

John Deere AutoTrac™ Controller



JOHN DEERE



OPERATOR'S MANUAL

John Deere AutoTrac™ Controller

OMPFP15866 ISSUE D4 (ENGLISH)

CALIFORNIA

Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

If this product contains a gasoline engine:

⚠ WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

The State of California requires the above two warnings.

John Deere Ag Management Solutions

PRINTED IN U.S.A.



Introduction

Foreword

THANK YOU for purchasing a John Deere product.

READ THIS MANUAL carefully to learn how to operate and service your product correctly. Failure to do so could result in personal injury or equipment damage. This manual and safety signs on your product may also be available in other languages. (See your John Deere dealer to order.)

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your product and should remain with the product when you sell it.

MEASUREMENTS in this manual are given in both metric and customary U.S. unit equivalents. Use only correct replacement parts and fasteners. Metric and inch fasteners may require a specific metric or inch wrench.

RIGHT-HAND AND LEFT-HAND sides are determined by facing in the direction the machine or implement will travel when going forward.

WRITE PRODUCT IDENTIFICATION NUMBERS (P.I.N.) in the Operator's Manual. Accurately record all the numbers to help in tracing the product should it be stolen. Your dealer also needs these numbers when you order parts. File a backup of the identification numbers in a safe location off the machine or away from the product.

WARRANTY is provided as part of John Deere's support program for customers who operate and maintain their equipment as described in this manual. The warranty is explained on the warranty certificate or statement which you should have received from your dealer.

This warranty provides you the assurance that John Deere will back its products where defects appear within the warranty period. In some circumstances, John Deere also provides field improvements, often without charge to the customer, even if the product is out of warranty. Should the equipment be abused, or modified to change its performance beyond the original factory specifications, the warranty will become void and field improvements may be denied.

If you are not the original owner of this product, it is in your interest to contact your local John Deere dealer to inform them of this unit's serial number. This will help John Deere notify you of any issues or product improvements.

Serial Number: _____

JS56696,0000C4C -19-03FEB17-1/1

John Deere Technical Information Bookstore

Product functionality may not be fully represented in this document due to product changes occurring after time

of printing. Read the latest Operator's Manual prior to operation. To obtain a copy, see your dealer or visit techpubs.deere.com.

CZ76372,000071F -19-08OCT19-1/1

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Original Instructions. All information, illustrations and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

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A John Deere ILLUSTRATION™ Manual

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Safety

Recognize Safety Information

This is a safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.



DX,ALERT -19-03OCT22-1/1

TS1388 —UN—28JUN13

Understand Signal Words

DANGER; The signal word DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING; The signal word WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION; The signal word CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. CAUTION may also be used to alert against unsafe practices associated with events which could lead to personal injury.

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards. DANGER or WARNING safety signs are located near specific hazards. General

precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

▲ DANGER

▲ WARNING

▲ CAUTION

DX,SIGNAL -19-05OCT16-1/1

TS187 —19—30SEP88

Follow Safety Instructions

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your John Deere dealer.

There can be additional safety information contained on parts and components sourced from suppliers that is not reproduced in this operator's manual.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your John Deere dealer.



DX,READ -19-01AUG22-1/1

TS201 —UN—15APR13

Practice Safe Maintenance

Understand service procedure before doing work. Keep area clean and dry.

Never lubricate, service, or adjust machine while it is moving. Keep hands, feet, and clothing away from power-driven parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground. Stop the engine. Remove the key. Allow machine to cool.

Securely support any machine elements that must be raised for service work.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.

On self-propelled equipment, disconnect battery ground cable (-) before making adjustments on electrical systems or welding on machine.

On towed implements, disconnect wiring harnesses from tractor before servicing electrical system components or welding on machine.

Falling while cleaning or working at height can cause serious injury. Use a ladder or platform to easily reach each location. Use sturdy and secure footholds and handholds.



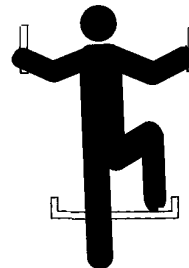
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DX,SERV -19-28FEB17-1/1

Use Steps and Handholds Correctly

Prevent falls by facing the machine when getting on and off. Maintain 3-point contact with steps, handholds, and handrails.

Use extra care when mud, snow, or moisture present slippery conditions. Keep steps clean and free of grease or oil. Never jump when exiting machine. Never mount or dismount a moving machine.



T133468 —UN—15APR13

DX,WW,MOUNT -19-12OCT11-1/1

Handle Electronic Components and Brackets Safely

Falling while installing or removing electronic components mounted on equipment can cause serious injury. Use a ladder or platform to easily reach each mounting location. Use sturdy and secure footholds and handholds. Do not install or remove components in wet or icy conditions.

If installing or servicing a RTK base station on a tower or other tall structure, use a certified climber.

If installing or servicing a global positioning receiver mast used on an implement, use proper lifting techniques and wear proper protective equipment. The mast is heavy and can be awkward to handle. Two people are required when mounting locations are not accessible from the ground or from a service platform.



TS249 —JUN—23AUG88

DX,WW,RECEIVER -19-24AUG10-1/1

Use Electronic Display Properly

Electronic Displays are secondary devices intended to aid the operator in performing field operations, increase comfort and provide entertainment. Displays can offer a wide range of functionality, are used in many different machine system applications and can be used with other secondary devices such as handheld electronic devices.

A secondary device is any device that is not required to operate your machine for its primary use. The operator is always responsible for safe operation and control of the machine.

To prevent injury while operating the machine:

- Position the display according to the installation instructions. Ensure the device is secured and does not obstruct the driver's view or interfere with the machine operating controls.
- Do not become distracted by the display. Stay alert. Pay attention to the machine and surrounding environment.

- Do not change settings or access any functions that require prolonged use of the display controls while machine is moving. Stop the machine in a safe location and place in park position before attempting such operations.
- Never set the volume so high that you cannot hear outside traffic and emergency vehicles.

To promote safe operation, certain functions of displays may be disabled unless the machine movement is restricted and/or has been placed in the park position. Overriding this safety feature may violate applicable law and can result in damage, serious injury or death.

Only use available display functionality when conditions permit you to do so safely and in accordance with instructions provided. Always observe safe driving rules, state or local laws and traffic regulations when using any secondary device.

RR94114,0001FFA -19-18DEC14-1/1

Operate Guidance Systems Safely

Do not use guidance systems on roadways. Always turn off (disable) guidance systems before entering a roadway. Do not attempt to turn on (activate) a guidance system while transporting on a roadway.

Guidance systems are intended to aid the operator in performing field operations more efficiently. The operator is always responsible for the machine path. Guidance systems do not automatically detect or prevent collisions with obstacles or other machines.

Guidance Systems include any application that automates machine steering. This includes, but may not be limited to, AutoTrac™, iGuide™, iTEC™ Pro, AutoTrac™ Turn Automation, AutoTrac™ Universal (ATU), RowSense™, and Machine Sync.

To prevent injury to the operator and bystanders:

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iGuide is a trademark of Deere & Company
iTEC is a trademark of Deere & Company
RowSense is a trademark of Deere & Company

- Never get on or off a moving machine.
- Verify the machine, implement, and guidance system are set up correctly.
 - If using iTEC™ Pro or AutoTrac™ Turn Automation, verify accurate boundaries have been defined.
 - If using Machine Sync, verify the follower's home point is calibrated with sufficient space between the machines.
- Remain alert and pay attention to the surrounding environment.
- Take control of the steering wheel, when necessary, to avoid field hazards, bystanders, equipment, or other obstacles.
- Stop operation if poor visibility conditions impair your ability to operate the machine or identify people or obstacles in the machine path.
- Consider field conditions, visibility, and machine configuration when selecting machine speed.

JS56696,0000ABC -19-20DEC17-1/1

Use Seat Belt Properly

Avoid crushing injury or death during rollover.

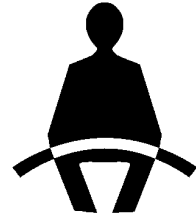
This machine is equipped with a rollover protective structure (ROPS). USE a seat belt when you operate with a ROPS.

- Hold the latch and pull the seat belt across the body.
- Insert the latch into the buckle. Listen for a click.
- Tug on the seat belt latch to make sure that the belt is securely fastened.
- Snug the seat belt across the hips.

Replace entire seat belt if mounting hardware, buckle, belt, or retractor show signs of damage.

Inspect seat belt and mounting hardware at least once a year. Look for signs of loose hardware or belt damage, such as cuts, fraying, extreme or unusual wear,

discoloration, or abrasion. Replace only with replacement parts approved for your machine. See your John Deere dealer.



TS1729 —UN—24MAY13

DX,ROPS1 -19-22AUG13-1/1

Use AutoTrac™ Controller on Approved Machines

Use AutoTrac™ Controller only on approved machines. Refer to StellarSupport.com for list of approved machines.

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AL70325,0000188 -19-22SEP14-1/1

Inspect AccuGuide Pressure Transducer Valve for Leaks

Regularly inspect the AccuGuide Pressure Transducer Valve for leaks. Hydraulic oil leaking from this valve may result in steering wheel motion not deactivating AutoTrac. Consult your dealer if leaks are found.



AccuGuide Pressure Transducer Valve

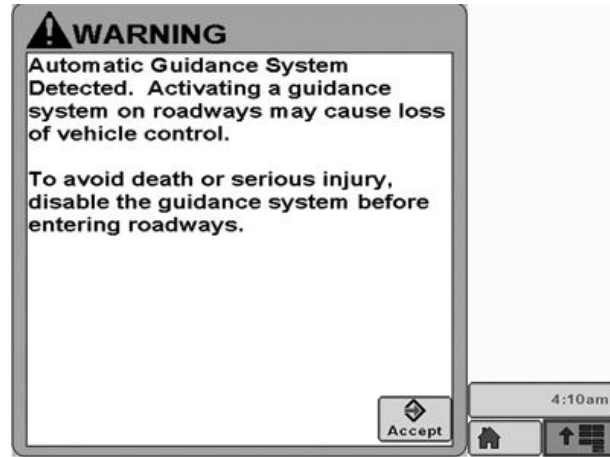
PC13830 —UN—14JUN11

JS56696,0000535 -19-14JUN11-1/1

Safety Signs

Automatic Guidance System Detected

Each time a machine equipped with AutoTrac is started, this screen will appear as a reminder of operator responsibilities when using AutoTrac steering system.



Automatic Guidance

PC13157 —19—17FEB11

CF86321,0000399 -19-01JUN11-1/1

Regulatory and Compliance Information

EU Declaration of Conformity

Deere & Company
Moline, Illinois U.S.A.

The undersigned hereby declares that

Product: AutoTrac™ Steering Controller

fulfills all relevant provisions and essential requirements of the following directives:

Directive	Number	Certification Method
Electromagnetic Compatibility Directive	2014/30/EU	Annex II of the Directive

The product is in conformity with the following standards and/or normative documents:

EN ISO 14982: 1998
EN 13309: 2010

Name and address of the person in the European Community authorized to compile the technical construction file:

Brigitte Birk
John Deere GmbH & Co. KG
Mannheim Regional Center
John Deere Strasse 70
Mannheim, Germany D-68163

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Place of declaration: Urbandale, Iowa, USA

Name: Aaron Senneff

Date of declaration: 27 April 2016

Title: Manager – Software Development

DXCE01 —UN—28APR09



HC94949.000086F -19-29APR16-1/1

System Overview

Theory of Operation

John Deere AutoTrac™ Controller is a hydraulic steering system designed to provide automated guidance while using a GreenStar™ Display and StarFire™ Receiver. Controller sends adjustments to steering valve based on inputs from GreenStar™ Display, StarFire™ Receiver, and wheel angle sensor to keep machine on predetermined guidance lines. System uses:

*AutoTrac is a trademark of Deere & Company
GreenStar is a trademark of Deere & Company
StarFire is a trademark of Deere & Company*

- Hardware and software from John Deere.
- Factory installed electro-hydraulic valves.
- Wheel angle sensors.
- Steering input devices.

Once the controller is installed, the GreenStar™ Display is used to calibrate system and set up guidance lines.

HC94949,0000870 -19-03DEC15-1/1

AutoTrac™ Accuracy

IMPORTANT: John Deere AutoTrac™ system relies on the global positioning system (GPS) network operated by of the United States government, which is solely responsible for its accuracy and maintenance. System is subject to changes that could affect accuracy and performance of all GPS equipment.

Overall AutoTrac™ system accuracy is dependent on many variables.

AutoTrac™ System Accuracy = Signal accuracy + Machine Setup + Implement Setup + Field and Soil Conditions.

It is very important to remember:

- Receiver has to go through a warm-up period after starting.
- Machine must be set up properly (for example, ballasted machine according to Operator's Manual).

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- Mechanical steering system needs to be in good condition (tight steering with minimal play in steering axle).
- Implement must be set up to run properly (wear parts, such as shanks, shovels, and sweeps, are in good working condition and correctly spaced).
- How field and soil conditions affect system (loose soil requires more steering than firm soil, and firm soil can cause uneven draft loads).

IMPORTANT: Although AutoTrac™ system can be activated when SF2 (or SF1 if using AutoTrac™ SF1 activation) correction signal is confirmed, system accuracy may continue to increase after powering up system.

AutoTrac™ SF2 activation operates on SF1, SF2, or RTK signal.

AutoTrac™ SF1 activation operates on SF1 signal only.

RW00482,000054E -19-06OCT15-1/1

AutoTrac™ Controller Compatibility

For a complete list of compatible machines, visit StellarSupport.com.

AutoTrac™ Controller Compatibility	
Case Magnum™ AccuGuide™ Ready (Model Year 2006–2010)	MX215
	MX245
	MX275
	MX305
Case Magnum™ AccuGuide™ Ready (Model Year 2008–2010)	MX335
New Holland IntelliSteer™ Ready (Model Year 2006–2010)	TG215
	TG245
	TG275
	TG305
New Holland IntelliSteer™ Ready (Model Year 2008–2010)	T8010
	T8020
	T8030
	T8040
	T8050

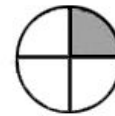
*AutoTrac is a trademark of Deere & Company
Magnum is a trademark of CNH Industrial N.V.
AccuGuide is a trademark of CNH Industrial N.V.
IntelliSteer is a trademark of CNH Industrial N.V.*

HC94949,000089B -19-18NOV15-1/1

AutoTrac™ Status Pie

PC8832 —UN—25OCT05

NOTE: Both steering control unit (SSU) and AutoTrac™ activation must be detected to display status pie and steer icon.



Stage 1—INSTALLED

AutoTrac™ icon has four stages as shown in the AutoTrac™ Status Pie:

- INSTALLED
- CONFIGURED
- ENABLED
- ACTIVATED

- SSU is detected

Stage 1 **INSTALLED** (1/4 of pie)—SSU and all other hardware necessary for use are installed.

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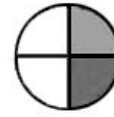
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HC94949,00008DA -19-09OCT15-1/5

Stage 2 **CONFIGURED** (2/4 of pie)—Guidance and StarFire™ Receiver are configured, and machine conditions are met.

PC8833 —UN—25OCT05

- Guidance system has been turned ON in the display.
- Guidance Track 0 has been defined.
- AutoTrac™ activation detected.
- StarFire™ signal is present. Correct StarFire™ signal level for AutoTrac™ activation is selected.
- SSU has no active faults pertaining to the steering function.
- Hydraulic oil warmer than minimum temperature.



Stage 2—CONFIGURED

- Speed is less than maximum limit.
- TCM message is valid.
- Machine in proper operating gear.

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HC94949,00008DA -19-09OCT15-2/5

Steer On/Off—Press the steer on/off button to move AutoTrac™ from the CONFIGURED stage to the ENABLED stage.

PC20221 —UN—10NOV14



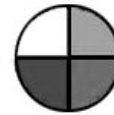
Steer On/Off

HC94949,00008DA -19-09OCT15-3/5

Stage 3 **ENABLED** (3/4 of pie)—Steer button has been pressed. All conditions are met for AutoTrac™ to operate and system is ready to be activated.

PC8834 —UN—25OCT05

- Select Steer On/Off button once to turn “Steer On”.



Stage 3—ENABLED

HC94949,00008DA -19-09OCT15-4/5

Stage 4 **ACTIVATED** (4/4 of pie with “A”)—Resume switch has been pressed and AutoTrac™ is steering the machine.

PC8835 —UN—25OCT05

- Press Resume Switch—AutoTrac™ has been activated.



Stage 4—ACTIVATED

HC94949,00008DA -19-09OCT15-5/5

System Overview—Softkey Legend

Application Controller 1100—Setup Softkey

PC21157 —UN—11MAY15

- Control Selection—Select control type for selective control valve (SCV) 1 or SCV 3.
- SCV Threshold Setup—Enter extend and retract threshold and valve test on or off.
- Serial Port Setup—Set up serial port communications.
- I/O Voltages—View Input / Output (I/O) voltage readings.
- Activation Entry—Enter Application Controller 1100 specific activations.



Setup Softkey

RW00482,00004F0 -19-29JUL15-1/1

Application Controller 1100—Main Softkey

PC21156 —UN—11MAY15

- Control Main—View information and select operational functions for selected control type (SCV 1 or SCV 3).
- Control Setup—Set up and enter required inputs for selected control type (SCV 1 or SCV 3)
- Version Information—View application controller specific information, reset factory defaults, or turn CAN bus diagnostics on or off.



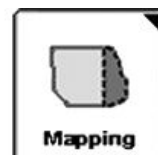
Main Softkey

RW00482,00004F3 -19-29JUL15-1/1

GreenStar™—Mapping Softkey

PC21152 —UN—11MAY15

- Maps Tab—Change map settings, and view or record maps.
- Boundaries Tab—Set up client, farm, field, and boundaries.
- Flags Tab—Set up and flag point of interest.
- Multi-Machine Tab—Set up Machine Sync shared data and automation.



Mapping Softkey

RW00482,00004F1 -19-29JUL15-1/1

GreenStar™—Guidance Softkey

PC21148 —UN—11MAY15

- View Tab—View map, select track name, change steering sensitivity, view AutoTrac™ pie chart, or turn AutoTrac™ steering on or off.
- Guidance Settings Tab—Set up tracking mode, general guidance settings, track settings, AutoTrac™ advanced settings, and lightbar settings.
- Shift Track Settings Tab—Set up shift track settings and turn shifts on or off.

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Guidance Softkey

RW00482,00004F4 -19-29JUL15-1/1

StarFire™ Receiver—StarFire™ Softkey

PC21154 —UN—11MAY15

- Info Tab—View general StarFire™ and global positioning system (GPS) information.
- Setup Tab—Set up StarFire™ mount direction, fore/aft, height, optimize shading, SF2 fallback, hrs. on after shutdown, and calibrate terrain compensation module (TCM).
- Activations Tab—Enter StarFire™ Receiver activations codes.



