



# AutoTrac RowSense



## OPERATOR'S MANUAL AutoTrac RowSense OMPFP12207 ISSUE F2 (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.

Additional Proposition 65 Warnings can be found in this manual.

**John Deere Ag Management Solutions**  
(This manual replaces OMPFP11679)  
PRINTED IN U.S.A.



# Introduction

## Foreword

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

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your system and should remain with the system 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 will travel when going forward.

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 GreenStar hardware warranty is explained on the warranty certificate 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 system be abused or modified to change its performance beyond the original factory specifications, the warranty will become void and field improvements may be denied.

KR43067,00000A2 -19-10NOV08-1/1

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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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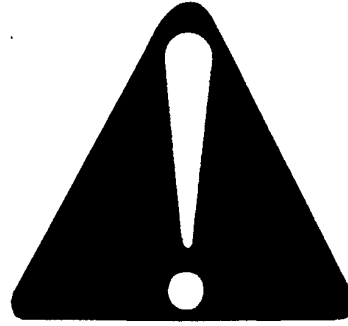


# Safety

## 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 -19-29SEP98-1/1

T81389 —UN—07DEC88

## Understand Signal Words

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 -19-03MAR93-1/1

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 -19-16JUN09-1/1

TS201 —UN—23AUG88

## 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 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.



TS218 —UN—23AUG88

DX,SERV -19-17FEB99-1/1

## 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 —UN—23AUG88

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

## 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 include any application that automates vehicle steering. This includes, but may not be limited to, AutoTrac, iGuide, iTEC Pro, ATU, and RowSense.

To prevent injury to the operator and bystanders:

- Never get on or off a moving vehicle.
- Verify the machine, implement, and guidance system are set up correctly. If using iTEC Pro, verify accurate boundaries have been defined.
- 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 vehicle configuration when selecting vehicle speed.

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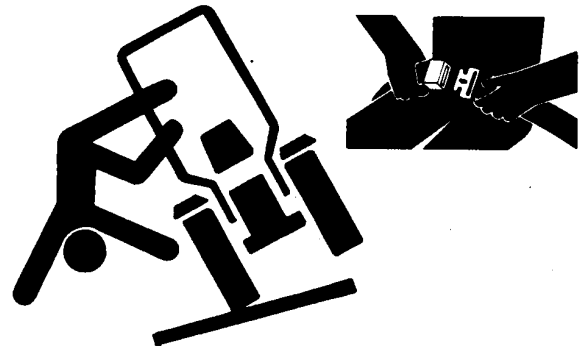
## Use Seat Belt Properly

Use a seat belt when you operate with a roll-over protective structure (ROPS) or cab to minimize chance of injury from an accident such as an overturn.

Do not use a seat belt if operating without a ROPS or cab.

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.



TS205 —UN—23AUG88

DX,ROPS1 -19-29OCT07-1/1

## Stay Clear of Harvesting Units

Cutterbar, auger, reel and feed rolls cannot be completely shielded due to their function. Stay clear of these moving elements during operation. Always disengage main clutch, shut off engine and remove key before servicing or unclogging machine.



ES118704 —UN—21MAR95

FX,CUT -19-21DEC90-1/1

## Read The Guidance Manual

Before attempting to operate Parallel Tracking or AutoTrac, fully read the Guidance manual to understand components and procedures required for safe and proper operation.

The Guidance manual is for both Parallel Tracking and AutoTrac guidance systems applications.

OUC6050,0000F2C -19-03APR08-1/1

# Resume Button

## Resume Button Setup

When an AutoTrac equipped combine is connected to a RowSense equipped corn head, activation buttons 2 and 3 on the multifunction control handle will be automatically activated to be used as the header lower and AutoTrac resume buttons for this system. On model year 2012 and newer combines the Auto button can be used to engage AutoTrac, and Row Sensors will engage when crop contacts the feelers. (See Setting Up Row Entry in Enabling the System section for more details.)



*Resume Button on Combine*

PC13860 —UN—13JUL11

BA31779,00001F5 -19-08NOV11-1/1

# AutoTrac RowSense

## Overview

AutoTrac RowSense is comprised of the following components

- Integrated AutoTrac installed and activated on combine, with upgraded AutoTrac RowSense software programmed into Steering System Unit (SSU), AutoTrac SF1 or SF2 activation.
  - For 50 and 60 series combines, the Bridge Controller/Gateway software update must be installed.
  - Model year 2008 S-, W-, T-Series, and model year 2009 C-Series combines must have a LYNX bus installed to be compatible with AutoTrac RowSense.
- Integrated AutoTrac installed and activated on combine, with upgraded AutoTrac RowSense software programmed into Steering System Unit (SSU), AutoTrac SF1 or SF2 activation.
- Model year 2012 and newer combines require GS3 2630 display or GreenStar™ 3 CommandCenter.
- Model year 2011 and older combines require GS2 2600 display, GS3 2630 display.
- AutoTrac RowSense GS3 activation for GS3 display or GS3 CommandCenter.

- AutoTrac Row Sense SF1 or SF2 activation for GreenStar 2 display.
- StarFire receiver with SF1, SF2, or RTK activation.
- One pair of Row Sensors mounted to approved Corn Head.

AutoTrac RowSense works with all existing tracking patterns and most standard harvesting patterns. AutoTrac works in the following modes: Adaptive Curves, AB Curves, Circle Track, and Straight Track. AutoTrac RowSense is an enhancement to integrated AutoTrac on the GS2 display, GS3 display, and GS3 CommandCenter when harvesting corn. Row Sensors mounted to one of the rows detect cornstalks to know where row is. Signals provided by row sensors are integrated with existing AutoTrac signals to help keep combine on rows. When there is no signal coming from row sensors (for example, driving through a waterway), normal gps guidance will apply. Most other characteristics of AutoTrac remain unchanged. Row sensors are simply another position input for steering the combine. All tracking modes are set up the same way as they are with gps based AutoTrac.

BA31779,00001F6 -19-08NOV11-1/1

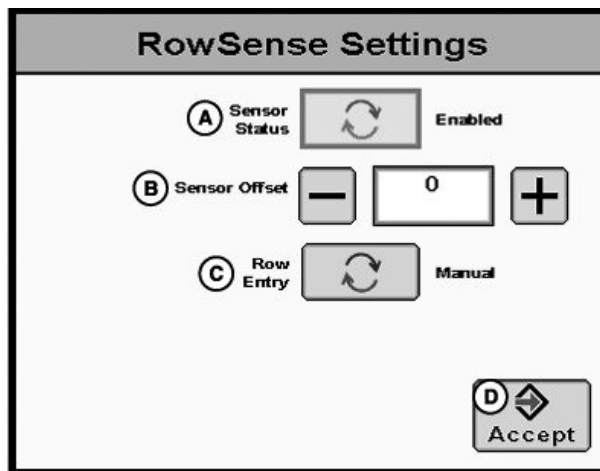
## Setup AutoTrac RowSense

**NOTE:** Before using this product, the following steps must be completed in addition to setting up AutoTrac:

1. On GS3 display, navigate to MENU >> GREENSTAR 3 button >> GUIDANCE softkey >> GUIDANCE SETTINGS tab >> ROWSENSE SETTINGS change button.

On GS3 CommandCenter, navigate to MENU >> GREENSTAR 3 button >> SETTINGS softkey >> ROWSENSE SETTINGS button

2. Use toggle button to enable the Row Guidance Sensors.
3. Ensure that Sensor Offset value is correct (0 is the default value).
4. Use toggle button to select Row Entry mode.
5. Select Accept to exit RowSense Settings.



Calibration Set Up

A—Sensor status  
B—Sensor Offset (-50 - 50)  
C—Row Entry Method  
D—Accept

BA31779,000020C -19-17OCT11-1/2

PC13820 —UN—14JUN11

The AutoTrac RowSense Icon are available in the following locations:

- GS3 2630 — Guidance Page under VIEW tab.
- GreenStar™ 3 CommandCenter — Run Page

PC10040 —UN—04FEB08



BA31779,000020C -19-17OCT11-2/2

## Row Guidance Offset Setup

An offset can be added to row guidance to change alignment of stalks entering corn head.

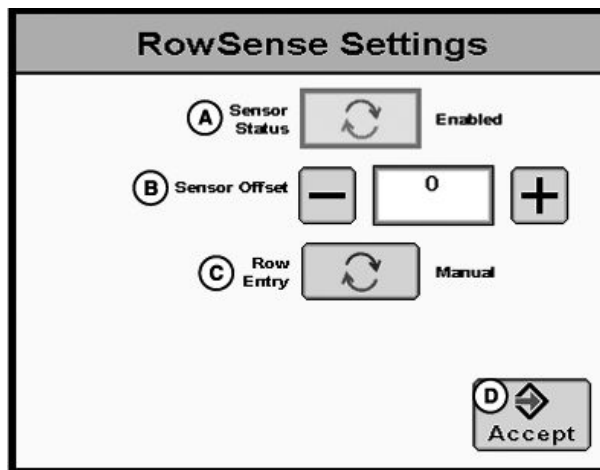
Examples of when changing alignment is needed:

- Planted guess row is in middle of corn head, and rows have been pushed over by head. An offset can be applied to “split the difference” so all rows lean, but not as severely as without offset.
- Crop dividers with row sensors attached are not aligned with row. Until repairs can be made to align the sensors, an offset can be applied to help make up for misalignment.

Entering offset values less than 0 can cause combine to drive slightly left, and values greater than 0 can cause combine to drive slightly right. The default value is 0, with a range of -50 - 50.

1. On GS3 display, Navigate to MENU >> GREENSTAR 3 button >> GUIDANCE softkey >> GUIDANCE SETTINGS tab >> ROWSENSE SETTINGS change button.

