wielen bevinden voordat u verder gaat.
- Zet de stoel en het stuur van het voertuig in de normale werkstand en controleer of de Mechanical Drive Unit (MDU) geen bedieningen hindert.
- De operator moet de Aansprakelijkheidsverklaring van de Automatische sturing lezen en bevestigen telkens als het systeem wordt ingeschakeld.
- Als u vragen hebt over de veilige werking van het besturingssysteem of de gebruiksaanwijzing, neemt u onmiddellijk contact op met uw geautoriseerde dealer of de technische ondersteuning.
- De operator moet letten op obstakels in het pad van het voertuig. Het besturingssysteem kunnen/kan geen obstakels identificeren of vermijden.
- De operator mag de operatorstoel in het voertuig niet verlaten terwijl het besturingssysteem is ingeschakeld.
- Gebruik alleen het besturingssysteem in een open veld. De systemen moet uitgeschakeld zijn wanneer het voertuig zich op de weg begeeft.

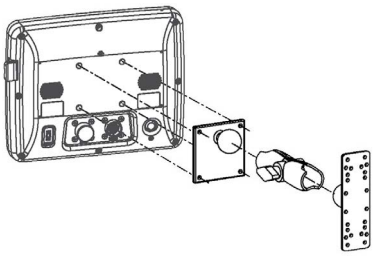
Aansprakelijkheidsverklaring Ag Leader Technology kan op geen enkele manier verantwoordelijk worden gehouden of aansprakelijk worden gesteld voor enige schade en/of ongelukken die plaatsvinden door de slechte werking van de machine waarop het is geïnstalleerd, slechte werking van machinecomponenten, machineattributen (bijv. trailers), tussenkomst(en) van derden of handelingen van de operator buiten het bestemde gebruik zoals voorgeschreven door Ag Leader Technology.

Polski (Polish)

System SteerCommand Z2



Montaż Wsporniki



Rodzaj bezpiecznika Styl noża (ATO/ATC) Napięcie 5 A Napięcie 15 A **Napięcie robocze** 9-16 V DC Maks prąd znamionowy InCommand 4.0 A	Specyfikacje techniczne Nie wykraczać poza poniższe dane: • Temperatura przechowywania: -20°C do +80°C • Temperatura działania: -10°C do +70°C • Klasyfikacja ze względu na ochronę środowiska: IP67 • Nie wymagane uziemienie ochronne • Używa maksymalnej klasy izolacyjności 150V do zewnętrznych obwodów.

Komunikat dotyczący bezpieczeństwa: Zapoznaj się z niniejszymi instrukcjami bezpieczeństwa oraz podręcznikiem użytkownika i postępuj zgodnie z nimi.

System sterowania odnosi się do wspomaganego systemu sterowania SteerCommand Z2, SteadySteer.