StarFire™ Softkey

- Serial Port Tab—Set up or change serial port settings.

StarFire is a trademark of Deere & Company

RW00482,00004F5 -19-04MAY16-1/1

StarFire™ Receiver—RTK Softkey

PC21155 —UN—11MAY15

Select RTK softkey to set up real time kinematics (RTK) radios.



RTK Softkey

RW00482,00004F6 -19-04MAY16-1/1

StarFire™ Receiver—Satellite Softkey

PC21153 —UN—11MAY15

- Sky Plot Tab—View sky plot and satellite tracking information.
- Graph Tab—View satellite tracking information in a graph.



Satellite Information Softkey

RW00482,00004F6 -19-04MAY16-1/1

StarFire™ Receiver—Diagnostics Softkey

PC21158 —UN—11MAY15

- Readings Tab—View StarFire™ and real time kinematics (RTK) information.
- Data Logs Tab—View StarFire™, differential mode, and satellite information.
- Over the Air Tab—View over the air messages.



Diagnostics Softkey

StarFire is a trademark of Deere & Company

RW00482,00004F7 -19-04MAY16-1/1

Component Overview

StarFire™ Receiver

Receiver uses navigation satellites with StarFire™ correction satellites to determine machine location and direction of travel. An integrated terrain compensation module (TCM) adjusts machine position to compensate for uneven terrain. A receiver activation is required for SF2 or real time kinematics (RTK).



StarFire is a trademark of Deere & Company

HC94949,000061E -19-10AUG15-1/1

PC20203 —UN—06NOV14

GreenStar™ Display

GreenStar™ Display is a user interface used by the operator to:

- Configure and calibrate system components.
- Monitor system performance.
- Make system adjustments.
- Program software.
- View diagnostic tests.



GreenStar™ 3 2630 Display

GreenStar is a trademark of Deere & Company

RW00482,000047B -19-03FEB15-1/1

PC13407 —UN—20APR11

Master Switch

NOTE: Mounting location varies by machine and operator preference.

Master Switch is used when transporting machine. When switch is set to off position, no power is supplied to electro-hydraulic valve. This ensures AutoTrac™ is disabled while driving on roads or when operator does not want AutoTrac™ to be activated. Switch is also referred to as Road Mode or Road Switch.



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AL70325,000017D -19-12NOV14-1/1

PC20010 —UN—11SEP14

Activity Monitor

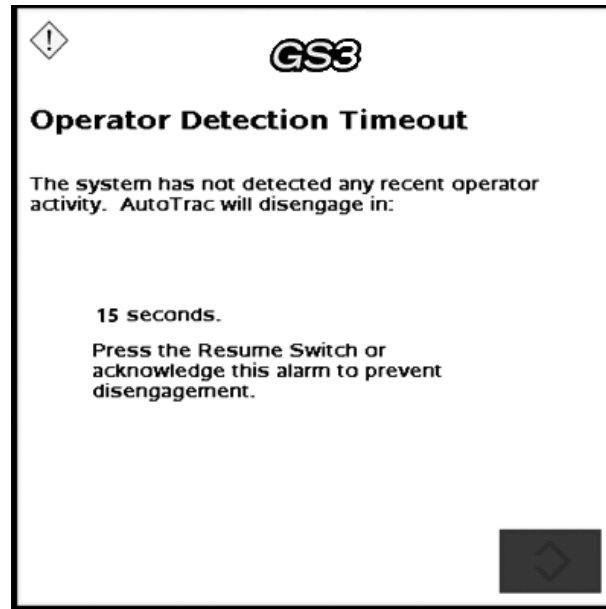
Activity Monitor detects operator presence if seat switch is not available or operational. An on-screen alert appears if operator has not interacted with display within the last seven minutes. Operator accepts warning to let system know they are in seat.

- **Operator Detection Timeout**

The system has not detected any recent operator activity. AutoTrac™ will disengage in:

15 seconds.

Press the Resume Switch or acknowledge this alarm to prevent disengagement.



Operator Detection Timeout

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HC94949,000091F -19-14OCT15-1/1

PC13872—UN—20JUL11

Setting Up

GreenStar™ Display and StarFire™ Receiver Software Activations

NOTE: John Deere AutoTrac™ Controller requires a valid AutoTrac™ software activation for assisted steering.

GreenStar™ Display

To view or activate software on GreenStar™ 3 2630 Display, select:

1. Menu button
2. GreenStar™ button
3. GS3 softkey
4. Activations tab (A)

To view or activate software on GreenStar™ 2 2600 Display, select:

1. Menu button
2. GreenStar™ button
3. GS2 softkey
4. Activations tab (A)

To view or activate software on GreenStar™ 2 1800 Display, select:

1. Menu button
2. GreenStar™ button
3. GreenStar™ softkey
4. Settings softkey
5. Activate softkey

A—Activations Tab

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



GreenStar™ Button

PC12686 —UN—14JUL10



GS3 Softkey

Setup	Summary	A Activations	Memory
Serial Number: PCGU2UA000000 Challenge Code: abcdefg Confirmation Code: 1234			Enter Code
Component		Status	
↑	AutoTrac SF2 Demo	15.0 hrs left	☒
	This software was activated on 09-29-2010		☒
	PivotPro Demo	15.0 hrs left	☒
	This software was activated on 09-29-2010		☒
	iTEC Pro Demo	15.0 hrs left	☒
	This software was activated on 09-29-2010		☒
	iGuide Demo	15.0 hrs left	☒
	This software was activated on 09-29-2010		☒
↓	AutoTrac RowSense GS3 Demo	15.0 hrs left	☒
	This software was activated on 09-29-2010		☒

GreenStar™ Display Activations

AutoTrac is a trademark of Deere & Company
GreenStar is a trademark of Deere & Company

Continued on next page

HC94949,000095B -19-04JAN16-1/2

PC20355 —UN—01DEC14

NOTE: Verify proper activation and SF2 license is active and meets expected accuracy levels for operation. Contact your John Deere dealer to obtain a StarFire™ license or RTK activation.

StarFire™ 3000 Receiver

To view or activate signal on StarFire™ 3000 Receiver, select:

1. Menu button
2. StarFire™ button
3. Main softkey
4. Activations tab (A)

A—Activations Tab

PC8663 —UN—29APR15



Menu Button

PC13006 —UN—05NOV14



StarFire™ Button

PC21154 —UN—11MAY15



Main Softkey

Info	Setup	A Activations	Serial Port
Activations SF1, SF2 Ready, RTK		Activation Code Enter	
SF2 License No SF2 End Date StarFire SN 3285780000963			
Activation / License Status Window			

StarFire™ Receiver Activations

StarFire is a trademark of Deere & Company

HC94949,000095B -19-04JAN16-2/2

PC20332 —UN—01DEC14

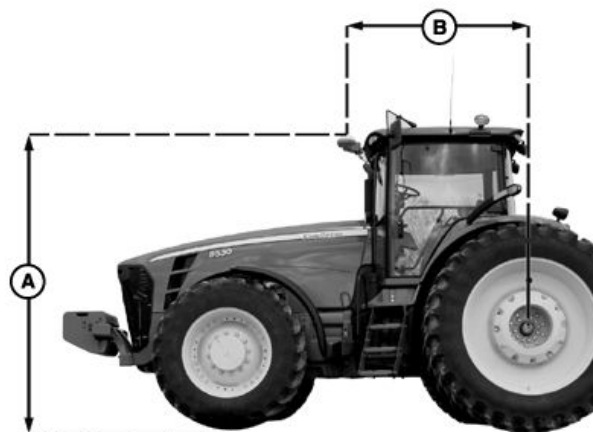
StarFire™ Height and Fore-Aft

StarFire™ Height—Enter the height of the StarFire™ Receiver. Height is measured from the ground to the top of the dome.

StarFire™ Fore-Aft—Enter the fore-aft measurement (the distance from the fixed axle of the machine to the receiver). The fixed axle is the rear axle on a row-crop tractor.

A—Height

B—Fore-Aft



Fixed-Axle Machines
(Row Crop Tractors)

StarFire is a trademark of Deere & Company

HC94949,000092A -19-04APR16-1/1

StarFire™ Height and Fore/Aft Measurements Table

Use the following table to record the height and fore/aft of the StarFire™ Receiver.

StarFire™ Height and Fore/Aft Measurements		
Machine	Height	Fore/aft

StarFire is a trademark of Deere & Company

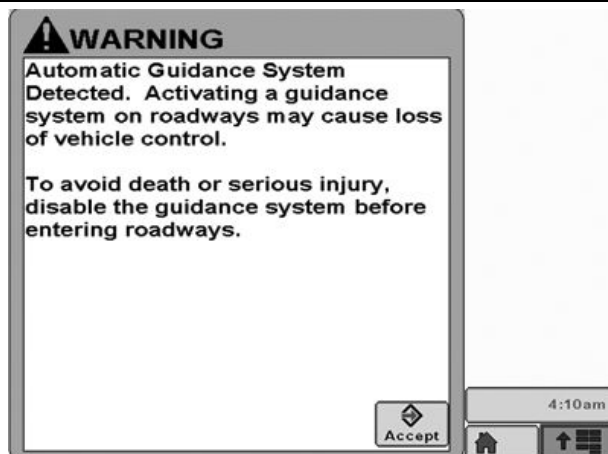
HC94949,00008B6 -19-28AUG17-1/1

Read and Accept Warning on GreenStar™ Display

IMPORTANT: When starting machine with AutoTrac™ installed and start-up screen is not displayed, update software on StellarSupport.com.

Each time a machine equipped with AutoTrac™ is started, start-up screen appears as a reminder of operator responsibilities when using AutoTrac™ steering system.

Operator must select Accept before display will move on to next page.



AutoTrac is a trademark of Deere & Company

HC94949,000060C -19-20NOV14-1/1

Set Up AutoTrac™ Controller–GreenStar™ 3 2630 Display

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Guidance softkey.
4. Select Guidance Settings tab.
5. Select AutoTrac™ Advanced Settings button.

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



GreenStar™ Button

PC21148 —UN—11MAY15



Guidance Softkey

PC11948 —UN—30JUN09



Guidance Settings Tab

PC21902 —UN—03DEC15



AutoTrac™ Advanced Settings Button

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AutoTrac is a trademark of Deere & Company

Continued on next page

HC94949,000095E -19-05JAN16-1/2

6. Select Machine Type (A).
7. Enter Steering Override Effort (B). This is the amount of force it takes for the operator to disengage AutoTrac™. A higher value requires greater force.
8. Enter StarFire™ Height (C) and Fore-Aft (D) values.

NOTE: Height and Fore-Aft are grayed out in the receiver when AutoTrac™ Controller is connected.

A—Machine Type Drop-Down Menu
 B—Steering Override Effort Input Box
 C—StarFire™ Height Input Box
 D—StarFire™ Fore-Aft Input Box

Advanced AutoTrac Settings

Machine Type: CASE MX/Magnum 215-305 (A)

Line Sensitivity - Tracking: [Slider bar with 100 in the middle]

Line Sensitivity - Heading: [Slider bar with 100 in the middle]

Heading Lead: [Slider bar with 100 in the middle]

Steering Response Rate: [Slider bar with 100 in the middle]

Bottom bar: [?] [Back] 1 / 3 [Forward] [Accept]

Advanced AutoTrac™ Settings-1/3

Advanced AutoTrac Settings

Receiver Position

StarFire Height (in): (C) 140

StarFire Fore-Aft (in): (D) 30

Steering Override Effort: [Minus] (B) 50 [Plus]

CAL [Downward Arrow]

Bottom bar: [Back] 3 / 3 [Forward] [Accept]

Advanced AutoTrac™ Settings-3/3

StarFire is a trademark of Deere & Company

HC94949.000095E -19-05JAN16-2/2

PC21740 —UN—13OCT15

PC21741 —UN—14OCT15

Set Up AutoTrac™ Controller–GreenStar™ 2600 Display

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Guidance softkey.
4. Select Guidance Settings tab.
5. Select AutoTrac™ Controller Settings button.

PC8663 —UN—29APR15



Menu Button

PC10857JE —UN—13APR09



GreenStar™ Button

PC21148 —UN—11MAY15



Guidance Softkey

PC11948 —UN—30JUN09



Guidance Settings Tab

PC21902 —UN—03DEC15



AutoTrac™ Controller Settings Button

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AutoTrac is a trademark of Deere & Company

Continued on next page

HC94949,000095F -19-06JAN16-1/2

6. Select Machine Type (A).
7. Enter Steering Override Effort (B).
8. Enter StarFire™ Height (C) and Fore-Aft (D).

NOTE: Height and Fore-Aft are grayed out in the receiver when AutoTrac™ Controller is connected.

A—Machine Type Drop-Down Menu
 B—Steering Override Effort Input Box
 C—StarFire™ Height Input Box
 D—StarFire™ Fore-Aft Input Box

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HC94949,000095F -19-06JAN16-2/2

PC21976—UN—05JAN16

Set Up AutoTrac™ Controller–GreenStar™ 2 1800 Display

1. Select Menu button.
2. Select GreenStar™ button.
3. Select GreenStar™ Main softkey.
4. Select Settings button.
5. Select AutoTrac™ Settings button.

PC8663 —UN—29APR15



Menu Button

PC10857JE —UN—13APR09



GreenStar™ Button

PC21732 —UN—13OCT15



GreenStar™ Menu Softkey

PC21731 —UN—13OCT15



Settings Button

PC21977 —UN—05JAN16



AutoTrac Settings Button

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AutoTrac is a trademark of Deere & Company

HC94949,0000960 -19-05JAN16-1/2

6. Select Machine Type Drop-Down Menu (A).
7. Enter Steering Override Effort (B).

A—Machine Type Drop-Down Menu

B—Steering Override Effort Input Box

AutoTrac Settings

Machine Type

CASE MX/Magnum 215-305
(A) ▾

CAL

▼

Steering Override Effort

B

U
Advanced
Settings

F
Accept

AutoTrac™ Settings Page

PC21978 —UN—05JAN16

HC94949,0000960 -19-05JAN16-2/2

Optimize Terrain Compensation Module (TCM)

PC8663 —UN—29APR15

Optimize TCM calibration by allowing the inertial measurement unit (IMU) to measure roll angle and yaw rate before performing the TCM calibration.

1. Select the Menu button.



Menu Button

RW00482,0000525 -19-14SEP17-1/5

2. Select the StarFire™ button.

PC13006 —UN—05NOV14



StarFire™ Button

StarFire is a trademark of Deere & Company

RW00482,0000525 -19-14SEP17-2/5

3. Select the StarFire™ softkey.

PC21154 —UN—11MAY15



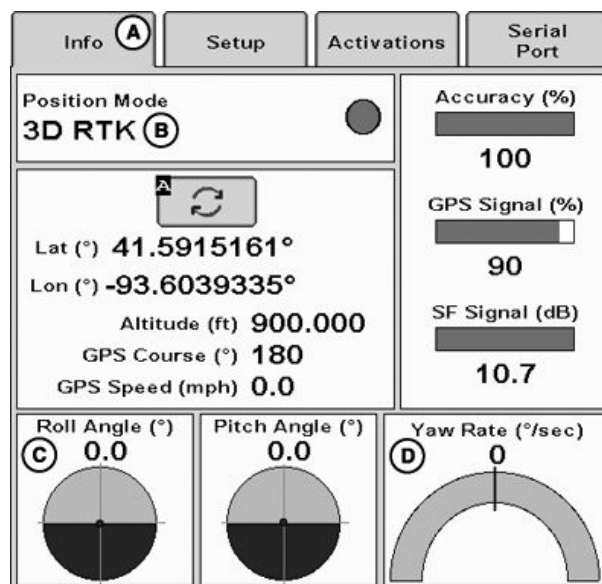
StarFire™ Softkey

RW00482,0000525 -19-14SEP17-3/5

4. Select the Info tab (A).
5. Verify 3D Position Mode (B) has established SF1 signal or better.

A—Info Tab
B—Position Mode

C—Roll Angle
D—Yaw Rate

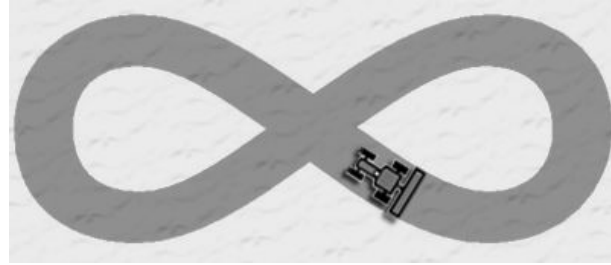


Continued on next page

RW00482,0000525 -19-14SEP17-4/5

PC24061 —UN—06APR17

6. Drive machine in the TCM optimization drive pattern two times to allow the IMU to initialize.
7. Complete the TCM calibration.
(Reference the Calibrate Terrain Compensation Module [TCM] for more information.)



TCM Optimization Drive Pattern

PC21419 —UN—30JUL15

RW00482,0000525 -19-14SEP17-5/5

Set Up Terrain Compensation Module (TCM)

1. Select Menu button.
2. Select StarFire™ button.
3. Select Setup tab.

PC8663 —UN—29APR15



Menu Button

PC13006 —UN—05NOV14



StarFire™ Button

PC20199 —UN—05NOV14



Setup Tab

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HC94949,00008B8 -19-14OCT15-1/1

Calibrate Terrain Compensation Module (TCM)

1. Select the Menu button.

PC20197 —UN—05NOV14



Menu Button

DK01672,000019E -19-22MAR18-1/6

2. Select the StarFire™ button.

PC20634 —UN—19DEC14



StarFire™ Button

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Continued on next page

DK01672,000019E -19-22MAR18-2/6

3. Select the Setup tab.

PC20199 —UN—05NOV14

Select the TCM toggle button (A) to turn the TCM ON and OFF. When the TCM is turned OFF, StarFire™ global positioning system (GPS) message is not corrected for machine dynamics or side slopes. TCM defaults to ON after cycling power.

NOTE: TCM must be turned ON for AutoTrac™ to activate.

Calibrate the TCM so the receiver can determine zero degree roll angle and pitch angle.

Before calibrating, ensure that machine and implement are in proper working condition and ready for field work. Machine must be ballasted and tires properly inflated. Lower implement as close as possible to the working position when calibrating.

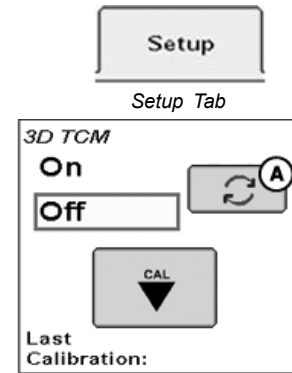
Calibrate the TCM every time the receiver is removed from the machine and reattached or if the TCM angle in relation to the machine has changed. Changes in the TCM angle in relation to machine can create an offset and look like a consistent skip (B) or overlap (C) in pass-to-pass operation. Possible causes of this offset could be the StarFire™ mounting bracket is slightly offset, the machine cab is slightly offset, or uneven tire pressures from one side to other.