On GS3 CommandCenter, navigate to MENU >> GREENSTAR 3 button >> SETTINGS softkey >> ROWSENSE SETTINGS button



A—Sensor status  
B—Sensor Offset (-50 - 50)  
C—Row Entry Method  
D—Accept

2. Enter row guidance offset (-50 - 50). Default value is 0.
3. Select Accept to exit RowSense Settings.

BA31779,000020D -19-08NOV11-1/1

PC13820 —UN—14JUN11

## Setting up Row Entry

1. On GS3 display, Navigate to MENU >> GREENSTAR 3 button >> GUIDANCE softkey >> GUIDANCE SETTINGS tab >> ROWSENSE SETTINGS change button.

On GS3 CommandCenter display, navigate to MENU >> GREENSTAR 3 button >> SETTINGS softkey >> ROWSENSE SETTINGS button

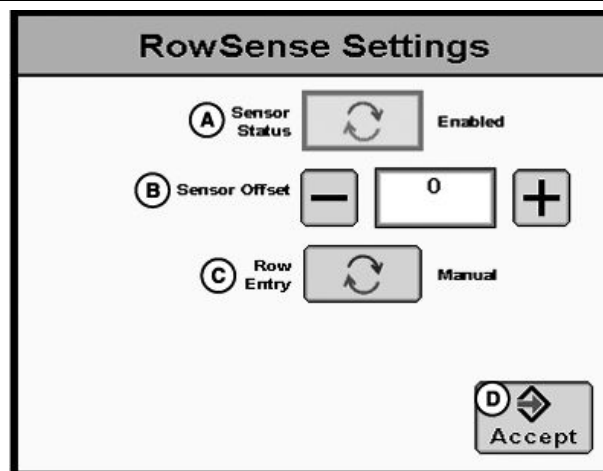
2. Use toggle button to select Row Entry mode.
3. Select Accept to exit RowSense Settings.

### Manual:

1. Drive combine into row.
2. Press resume button first time to lower head.
3. Press resume button second time to engage guidance and row sensors.

### GPS:

1. Drive combine into row.
2. Press resume button first time to lower head and engage guidance.
3. Press resume button second time to engage row sensors.



A—Sensor Status  
B—Sensor Offset (-50 - 50)  
C—Row Entry  
D—Accept

*NOTE: AutoTrac engages when Auto button is pressed. Row Sensors engage when crop contacts the feelers.*

BA31779,000020E -19-08NOV11-1/1

PC13820—UN—14JUN11

## Row Sensor Calibration Procedure

This procedure is performed when system is installed or after system is repaired. Row sensors must be installed and positioned against at-rest stops.

1. Prepare for calibration

Verify that row sensors are installed with springs holding them in at-rest position. Raise header to ensure that row sensors are not contacting ground. Combine must not be moving.

2. Navigate to MENU >> GREENSTAR 3 button >> DIAGNOSTICS softkey >> Select RowSense in drop down menu.

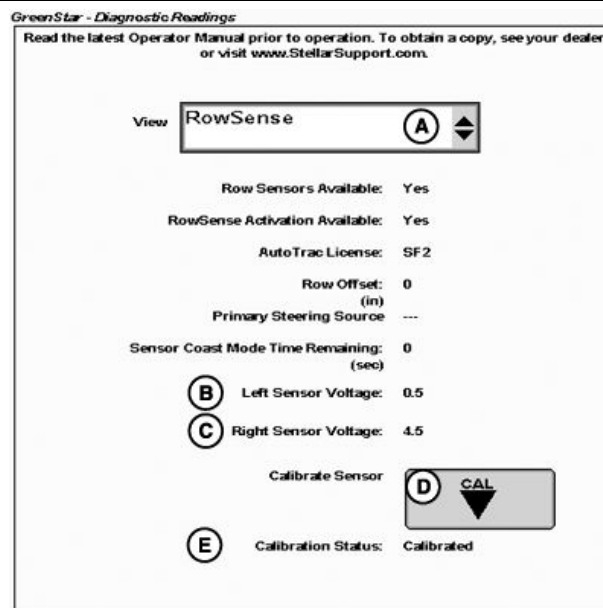
3. Calibrate sensor at-rest voltages.

Press CAL button to store sensor at-rest voltages into SSU memory.

*NOTE: Sensors must be enabled to see the calibration button.*

*NOTE: GS3 2630 and GreenStar™ 3 CommandCenter will now display left sensor and right sensor voltages. Right sensor at-rest voltage should be greater than 2.5 volts. The left sensor at-rest voltage should be less than 2.5 volts.*

4. End of calibration, exit RowSense Diagnostic Readings page.



Calibration Setup

A—View Drop Down  
B—Left Sensor Voltage  
C—Right Sensor Voltage  
D—CAL Button  
E—Calibration Status

BA31779,000020F -19-08NOV11-1/1

PC13818—UN—17OCT11

## Model Year 2011 and Older Setup and Calibrate System

### Setup AutoTrac RowSense

**NOTE:** Before using this product, the following steps must be completed in addition to setting up AutoTrac:

1. On GS2 display, navigate to Original GreenStar Display >> SETUP >> AUTOTRAC
2. Select YES for Row Guidance Option Installed and Row Guidance Option Enabled.
3. Calibrate Row Guidance Sensors.
4. Ensure Row Guidance Offset value is correct (100 is the default value).

A—Steer Sensitivity (50-200)      E—Row Guidance Offset (50-150)  
 B—AutoTrac Calibration  
 C—Row Guidance Option Installed      F—Not Used  
 D—Row Guidance Sensor Calibration      G—Return

|   |       |                                 |          |   |
|---|-------|---------------------------------|----------|---|
| 1 | 2     | SETUP                           | AutoTrac |   |
| 3 | 4     | Steer Sensitivity (50 - 200)    | 104      | A |
| 5 | 6     | AutoTrac Calibration            | →        | B |
| 7 | 8     | Row Guidance Option Installed   | Yes      | C |
| 9 | 0     | Row Guidance Sensor Calibration | →        | D |
| . | CLR   | Row Guidance Offset (50 - 150)  | 100      | E |
| H | PAGE  |                                 |          | F |
|   | SETUP |                                 |          | G |
| I | INFO  |                                 |          |   |
| J | RUN   | SETUP                           | Setup    |   |

Calibration Set Up

KR43067,00000FA -19-13NOV08-1/1

PC10486 —UN—27APR08

### Row Sensor Calibration Procedure

This procedure is performed when system is installed or after system is repaired. Row sensors must be installed and positioned against at-rest stops.

1. Prepare for calibration

Verify row sensors are installed with springs holding them in at-rest position. Raise header to ensure row sensors are not contacting ground. Combine must not be moving.

A—Steer Sensitivity (50-200)      E—Row Guidance Offset (50-150)  
 B—AutoTrac Calibration  
 C—Row Guidance Option Installed      F—Not Used  
 D—Row Guidance Sensor Calibration      G—Return

|   |       |                                 |          |   |
|---|-------|---------------------------------|----------|---|
| 1 | 2     | SETUP                           | AutoTrac |   |
| 3 | 4     | Steer Sensitivity (50 - 200)    | 104      | A |
| 5 | 6     | AutoTrac Calibration            | →        | B |
| 7 | 8     | Row Guidance Option Installed   | Yes      | C |
| 9 | 0     | Row Guidance Sensor Calibration | →        | D |
| . | CLR   | Row Guidance Offset (50 - 150)  | 100      | E |
| H | PAGE  |                                 |          | F |
|   | SETUP |                                 |          | G |
| I | INFO  |                                 |          |   |
| J | RUN   | SETUP                           | Setup    |   |

AutoTrac Setup

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PC10486 —UN—27APR08

Continued on next page

- Press SETUP button on original GreenStar monitor. Press letter button pointed to by AutoTrac.
- Calibrate sensor at-rest voltages.

Press Row Guidance Sensor calibration button (E) to store sensor at-rest voltages into SSU memory.

**NOTE:** GSD screen will now display left sensor and right sensor voltages. Right sensor at-rest voltage should be greater than 2.5 volts. The left sensor at-rest voltage should be less than 2.5 volts.

- End of calibration, exit row sensor calibration mode.