- Wyłącznie operator upoważniony do kierowania pojazdem może używać systemu sterowania.
- Operator nie może przekraczać bezpiecznej prędkości jazdy na obszarze, na którym pracuje pojazd.
- Operator musi być zawsze świadomy swoich czynności przy obsłudze systemu sterowania.
- Przy instalacji systemu sterowania nie forsować elementów składowych, gdyż mogą zostać uszkodzone.
- Zawsze przestrzegaj instrukcji instalacji, obsługi i konserwacji.
- Wyłącznie przeszkolony personel powinien instalować system sterowania.
- Zawsze upewnij się, że dostarczono właściwe elementy dokładnie je sprawdzając. Nigdy nie używaj zastępczych części. Zawsze używaj oryginalnych części.
- W przypadku jakichkolwiek pytań dotyczących bezpiecznego działania systemu sterowania lub instrukcji obsługi, proszę skontaktować się natychmiast z upoważnionym sprzedawcą lub punktem obsługi klienta.
- Zawsze używaj właściwych narzędzi do instalacji systemu sterowania.
- Aby uniknąć obrażeń, zawsze zachowaj ostrożność przy instalacji systemu sterowania.
- Nie używaj i nie włączaj systemu sterowania przy niebezpiecznych warunkach pogodowych.
- Nie używaj i nie włączaj systemu sterowania na niebezpiecznym terenie.
- Wyłącznie przeszkolony, doświadczony lub upoważniony operator może obsługiwać lub używać systemu sterowania.
- Przed rozpoczęciem obsługi systemu sterowania operator musi posiąść wystarczającą wiedzę na temat bezpiecznego działania tych systemów.
- Przy instalacji systemu sterowania należy zapoznać się i zrozumieć wszystkie środki bezpieczeństwa. Nie należy używać systemów, jeśli któraś z części jest zgubiona, brakująca lub uszkodzona.
- Należy sprawdzić i skontrolować, czy wszystkie funkcje systemu sterowania działają prawidłowo przed rozpoczęciem pracy. W przypadku wątpliwości nie podejmuj ryzyka – skontaktuj się z upoważnionym sprzedawcą lub punktem obsługi klienta.
- Należy sprawdzić, czy wszystkie funkcje Przełącznika obecności operatora działają prawidłowo przed rozpoczęciem pracy w systemu sterowania.
- Należy włączać i wyłączać system sterowania przestrzegając właściwych podanych procedur.
- Jeśli jakaś funkcja pojazdu lub systemu nie działa właściwie, np. w przypadku pojawienia się nadmiernych drgań lub hałasu, natychmiast zatrzymaj pojazd, wyłącz system sterowania i skontaktuj się z z upoważnionym sprzedawcą lub punktem obsługi klienta.
- Należy wyłączyć całkowicie system sterowania przy ich konserwacji lub czyszczeniu i upewnić się, że nie są pod napięciem.
- Operator systemu sterowania powinien przeczytać ze zrozumieniem wszystkie instrukcje bezpieczeństwa, tak aby móc właściwie zareagować w przypadku awarii.
- Upoważniony sprzedawca musi zawsze wykonać czynności konserwacji lub naprawy systemu sterowania.
- Należy używać wyłącznie oryginalnych części podczas naprawy lub wymiany części systemu sterowania.
- Operator lub personel odpowiedzialny za konserwację powinien zawsze nosić właściwą odzież ochronną przy pracy przy systemie sterowania.
- Personel odpowiedzialny za konserwację powinien zawsze używać zalecanych środków i akcesoriów czyszczących przy czyszczeniu systemu sterowania.
- Informacje o niebezpiecznych warunkach lub sytuacjach zaistniałych przy systemie sterowania należy przekazać do upoważnionego sprzedawcy lub punktu obsługi klienta.
- Nie należy umieszczać żadnych przedmiotów w obrębie systemu sterowania.
- Podczas instalacji, kalibracji i regulacji systemu sterowania koła pojazdu mogą kręcić się w prawo i w lewo. Przed rozpoczęciem działań upewnij się, że w pobliżu kół nie ma żadnych postronnych osób lub przedmiotów.
- Ustaw fotel w pojeździe oraz kierownicę w normalnej pozycji działania i sprawdź, czy Jednostka kierująca (MDU) nie zakłóca działania innych kontrolek.
- Operator musi przeczytać i przyjąć do wiadomości informacje o zakresie odpowiedzialności automatycznego sterowania za każdym włączeniem systemu.
- W przypadku jakichkolwiek pytań dotyczących bezpiecznego działania systemu sterowania lub instrukcji obsługi, proszę skontaktować się z upoważnionym sprzedawcą lub punktem obsługi klienta.
- Operator musi zwracać uwagę na ewentualne przeszkody na trasie pojazdu. System sterowania nie może identyfikować ani unikać przeszkód.
- Operator musi pozostać w swoim fotelu w pojeździe, kiedy system sterowania jest włączony.
- Używaj systemu sterowania wyłącznie na otwartym polu. Systemy muszą być wyłączone, kiedy pojazd znajduje się na drodze.

Informacje o zakresie odpowiedzialności Ag Leader Technology nie może być pociągnięty do odpowiedzialności za uszkodzenia i/lub wypadki powstałe na skutek niewłaściwego działania maszyny, na której zostały zainstalowane, niewłaściwego działania części maszyny, oprzyrządowania maszyn (np. przyczep), ingerencji osób trzecich lub czynności operatora, które nie wchodzą w zakres stosowania zalecanego przez Ag Leader Technology.