To eliminate offset, position the machine and calibrate the TCM, drive down a pass, turn around, and drive down same pass in opposite direction. If the machine does not follow same pass, measure the offset distance and enter in implement offset.

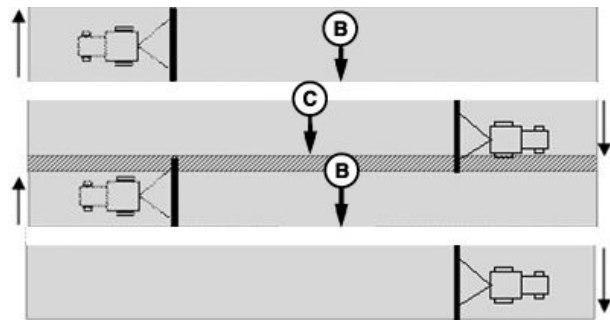
Position Machine and Calibrate Terrain Compensation Module (TCM)

1. Park the machine on a hard, level surface and come to a complete stop (cab is not rocking).

*StarFire is a trademark of Deere & Company
AutoTrac is a trademark of Deere & Company*



A—TCM Toggle Button



B—Skip

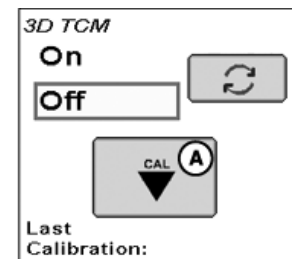
C—Overlap

2. Mark the location of tires or tracks on ground to note the location of axle.

DK01672,000019E -19-22MAR18-3/6

3. Select the Calibration button (A).

A—Calibration Button



Continued on next page

DK01672,000019E -19-22MAR18-4/6

4. Select the Accept button. Calibrating status bar appears, then disappears when finished.

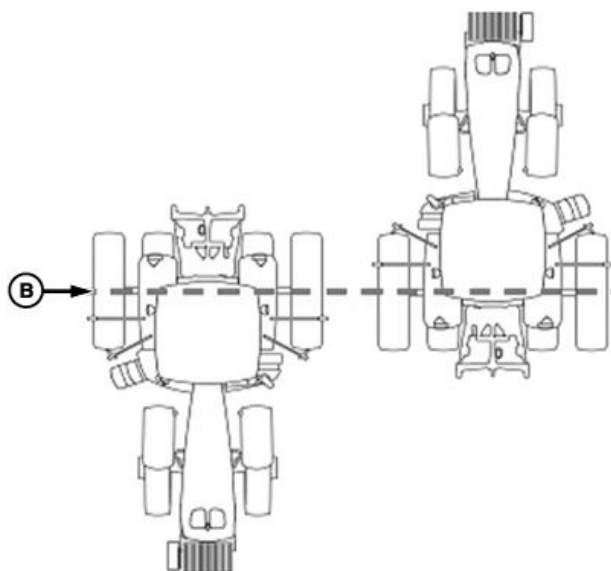
PC22267 —UN—14MAR16



Accept Button

Continued on next page

DK01672,000019E -19-22MAR18-5/6



PC19995 —UN—03SEP14

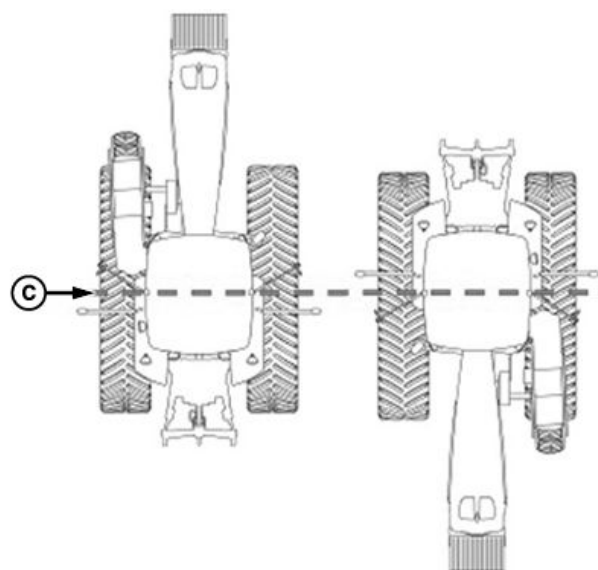
Floating Front Axle Machines

B—Rear Axle

C—Machine Pivot Point

5. Turn the machine 180 degrees to face the opposite direction. Ensure that tires are in proper location for fixed or floating front axle and machine has come to a complete stop (cab is not rocking).
 - For floating front axle machines (mechanical front wheel drive [MFWD], Independent Link Suspension [ILS™], or Triple-Link Suspension [TLS™]), place wheels so rear axle (B) is in same location when performing 2-point calibration.
 - For fixed-axle wheels or tracks machines (track tractors, 47X0 and 49X0 series sprayers, or 9000 and 9020 series wheel tractors), place wheels or tracks so machine pivot point (C) is in same location when facing either direction.
6. Select the Accept button. Calibrating status bar appears, then disappears when finished.
7. Select the Accept button to return to Setup tab. If calibration was unsuccessful, recalibrate the TCM.

ILS is a trademark of Deere & Company
TLS is a trademark of Deere & Company



PC19996 —UN—03SEP14

Fixed Axle Wheels Or Tracks Machines

DK01672.000019E -19-22MAR18-6/6

AutoTrac™ Controller Calibration

IMPORTANT: Read all instructions before calibrating AutoTrac™ Controller. To avoid damage to machine or implement, disconnect implement from machine before calibrating.

NOTE: After replacement or disassembly of any hydraulic component, a complete system calibration is required.

Machine master switch must be set to the ON position when performing calibration procedure.

Calibration procedure must be completed with a passing status before using AutoTrac™.

1. Select Menu button.
 2. Select GreenStar™ button.
 3. Select Guidance softkey.
 4. Select Guidance Settings tab.
 5. Select AutoTrac™ Advanced Settings button.
 6. Navigate to page 3.
 7. Select CAL button.
- Each calibration step allows three failures before that step is canceled and entire calibration must be repeated.
 - If the calibration procedure fails, the system uses the last valid calibration until another valid calibration is completed.

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



GreenStar Button

PC21148 —UN—11MAY15



Guidance Softkey

PC11948 —UN—30JUN09



Guidance Settings Tab

PC21902 —UN—03DEC15



AutoTrac™ Advanced Settings Button

PC12144 —UN—30JUN09



CAL Button

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GreenStar is a trademark of Deere & Company

HC94949,00008C0 -19-04DEC15-1/1

Wheel Angle Sensor Calibration—John Deere AutoTrac™ Controller

NOTE: Wheel Angle Sensor Calibration (A) must be completed before Valve Calibration (B) can be performed.

Drive machine slowly at full throttle for approximately 2 to 5 min to bring hydraulic fluid to operating temperature before beginning calibration procedure.

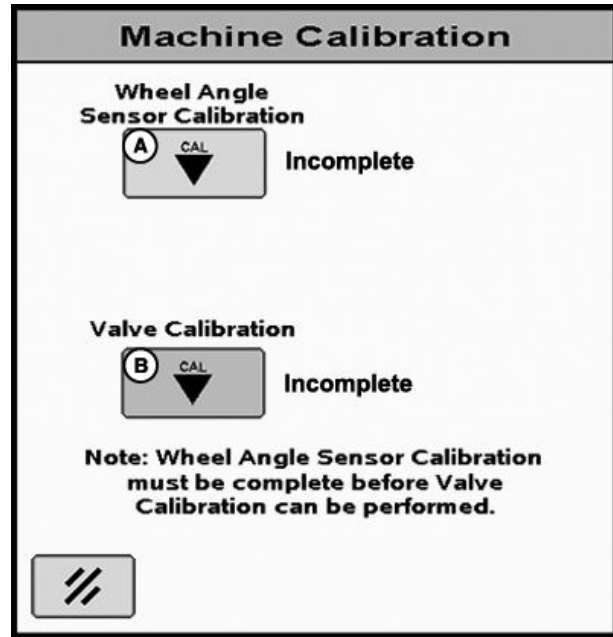
Calibration procedure requires a large, open, and level surface to complete required steps. Ensure area is clear of any obstacles and traffic.

At any time during calibration, take control of the machine by grabbing the steering wheel or stopping the machine.

1. Select Wheel Angle Sensor Calibration button to begin calibration.

A—Wheel Angle Sensor Calibration Button

B—Valve Calibration Button



Machine Calibration

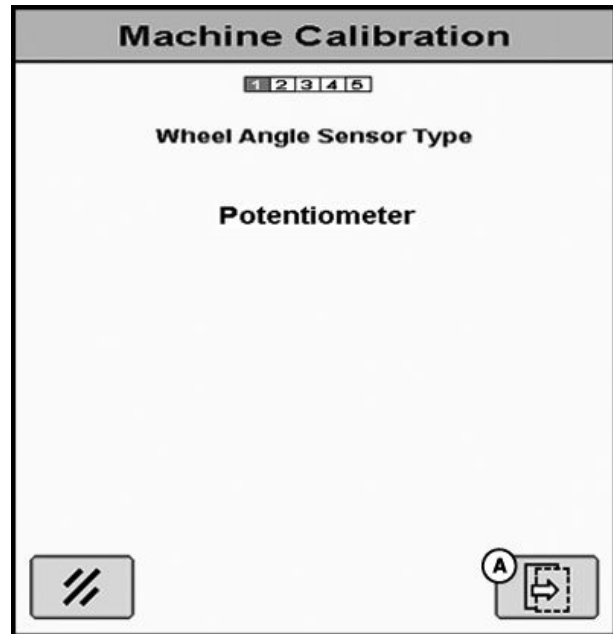
HC94949,00008C2 -19-14OCT15-1/7

PC12031—UN—05MAY09

2. System detects type of wheel angle sensor. Once sensor is detected, select Next button (A) to continue.

If system fails to detect sensor, check connections to wheel angle sensor.

A—Next Button



Wheel Angle Sensor Calibration—Wheel Angle Sensor Type

Continued on next page

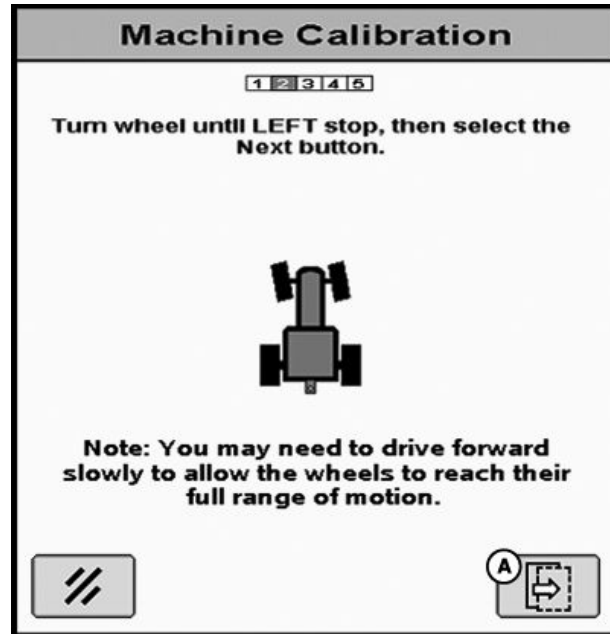
HC94949,00008C2 -19-14OCT15-2/7

PC21460—UN—26AUG15

3. Turn wheel until LEFT stop, then select Next button (A).

NOTE: You may need to drive forward slowly to allow the wheels to reach their full range of motion.

A—Next Button



Wheel Angle Sensor Calibration—Left

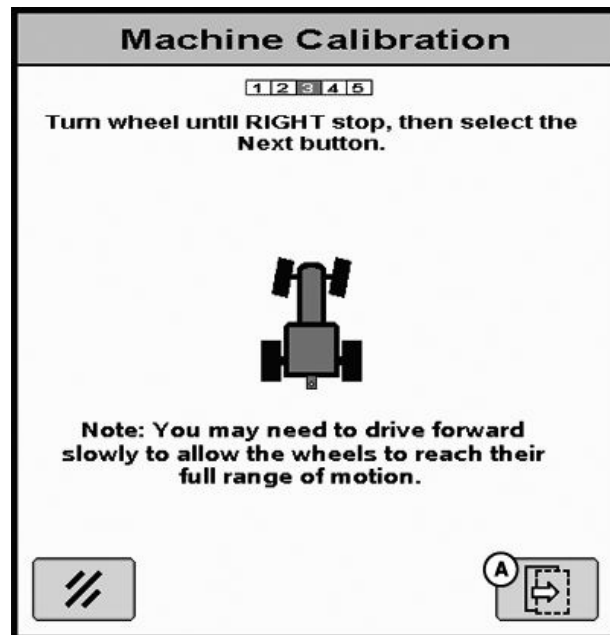
HC94949,00008C2 -19-14OCT15-3/7

PC21461 —UN—26AUG15

4. Turn wheels until RIGHT stop, then select the Next button (A).

NOTE: You may need to drive forward slowly to allow the wheels to reach their full range of motion.

A—Next Button



Wheel Angle Sensor Calibration—Right

Continued on next page

HC94949,00008C2 -19-14OCT15-4/7

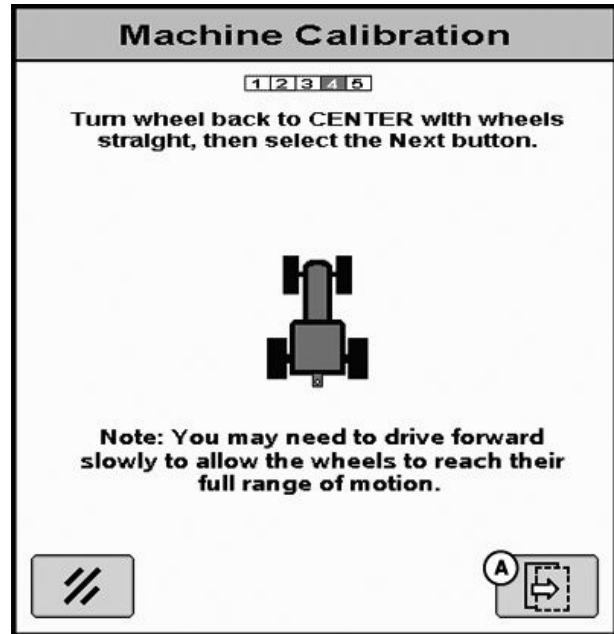
PC21462 —UN—26AUG15

5. Turn wheel back to CENTER with wheels straight, then select the Next button (A).

NOTE: You may need to drive forward slowly to allow the wheels to reach their full range of motion.

An accurate center calibration is critical for AutoTrac™ performance. Drive forward toward a point on the horizon to ensure wheels are facing straight ahead.

A—Next Button



Wheel Angle Sensor Calibration—Center

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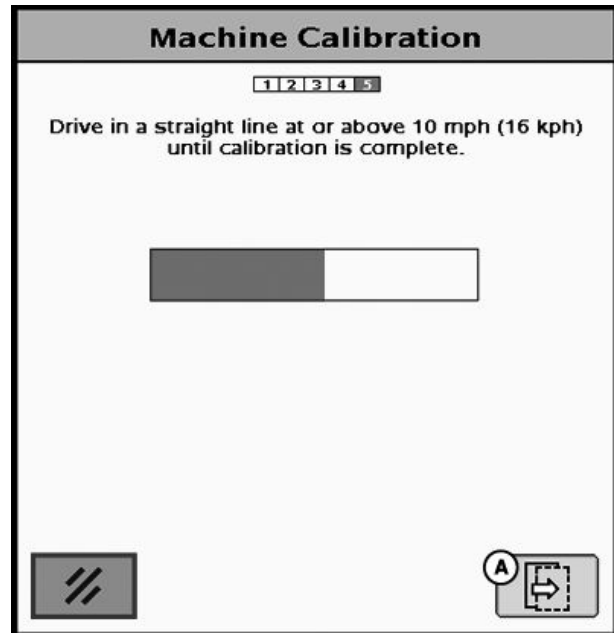
HC94949,00008C2 -19-14OCT15-5/7

PC21463—UN—26AUG15

6. Drive in a straight line at or above 16 km/h (10 mph) until calibration is complete. Select Next button (A).

NOTE: Keep steering corrections to a minimum. Steering wheel movement adds extra time to calibration procedure or results in calibration failure.

A—Next Button



Wheel Angle Sensor Calibration—Drive

Continued on next page

HC94949,00008C2 -19-14OCT15-6/7

PC21464—UN—26AUG15

7. Success (A) is displayed when wheel angle sensor calibration is completed.

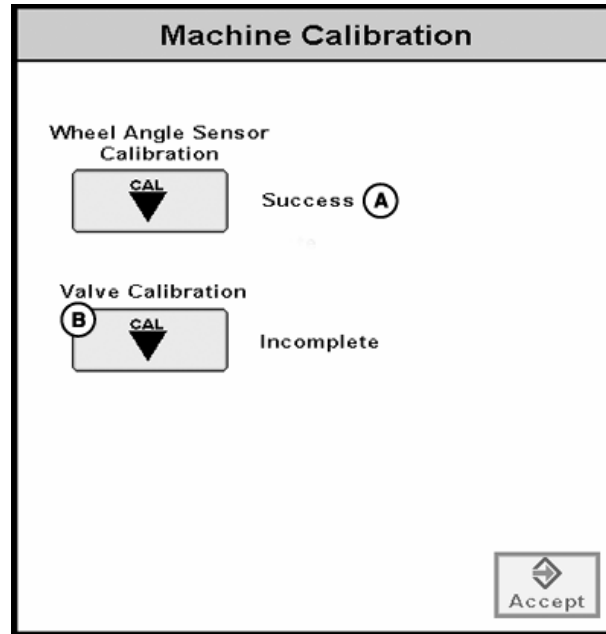
If calibration is interrupted, Incomplete is displayed.
If there is a problem with the calibration, Failed is displayed.

Repeat calibration procedure until it is successful.

8. Select CAL button (B) to start valve calibration.

A—Wheel Angle Sensor
Calibration Status

B—CAL Button



Machine Calibration

HC94949,00008C2 -19-14OCT15-7/7

PC21699 —UN—08OCT15

Valve Calibration—John Deere AutoTrac™ Controller

NOTE: Wheel Angle Sensor Calibration must be completed before Valve Calibration can be performed.

Drive machine slowly at full throttle for approximately 2 to 5 min to bring hydraulic fluid to operating temperature before beginning calibration procedure.