A—Not Used

B—Not Used

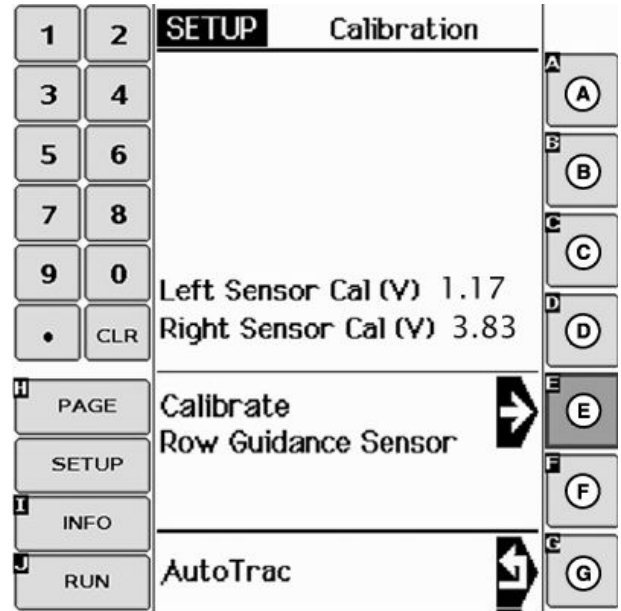
C—Left Sensor Cal (V) 1.17

D—Right Sensor Cal (V) 3.83

E—Calibrate Row Guidance Sensor

F—Not Used

G—Return



Calibration Setup

KR43067,0000123 -19-17NOV08-2/2

PC10467—UN—03MAR08

## Row Guidance Offset Setup

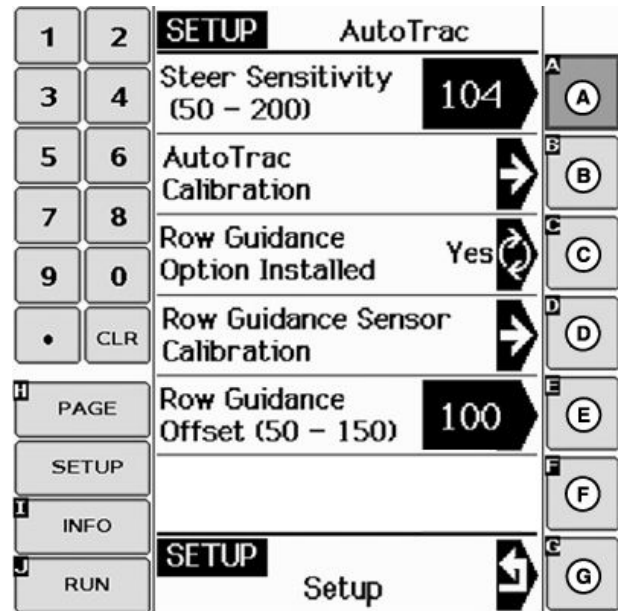
An offset can be added to row guidance to change alignment of stalks entering corn head.

Examples of when changing alignment is needed:

- Planted guess row is in middle of corn head, and rows have been pushed over by head. An offset can be applied to "split the difference" so all rows lean, but not as severely as without offset.
- Crop dividers with row sensors attached are not aligned with row. Until repairs can be made to physically align the sensors, an offset can be applied to help make up for misalignment.

Entering offset values less than 100 can cause combine to drive slightly left, and values greater than 100 can cause combine to drive slightly right. The default value is 100, with a range of 50 - 150.

- Press SETUP button on original GREENSTAR monitor. Press letter button pointed to by AutoTrac.
- Enter row guidance offset (50-150). Default value is 100.
- End of setup.



Row Guidance Offset Setup

A—Steer Sensitivity (50-200)

B—AutoTrac Calibration

C—Row Guidance Option Installed

D—Row Guidance Sensor Calibration

E—Row Guidance Offset (50-150)

F—Not Used

G—Return

KR43067,00000D6 -19-12NOV08-1/1

PC10466—UN—27APR08

# Enabling the System

## Displays and Indicators

When using AutoTrac RowSense, you will see the following icons on screen. On the GS3 2630 an icon will appear on map under GUIDANCE VIEW tab indicating row sensors are available (when SENSOR STATUS button is toggled to enable). On the GreenStar™ 3 CommandCenter icon will appear on the Run Page. Each icon indicates what is happening on combine at that moment.

Icon changes from white to colored (green) animated form when row sensors are controlling vehicle.

PC10042C —UN—04FEB08



System Installed (Grey Background)

PC10042 —UN—04FEB08



System Active, Operating with both, row sensor and GPS (Green Background)

PC10042A —UN—04FEB08



Lost GPS, Operating with Row Sensor data only (Yellow Background)

PC10042B —UN—04FEB08



Lost Row Sensor Signal, Operating with GPS only (Orange Background)

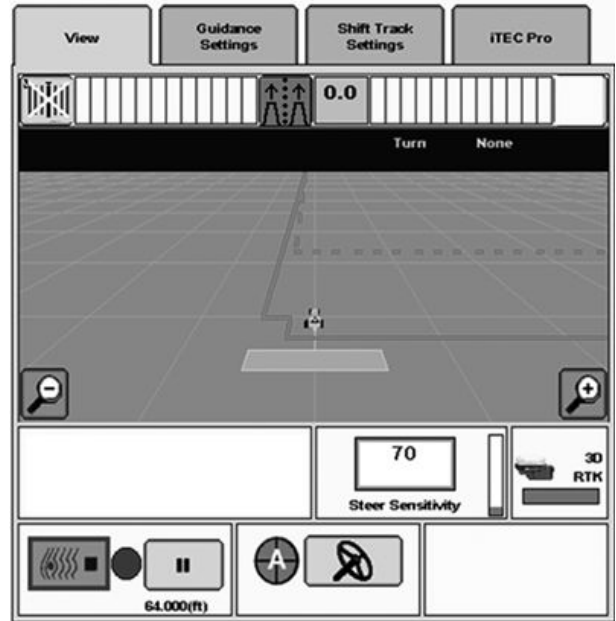
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## Engaging the Row Sensors

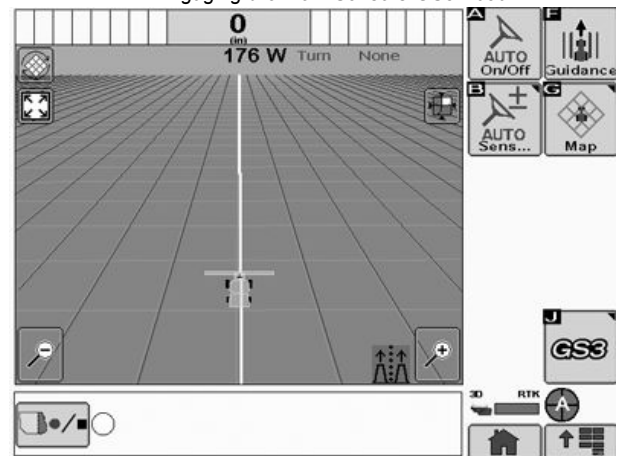
Row sensors guide combine whenever they can determine a row position. Operator will know row sensors are guiding combine by AutoTrac RowSense icon changing to green and showing motion.

Once initial path has been set (an AB line or initial recorded Curve Track Pass), then resume button can be pressed when combine is within half the track spacing and at acceptable angle to rows. Row sensors guide combine as soon as there is activity on row sensors.

**Making a headland turn:** Headland turns are accomplished the same as with GPS based AutoTrac. Operator lines up with path they desire to follow. Pressing resume button will cause AutoTrac to drive to the guidance path. Row sensors then detect position of row and follow it. Line extension feature of Adaptive Curves, Circle Track, and AB Curves can be used to extend adjacent path projection into headlands.



Engaging the Row Sensors GS3 2630



Engaging the Row Sensors GS3 CommandCenter

BA31779,0000470 -19-22MAY12-1/1

PC15049 —UN—22MAY12

PC13877 —UN—18JUL11

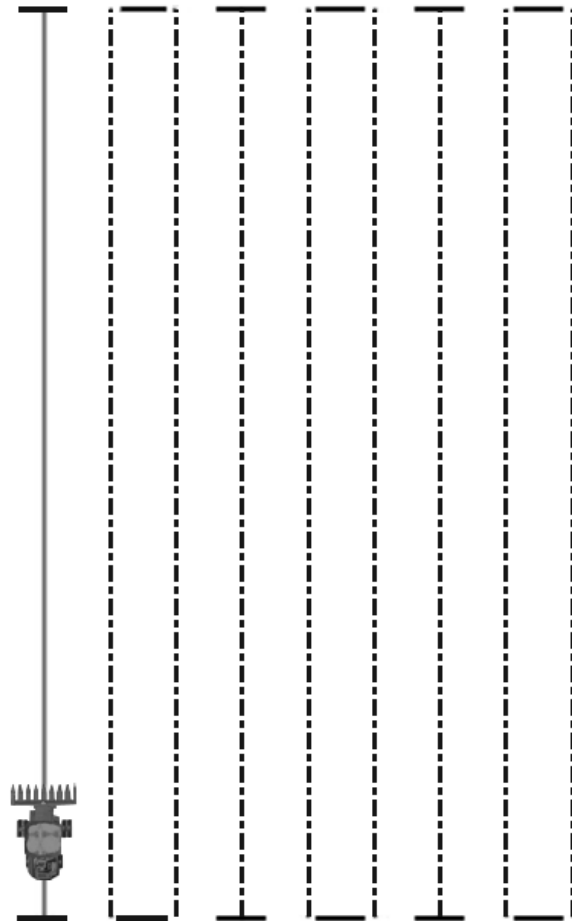
## 2600 and 2630 Display—Straight Track

### Straight Track

Straight Track should be used when rows are straight and do not vary by more than approximately 1 m (3-1/4 ft). Straight Track projects all lines off of first path.

If field is relatively straight and heading does not change, using straight track is recommended as this will allow row entry on adjacent paths. Performance with row entry will be improved when field is planted with AutoTrac. Performance will also be improved during periods of row dropout in waterways.

When in Straight Track, GPS line will automatically re-center. This ensures GPS path is properly aligned with corn rows. **This feature is not available in adaptive curves.**



*Straight Track*

PC10390—UN—07JAN08

Continued on next page

BA31779,0000201 -19-08NOV11-1/4

MENU >> GREENSTAR button >> GUIDANCE softkey  
>> GUIDANCE SETTINGS tab

Select STRAIGHT TRACK from TRACKING MODE drop-down menu. Select VIEW tab.

**NOTE:** Pause recording when not harvesting.

Before starting

1. Ensure an SF1, SF2, or RTK signal is present by viewing receiver icon on View page.
2. Verify track spacing is correct. If track spacing is not correct, change track spacing under GUIDANCE tab.

Select SET TRACK 0.

PC8663 —UN—05AUG05



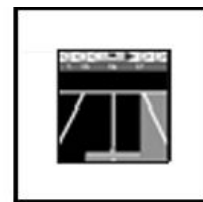
MENU button

PC12685 —UN—14JUL10



GREENSTAR 3 button

PC8673 —UN—14OCT07



GUIDANCE softkey

BA31779,0000201 -19-08NOV11-2/4

1. Select track name from CURRENT TRACK 0 drop-down menu. If no name exists, create new one by selecting NEW button.
2. Select track method (A + B) from METHOD drop-down menu.
3. Drive to start of track and select SET A button.
4. Drive to end of track and select SET B button.  
A line that projects across field will be created.
5. Press resume button to run AutoTrac RowSense.

A—Current Track 0 Drop-down Menu  
B—Method Drop-down Menu  
C—New Button  
D—Remove Button  
E—Track Spacing Button  
F—Set A Button  
G—Set B Button

Set Track 0

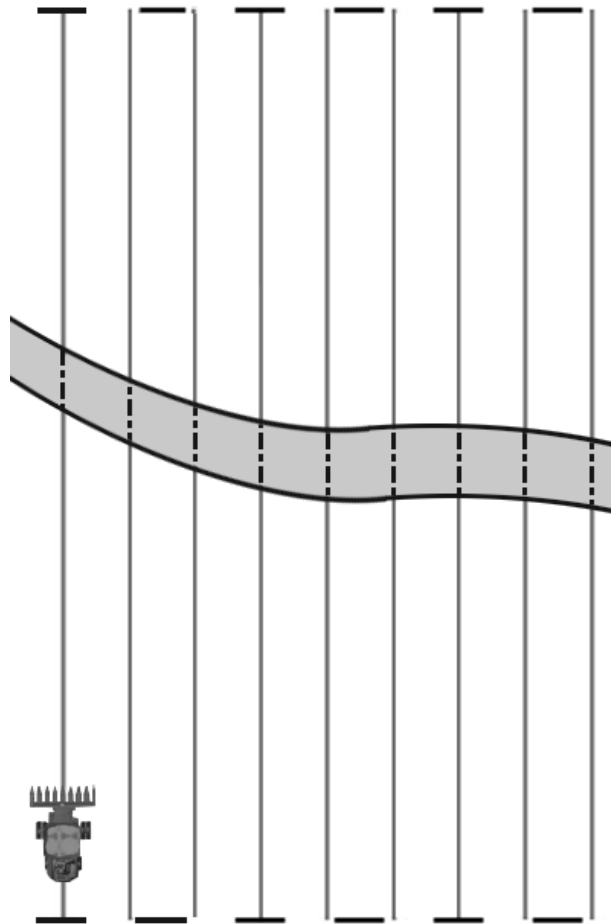
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BA31779,0000201 -19-08NOV11-3/4

PC10708 —UN—24OCT07

**Row Dropout**—There will not be a corn row in waterway. Since Straight track and AB curves recenters the track, there's a greater chance it will find correct row on other side of waterway.

*NOTE: If both GPS and Row Sensor data signals are lost, system will not engage until GPS signal is restored.*



Waterway

PC10391 —UN—08JAN08

BA31779,0000201 -19-08NOV11-4/4

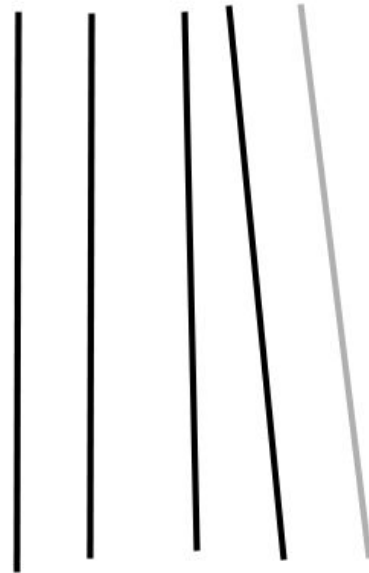
## 2600 and 2630 Display—Adaptive Curves

### Adaptive Curves



*Path changes while going through field*

PC10399 —UN—04FEB08



*Heading changes through field*

PC10400 —UN—04FEB08

Adaptive curves can be used in all fields, but is highly recommended when path changes while going through field, heading changes significantly, or curve is U-shaped. Adaptive Curves has an added feature making RowFinder able to be selected with a toggle button. Row sensors can be used to steer combine whenever they are engaged on a row. Curve Track Recording must be ON. This will establish first pass, and allow straight line extensions to occur.

Adaptive Curves only get projected to adjacent pass, but have the advantage of handling different curve shapes, and potential guess row errors don't get accumulated throughout field.

If multiple combines are in field, Adaptive Curves does not allow skipping a pass. Adaptive Curves in this scenario may only work if track spacing of other combine(s) is added to its own. For instance, if a 12 row head is following an 8 row head on 30 inch rows while harvesting together in same field, each would need a track spacing of 20 rows (50 feet).

Use of adaptive curves is recommended when path will frequently change throughout field. Adaptive Curves only projects next path over.



*Curves are U-shaped*

PC11000 —UN—04FEB08

KR43067,00000AE -19-10NOV08-1/1

## Set Up Adaptive Curves

MENU >> GREENSTAR button >> GUIDANCE softkey  
>> GUIDANCE SETTINGS tab

Select ADAPTIVE CURVES from TRACKING MODE drop-down menu. Select VIEW tab.

Before starting

1. Ensure an SF1, SF2, or RTK signal is present by viewing receiver icon on View page.
2. Verify track spacing is correct. If track spacing is not correct, change track spacing under GUIDANCE tab.
1. Select record button to begin recording path.
2. Drive path through field. After driving through first path, a projection of only the next path will be created.
3. Press resume button to run AutoTrac RowSense.

When in AutoTrac mode, recording shuts off when steering wheel is turned. When in documentation mode, recording shuts off when header is raised.

**AutoTrac mode**— If operator wants improved row entry for adjacent pass only, tie Adaptive recording to AutoTrac. This is only recommended if field is relatively straight with no extreme curves and AutoTrac is rarely deactivated (due to manual steering or loss of GPS).

**Documentation mode**— Tie Adaptive Curves to Documentation. This allows operator to grab steering wheel during operation and continue to record path they are on. Line extensions are available on next pass, but they will not be very useful in row entry since there is a delay in picking up the head on end rows. Performance will be marginal in periods of row dropout.

PC8663 —UN—05AUG05



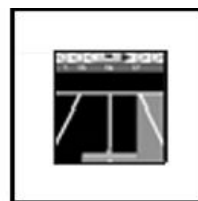
MENU button

PC12685 —UN—14JUL10



GREENSTAR 3 button

PC8673 —UN—14OCT07



GUIDANCE softkey

**Manual Recording**— Operator can tie Adaptive recording to Manual recording. This mode would not allow for line extensions unless operator continually pushed stop button on end row. If operator forgets to turn off recording, it can lead to issues such as incorrect curvature projection. Example: If operator pulls out of the row to unload and doesn't press pause, the path will be recorded. When operator drives down adjacent path, combine will be pulled slightly off row since projected line is off.

BA31779,0000472 -19-24MAY12-1/2

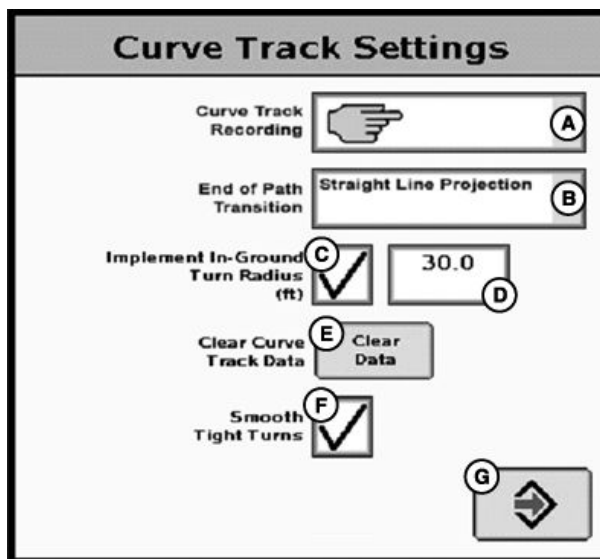
Press: MENU >> GREENSTAR button >> GUIDANCE softkey >> GUIDANCE SETTINGS tab >> CURVE TRACK SETTINGS button >> CURVE TRACK RECORDING drop-down menu (A).

Adaptive Curve modes listed can be changed on screen shown above by using drop-down menu to choose desired mode.

- AutoTrac
- Documentation
- Manual

A—Curve Track Recording  
B—End of Path Transition  
C—Implement In-Ground Turn Radius Check Box  
D—Implement In-Ground Turn Radius Input Box

E—Clear Data Button  
F—Smooth Tight Turns Check Box  
G—Accept Button



PC15156 —UN—24MAY12

BA31779,0000472 -19-24MAY12-2/2

## RowFinder

RowFinder can be used when operating in adaptive curves and finding a row that is two or more passes away. When approaching headland in Adaptive Curve mode, select RowFinder button to enable RowFinder. This will record vehicle position and heading.

*NOTE: Recorded position and heading will be discarded if AutoTrac is not disengaged within 3 minutes of first enabling the RowFinder button*

At end of row, ensure recording is turned off. Display will project parallel rows.

Proceed in headland toward desired row. Enter row and select RowFinder button to disable RowFinder. This will change system back to Adaptive Curves Mode.

Before harvesting is started ensure recording is turned on. **Press resume button.** AutoTrac will then guide combine down row and a new first path will be recorded.