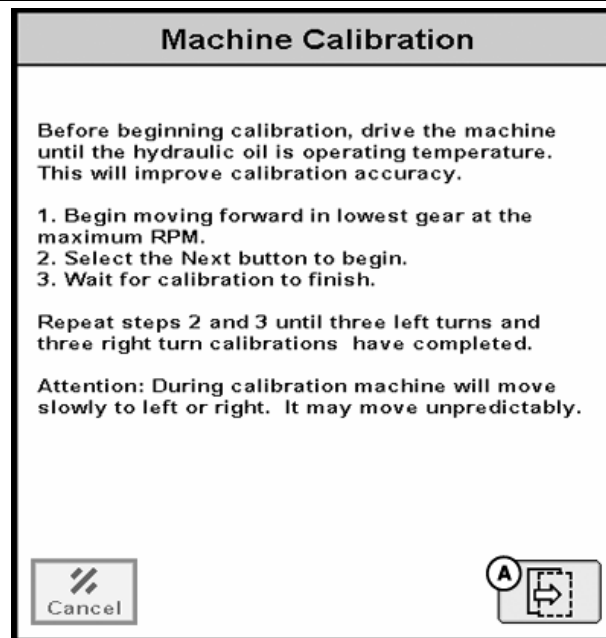
Calibration procedure requires a large, open, and level surface to complete required steps. Ensure area is clear of any obstacles and traffic.

At any time during calibration, take control of the machine by grabbing the steering wheel or stopping the machine.

1. Begin moving forward in the lowest gear at the maximum RPM.
2. Select the Next (A) button to begin.
3. Wait for calibration to finish.

Repeat steps 2 and 3 until three left turn and three right turn calibrations have completed.

NOTE: During calibration, machine moves slowly to left or right. It may move unpredictably.



Valve Calibration

A—Next Button

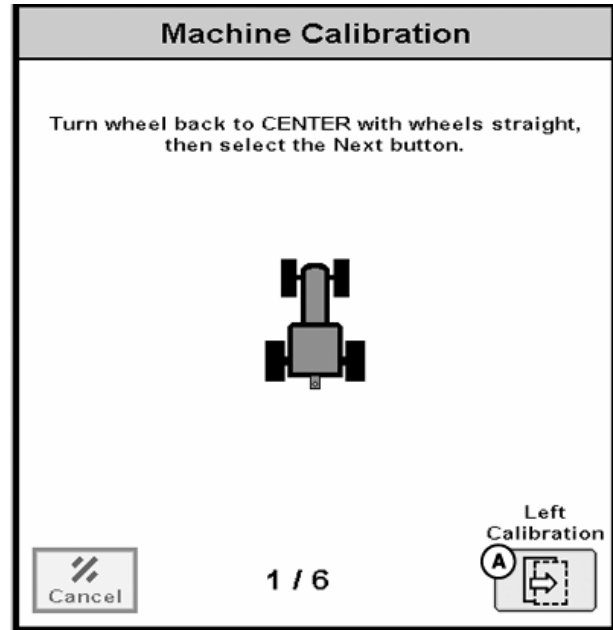
Continued on next page

HC94949,000090E -19-14OCT15-1/10

PC21517 —UN—09SEP15

- Turn wheel back to center with wheels straight, then select Next (A) button.

A—Next Button



Machine Calibration—1/6

HC94949,000090E -19-14OCT15-2/10

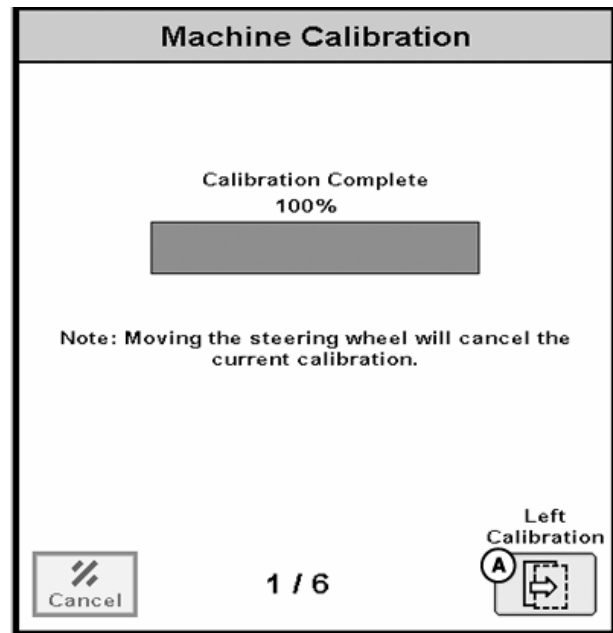
PC21542—UN—11SEP15

- Wait for left calibration to complete.

NOTE: Moving the steering wheel cancels the current calibration.

Select Next (A) button when complete.

A—Next Button

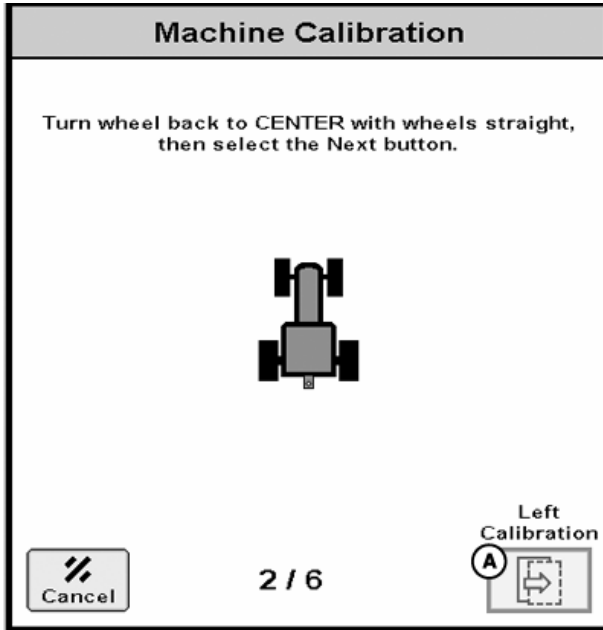


Machine Calibration—1/6

Continued on next page

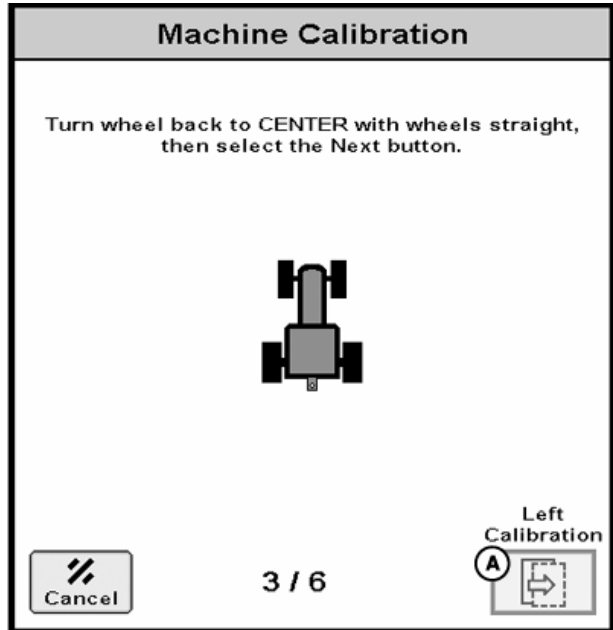
HC94949,000090E -19-14OCT15-3/10

PC21544—UN—11SEP15



Machine Calibration—2/6

PC21545—UN—11SEP15



Machine Calibration—3/6

PC21547—UN—11SEP15

A—Next Button

6. Select Next (A) button and repeat procedure two more times for left calibration.

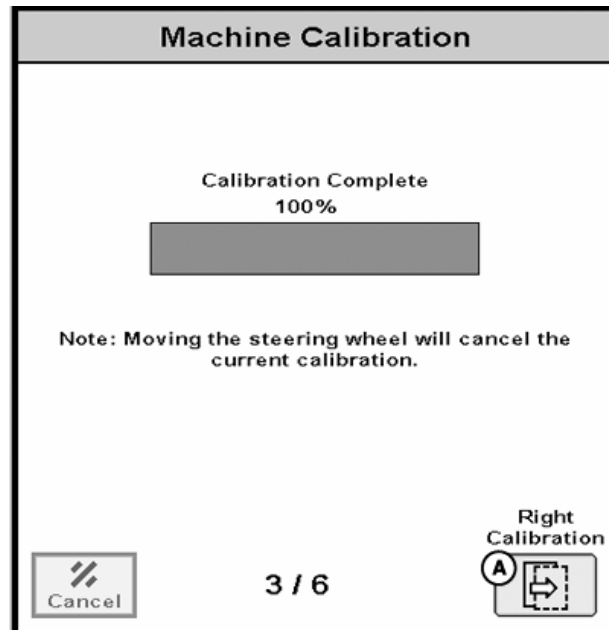
HC94949,000090E -19-14OCT15-4/10

7. Wait for left calibration to complete.

NOTE: Moving the steering wheel cancels the current calibration.

Select Next (A) button to start right calibration.

A—Next Button



Machine Calibration—3/6

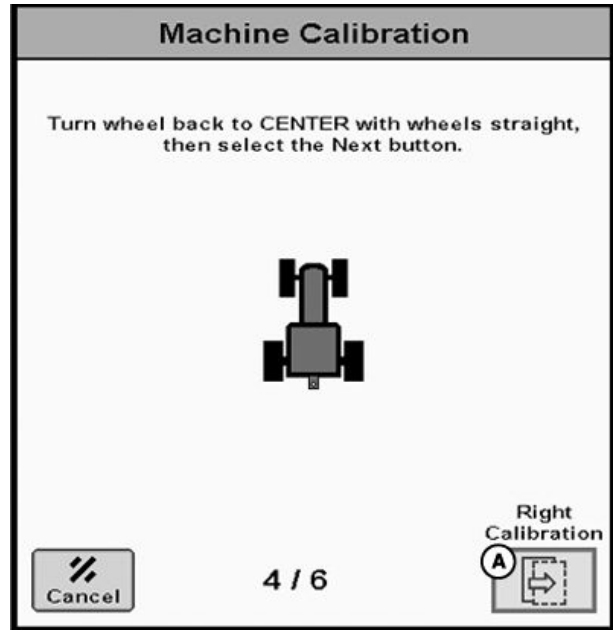
PC21548—UN—11SEP15

Continued on next page

HC94949,000090E -19-14OCT15-5/10

8. Turn wheel back to center with wheels straight, then select Next (A) button.

A—Next Button



Machine Calibration—4/6

HC94949,000090E -19-14OCT15-6/10

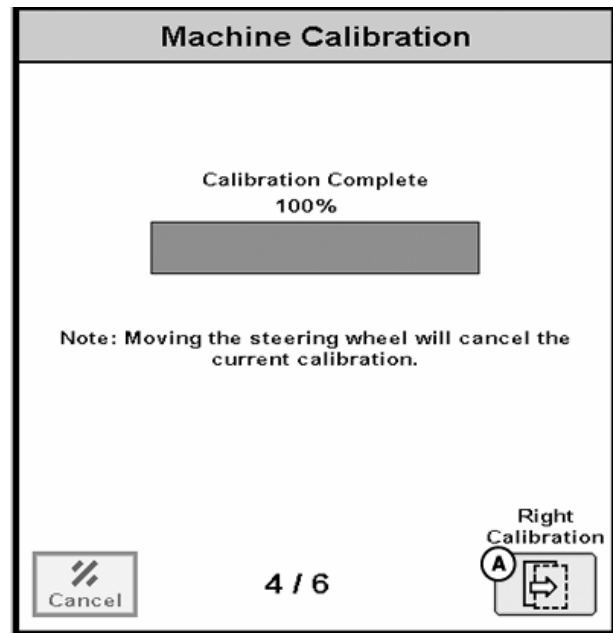
PC21549—UN—11SEP15

9. Wait for right calibration to complete.

NOTE: Moving the steering wheel cancels the current calibration.

Select Next (A) button to finish calibration.

A—Next Button

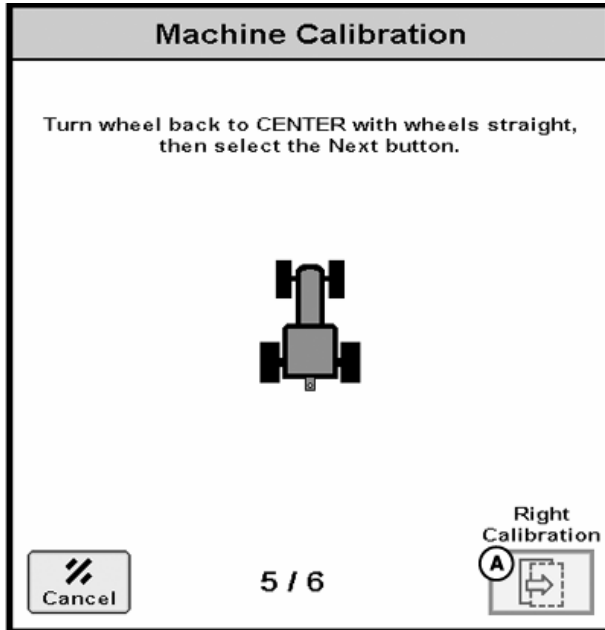


Machine Calibration—4/6

Continued on next page

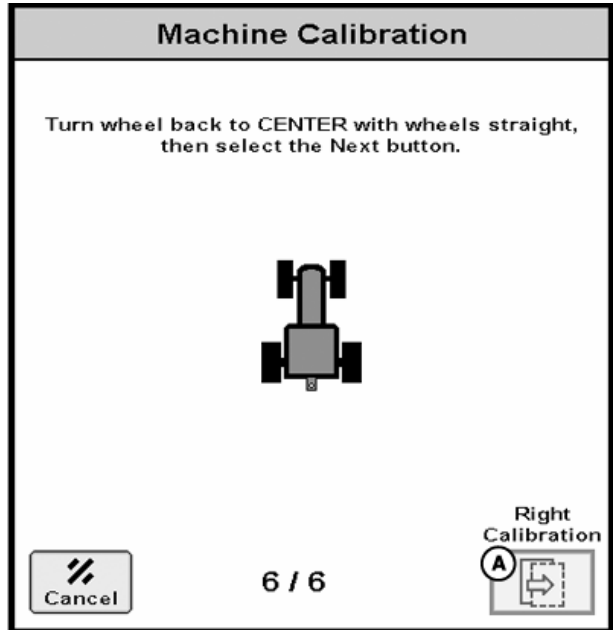
HC94949,000090E -19-14OCT15-7/10

PC21550—UN—11SEP15



Machine Calibration—5/6

PC21551—UN—11SEP15



Machine Calibration—6/6

PC21553—UN—14SEP15

A—Next Button

10. Select Next (A) button and repeat procedure two more times for right calibration.

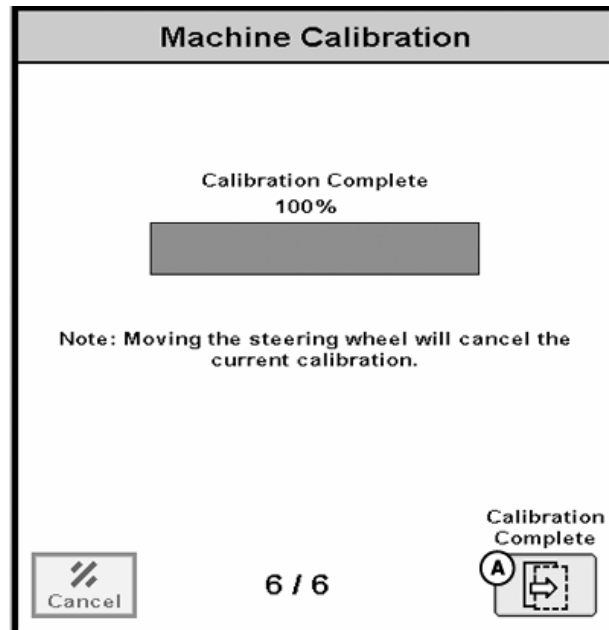
HC94949,000090E -19-14OCT15-8/10

11. Wait for right calibration to complete.

NOTE: Moving the steering wheel cancels the current calibration.

Select Next (A) button to finish calibration.

A—Next Button



Machine Calibration—6/6

PC21554—UN—11SEP15

Continued on next page

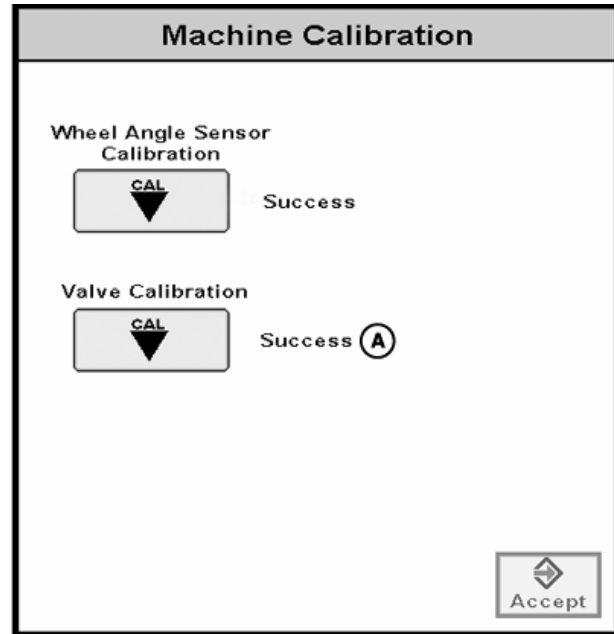
HC94949,000090E -19-14OCT15-9/10

12. Success (A) is displayed when valve calibration is completed.

If calibration is interrupted, Incomplete is displayed.
If there is a problem with the calibration, Failed is displayed.

Repeat calibration procedure until it is successful.

A—Valve Calibration Status



Machine Calibration

HC94949,000090E -19-14OCT15-10/10

PC21721—UN—09OCT15

Operating—GreenStar™ 3 2630 Display

Create Guidance Line

NOTE: Instructions are for a basic guidance line.
For complete guidance setup instructions, see
GreenStar™ 3 2630 Display Operator's Manual.

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Guidance softkey.