A—View  
B—Guidance Settings  
C—Shift Track Settings  
D—iTec Pro  
E—RowFinder Button

F—RowSense Status Icon  
G—Record Button  
H—Pause Button  
I—Steer ON/OFF Button

PC15050 —UN—22MAY12

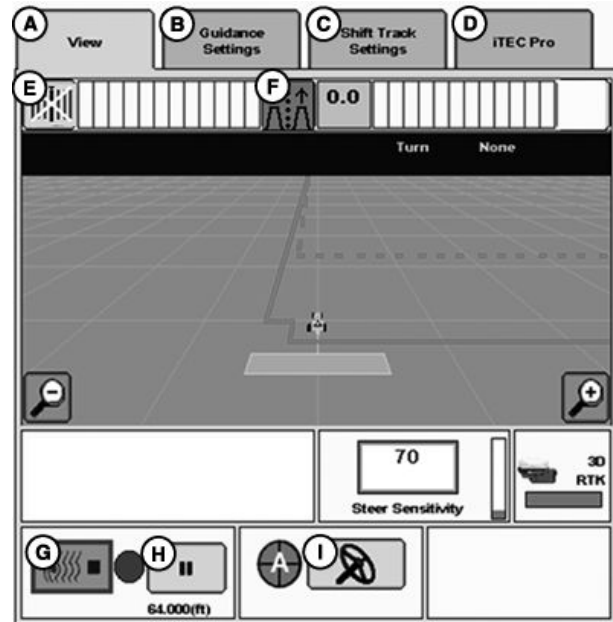


RowFinder Disabled

PC15051 —UN—22MAY12



RowFinder Enabled



PC15157 —UN—24MAY12

BA31779,0000471 -19-24MAY12-1/1

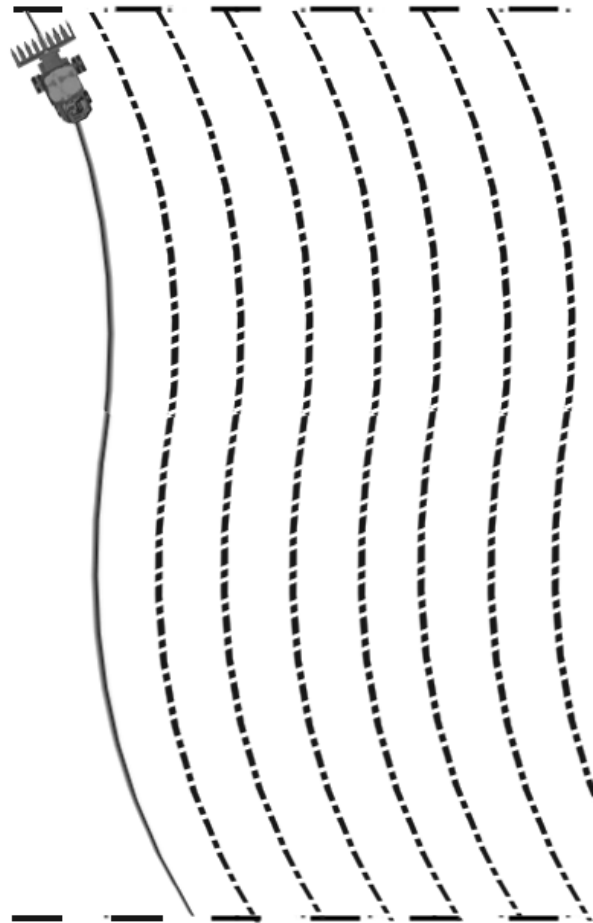
## 2600 and 2630 Display—AB Curves

### AB Curves

Use of AB Curves is recommended when there is a continuous curve throughout field. This allows for row entry on adjacent paths. Performance will be improved if field is planted with AutoTrac. AB Curves will also have improved performance through periods of row dropout.

AB Curves have the advantage of projecting a curved track across a field as parallel lines, but shape of the curve is same on each pass.

When in AB Curves, the GPS curve will be automatically re-centered. This ensures GPS path is properly aligned with corn rows. **This feature is not available in adaptive curves.**



*AB Curves projects all lines off of first pass*

PC10393—UN—08JAN08

Continued on next page

BA31779,0000203 -19-08NOV11-1/3

MENU >> GREENSTAR button >> GUIDANCE softkey  
>> GUIDANCE SETTINGS tab

PC8663 —UN—05AUG05

*NOTE: Please pause recording when not harvesting.*

1. Select AB CURVES from TRACKING MODE drop-down menu. Select VIEW tab.
2. Ensure an SF1, SF2, or RTK signal is present by viewing receiver icon on the VIEW tab.
3. Select AB CURVES button.
4. Verify track spacing is correct. If track spacing is not correct, change track spacing under GUIDANCE tab.

PC12685 —UN—14JUL10

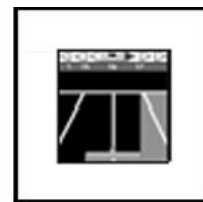


MENU button



GREENSTAR 3 button

PC8673 —UN—14OCT07



GUIDANCE softkey

BA31779,0000203 -19-08NOV11-2/3

5. Select an AB Curve name from CURRENT AB CURVE drop-down menu. If no name exists, create new one by selecting NEW button.
6. Select record button at beginning of first pass.
7. Select accept button at end of first pass. Curves will be projected across field.
8. Press resume button to run AutoTrac RowSense.

A—Current AB Curve  
Drop-down Menu  
B—New Button  
C—Remove Button

D—Track Spacing Button  
E—Record/Stop Button  
F—Pause Button

**Set AB Curve**

Current AB Curve: [A] (dropdown menu)

[B] New [C] Remove

Number of Segments: 0

Point A Lat.: 0.00000000

Point A Lon.: 0.00000000

Track Spacing (ft): [D] 30.000

[E] [Record/Stop Button] [F] [Pause Button]

PC10709 —UN—25OCT07

BA31779,0000203 -19-08NOV11-3/3

## 2600 and 2630 Display—Circle Track

### Set up Circle Track

Use of Circle Track is recommended when crop is planted in a center pivot field.

If rows to be harvested are in circles, Circle Track should be used. This allows input from GPS curvature to be applied to row sensors.

MENU >> GREENSTAR button >> GUIDANCE softkey  
>> GUIDANCE SETTINGS tab

1. Select CIRCLE TRACK from TRACKING MODE drop-down menu. Select VIEW tab.
2. Ensure SF1, SF2, or RTK signal is present by viewing receiver icon on VIEW tab.
3. Select SET CIRCLE button.
4. Verify track spacing is correct. If track spacing is not correct, change track spacing under GUIDANCE tab.



PC8663 —UN—05AUG05



*MENU button*

PC12685 —UN—14JUL10



*GREENSTAR 3 button*

PC8673 —UN—14OCT07



*GUIDANCE softkey*

PC10853 —UN—31JAN08

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BA31779,0000204 -19-08NOV11-1/2

5. Select circle name from CURRENT CIRCLE drop-down menu. If no name exists, create new one by selecting NEW button.
6. Select drive method from METHOD drop-down menu.
7. Select record button while driving first pass.
8. Select accept button after driving first circle. A circle will be projected in field.
9. Press resume button to run AutoTrac RowSense.

A—Current Circle Drop-down Menu  
 B—Method Drop-down Menu  
 C—New Button

D—Remove Button  
 E—Track Spacing Button

The screenshot shows the 'Set Circle' screen with the following elements:

- Current Circle:** A drop-down menu labeled 'A'.
- Method:** A drop-down menu labeled 'B'.
- New Button:** A button labeled 'C' with the text 'New'.
- Remove Button:** A button labeled 'D' with the text 'Remove'.
- Point A Lat.:** A text field showing '0.00000000'.
- Point A Lon.:** A text field showing '0.00000000'.
- Track Spacing:** A text field showing '30.000' with a button labeled 'E' next to it.
- Unit:** The text '(ft)' is displayed below the Track Spacing field.
- Buttons:** There are two large buttons at the bottom: one with a double-slash icon and another with a right-pointing arrow icon.

PC10710 —UN—25OCT07

BA31779,0000204 -19-08NOV11-2/2

# GS3 CommandCenter—Straight Track

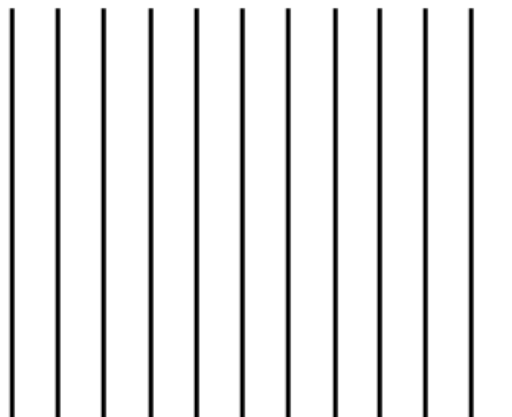
## Theory of Operation

Straight Track mode assists operator in driving straight parallel paths. First setup a Track 0 (reference path) using one of several options. Once the Track 0 has been defined, all passes for the field are generated. The generated passes can be used to operate Manual Guidance or AutoTrac. Each pass is generated from the original driven pass to ensure that steering errors are not propagated through the entire field.

Passes are identical copies of the original pass.

*NOTE: The terms “Guidance Track” and “AB line” are interchangeable. Track 0 is the track defined by the operator and the reference point from which all parallel passes in field are based.*

*The spacing between the parallel passes is the Track Spacing entered in the Setup Wizard.*



PC9508 — JUN—24OCT06

BA31779,0000233 -19-21JUL11-1/1

## Creating a New Straight Track

There are several methods of defining Track 0:

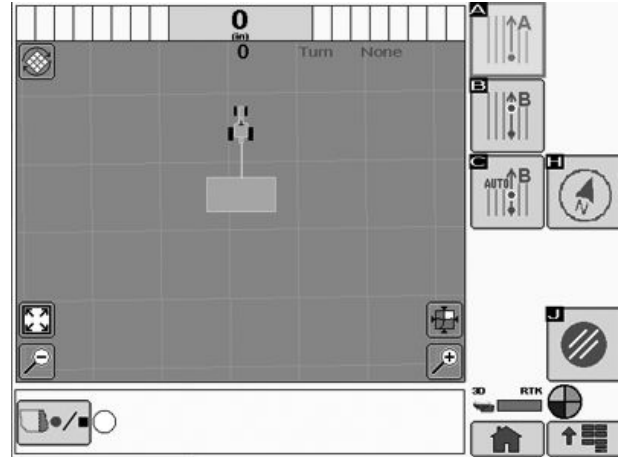
- A + B - Define Track 0 by driving it with the vehicle.
- A + Auto B - Define Track 0 by driving it with the vehicle.
- A + Heading - Define Track 0 by driving the vehicle to point A and entering a predefined Heading value.
- Lat/Long - Define Track 0 by entering predefined Latitude and Longitude coordinate values for the A and B points.

- Lat/Long + Heading - Define Track 0 by entering predefined Latitude and Longitude value for the A point and entering a predefined Heading value.

*NOTE: Track 0 may be defined during an operation (e.g. planting), but some softkeys are not available while it is being created.*

BA31779,0000227 -19-13JUL11-1/1

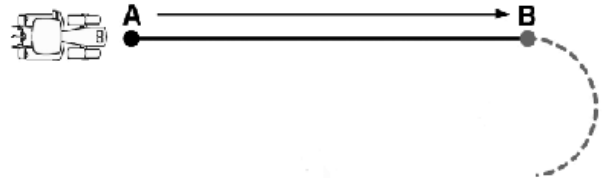
## A+B, A+Auto B, and A+Heading Methods



PC10857XT —UN—16JUN10

PC10857MT —UN—23APR09

Heading



BA31779,0000228 -19-14JUL11-1/4

1. Choose STRAIGHT TRACK mode and select or create a Track Name on the final page in the Setup Wizard (SETUP GUIDANCE TRACK).

PC13868 —UN—14JUL11

**NOTE:** This page can also be accessed with the Quick Change Guidance softkey.

GreenStar Main Page -> Guidance Quick Change

2. Drive to the desired location in the field to create the A point.

PC10857JJ —UN—13APR09



GreenStar Main Page



Guidance Quick Change

BA31779,0000228 -19-14JUL11-2/4

3. Select the SET A softkey .

PC10857MU —UN—23APR09



Set A Softkey

Continued on next page

BA31779,0000228 -19-14JUL11-3/4

## 4. Define the B point using one of three options:

- To manually set the B point, drive to the desired location in the field to create the B point and select Set B . The minimum distance is 3 m (10 feet). It is recommended to Set the B point at the far end of the field to define the desired heading.

PC10857MV —UN—23APR09



Set B softkey

- To automatically set the B point, select Automatically Set B at any time. The B point will be automatically set when the vehicle drives 15 m (45 ft) away from the A point.

PC10857MW —UN—23APR09



Automatically Set B

This method calculates point B from the last five data points taken from the 15 m (45 ft) driven and runs a best fit line through the points to determine a heading.

PC10857MX —UN—23APR09



Heading softkey

- To set the B point by entering a heading direction, select the Set Heading softkey. Enter the desired line heading with the numeric keypad and save the value by selecting Accept. 0.000 indicates North, 90.000 East, 180.000 South, and 270.000 West. The Track 0 is now defined and the parallel tracks are created automatically. The GreenStar System is now setup for operation.

To cancel setup at any time and return to the Guidance Setup page, select Cancel.

BA31779,0000228 -19-14JUL11-4/4

# GS3 CommandCenter—Adaptive Curves

## Theory of Operation

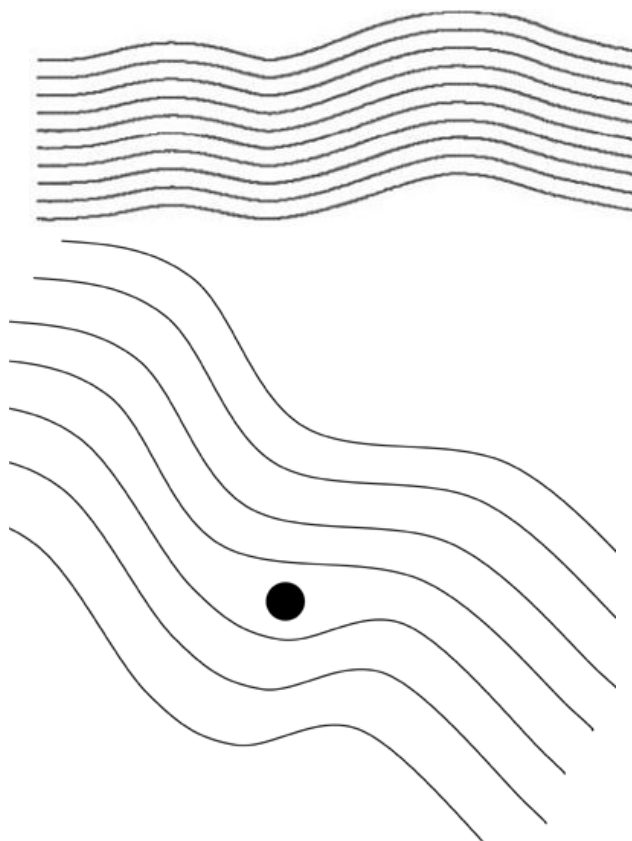
Adaptive Curves Mode allows the operator to record a manually driven curved path. Once the first curved pass has been recorded and machine is turned around, the operator can Parallel Track or activate AutoTrac once the propagated path appears. The vehicle will be guided along subsequent passes, based off of the previous recorded pass. Each pass is generated in relation to the original driven pass to ensure that steering errors are not propagated through the entire field. The passes are not identical copies of the original pass. The curvature of the pass changes to maintain pass to pass error. When necessary, the operator can change the curve path anywhere in the field by simply steering the machine off the propagated path.

**NOTE:** Skip pass is not available in Adaptive Curves Mode.

The curvature of the path changes as the subsequent paths get more convex or concave.

Adaptive Curve Track Mode allows an operator to drive and be guided along a variety of field patterns.

PC9028 —UN—16APR06



PC9029 —UN—17APR06

BA31779,0000234 -19-21JUL11-1/1

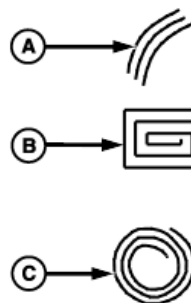
## Guidance Patterns

The method of searching all line segments allows an operator to drive and be guided along a variety of field patterns:

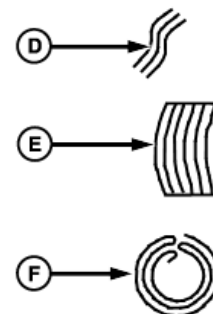
- Simple Curve
- S-Curve
- Boxed
- Race Track
- Spiral
- Circle

## Shift Track Operation

The use of shift track is not recommended when using Curve Track. Shift track will not compensate for inherent GPS drift in Curve Track mode.



A—Simple Curve  
B—Boxed  
C—Spiral



D—S-Curve  
E—Race Track  
F—Circle

PC9032 —UN—17APR06

BA31779,0000235 -19-21JUL11-1/1

## Creating a New Adaptive Curve Track

*NOTE: Setup of Client, Farm, and Field is not required for Adaptive Curve Track operation but only one Global Adaptive Curve Track can be saved.*

1. Choose ADAPTIVE CURVE TRACK mode on the final page in the Setup Wizard (SETUP GUIDANCE TRACK).

*NOTE: This page can also be accessed with the Quick Change Guidance softkey.*

2. Drive to desired location in the field for the start of the track.

PC13868 —UN—14JUL11



GreenStar Main Page

PC10857JJ —UN—13APR09



Guidance Quick Change

PC10857ND —UN—27APR09



Start Recording

Continued on next page

BA31779,0000229 -19-14JUL11-1/2

### 3. Start Recording.

**NOTE:** The Adaptive Curve recording softkey is disabled when Repeat Mode is ON. When recording new paths (i.e. Planting), Repeat Mode should be unchecked (Off). When guiding on existing paths (i.e. Spraying, Harvesting) the Repeat Mode button should be checked (On). Repeat Mode is OFF by default.

To start recording manually, select the Adaptive Curves Start Recording softkey. This softkey will be replaced by the following softkeys after it is selected:

- Pause Recording
- Stop Recording
- Cancel

**NOTE:** Recording only needs to be turned off if machine is driven outside of normal field pattern (i.e. refill sprayer, planter) or if you do not want to record turns at end of field.

Curve Settings—Recording may be triggered based on AutoTrac or Coverage by selecting those options in Guidance Settings

### 4. Drive the initial pass. A blue guidance track will appear on the map.

**NOTE:** When driving straight, the recorded path may not be shown behind the machine icon on the display. The path will appear when the machine is turned.

The white high-lighted navigation line will NOT appear until end of pass is reached and machine is turned around. Once machine is turned around, system will determine path to guide on. System locates a line segment that is parallel and within 1/2 to 1-1/2 track spacings. The predicted path will appear from which the operator can navigate from. Drive vehicle along desired path.

5. Turn vehicle at the end of first pass and a white navigation line for the next pass will be generated. It may take a few seconds for the navigation line to appear.
6. Once the white navigation line for the intended pass appears, press resume switch (AutoTrac only) on the

PC10857NE —UN—27APR09



Pause Recording

PC10857NF —UN—27APR09



Stop Recording

PC13868 —UN—14JUL11



GreenStar Main Page

PC10857JF —UN—13APR09



Settings

PC10857NG —UN—27APR09



Guidance Settings

machine and the machine will automatically steer on that pass. For Manual Guidance, guide on the white highlighted navigation line.