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



GreenStar™ Button

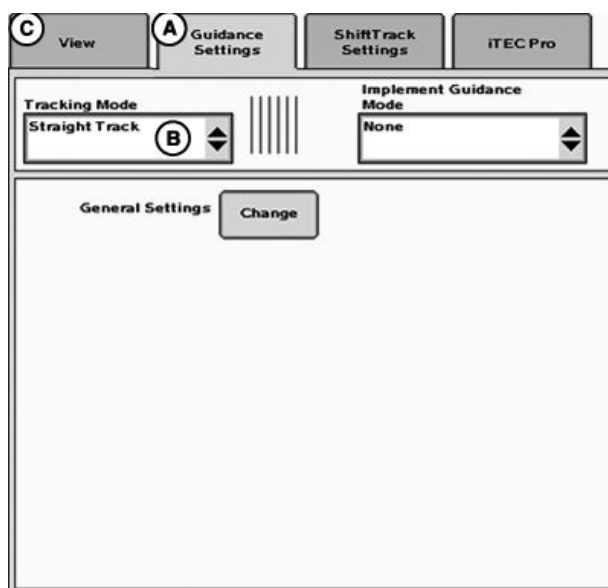
PC21148 —UN—11MAY15



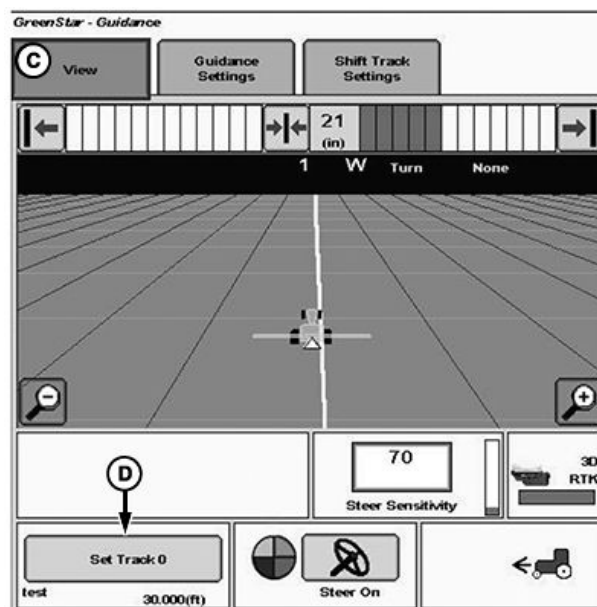
Guidance Softkey

GreenStar is a trademark of Deere & Company

HC94949,0000927 -19-14OCT15-1/3



Guidance Settings



Guidance View

A—Guidance Settings Tab

B—Tracking Mode Drop-Down Menu

C—View Tab

D—Set Track 0 Button

4. Select Guidance Settings tab (A).
5. Select Straight Track mode (B).
6. Select View tab (C).

7. Select Set Track 0 button (D).

Continued on next page

HC94949,0000927 -19-14OCT15-2/3

8. Select New button (A).
9. Enter a name for Track 0 using keypad. Select Enter button to accept and return to Track 0 setup.
10. Select A + B option from Method drop-down menu (B).
11. Select John Deere from Guidance Line Calculation drop-down menu (C).
12. Enter desired track spacing (D).
13. Drive machine to the desired location in the field, and select Set A button (E).
14. Drive machine to the desired point B, and select Set B button (F).
15. To complete Track 0 setup, select Enter button (G).

NOTE: To set B, it is required to drive more than 3 m (10 ft).

- | | |
|--|----------------|
| A—New Button | E—Set A Button |
| B—Method Drop-Down Menu | F—Set B Button |
| C—Guidance Line Calculation Drop-Down Menu | G—Enter Button |
| D—Track Spacing Button | |

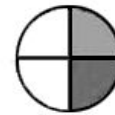
Set Track 0

HC94949,0000927 -19-14OCT15-3/3

Enable AutoTrac™

When AutoTrac™ status pie has two pieces filled in, the hardware and software requirements to AutoTrac™ have been met.

PC8833 —UN—25OCT05



Stage 2—CONFIGURED

AutoTrac is a trademark of Deere & Company

HC94949,0000910 -19-14OCT15-1/3

1. Select Steer ON and OFF button to enable and disable AutoTrac™. Three pieces of the pie fill-in when steering is on.

PC20221 —UN—10NOV14



Steer ON and Off Button

Continued on next page

HC94949,0000910 -19-14OCT15-2/3

If any of the hardware and software requirements have not been met, a Diagnostic Wrench button is displayed instead of the Steer ON and OFF button. Select button to view AutoTrac™ Diagnostics. The diagnostics page indicates the requirements for each of the four pie pieces and the status of all requirements.

PC11973 —UN—09APR09



AutoTrac™ Diagnostics Wrench

NOTE: AutoTrac™ may not become available until hydraulic fluid has reached the required temperature (only one pie piece until fluid is warm). This

issue does not display a diagnostic code or show in the status menu.

HC94949,0000910 -19-14OCT15-3/3

Activate System

CAUTION: While AutoTrac™ is activated, operator is responsible for steering at end of path and collision avoidance.

Do not attempt to turn on (Activate) AutoTrac™ system while transporting on a roadway.

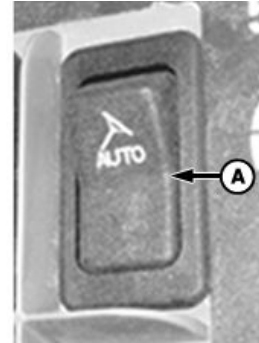
After system has been Enabled, operator must manually change system to Activated status when steering assistance is desired.

1. Press resume switch (A) to initiate assisted steering.

To activate system, the following criteria must be met:

- Machine speed is greater than 0.5 km/h (0.3 mph).
- Machine is within 45 degrees of desired track.
- Machine speed is less than 30 km/h (18.6 mph).
- Master switch in On position.
- Terrain compensation module (TCM) is on.

AutoTrac is a trademark of Deere & Company



Resume Switch

A—Resume Switch

- In reverse, AutoTrac™ remains activated for 45 seconds. After 45 sec, machine must be put in a forward gear before reverse activates again.

HC94949,0000911 -19-20OCT15-1/1

Deactivate System

CAUTION: Always turn off (Deactivate and Disable) AutoTrac™ system before entering a roadway.

To turn off AutoTrac™ from Guidance View tab, toggle Steer ON and OFF button until Steer OFF is displayed.

AutoTrac™ system is deactivated by the following methods:

- Turning steering wheel.

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- Slowing to speeds less than 0.5 km/h (0.3 mph).
- Toggle Steer ON and OFF button until Steer OFF is displayed in Guidance View tab.
- No activity detected by operator presence monitor for 7 minutes.
- Turn master switch to Off position.
- Exceeding reverse speed of 9.7 km/h (6 mph).
- Remain stopped for more than 30 seconds.
- Exceeding forward speeds of 30 km/h (18.6 mph).

HC94949,000092B -19-20OCT15-1/1

Adjust Advanced AutoTrac™ Settings—GreenStar™ 3 2630 Display

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Guidance softkey.

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



GreenStar™ Button

PC21148 —UN—11MAY15



Guidance Softkey

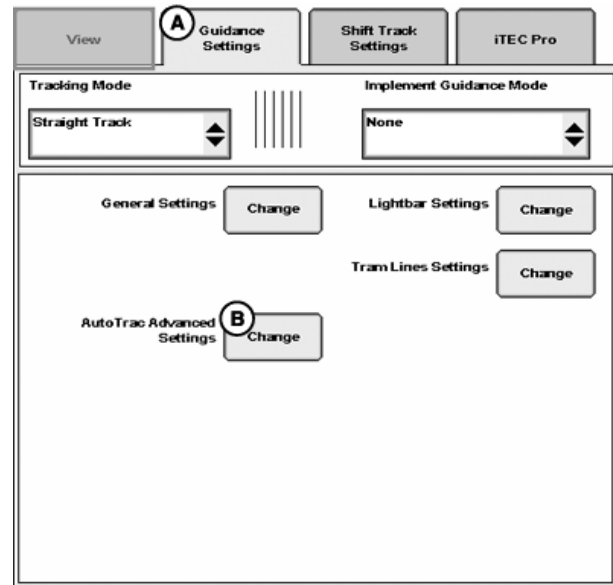
GreenStar is a trademark of Deere & Company

HC94949,00008EA -19-04APR16-1/3

4. Select Guidance Settings tab (A).
5. Select AutoTrac™ Advanced Settings (B).

A—Guidance Settings Tab

B—AutoTrac™ Advanced Settings Button



Guidance Settings Tab

AutoTrac is a trademark of Deere & Company

Continued on next page

HC94949,00008EA -19-04APR16-2/3

PC21523 —UN—09SEP15

6. Adjust Advanced AutoTrac™ Settings to fine-tune performance.

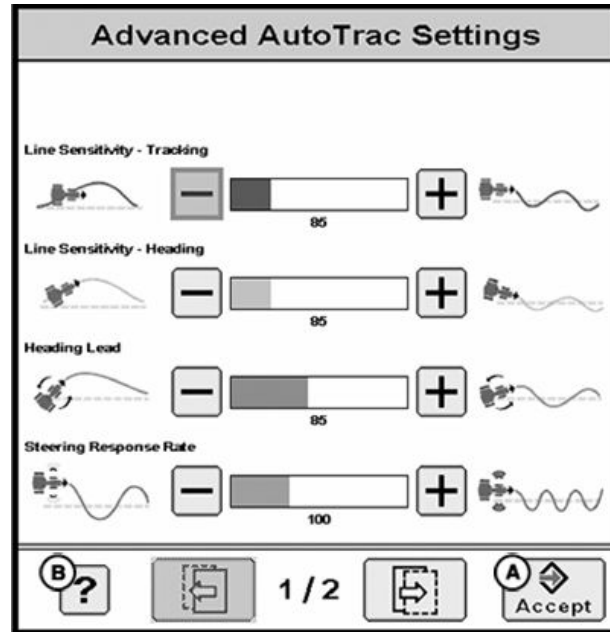
(Reference Optimize AutoTrac™ Controller Performance for instructions to adjust each of the settings.)

NOTE: Adjustments take effect immediately, without pressing Accept button (A).

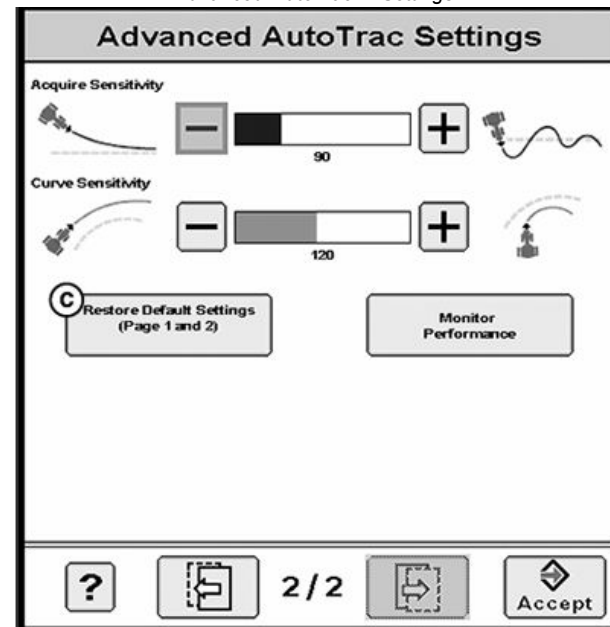
7. Select “?” button (B) to display information about each setting.
8. Select Restore Default Settings button (C) to clear any adjustments that have been made.

A—Accept Button
B—Help Button

C—Restore Default Settings Button



Advanced AutoTrac™ Settings—1/2



Advanced AutoTrac™ Settings—2/2

HC94949,00008EA -19-04APR16-3/3

PC22394 —UN—01APR16

PC22395 —UN—01APR16

Operating—GreenStar™ 2 2600 Display

Create Guidance Line

NOTE: Instructions are for a basic guidance line. For complete guidance setup instructions, see GreenStar™ 2 2600 Display—Guidance Operator's Manual.

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Guidance softkey.

PC8663 —UN—29APR15



Menu Button

PC10857JE —UN—13APR09



GreenStar™ Button

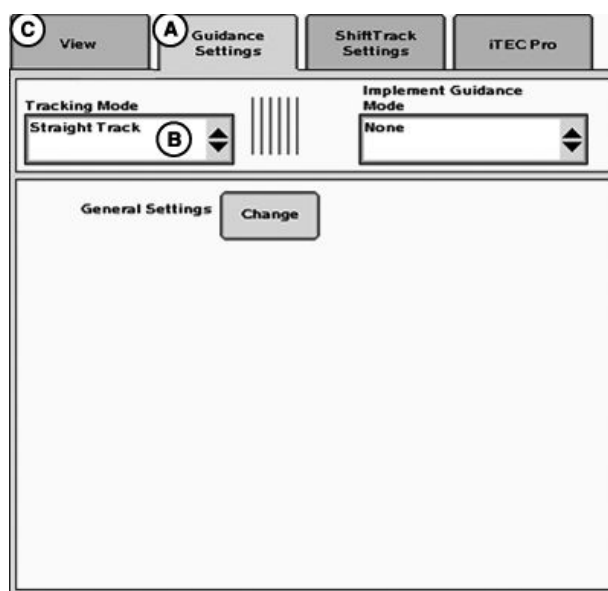
PC21148 —UN—11MAY15



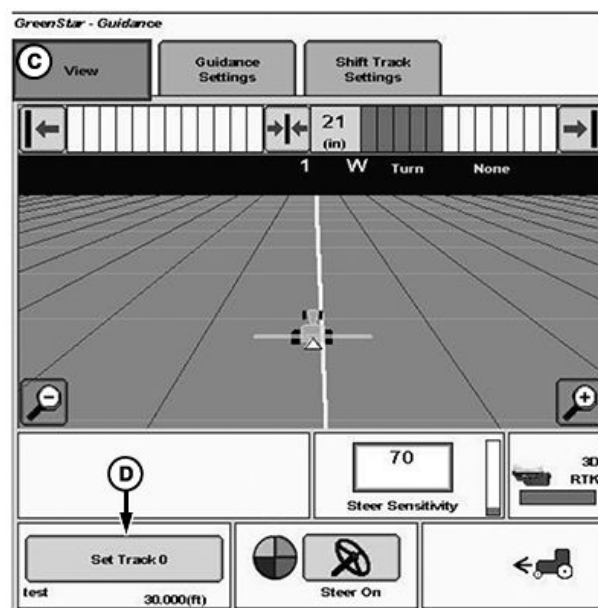
Guidance Softkey

GreenStar is a trademark of Deere & Company

HC94949,000090F -19-14OCT15-1/3



Guidance Settings



Guidance View

A—Guidance Settings Tab

B—Tracking Mode Drop-Down Menu

C—View Tab

D—Set Track 0 Button

4. Select Guidance Settings tab (A).
5. Select Straight Track mode (B).
6. Select View tab (C).

7. Select Set Track 0 button (D).

Continued on next page

HC94949,000090F -19-14OCT15-2/3

8. Select New button (A).
9. Enter a name for Track 0 using keypad. Select Enter button to accept and return to Track 0 setup.
10. Select A + B option from Method drop-down menu (B).
11. Select John Deere from Guidance Line Calculation drop-down menu (C).
12. Enter desired track spacing (D).
13. Drive machine to the desired location in the field, and select Set A button (E).
14. Drive machine to the desired point B, and select Set B button (F).
15. To complete Track 0 setup, select Enter button (G).

NOTE: To set B, it is required to drive more than 3 m (10 ft).

- | | |
|--|----------------|
| A—New Button | E—Set A Button |
| B—Method Drop-Down Menu | F—Set B Button |
| C—Guidance Line Calculation Drop-Down Menu | G—Enter Button |
| D—Track Spacing Button | |

Set Track 0

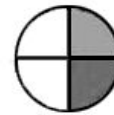
PC20335 —UN—25NOV14

HC94949,000090F -19-14OCT15-3/3

Enable AutoTrac™

When AutoTrac™ status pie has two pieces filled in, the hardware and software requirements to AutoTrac™ have been met.

PC8833 —UN—25OCT05



Stage 2—CONFIGURED

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HC94949,0000910 -19-14OCT15-1/3

1. Select Steer ON and OFF button to enable and disable AutoTrac™. Three pieces of the pie fill-in when steering is on.

PC20221 —UN—10NOV14



Steer ON and Off Button

Continued on next page

HC94949,0000910 -19-14OCT15-2/3

If any of the hardware and software requirements have not been met, a Diagnostic Wrench button is displayed instead of the Steer ON and OFF button. Select button to view AutoTrac™ Diagnostics. The diagnostics page indicates the requirements for each of the four pie pieces and the status of all requirements.

PC11973 —UN—09APR09



AutoTrac™ Diagnostics Wrench

NOTE: AutoTrac™ may not become available until hydraulic fluid has reached the required temperature (only one pie piece until fluid is warm). This

issue does not display a diagnostic code or show in the status menu.

HC94949,0000910 -19-14OCT15-3/3

Activate System

CAUTION: While AutoTrac™ is activated, operator is responsible for steering at end of path and collision avoidance.

Do not attempt to turn on (Activate) AutoTrac™ system while transporting on a roadway.

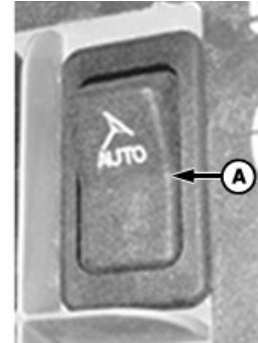
After system has been Enabled, operator must manually change system to Activated status when steering assistance is desired.

1. Press resume switch (A) to initiate assisted steering.

To activate system, the following criteria must be met:

- Machine speed is greater than 0.5 km/h (0.3 mph).
- Machine is within 45 degrees of desired track.
- Machine speed is less than 30 km/h (18.6 mph).
- Master switch in On position.
- Terrain compensation module (TCM) is on.

AutoTrac is a trademark of Deere & Company



Resume Switch

A—Resume Switch

- In reverse, AutoTrac™ remains activated for 45 seconds. After 45 sec, machine must be put in a forward gear before reverse activates again.

HC94949,0000911 -19-20OCT15-1/1

Deactivate System

CAUTION: Always turn off (Deactivate and Disable) AutoTrac™ system before entering a roadway.

To turn off AutoTrac™ from Guidance View tab, toggle Steer ON and OFF button until Steer OFF is displayed.

AutoTrac™ system is deactivated by the following methods:

- Turning steering wheel.

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- Slowing to speeds less than 0.5 km/h (0.3 mph).
- Toggle Steer ON and OFF button until Steer OFF is displayed in Guidance View tab.
- No activity detected by operator presence monitor for 7 minutes.
- Turn master switch to Off position.
- Exceeding reverse speed of 9.7 km/h (6 mph).
- Remain stopped for more than 30 seconds.
- Exceeding forward speeds of 30 km/h (18.6 mph).

HC94949,000092B -19-20OCT15-1/1

Adjust Advanced AutoTrac™ Settings—GreenStar™ 2 2600 Display

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Guidance softkey.