### 7. Select Stop Recording when the field is finished.

**IMPORTANT:** STOP recording before entering the next field. Failure to do so may result in deleting the Adaptive Curve data from the last field before recording Adaptive Curve data in the next field.

**NOTE:** The stored Adaptive Curve Track data is assigned to the selected Client, Farm, Field name. It will be stored in the display's internal memory until it is cleared by the user and can be transferred from one display to another.

BA31779,0000229 -19-14JUL11-2/2

## Recording a Straight Path or Navigating Around Obstacles

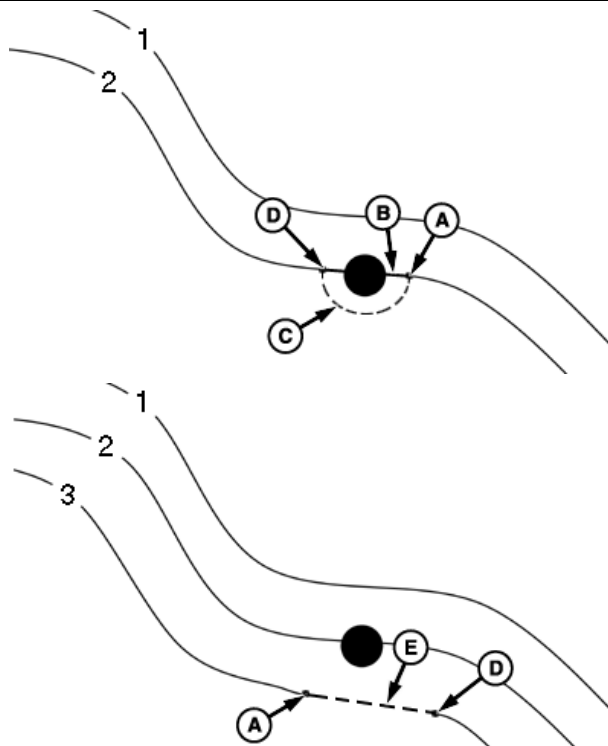
1. Start Recording
2. Select Pause Recording to temporary stop recording of a vehicle's path.
3. Select Recording to resume recording the Adaptive curve.

The distance between where recording was PAUSED and RESUMED will be connected with a straight line. This can be helpful when there is a long straight section of path or when navigating around obstacles.

**NOTE:** The longest bridge segment (line segment created between PAUSED and UNPAUSED) that can be created is a distance of 0.8 km (0.5 miles) (2,640ft). For a greater distance, the line segment will not connect resulting in a gap in the path.

A—Recording PAUSED  
B—Bridge segment is generated to connect two points  
C—Tractor path not recorded while paused

D—Recording UNPAUSED  
E—Path recorded as a straight line between points A and D



BA31779,000022A -19-13JUL11-1/1

PC9284 —UN—29JUL06

PC9285 —UN—08AUG06

## RowFinder

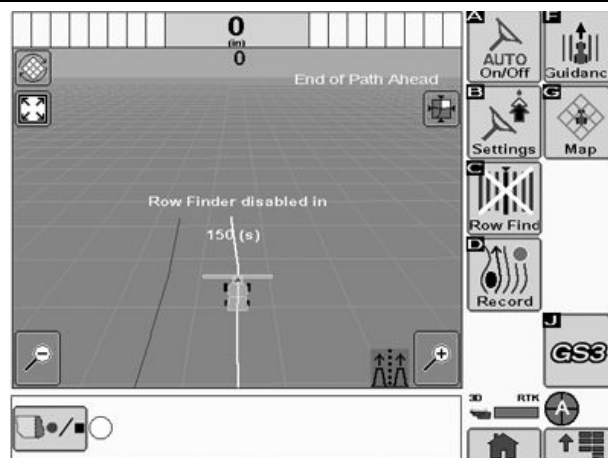
RowFinder can be used when operating in adaptive curves and finding a row that is two or more passes away. When approaching headland in Adaptive Curve mode, select ENABLE ROWFINDER button. This will record vehicle position and heading.

**NOTE:** Recorded position and heading will be discarded if AutoTrac is not disengaged within 3 minutes of first selecting the ENABLE ROWFINDER button

At end of row, ensure recording is turned off. Display will project parallel rows.

Proceed in headland toward desired row. Enter row and select DISABLE ROWFINDER button. This will change system back to Adaptive Curves Mode.

Before harvesting is started ensure recording is turned on. **Press resume button.** AutoTrac will then guide combine down row and a new first path will be recorded.



BA31779,000024D -19-03AUG11-1/1

PC13966 —UN—03AUG11

# GS3 CommandCenter—AB Curves

## Theory of Operation

AB Curves Mode allows an operator to drive curved parallel passes that have end points on either end of the field. The guidance tracks will be parallel to the track in either direction and will be generated based on the original track to ensure that steering errors are not propagated through the entire field.

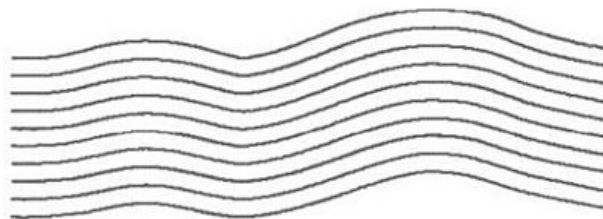
Track 0 is the reference track from which subsequent curve passes in the field are based. Once the first AB curve (Track 0) is created, 4 tracks will be generated. The system will continue to generate additional passes when the vehicle drives the last pass displayed on the screen.

*NOTE: Skip pass is available in AB Curves mode.*

**Generating AB Curve Path Information** - As the system generates the initial passes after recording Track 0 or when generating additional passes the text "Generating AB Curve" will be displayed on the perspective view. During this time you will not be able to track off of any paths.

**AB Curve Generation Limits** - The initially recorded AB curve must be at least 10 feet in length to be a valid AB Curve to use for guidance. The vehicle must be within 400 meters (0.25 miles) of where Track 0 was recorded for the

PC9028 —UN—16APR06



system to start generating curve paths. If the vehicle is at this outer limit it may take several minutes to generate a path that shows up on the screen. During this time "Generating AB Curve" will be displayed on the screen.

**Multiple AB Curves in a field** - A field can contain multiple AB Curve paths. Each AB curve for a field must be recorded and uniquely named.

**Track Numbering** - Tracks will be numbered to allow for skip pass and to aid in finding passes. The direction label (N,S,E, or W) is defined by the heading determined between the first and last point in the curve.

The curvature of the path changes as the subsequent paths get more convex or concave.

BA31779,0000236 -19-21JUL11-1/1

## Creating a New AB Curve Track

Use the following procedure to setup the first AB curve (Track 0) from, which subsequent curve passes in the field are based.

*NOTE: Multiple AB Curves may be recorded per field. They will need to be named and recorded separately.*

1. Choose AB CURVE TRACK mode and select or create a Track Name on the final page in the Setup Wizard (SETUP GUIDANCE TRACK).

*NOTE: This page can also be accessed with the Quick Change Guidance softkey.*

2. Drive to desired location in the field for start of Track 0.
3. Selecting the AB Curves Start Recording softkey. This softkey will be replaced by the following softkeys after it is selected:
  - Pause Recording
  - Stop Recording
  - Cancel.
4. Drive the initial pass. A blue guidance track will appear on the map.

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Guidance Quick Change

*NOTE: When driving straight, the recorded path may not be shown behind the machine icon on the display. The path will appear when the machine is turned.*

5. Press Stop Recording at the end of the pass and the track will be saved to memory.

*NOTE: If GPS signal is lost while recording, recording is stopped and the AB curve that was recorded to that point will be saved. If the AB Curve is not what the operator intended, it may be deleted by using the Delete Track button on the SETUP GUIDANCE TRACK page of the SETUP WIZARD.*

BA31779,000022B -19-14JUL11-1/1

## Recording a Straight Path or Navigating Around Obstacles

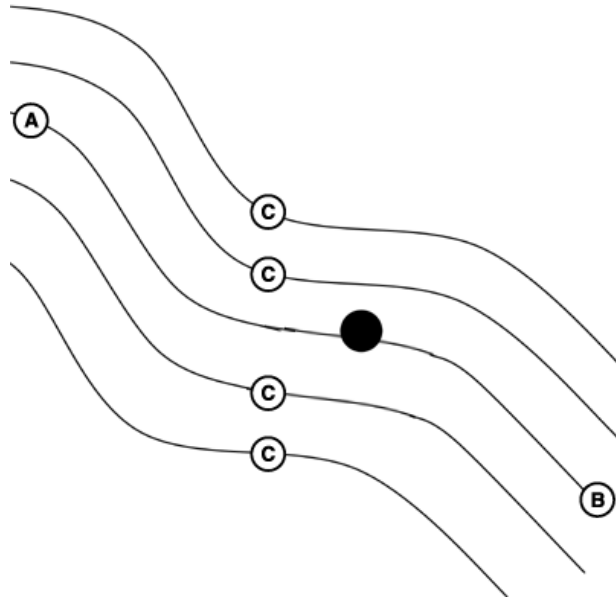
1. Start AB Curves Recording
2. Select Pause Recording to temporary stop recording of a vehicle's path.
3. Select AB Curves Recording to resume recording the AB curve.

The distance between where recording was PAUSED and RESUMED will be connected with a straight line. This can be helpful when there is a long straight section of path or when navigating around obstacles.