PC8663 —UN—29APR15



Menu Button

PC10857JE —UN—13APR09



GreenStar™ Button

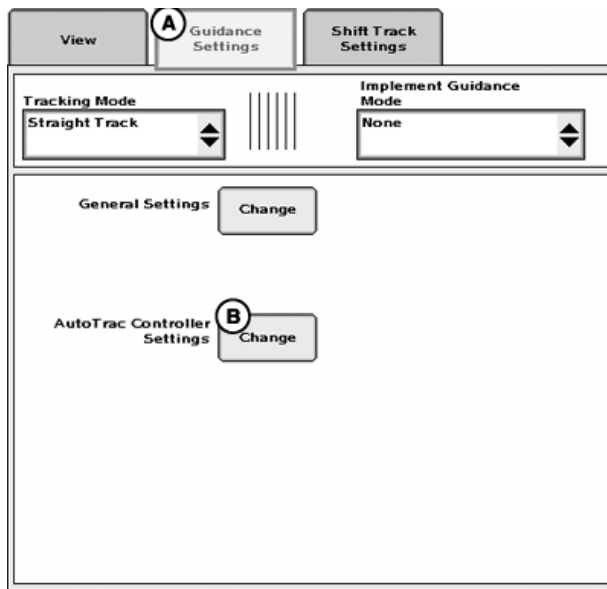
PC21148 —UN—11MAY15



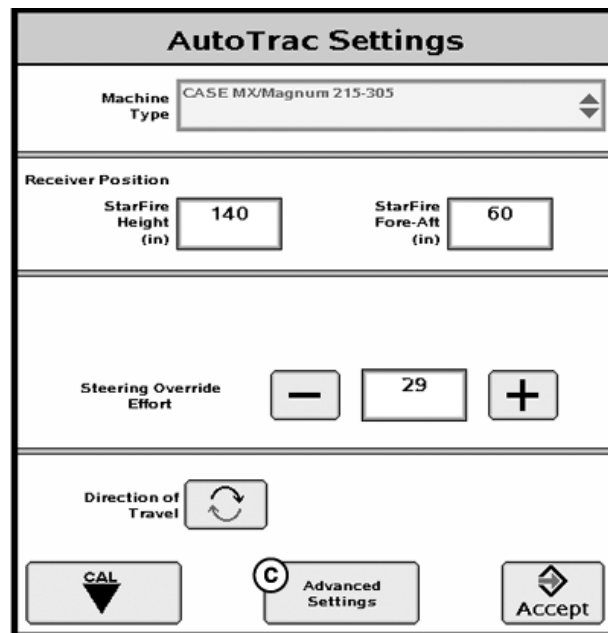
Guidance Softkey

GreenStar is a trademark of Deere & Company

HC94949,00008F1 -19-14OCT15-1/3



Guidance Settings Tab



AutoTrac™ Settings

A—Guidance Settings Tab

B—AutoTrac™ Controller Settings Button

C—Advanced Settings Button

4. Select Guidance Settings tab (A).
5. Select AutoTrac™ Controller Settings button (B).

6. Select Advanced Settings button (C).

AutoTrac is a trademark of Deere & Company

Continued on next page

HC94949,00008F1 -19-14OCT15-2/3

7. Adjust Advanced AutoTrac™ Settings to fine-tune performance.

(Reference Optimize AutoTrac™ Controller Performance for instructions to adjust each of the settings.)

NOTE: Adjustments take effect immediately, without pressing Accept button (A).

8. Select “?” button (B) to display information about each setting.
9. Select Restore Default Settings button (C) to clear any adjustments that have been made.

A—Accept Button
B—Help Button

C—Restore Default Settings Button

Advanced AutoTrac Settings		
	Steer Sensitivity	71
B ?	Line Sensitivity Heading	100
?	Line Sensitivity Tracking	100
?	Heading Lead	100
?	Steering Response Rate	100
?	Curve Sensitivity	70
?	Acquire Sensitivity	100
C	Restore Default Settings	A
		Accept

AutoTrac™ Controller Settings—Page 1

HC94949,00008F1 -19-14OCT15-3/3

PC21698 —UN—07OCT15

Operating—GreenStar™ 2 1800 Display

Create Guidance Line

PC8663 —UN—29APR15

NOTE: Instructions are for a basic guidance line.
For complete guidance setup instructions, see
GreenStar™ 2 1800 Display Operator's Manual.

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Guidance softkey.



Menu Button

PC10857JE —UN—13APR09



GreenStar™ Button

PC10857JJ —UN—13APR09



Guidance Softkey

GreenStar is a trademark of Deere & Company

HC94949,0000928 -19-14OCT15-1/3

4. Select Straight Track mode (A). Select or create a Track Name (B).

**A—Straight Track Mode
Drop-Down Menu**

**B—Track Name Drop-Down
Menu**

Tracking Mode

Straight Track A

Track Name

a B

New Track

A Point Latitude: 45.00000000

A Point Longitude: -90.00000000

Heading: 0.0000 (deg)

PC21743 —UN—14OCT15

HC94949,0000928 -19-14OCT15-2/3

5. Drive machine to the desired location in the field, and select Set A button.

PC10857MU —UN—23APR09

NOTE: To set B, it is required to drive more than 3 m (10 ft).

6. Drive machine to the desired point B, and select Set B button.

PC10857MV —UN—23APR09



Set A Button



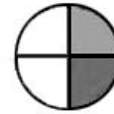
Set B Button

HC94949,0000928 -19-14OCT15-3/3

Enable AutoTrac™

When AutoTrac™ status pie has two pieces filled in, the hardware and software requirements to AutoTrac™ have been met.

PC8833 —UN—25OCT05



Stage 2—CONFIGURED

AutoTrac is a trademark of Deere & Company

HC94949,0000910 -19-14OCT15-1/3

1. Select Steer ON and OFF button to enable and disable AutoTrac™. Three pieces of the pie fill-in when steering is on.

PC20221 —UN—10NOV14



Steer ON and Off Button

HC94949,0000910 -19-14OCT15-2/3

If any of the hardware and software requirements have not been met, a Diagnostic Wrench button is displayed instead of the Steer ON and OFF button. Select button to view AutoTrac™ Diagnostics. The diagnostics page indicates the requirements for each of the four pie pieces and the status of all requirements.

PC11973 —UN—09APR09



AutoTrac™ Diagnostics Wrench

NOTE: AutoTrac™ may not become available until hydraulic fluid has reached the required temperature (only one pie piece until fluid is warm). This

issue does not display a diagnostic code or show in the status menu.

HC94949,0000910 -19-14OCT15-3/3

Activate System

CAUTION: While AutoTrac™ is activated, operator is responsible for steering at end of path and collision avoidance.

Do not attempt to turn on (Activate) AutoTrac™ system while transporting on a roadway.

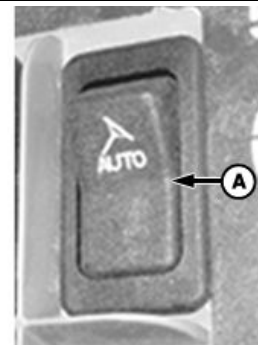
After system has been Enabled, operator must manually change system to Activated status when steering assistance is desired.

1. Press resume switch (A) to initiate assisted steering.

To activate system, the following criteria must be met:

- Machine speed is greater than 0.5 km/h (0.3 mph).
- Machine is within 45 degrees of desired track.
- Machine speed is less than 30 km/h (18.6 mph).
- Master switch in On position.
- Terrain compensation module (TCM) is on.

AutoTrac is a trademark of Deere & Company



Resume Switch

A—Resume Switch

- In reverse, AutoTrac™ remains activated for 45 seconds. After 45 sec, machine must be put in a forward gear before reverse activates again.

HC94949,0000911 -19-20OCT15-1/1

PC21691 —UN—06OCT15

Deactivate System

CAUTION: Always turn off (Deactivate and Disable) AutoTrac™ system before entering a roadway.

To turn off AutoTrac™ from Guidance View tab, toggle Steer ON and OFF button until Steer OFF is displayed.

AutoTrac™ system is deactivated by the following methods:

- Turning steering wheel.

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- Slowing to speeds less than 0.5 km/h (0.3 mph).
- Toggle Steer ON and OFF button until Steer OFF is displayed in Guidance View tab.
- No activity detected by operator presence monitor for 7 minutes.
- Turn master switch to Off position.
- Exceeding reverse speed of 9.7 km/h (6 mph).
- Remain stopped for more than 30 seconds.
- Exceeding forward speeds of 30 km/h (18.6 mph).

HC94949,000092B -19-20OCT15-1/1

Adjust Advanced AutoTrac™ Settings - GreenStar™ 2 1800 Display

1. Select Menu button.
2. Select GreenStar™ button.
3. Select GreenStar™ Main softkey.
4. Select Settings button.

PC8663 —UN—29APR15



Menu Button

PC10857JE —UN—13APR09



GreenStar™ Button

PC21732 —UN—13OCT15



GreenStar™ Main Softkey

PC21731 —UN—13OCT15

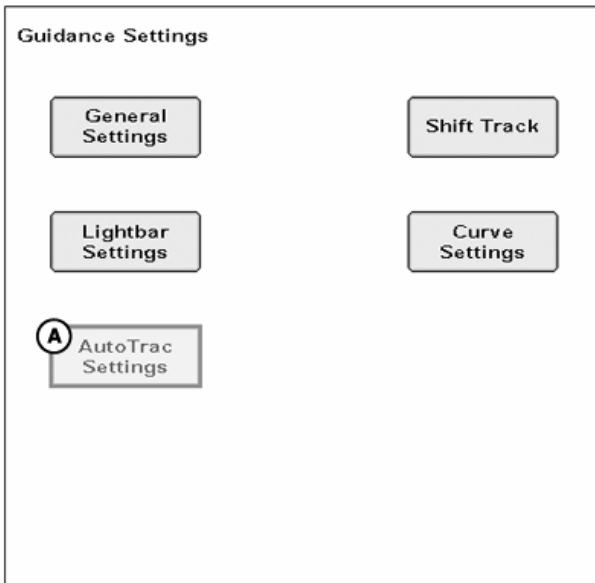


Settings Button

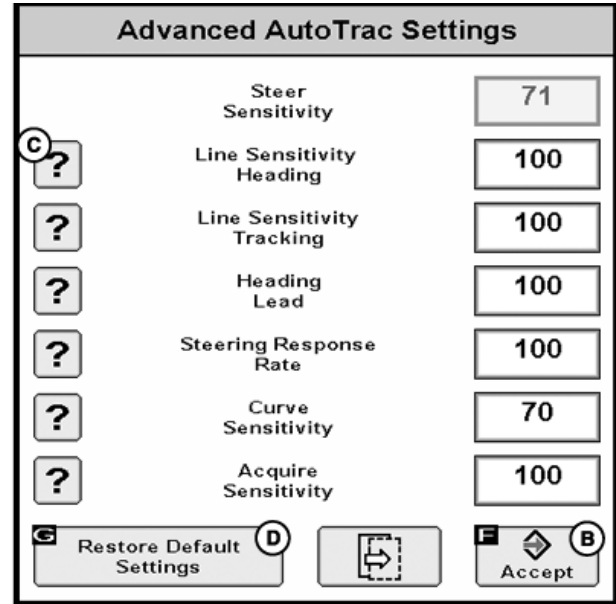
GreenStar is a trademark of Deere & Company

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HC94949,0000909 -19-01APR16-1/2



AutoTrac™ Settings



Advanced Settings

A—AutoTrac™ Settings Button B—Accept Button
C—Help Button

D—Restore Default Settings Button

5. Select AutoTrac™ Settings button (A).
6. Adjust Advanced AutoTrac™ Settings to fine-tune performance.
(Reference Optimize AutoTrac™ Controller Performance for instructions to adjust each of the settings.)

NOTE: Adjustments take effect after selecting Accept button (B).

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7. Select “?” button (C) to display information about each setting.
8. Select Restore Default Settings button (D) to clear any adjustments that have been made.

HC94949,0000909 -19-01APR16-2/2

Operating—Optimizing AutoTrac™ Controller

Optimize AutoTrac™ Controller Performance

NOTE: AutoTrac™ Controller has been tuned to perform in most field conditions using various implements. For conditions outside of normal, Advanced Settings allows operator to fine-tune system for specific field conditions and implements.

Read this information in its entirety before tuning AutoTrac™ Advanced Settings.

1. **Check and fix problems before tuning.** Perform necessary mechanical checks and calibrations on machine. Tuning without fixing problems can mask actual machine faults and cause issues later.
2. **Access Advanced AutoTrac™ Settings page.** (See Adjust Advanced AutoTrac™ Settings.)
3. **Start with factory default settings.** Steering Sensitivity value correlates to value on Guidance View tab. Use a value for current conditions (70 for concrete, 100 for most conditions, and 120 for soft ground). Adjust number to fine-tune system as needed.
4. **General Tuning Instructions**
 - Attempt to adjust settings in problem field conditions while AutoTrac™ is active. Adjust one value at a time. Reset to factory defaults if settings do not correct performance.
 - If adjusting one value does not give satisfactory performance, try different combinations of parameters.

Adjustment Recommendations:

- **Steering Sensitivity**—Set at 100 before making other adjustments, then adjust in increments of 10.
- **Line Sensitivity Tracking**—Adjust in increments of 20.
- **Line Sensitivity Heading**—Adjust in increments of 10.
- **Heading Lead**—Adjust in increments of 10.
- **Steering Response Rate**—Adjust in increments of 10.
- **Acquire Sensitivity**—Adjust in increments of 20.
- **Curve Sensitivity**—Adjust in increments of 20.

NOTE: If desired performance is not achieved, see *Troubleshooting AutoTrac™ Controller* for more detail.

Optimize Line Sensitivity

A: Line Sensitivity—Heading

Determines how aggressively AutoTrac™ responds to heading error.

- Tune line sensitivity—heading while operating on AB line.
- If front of machine wanders too far from track direction, adjust line sensitivity—heading higher.

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PC19658 —UN—21MAY14



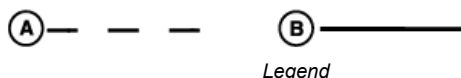
Line Sensitivities Too Low

PC19659 —UN—21MAY14



Line Sensitivities Too High

PC8999 —UN—08MAR06



Legend

A—Desired Track—Broken Line B—Actual Track—Solid Line

- If machine becomes unstable, adjust line sensitivity—heading lower.

B: Line Sensitivity—Tracking

Determines how aggressively AutoTrac™ responds to off-track (lateral) error.

- Tune line sensitivity—tracking while operating on AB line.
- If machine wanders too far from the AB line, adjust line sensitivity—tracking higher.
- If machine becomes unstable around AB line, adjust line sensitivity—tracking lower.

NOTE: Line sensitivities work together. If both are set too high, machine becomes unstable. If both are set too low, machine wanders around AB line.

Optimize Heading Lead

Determines impact of yaw rate (machine rate of turn) on tracking performance. This can be thought of as a look-ahead setting. Large adjustments may result in poor performance.

- Higher settings result in more aggressive response to changes in machine direction.
- Lower Settings result in less aggressive response to changes in machine direction.

Optimize Steering Response Rate

Adjusts rate of machine steering in order to maintain tracking performance. Increasing steering responsiveness generally results in better tracking performance.

- Tune speed by operating parallel to and 1.2 m (4 ft) off the AB line.
- While tuning, adjust in increments of 10 between range of 50 to 200.

Continued on next page

HC94949,0000886 -19-14OCT15-1/4

Optimize Acquire Sensitivity

Determines how aggressively machine acquires track. This setting affects performance while acquiring track only.

- Tune speed by operating parallel to and 1.2 m (4 ft) off the AB Line.
- Tune acquire sensitivity until machine acquires line smoothly.

A—Desired Track—Broken Line

B—Actual Track—Solid Line

PC19661 —UN—21MAY14



Acquire Sensitivity Too Low

PC19662 —UN—21MAY14



Acquire Sensitivity Too High

PC8999 —UN—08MAR06

(A)

(B)

Legend

HC94949,0000886 -19-14OCT15-2/4

Curve Sensitivity

Determines how aggressively AutoTrac™ responds to a curve in track. This setting affects performance in curve track guidance only. Start with curve sensitivity equal to optimized acquire sensitivity.

- Tune curve sensitivity while operating in curve track.
- If machine turns outside of curve, adjust sensitivity higher.
- If machine turns inside of curve, adjust sensitivity lower.

A—Desired Track—Broken Line

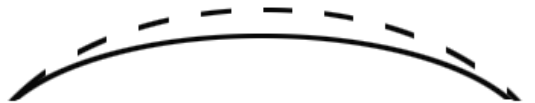
B—Actual Track—Solid Line

PC8944 —UN—21FEB06



Curve Sensitivity Too Low

PC8943 —UN—21FEB06



Curve Sensitivity Too High

PC8999 —UN—08MAR06

(A)

(B)

Legend

Continued on next page

HC94949,0000886 -19-14OCT15-3/4

Monitor AutoTrac™ Performance

GreenStar™ 3 2630 Display

1. Select Guidance Settings tab.
2. Select AutoTrac™ Advanced Settings button.
3. Select page 3 (A).
4. Select Monitor Performance button.

GreenStar™ 2 2600 Display

1. Select Guidance Settings tab.
2. Select AutoTrac™ Controller Settings button.
3. Select Advanced Settings button.
4. Select page 2.

GreenStar™ 2 1800 Display

1. Select AutoTrac™ Settings button.
2. Select Advanced Settings button.
3. Select page 2.

A—Next Page Button

PC11948 —UN—30JUN09

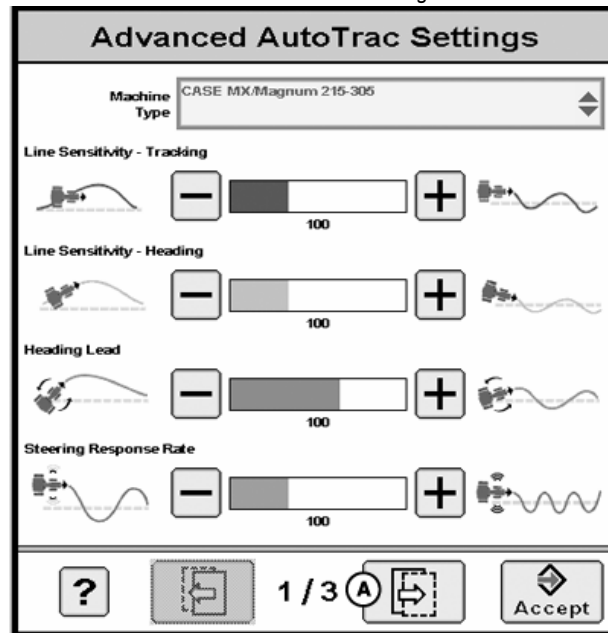


Guidance Settings Tab

PC21902 —UN—03DEC15



AutoTrac™ Advanced Settings Button



Advanced AutoTrac™ Settings-Page 1

PC22002 —UN—07JAN16



Performance Monitor Button

PC22001 —UN—07JAN16

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AutoTrac is a trademark of Deere & Company

Continued on next page

HC94949,000095C -19-26FEB16-1/2

Use the two graphs to monitor tracking (A) and heading (B) error.

1. Acquire line and drive for 30 seconds.
2. Monitor both values for 30 seconds.

NOTE: Adjust steering sensitivity to preferred performance before adjusting line sensitivity tracking and heading settings.

Values closest to zero error are preferred and indicate better system performance.