**NOTE:** The longest bridge segment (line segment created between PAUSED and UNPAUSED) that can be created is a distance of 0.8 km (0.5 miles) (2,640ft). For a greater distance, the line segment will not connect resulting in a gap in the path.

A—Pause before obstacle  
B—Resume after obstacle

C—Paths Generated from  
Track 0



PC9030C—UN—27OCT06

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# GS3 CommandCenter—Circle Track

## Theory of Operation

Circle Track helps operators drive concentric circles in a field with center pivot irrigation. Operators can create an initial circle using a variety of different methods. Once the initial circle has been defined, all the subsequent circles in the field are created.

Circle Track Mode is available for Manual Guidance; however, to AutoTrac in Circle Track mode requires both

an AutoTrac and Pivot Pro activation. The Pivot Pro activation is available in North America only.

Circle Center Latitude and Longitude coordinates are saved and associated to a Field Name. If a field is not selected when the circle center is defined, Global circle centers will be saved. Circle Centers can be recalled for future use.

BA31779,0000237 -19-21JUL11-1/1

## Creating a New Circle Track

Circle Tracks are created by defining the center point of the circle. There are two methods to define the center point:

First choose CIRCLE TRACK mode and select or create a Track Name on the final page in the Setup Wizard (SETUP GUIDANCE TRACK).

*NOTE: This page can also be accessed with the Quick Change Guidance softkey.*

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## Drive Circle Method

- Drive Circles - Creates a circle track by driving at least 10 percent of the desired circle. It is recommended to drive the entire circle for optimum circle center calculation and a higher accuracy track.
- Lat/Long - Sets a circle track off a specific latitude and longitude point in the middle of the circle that is defined by the user.

1. Drive to the desired location in the field to drive a circular pass.

2. Select Start Circle Recording.
3. Drive the desired circle pass.
4. Select Stop Circle Recording. The Circle Tracks are created automatically with the Track Spacing defined in the Setup Wizard.

*NOTE: The Stop Circle Recording button will appear when enough of the circle has been driven to calculate the center point.*

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## Lat / Long Method

1. Select Center Point Latitude and Longitude.
2. Enter the desired latitude and longitude values in decimal degrees for the circle center. The previous latitude and longitude values associated with the field are displayed when the entry screen is first displayed.

3. Save the values by selecting Accept. The Circle Tracks are created automatically with the Track Spacing defined in the Setup Wizard.

*NOTE: It may be necessary to line the vehicle up on the center pivot tower track or use center shift track to get the tracks lined up with the vehicle.*

BA31779,000022F -19-13JUL11-1/1

# Diagnostics

## Diagnostic Screens

**NOTE:** Possible diagnostic answers given with brief explanation.

### GreenStar 2 Pro - Diagnostic Readings

Read the latest Operators Manual prior to operation. To obtain a copy, see your dealer or visit [www.StellarSupport.com](http://www.StellarSupport.com)

View **RowSense** **(A)**

**(B)** Row Sensors Available: Yes

**(C)** RowSense Activation Available: Yes

**(D)** AutoTrac License: Yes

**(E)** Row Offset: 0 (in)

**(F)** Primary Steering Source: GPS

**(G)** Sensor Coast Mode Time Remaining: 0 (sec)

Pre MY12 Diagnostic Readings

### GreenStar - Diagnostic Readings

Read the latest Operator Manual prior to operation. To obtain a copy, see your dealer or visit [www.StellarSupport.com](http://www.StellarSupport.com)

View **RowSense** **(A)**

**(B)** Row Sensors Available: Yes

**(C)** RowSense Activation Available: Yes

**(D)** AutoTrac License: SF2

**(E)** Row Offset: 0 (in)

**(F)** Primary Steering Source: ---

**(G)** Sensor Coast Mode Time Remaining: 0 (sec)

**(H)** Left Sensor Voltage: 0.5

**(I)** Right Sensor Voltage: 4.5

**(J)** Calibrate Sensor

**(K)** **CAL**

**(L)** Calibration Status: Calibrated

MY12 Diagnostic Readings

**A**—View Drop Down Menu  
**B**—Row Sensors Available  
**C**—RowSense Activation Available

**D**—AutoTrac License  
**E**—Row Offset  
**F**—Primary Steering Source  
**G**—Sensor Coast Mode Time Remaining

**H**—Left Sensor Voltage  
**I**—Right Sensor Voltage  
**J**—Calibrate Sensor  
**K**—CAL Button

**L**—Calibration Status

Row sensors available:

- A — Yes
- B — No

Row guidance activation available:

- A — Yes (if AutoTrac RowSense GS3 activation is available)
- C — No (if no AutoTrac RowSense GS3 activation available)

AutoTrac license:

- A — Yes (SF1)
- B — Yes (SF2)
- C — No

Row offset:

- Current row offset value, distance measured in (in.) or (mm).

Primary steering source:

- A — None
- B — GPS
- C — Row sensors

Sensor coast mode time remaining:

- Countdown timer when GPS signal is lost, displayed in seconds.

Left Sensor Voltage

- Sensor at-rest voltage should be less than 2.5 volts.

Right Sensor Voltage

- Sensor at-rest voltage should be greater than 2.5 volts.

Calibrate Sensor

Calibration Status

- Calibrated
- Not calibrated

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# Cleaning Row Sensors

## Cleaning Row Sensors

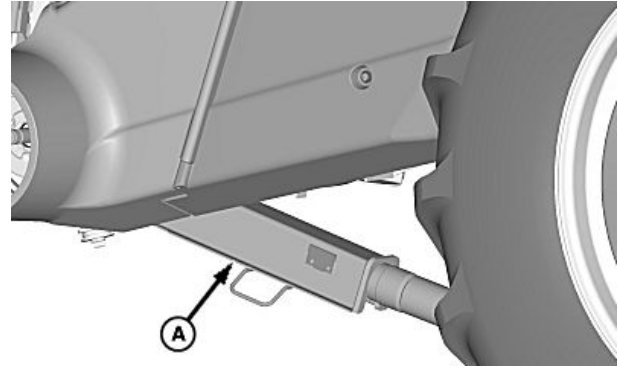
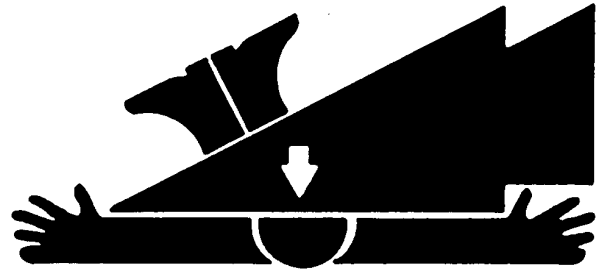
**⚠ CAUTION:** Shut OFF engine, set parking brake and remove key.

Raise header and lower safety stop (A) onto hydraulic cylinder rod.

Row Sensors should be checked daily to see if cleaning is necessary. If material has accumulated on sensors it may prevent free movement and affect performance. To clean row sensors, remove debris from sensors and surrounding area. Check that sensors move freely without obstruction.

Annually check for excessive wear of sensor bushings and shafts. Replace as necessary.

**A—Safety Stop**



KR43067,00000B3 -19-11NOV08-1/1

TS696 —UN—21SEP89

H90891 —UN—26FEB08

# Specifications

## EC Declaration of Conformity

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

The person named below declares that

Product: AutoTrac™ RowSense™

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

| Directive                               | Number      | Certification Method                          |
|-----------------------------------------|-------------|-----------------------------------------------|
| Electromagnetic Compatibility Directive | 2004/108/EC | Self certified, per Annex II of the Directive |

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

Brigitte Birk  
Deere & Company European Office  
John Deere Strasse 70  
Mannheim, Germany D-68163  
EUConformity@JohnDeere.com

Place of declaration: Kaiserslautern, Germany

Date of declaration: 29 July 2011

Manufacturing unit: John Deere Intelligent Solutions Group

Name: Aaron Senneff

Title: Engineering Manager, John Deere Intelligent Solutions  
Group

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# John Deere Service Literature Available

## Technical Information

Technical information can be purchased from John Deere. Some of this information is available in electronic media, such as CD-ROM disks, and in printed form. There are many ways to order. Contact your John Deere dealer. Call **1-800-522-7448** to order using a credit card. Search online from <http://www.JohnDeere.com>. Please have available the model number, serial number, and name of the product.

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.
- **OPERATOR'S MANUALS** providing safety, operating, maintenance, and service information. These manuals and safety signs on your machine may also be available in other languages.
- **OPERATOR'S VIDEO TAPES** showing highlights of safety, operating, maintenance, and service information. These tapes may be available in multiple languages and formats.
- **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 separate component technical manuals
- **FUNDAMENTAL MANUALS** detailing basic information regardless of manufacturer:
  - Agricultural Primer series covers technology in farming and ranching, featuring subjects like computers, the Internet, and precision farming.
  - 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.



TS189 —UN—17JAN89



TS191 —UN—02DEC88



TS224 —UN—17JAN89



TS1663 —UN—10OCT97

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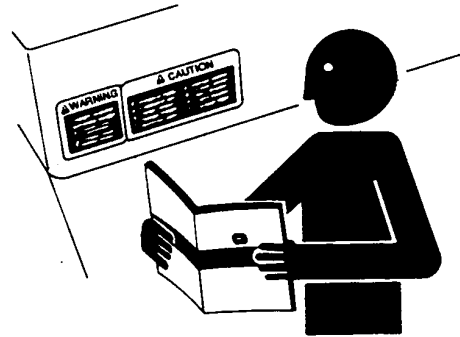
# John Deere Service Keeps You On The Job

## 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.



TS201 —UN—23AUG88

## 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/](http://www.deere.com/en_US/ag/contactus/).

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