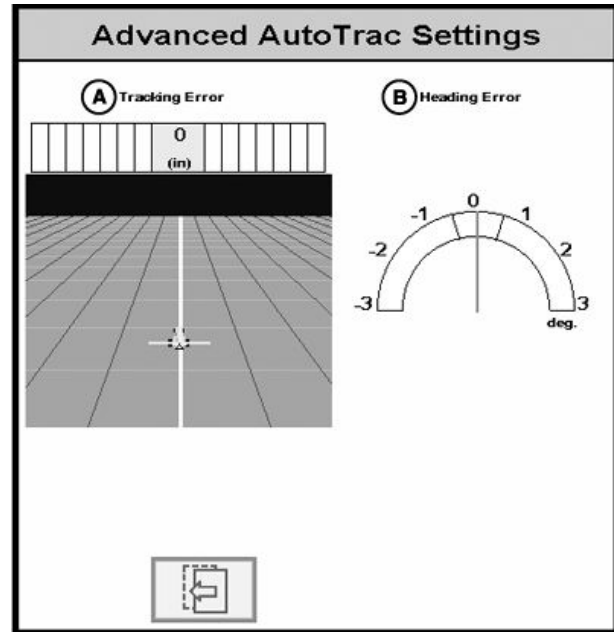
3. Adjust settings until desired performance is achieved based on signal accuracy and overall machine condition and health.

NOTE: Adjust Line Sensitivity—Tracking for tracking error.

Adjust Line Sensitivity—Heading for heading error.

A—Tracking Error

B—Heading Error



Tracking and Heading Error

HC94949,000095C -19-26FEB16-2/2

PC21971—UN—04JAN16

Optimize AutoTrac™ Performance

AutoTrac™ performance can be optimized for commonly used operations and speeds. When optimizing AutoTrac™ on a tractor, it is recommended to first

optimize performance without an implement to set baseline. Use the following chart to record values of AutoTrac™ advanced settings so they can be referenced when changing operations.

Operation / Speed	Steer Sensitivity	Line Sensitivity —Track-ing	Line Sensitivity —Head-ing	Heading Lead	Steering Response Rate	Acquire Sensitivity	Curve Sensitivity

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HC94949,0000998 -19-21MAR16-1/1

Troubleshooting

Observable Symptoms

Symptom	Problem	Solution
AutoTrac™ Controller calibration failed. No steering input device detected.	Calibration procedure fails.	Wheel Angle Sensor (WAS) is not detected on display. Check WAS and harness.
	AutoTrac™ does not engage.	Ensure status of steering input device (SID) on calibration page changes from inactive to active when steering wheel is moved.
		Check wiring harness from controller to SID for damaged or exposed wires.
AutoTrac™ Controller does not activate. AutoTrac™ does not resume.	Stop code encountered.	See list of stop codes to find issue.
	System State does not show Ready.	Complete calibration. (See AutoTrac™ Controller Calibration for more information.)
AutoTrac™ Controller does not appear in main menu.	System does not recognize AutoTrac™ Controller on CAN Bus.	Ensure AutoTrac™ Controller is connected to GreenStar™ harness and receiving power.
		Check for faulty fuses in AutoTrac™ Controller wiring harness.
		Verify terminator is connected.
Direction cannot be determined.	Old terrain compensation module (TCM) software.	Update TCM to newest software.
	No differential correction.	Verify differential correction frequency with your John Deere dealer.
	No global positioning system (GPS) signal.	Ensure clear view of sky. Move machine away from obstructions.
	AutoTrac™ Controller did not establish direction correctly.	Drive forward at a speed greater than 1.6 km/h (1 mph) and turn steering wheel greater than 45 degrees in one direction.
	Direction of travel is wrong on the display.	Select toggle button to set direction of travel to either forward or reverse.
Tractor acquires guidance line, but tracks to right or left of line.	Receiver measurements are incorrect.	Verify receiver measurements are entered correctly.

Continued on next page

ch177nn,1709637023664 -19-08MAR24-1/3

Symptom	Problem	Solution
	AutoTrac™ Controller has encountered a bad WAS calibration and has an incorrect WAS bias.	Recalibrate WAS and ensure center point is accurately selected. (For more information, see Wheel Angle Calibration.)
AutoTrac™ Controller unstable when entering track.	Acquire sensitivity too high.	Optimize acquire sensitivity. (See Optimize AutoTrac™ Controller Performance.)
AutoTrac™ Controller takes too long to enter next track.	Acquire sensitivity too low.	Optimize acquire sensitivity. (See Optimize AutoTrac™ Controller Performance.)
AutoTrac™ Controller constantly weaves in the row.	StarFire™ Receiver height or fore/aft not properly set.	Enter correct height and fore/aft dimensions.
	Aggressive S-ing motion.	Optimize line sensitivities. (See Optimize AutoTrac™ Controller Performance.)
	Lazy S-ing motion.	Optimize line sensitivities. (See Optimize AutoTrac™ Controller Performance.)
	StarFire™ Receiver mount direction setting is different from actual mount direction.	Correctly match mount direction in receiver setup.
	AutoTrac™ Controller did not establish direction correctly.	Drive forward at a speed greater than 1.6 km/h (1 mph) and turn steering wheel greater than 45 degrees in one direction.
	Loose soil.	Add ballast (Follow recommended machine specifications).
AutoTrac™ Controller drives inside or outside curve.	Curve sensitivity too high or low.	Optimize curve sensitivity (See Optimize AutoTrac™ Controller Performance.).
AutoTrac™ Controller calibration fails.	Not enough area to complete calibration without stopping.	Ensure machine has enough area to complete calibration.
	Steering wheel turned to avoid obstacles.	Ensure area is clear of obstacles.
	Incorrect inputs provided by operator.	Start calibration process over. Verify operator inputs.
	Wheel angle sensor (WAS) not responding.	Check WAS wiring harness connections for damage or debris.

Continued on next page

ch177nn,1709637023664 -19-08MAR24-2/3

Symptom	Problem	Solution
	Electro-hydraulic (EH) valve not responding.	Check EH valve wiring harness connections for damage or debris.
	Machine hardware failure.	Contact your John Deere dealer.
	Incorrect installation.	Contact your John Deere dealer.
Poor AutoTrac™ Controller performance.	Advanced AutoTrac™ Controller settings are set incorrectly.	Adjust steering response rate. (See Optimize AutoTrac™ Controller Performance.)
		Ensure advanced AutoTrac™ settings are at default values before optimizing.
	Machine type is set incorrectly.	Recalibrate system. Select correct machine type during calibration procedure. (See AutoTrac™ Controller Calibration.)
	Steering is stiff.	Recalibrate hydraulic system. Temperature changes throughout the day can affect machine characteristics. (See AutoTrac™ Controller Calibration.)
	Steering is loose.	Recalibrate hydraulic system. Temperature changes throughout the day can affect machine characteristics. (See AutoTrac™ Controller Calibration.)
AutoTrac™ disengages during use without turning wheel.	Steering Override setting is too low.	Adjust steering override effort.
AutoTrac™ Controller has issues with S-ing.	AutoTrac™ Controller on MY 2006—2010 CaseIH and New Holland tractors has issues with S-ing due to incorrect left and right deadband settings.	Calibrate the SSU. If issue is not resolved, change the below settings to suggested values: Diagnostic address DA SSU 26: 746 Diagnostic address DA SSU 27: 746 Line Sensitivity Tracking: 100 Line Sensitivity Heading: 80 Heading Lead: 90 Steering Response Rate: 160 Acquire Sensitivity: 160 Curve Sensitivity: 70

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ch177nn,1709637023664 -19-08MAR24-3/3

AutoTrac™ Controller Diagnostic Readings

1. Select the Menu button.

PC8663 —UN—29APR15



Menu Button

HC94949,0000985 -19-13SEP17-1/4

2. Select the GreenStar™ button.

PC17340 —UN—24OCT13



GreenStar™ 3 Pro Button

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HC94949,0000985 -19-13SEP17-2/4

3. Select the Diagnostics softkey.

PC20267 —UN—14NOV14



Diagnostics Softkey

Continued on next page

HC94949,0000985 -19-13SEP17-3/4

- Select the AutoTrac™ Controller from the View drop-down menu (A).

AutoTrac™ Controller View displays:

- Software Version (B)—Software version on the control unit.
- Hardware Version (C)—Hardware part number.
- Serial Number (D)—Serial number of the control unit.
- Mode (E)—Status of AutoTrac™ on the control unit. Status corresponds with AutoTrac™ status pie.

- - -	0 of 4 Pieces
Dis-abled	1 of 4 Pieces
Dis-abled	2 of 4 Pieces
Enabled	3 of 4 Pieces
Active	4 of 4 Pieces

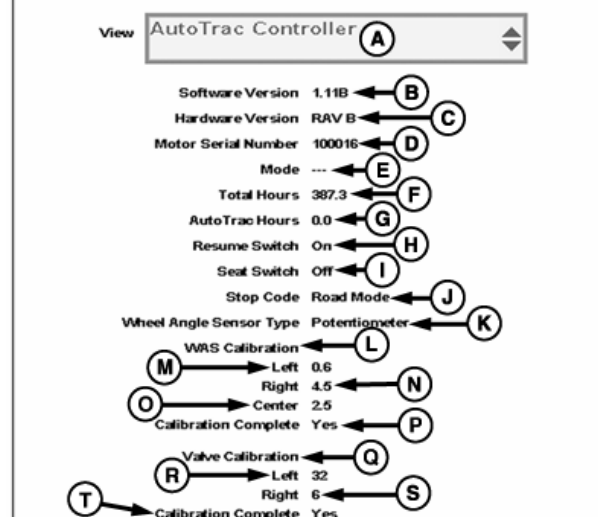
(See AutoTrac™ Status Pie Diagnostic Readings.)

- Total Hours (F)—Number of hours the control unit was powered on.
- AutoTrac™ Hours (G)—Number of hours AutoTrac™ was engaged on the control unit.
- Resume Switch (H)—Status of resume switch. Select the resume switch and verify functionality.
- Seat Switch (I)—Status of the seat switch. Verify functionality by sitting down in seat.
- Stop Code (J)—Last stop code. (Reference AutoTrac™ Controller Stop Codes for more information.)
- Wheel Angle Sensor (WAS) Type (K)
- WAS Calibration (L)—Displays values for:
 - Left (M): 0.1–1
 - Right (N): 4–4.8

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GreenStar - Diagnostic Readings

Due to software changes, read the latest Operator Manual prior to operation. To obtain a copy, see your dealer or visit www.deere.com.



Diagnostic Readings - AutoTrac™ Controller View

A—View Drop-Down Menu

- Center (O): 2–3
- Calibration Complete (P)—Status of WAS calibration. If status is No, calibrate WAS.
- Valve Calibration (Q)—Displays values for:
 - Left (R)
 - Right (S)
- Calibration Complete (T)—Status of valve calibration. If status is No, calibrate valve.

HC94949,0000985 -19-13SEP17-4/4

AutoTrac™ Status Pie Diagnostic Readings

PC8663 —UN—29APR15

- Select the Menu button.



Menu Button

AL70325,00001B2 -19-30SEP19-1/4

- Select the GreenStar™ button.

PC17340 —UN—24OCT13



GreenStar™ 3 Pro Button

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Continued on next page

AL70325,00001B2 -19-30SEP19-2/4

3. Select the Diagnostics softkey.

PC20267 —UN—14NOV14



Diagnostics Softkey

AL70325,00001B2 -19-30SEP19-3/4

4. Select the AutoTrac™ from the View drop-down menu (A).

AutoTrac™ View displays the status of required conditions for each pie state.

Pie State	Conditions
1 piece out of 4	AutoTrac™ License
	Steering Controller Capabilities (Curve, Reverse, and Steer Sensitivity)
2 pieces out of 4	Global Positioning System (GPS) Valid
	Differential Correction
	Differential Mode Selected
	Tracking Mode Selected
	Pivot Pro Licensed
	AB Line Defined
	Free of Steer Control Trouble Codes
	Valid Implement Guidance Configuration
3 pieces out of 4	Steer On-Off Button
4 pieces out of 4	Machine Gear Selected
	Speed Within Range
	Within 80° of Line
	Within 40% Tracking Width

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Read the latest Operator Manual prior to operation. To obtain a copy, see your dealer or visit www.StellarSupport.com.

View: AutoTrac A

Last Exit Code Issued: N/a B

Time of Last Exit Code: 00: 00: 00 00/ 00/ 0000

State	Conditions	Status
	Steer Ctrl Capabilities (Curve, Reverse, Steer Sensitivity) AutoTrac License	No, No, No SF2
	GPS Valid Differential Correction Differential Mode Selected Tracking Mode Selected Pivot Pro License AB Line Defined	Yes No None Straight Track No ---
	Free of Steer Ctrl Trouble Codes Valid Implement Guidance Configuration	Yes N/a
	Steer On/Off Button	No
	Vehicle Gear Selected Speed Within Range Within 80 Degrees of Line Within 40% Tracking Width	Neutral --- --- ---

Diagnostic Readings - AutoTrac™ View

A—View Drop-Down Menu

B—Last Exit Code Issued

If AutoTrac™ disengages, check Last Exit Code Issued (B). If AutoTrac™ does not engage, verify that conditions of first three pieces of pie are met.

PC20269 —UN—14NOV14

AL70325,00001B2 -19-30SEP19-4/4

AutoTrac™ Controller Stop Codes

PC8663 —UN—29APR15

Select Menu button > GreenStar™ button > Diagnostics softkey > AutoTrac™ Controller from View drop-down menu. The following Stop Codes can be displayed.



Menu Button

PC17340 —UN—24OCT13



GreenStar™ 3 Pro Button

PC20267 —UN—14NOV14



Diagnostics Softkey

Stop Code	Description	Solution
No Code	Nothing has been checked yet.	No Code. System is ready.
Incorrect Gear	Transmission in park.	Place transmission in a forward gear.
DTC Present	Diagnostic trouble code (DTC) is active.	Check DTC and corresponding issue.
Alt Guidance Active	Alternate guidance system active.	Turn off or uninstall alternate guidance system.
CMD MSG Timeout	Automation command message timeout.	Display message not received within 4 times the repetition rate.
Auth Denied	Authorization has been denied.	Denial of authorization or timeout of request at start-up.
Oil Temp Too Low	Oil temperature below threshold.	Allow oil temperature to warm up.
Diagnostic Mode	Steering controller is in diagnostic mode.	Navigate to Guidance > View tab. Guidance system does not operate while diagnostic page is displayed.
CTRL State	Controller state incompatible.	Machine is in a non-operable state, such as key on and engine off, shutdown, or start-up state.
Bad Resume Data Received	Steering controller sending bad data from resume switch.	Verify correct installation of resume switch. Check wiring to resume switch.
Curvature Mismatch	Wheel angle sensor readings do not match yaw rate of machine.	Inspect installation of wheel angle sensor. Ballast machine if machine is crabbing.
Security Not Satisfied	Security not satisfied.	Security challenge not satisfactory upon start-up. Update software to latest version and perform a power cycle.
Auth Pending	Authorization pending.	Authorization has not yet been granted.
Bad Seat Data Received	Steering controller sending bad data from seat switch.	Verify correct installation of seat switch.
Implement Released Control	AutoTrac™ deactivated by display.	Attempt to engage AutoTrac™. If problem persists, view diagnostic page for last display exit code.
Global Stop	Critical system failure has occurred.	Stop and restart machine.
Steering Wheel Moved	Steering wheel has moved.	If steering wheel was not moved, increase steering override effort setting.

Continued on next page

HC94949,000090B -19-20OCT15-1/2

Troubleshooting

Access MGR Blocked	Access Manager blocked.	Access Manager settings have blocked access. Change settings in Access Manager.
RSC Fault	A steering control fault severe enough to disable AutoTrac™.	Cycle tractor power.
Not Available	Not available or not installed.	Review hardware installation.

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HC94949,000090B -19-20OCT15-2/2

AutoTrac™ Exit Codes and Deactivation Messages

Select Menu > GreenStar™ > Diagnostics > AutoTrac™ from View drop-down menu. The following Exit Codes can be displayed.

Select Menu > GreenStar™ > Guidance > View tab. The following deactivation messages can be displayed.

Each time AutoTrac™ is deactivated, text is displayed indicating the reason why it deactivated. Messages are also displayed when AutoTrac™ does not activate. The deactivation message displays for 3 seconds and then disappears.

Exit Code	Deactivation Message	Description	Solution
None	None	Nothing has been checked yet.	Boot-up code. System has not been checked for errors.
Wheel Speed Too Slow	Speed too slow	Machine speed too slow to use AutoTrac™.	Increase speed over 0.5 km/h (0.3 mph).
Wheel Speed Too Fast	Speed too fast	Machine Speed too high to use AutoTrac™.	Reduce speed below platform limit. Tractor — 30 km/h (18.6 mph) Windrower — 19.3 km/h (12 mph) Reverse speed on row-crop tractors only — 10 km/h (6 mph)
Track Changed	Track number changed	Track number changed.	Align machine on desired track and press resume.
Lost Dual GPS	Invalid GPS signal	SF1, SF2, or RTK signal was lost.	Establish signal.
RSC Fault	Steering Controller fault	A steering control fault severe enough to disable AutoTrac™.	Cycle tractor power.
OK	None	Last state upgrade was successful.	
PT Turned Off	None	Tracking not turned on.	Turn tracking on in Guidance Settings > Tracking Mode.
Steering Wheel	Steering wheel moved	Steering wheel has moved to deactivate AutoTrac™.	Press resume switch to reactivate AutoTrac™. If steering wheel was not moved, increase steering override effort.
Heading Error	Heading error too large	Heading error is out of range.	Align tractor within heading limit: • 80 degree below 6 mph • 45 degree above 6 mph
Lateral Error	Off track error too large	Lateral error is out of range.	Align tractor within lateral limit (40% of track spacing).
No TCM	No TCM corrections	Either no terrain compensation module (TCM) present or TCM is turned off.	Turn on TCM, or install TCM.
Master Switch	Road mode	Machine master switch is off.	Set switch status to on.
Reverse Timeout	Reverse timeout	Reverse timeout (greater than 45 seconds).	Select forward gear before resuming in reverse.
Incorrect Direction	Vehicle not moving in a forward direction	Machine is not traveling in a forward direction.	Machine must be in forward gear to activate.
Bad Resume Data Received	Resume switch error	Steering Controller sending bad data from resume switch.	See John Deere dealer.
Unknown Direction	Unknown direction	Unknown direction.	Drive forward faster than 1.6 km/h (1 mph) and turn steering wheel greater than 45°.

Continued on next page

HC94949,000091E -19-04APR16-1/2

Troubleshooting

Exit Code	Deactivation Message	Description	Solution
Curvature Mismatch	Curve too sharp	Curve Track radius is tighter than AutoTrac™ allows.	Manually drive through tight radius curves.
Bad Wheelbase Data	None	Steering Controller sending bad wheelbase data.	Bad wheelbase for machine class. See John Deere dealer to obtain latest steering controller software.

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HC94949,000091E -19-04APR16-2/2

Guidance Alarms

ACI Communication Error	No communication with vehicle steering controller (Steering Controller). Check vehicle for diagnostic codes and contact your John Deere Dealer.
Turn Predictor Turned On	Turn predictor is turned ON. Use the check box to turn it OFF
AutoTrac Deactivated	AutoTrac system deactivates when operator is out of seat for more than 5 seconds
AutoTrac	The operator is responsible for collision avoidance. Turn AutoTrac OFF before entering roadways.
Data Card Problem!	A data card must be inserted in the compact flash drive with the door closed to use the GreenStar2 Pro application.
No Setup Data!	Setup data for the GreenStar2 Pro application could not be found on the data card. The GreenStar2 Pro application will not be available until a data card with setup data is inserted
AutoTrac Steering Controller Software Incompatible	See your John Deere Dealer for Steering Controller update.
Communication Error	Communication problem with controller. Check connections to controller.
Mobile Processor Detected	Mobile Processor Detected on CAN Bus. GreenStar Application is disabled. Remove mobile processor and cycle power to enable GreenStar application.
GPS Communication Problem	No communication with GPS receiver. Check connections at GPS receiver.
Tracking Inaccurate	The GPS receiver must be set to report at the 5Hz message output rate. Confirm settings on GPS receiver and change output to 5Hz.
Invalid Boundary	An invalid boundary has been recorded. You may continue recording or clear the current boundary and start recording again.
Activation Error	Invalid activation code. Please reenter activation code.
Invalid Filter	All the fields that are required to be filled out based on the Totals Type Selected have not been filled out.
Flags of Same Selection	Selected the Flags of same name and mode.
Name Already Exists	The name you have entered already exists in this list. Please enter a new name.

Alarms

GPS Communication Problem	No communication with GPS receiver. Check connection at GPS receiver and perform operation again.
Curve Track Memory Full	Internal memory available for Curve Track is full. Data must be cleared to continue Curve Track Operation. Clear curved track data from system
AutoTrac Disabled	AutoTrac SF1 license cannot operate with current StarFire software. Update StarFire software to operate AutoTrac.
AutoTrac Disabled	AutoTrac SF1 license cannot operate while SF2 corrections are turned on. Turn SF2 corrections off to operate AutoTrac.
License Problem	No license available for the selected tracking mode. Previous tracking mode will be selected.
Duplicate Name	Name already exists. Select another name.
Curve Track Recording	Curve Track recording in progress. Cannot perform operation until recording is turned off.
Circle Definition Problem	There was an internal error during Circle definition. Redefine the circle.
Circle Definition Problem	Communication with GPS receiver was lost during circle definition. Redefine the circle once communication has been re-established.
Circle Definition Problem	Center point is too far. Select another center point.
A-B Line Definition Problem	There was an internal error during A-B line definition. Redefine the A-B line.
A-B Line Definition Problem	A timeout occurred during A-B line definition. Redefine the A-B line.
A-B Line Definition Problem	A and B points of the A-B line are too close. Perform operation again.
Loss of GPS While Recording Boundary	GPS has been lost while recording the boundary. Point logging will resume when the GPS signal returns. This may result in an inaccurate boundary.
Data Card Full	Unload and cleanup data card or insert new data card.
Data Card 90% Full	Unload and cleanup data card or insert new data card.
No Memory	No Memory available for Curve Track. Unload and cleanup data card or insert new data card.
Low Memory	Low Memory available for Curve Track. Unload and cleanup data card or insert new data card.

Continued on next page

CF86321,0000333 -19-23MAY11-1/2

Troubleshooting

No Memory	No Memory available for Straight Track. Unload and cleanup data card or insert new data card.
No Memory	No Memory available for Circle Track. Unload and cleanup data card or insert new data card.
Circle Definition Problem	The distance from the vehicle to the center point is greater than 1 mile. Select another center point or drive another circle.
Zero All Totals	You have decided to zero all totals for the selected filter.
Incorrect RS232 Controller Model Selected	The RS232 controller model selected is incorrect. Please verify and reenter manufacturer and model number.
Prescription Error	Controller is not setup to accept prescriptions.
Prescription Error	Controller is setup to accept prescriptions. No controller prescription has been selected.
Prescription Error	Prescription rate is out of controller range.
Controller Unit of Measure Error	Controller will only operate when using metric units.
Controller Unit of Measure Error	Controller will only operate when using English (US) units.
Controller Unit of Measure Error	Controller will only operate when using metric or English (US) units.
Controller Operation Error	Invalid operation selected for controller.
Prescription Warning	Out of field prescription rate is now being applied.
Prescription Warning	Loss of GPS signal has occurred. Loss of GPS prescription rate is now being applied.
Prescription Warning	Controller does not support selected prescription.

INFO

CF86321,0000333 -19-23MAY11-2/2

AutoTrac™ Controller Diagnostic Addresses

PC8663 —UN—29APR15

Diagnostic Addresses

Select Diagnostic Address button and a list of controllers will appear and controllers with diagnostic codes are indicated.

Individual controllers can be accessed by pressing Enter button to view codes for that controller.

To view the AutoTrac™ Controller, select ACI.001 Implement from the device drop-down menu.

Codes can also be displayed for all controllers by selecting Show All button and pressing Enter button. Codes can be relayed to a John Deere dealer to assist in diagnosing machine problems.

All diagnostic codes below are specific to AutoTrac™ Controller.



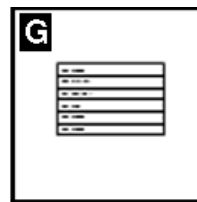
Menu Button

PC8655 —UN—05AUG05



Message Center Button (With Info Icon)

PC8668 —UN—05AUG05



Diagnostic Addresses

Diagnostic Address	Description
001	Recall Trouble Codes
003	ELX (Display) Voltage
004	Battery voltage
005	5V Regulator Voltage at the Regulator
008	LS pressure Sensor Voltage
009	LS Pressure Sensor-Measured pressure in kpa
010	WAS/Gyro Sensor Voltage
013	WAS Calibrated Center Voltage
014	WAS Calibrated Full-Left Voltage
015	WAS Calibrated Full-Right Voltage
016	WAS Actual Wheel Angle
019	GPS Speed kph
023	Max Flow Rate Test
025	Closed-loop Step Response Test
031	Adjustable Parameter-Heading Lead
037	AutoTrac Aggressiveness
048	Adjustable Parameter-Inner-Loop Gain
051	Adjustable Parameter-Heading Gain
052	Adjustable Parameter-Curvature Sensitivity
053	Adjustable Parameter-Acquisition Sensitivity
054	Adjustable Parameter-Lateral Gain
056	Auto Trac Hours
060	Auto Trac Exit Code
061	Steer Switch-Resume Switch-Auto Trac State

Continued on next page

HC94949,000090C -19-02MAR16-1/3

Troubleshooting

Diagnostic Address	Description
062	Parallel Tracking-Keycard Present-TCM State
063	Seat/Track Number/GPS Status
065	Lateral Error
067	Heading Error
071	Lateral Error Accumulator
076	Engineering Diagnostics Enable/Disable
077	Actual Curvature
078	Target Curvature
079	Yaw-Rate
080	Inner loop Gain Proportional
081	Inner Loop Gain Integral
082	Inner Loop Gain Derivative
083	Inner Loop Filtered Constant 1
084	Inner Loop Filtered Constant 2
085	Valve Left Gain
086	Valve Right Gain
087	Valve Left Deadband (%)
088	Valve Right Deadband (%)
089	Signal to valve (%)
090	Current draw from valve (Power line) (mA)
091	Pressure Sensor 2 Voltage
092	Pressure Transducer 2 (kPa)
093	Pressure Differential (kPa)
110	Steering Override Setting - SID Disengage Pressure Setting (kPa)
112	Valve Left Gain 1
113	Valve Left Gain 2
114	Valve Left Gain 3
115	Valve Left Gain 4
116	Valve Left Gain 5
117	Valve Left Gain 6
118	Valve Left Gain 7
119	Valve Left Gain 8
120	Valve Left Gain 9
121	Valve Left Gain 10
122	Valve Right Gain 1
123	Valve Right Gain 2
124	Valve Right Gain 3
125	Valve Right Gain 4
126	Valve Right Gain 5
127	Valve Right Gain 6
128	Valve Right Gain7
129	Valve Right Gain 8

Continued on next page

HC94949,000090C -19-02MAR16-2/3

Troubleshooting

Diagnostic Address	Description
130	Valve Right Gain 9
131	Valve Right Gain 10
219	Controller Configuration Data Part Number
220	Controller Configuration Data Version Number

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HC94949,000090C -19-02MAR16-3/3

AutoTrac™ Controller Diagnostic Trouble Codes (DTC)

PC8663 —UN—29APR15

Select Menu > Message Center > Trouble Codes softkey. A list of controllers is displayed and controllers with diagnostic trouble codes are indicated.



Menu Button

PC8655 —UN—05AUG05

Access individual controllers to view codes for that controller. Select ACI.001 to view AutoTrac™ Controller diagnostic trouble codes. Select Show All button to display codes from all controllers.



Message Center Button (With Info Icon)

PC8669 —UN—05AUG05

Communicate codes to a John Deere dealer to assist in diagnosing machine problems.



Trouble Codes Softkey

Code	Description
168.03	AutoTrac™ Controller Integrated (ACI) unswitched supply voltage is high. Check wiring harness and power supply.
168.04	ACI unswitched supply voltage low. Check wiring harness and power supply.
232.09	Loss of StarFire™ differential status message. Check global positioning system (GPS) connection. Disconnect receiver harness and reconnect.
517.09	GPS speed message not available on CAN bus for more than 5 seconds. Check GPS connection.
628.12	Indicates control unit being reprogrammed. Contact your John Deere dealer to reprogram steering controller.
630.13	Indicates incomplete calibration of steering valve. Wheel angle sensor (WAS) calibration incomplete. Restart WAS calibration. (See AutoTrac™ Controller Calibration.)
1504.09	Seat switch message not available. Check wiring harness to seat switch. If no seat switch is present, change operator presence to activity monitor.
1504.14	Operator out of seat during AutoTrac™. Check wiring harness to seat switch.
1504.31	Operator out of seat during AutoTrac™ - within 2 to 7 seconds. Check wiring harness to seat switch.
1807.05	Steering input device (SID) 1 channel current out of range low. Check wiring harness to SID.
1807.06	SID 1 channel current out of range high. Check wiring harness to SID.
3509.03	Indicates sensor supply voltage (circuit code # 733) for steering wheel pressure sensor and (or) wheel angle position sensor out of range high. Check wiring harness to each component.
3509.04	Indicates sensor supply voltage (circuit code # 733) for steering wheel pressure sensor and (or) wheel angle position sensor out of range low. Check wiring harness to each component.
3509.05	Steering wheel position sensor 1 circuit current low. Check wiring harness to sensor.
3509.06	Steering wheel position sensor 1 circuit current high. Check wiring harness to sensor.
520431.05	Isolation shutoff valve circuit current low. Check wiring harness to hydraulic valve.
520431.06	Isolation shutoff valve circuit current high. Check wiring harness to hydraulic valve.
520826.09	Communication with ISO machine cannot be established. Verify all wiring harnesses are connected and ISO connector is clean and free of debris.
522385.01	Indicates AutoTrac™ Controller on-off switch on machine is not ON. Switch AutoTrac™ master switch to ON position.
522387.07	No wheel motion being sensed during active AutoTrac™ while electro-hydraulic (EH) valve is commanded. Indicates steering control unit not receiving wheel angle position sensor signal. Check wiring harness and ensure sensor is clear of debris.

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Troubleshooting

Code	Description
522390.09	External guidance messages missing, security not satisfied, or invalid implement request. Return to park and verify implement connections to attempt machine recovery.
522394.09	Terrain compensation module (TCM) message not available. Verify TCM is turned on and calibrated. (Reference StarFire™ Receiver Operator's Manual for TCM calibration instructions.)
523698.09	GreenStar™ Display Parallel Tracking™ message not available. No communication data. Check display and receiver wiring harness connections.
523767.02	AutoTrac™ resume switch circuits conflict. Resume switch data invalid. Check resume switch wiring harness.
523795.02	Indicates steering valve orientation incorrect. Check if steering valve right and left circuit codes are switched. Electro-hydraulic (EH) valve appears to be plumbed backwards. Contact your John Deere dealer.
523795.11	Left and right EH valve deadbands during calibration are significantly different. Indicates inconsistency in steering valve deadbands. Check hydraulic hoses and fittings and recalibrate system. If trouble code persists, contact your John Deere dealer.
523795.12	EH valve or harness faulty. EH valve shows no current draw. Check wiring harness to EH valve.
523795.13	Left or Right EH valve deadband is out of range. Incomplete valve calibration. Recalibrate system.
523824.05	SID 2 channel current out of range high. Check wiring harness to SID.
523824.06	SID 2 channel current out of range low. Check wiring harness to SID.
523826.00	WAS primary signal high. Sensor analog to digital converter (ADC) value is too high. Check wiring harness to WAS.
523826.01	WAS primary signal low. Sensor ADC value is too low. Check wiring harness to WAS.
523826.02	Indicates WAS direction orientation is reversed. Mount WAS in the correct orientation and recalibrate WAS. If problem persists, contact your John Deere dealer.
523826.07	Indicates WAS range of movement was too small during calibration. Check WAS hardware for correct installation. Recalibrate WAS. If problem persists, contact your John Deere dealer.
523826.10	Wheel angle has changed by more than five degrees in two seconds. SID disengage has not been detected in last 30 seconds. Possible faulty wiring harnesses or faulty pressure transducer. Check wiring harness and hardware for each component.
523826.14	Primary and secondary WAS conflict. Check wiring harness to WAS.
524221.09	Machine yaw rate message missing. Check wiring harness to GPS receiver.

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StarFire is a trademark of Deere & Company
GreenStar is a trademark of Deere & Company
Parallel Tracking is a trademark of Deere & Company

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Maintenance

Preseason Checklist

Before start of season, it is recommended that machine operator performs the following software updates, inspections, and calibrations:

- ☐ Reference electronic Operator's Manual from JohnDeere.com or contact your John Deere dealer for downloadable versions.
- ☐ Update equipment software. Visit StellarSupport.com for latest software.
 - ☐ Display
 - ☐ Receivers
 - ☐ Controller
 - ☐ Other AMS equipment

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- ☐ Inspect wiring harness for wear and damage around pinch points, corners, edges, and harness support locations.
- ☐ Inspect wiring harness at connectors for wear on exposed wires.
- ☐ Inspect connector seals and latching mechanisms.
 - ☐ Receivers
 - ☐ Displays
 - ☐ Steering Controller
- ☐ Inspect mechanical steering system for wear.
- ☐ Inspect hydraulic system for leaks.
- ☐ Verify StarFire™ height and fore/aft values.
- ☐ Calibrate receiver terrain compensation module (TCM).
- ☐ Operate AutoTrac™ and recalibrate if necessary.

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Postseason Checklist

After conclusion of season it is recommended that machine operator performs the following inspections:

- ☐ Inspect wiring harness for wear and damage around pinch points, corners, edges, and harness support locations.
- ☐ Inspect wiring harness at connectors for wear on exposed wires.

- ☐ Inspect mechanical steering system for wear.
- ☐ Inspect hydraulic system for leaks.
- ☐ Inspect connector seals and latching mechanisms.
- ☐ Inspect connector pins for wear, debris, and corrosion.
 - ☐ Receivers
 - ☐ Displays
 - ☐ Steering Controllers

AL70325,0000149 -19-01DEC14-1/1

Daily Checklist

It is recommended that machine operator performs the following inspections daily:

- ☐ Inspect wiring harness for wear and damage around pinch points, corners, edges, and harness support locations.

- ☐ Inspect wiring harness at connectors for wear on exposed wires.
- ☐ Inspect hydraulic system for leaks.
- ☐ Inspect mounting hardware.
 - ☐ Displays
 - ☐ Receivers

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John Deere Service Literature Available

Technical Information

Technical information can be purchased from John Deere. Publications are available in print or CD-ROM format.

Orders can be made using one of the following:

- John Deere Technical Information Store:
www.JohnDeere.com/TechInfoStore
- Call 1-800-522-7448
- Contact your John Deere dealer

Available information includes:

PARTS CATALOGS list service parts available for your machine with exploded view illustrations to help you identify the correct parts. It is also useful in assembling and disassembling.



TS189 —UN—17JAN89

DX,SERV LIT -19-07DEC16-1/4

OPERATOR'S MANUALS providing safety, operating, maintenance, and service information.



TS191 —UN—02DEC88

DX,SERV LIT -19-07DEC16-2/4

TECHNICAL MANUALS outlining service information for your machine. Included are specifications, illustrated assembly and disassembly procedures, hydraulic oil flow diagrams, and wiring diagrams. Some products have separate manuals for repair and diagnostic information. Some components, such as engines, are available in a separate component technical manual.



TS224 —UN—17JAN89

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DX,SERV LIT -19-07DEC16-3/4

EDUCATIONAL CURRICULUM including five comprehensive series of books detailing basic information regardless of manufacturer:

- Agricultural Primer series covers technology in farming and ranching.
- Farm Business Management series examines “real-world” problems and offers practical solutions in the areas of marketing, financing, equipment selection, and compliance.
- Fundamentals of Services manuals show you how to repair and maintain off-road equipment.
- Fundamentals of Machine Operation manuals explain machine capacities and adjustments, how to improve machine performance, and how to eliminate unnecessary field operations.
- Fundamentals of Compact Equipment manuals provide instruction in servicing and maintaining equipment up to 40 PTO horsepower.



TS1663—UN—10OCT97

DX,SERVLIT -19-07DEC16-4/4

John Deere Service Keeps You On Job

John Deere Is At Your Service

CUSTOMER SATISFACTION is important to John Deere.

Our dealers strive to provide you with prompt, efficient parts and service:

- Maintenance and service parts to support your equipment.
- Trained service technicians and the necessary diagnostic and repair tools to service your equipment.

CUSTOMER SATISFACTION PROBLEM RESOLUTION PROCESS

Your John Deere dealer is dedicated to supporting your equipment and resolving any problem you may experience.

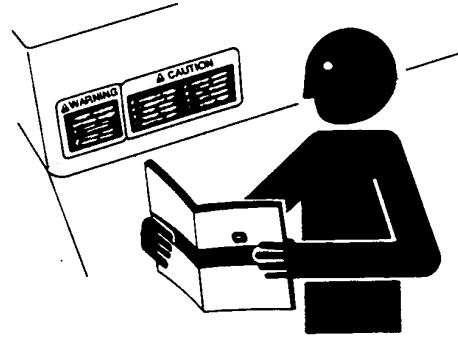
1. When contacting your dealer, be prepared with the following information:

- Machine model and product identification number
- Date of purchase
- Nature of problem

2. Discuss problem with dealer service manager.

3. If unable to resolve, explain problem to dealership manager and request assistance.

4. If you have a persistent problem your dealership is unable to resolve, ask your dealer to contact John Deere for assistance. Or contact the Ag Customer Assistance Center at 1-866-99DEERE (866-993-3373) or e-mail us at www.deere.com/en_US/ag/contactus/.



TS201—UN—15APR13

DX,IBC,2 -19-02APR02-1/1

