



Surface Water Pro™



OPERATOR'S MANUAL Surface Water Pro™ OMPFP16884 ISSUE L6 (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
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.

Serial Number:

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.

JS56696,0000C4C -19-26JUN15-1/1

John Deere Technical Information Bookstore

NOTE: Product functionality may not be fully represented in this document due to product changes occurring after the time of printing. Read the latest Operator's Manual prior to operation. To obtain a copy, see your dealer or visit www.deere.com and use the 'Search for Agricultural Equipment Operator's Manuals' link to locate the John Deere Technical Information Bookstore.

CZ76372,000071F -19-20APR15-1/1

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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

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

TS1389 —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 -19-16JUN09-1/1

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 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.



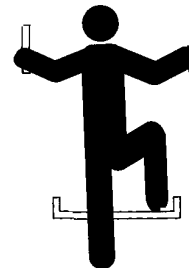
TS218 —UN—23AUG88

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

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,WWW,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 —UN—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 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 that 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.

DX,ELEC,DISPLAY -19-13JAN15-1/1

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™ Universal (ATU), RowSense™, and Machine Sync.

To prevent injury to the operator and bystanders:

- Never get on or off a moving machine.

AutoTrac is a trademark of Deere & Company

iGuide is a trademark of Deere & Company

iTEC is a trademark of Deere & Company

RowSense is a trademark of Deere & Company

- Verify the machine, implement, and guidance system are set up correctly.
 - If using iTEC™ Pro, 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 -19-02DEC13-1/1

Use Seat Belt Properly

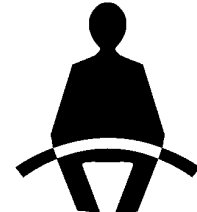
Avoid crushing injury or death during rollover.

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,



TS1729 —JUN—24MAY13

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

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

Operate Implement Automation Systems Safely

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

Implement automation systems are intended to aid the operator in performing field operations more efficiently. The operator is always responsible for the machine path.

Implement automation systems include any application that automates implement movement. This includes, but may not be limited to, iGrade™ and Active Implement Guidance.

To prevent injury to the operator and bystanders:

- Verify the machine, implement, and automation systems are set up correctly.
- Remain alert and pay attention to the surrounding environment.
- Take control of the machine, when necessary, to avoid field hazards, bystanders, equipment, or other obstacles.

iGrade is a trademark of Deere & Company



- Stop operation if poor visibility conditions impair your ability to operate the machine or identify people or obstacles in the machine path.

PC13793 —UN—25MAY11

CF86321,0000366 -19-19DEC13-1/1

Avoid High-Pressure Fluids

Inspect hydraulic hoses periodically – at least once per year – for leakage, kinking, cuts, cracks, abrasion, blisters, corrosion, exposed wire braid or any other signs of wear or damage.

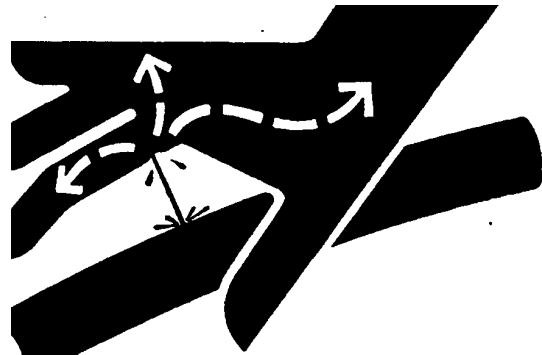
Replace worn or damaged hose assemblies immediately with John Deere approved replacement parts.

Escaping fluid under pressure can penetrate the skin causing serious injury.

Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high-pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar



with this type of injury should reference a knowledgeable medical source. Such information is available in English from Deere & Company Medical Department in Moline, Illinois, U.S.A., by calling 1-800-822-8262 or +1 309-748-5636.

X9811 —UN—23AUG88

DX,FLUID -19-12OCT11-1/1

Introduction

Theory of Operation

Surface Water Pro™ enables the operator to create optimum water distribution within watersheds. Surface Water Pro™ and Surface Water Pro™ Plus (GreenStar™ 3 2630 Display only) are designed to create elevation maps. From these maps, operators can design and create levees and ditches within fields.

Surface Water Pro™ Plus can generate a "best fit drain". The system calculates the most effective drain along a predetermined path while moving the least amount of soil.

*Surface Water Pro is a trademark of Deere & Company
GreenStar is a trademark of Deere & Company
Apex is a trademark of Deere & Company*

Apex™ features allow operators to upload survey data to generate depression, flow direction, and drainage maps. Ditch and levee tracks can also be managed from year to year by editing cut, slope, or drop of fall. Contact your John Deere dealer or visit StellarSupport.com to learn more about these additional features for Surface Water Pro™.

RW00482,0000497 -19-10AUG15-1/1

Requirements

Hardware:

- GreenStar™ 2 2600 Display or GreenStar™ 3 2630 Display (Surface Water Pro™ Plus [SWP+] requires a GS3 2630 Display).

Receiver:

- StarFire™ Receiver installed on machine (real time kinematic [RTK] recommended).
- StarFire™ Receiver installed on implement (SWP+ only).

*GreenStar is a trademark of Deere & Company
Surface Water Pro is a trademark of Deere & Company
StarFire is a trademark of Deere & Company
AutoTrac is a trademark of Deere & Company
iGrade is a trademark of Deere & Company*

Software:

- SWP or SWP+ activated on display.
- GreenStar™ Display and StarFire™ Receiver software updated to latest version.

Optional:

- AutoTrac™ activated on display. (Not required to steer system manually).
- iGrade™ activated on application controller (iGrade™ allows for automatic depth control of a compatible implement).

RW00482,0000498 -19-11AUG15-1/1

Activate Surface Water Pro™

PC8663 —UN—29APR15



Menu Button

PC17340 —UN—24OCT13



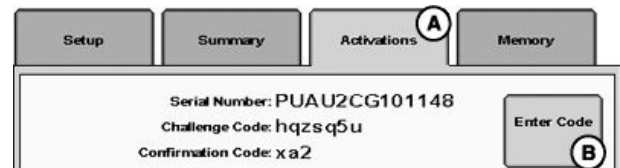
GreenStar™ Button

PC21183 —UN—20MAY15



GreenStar™ Softkey

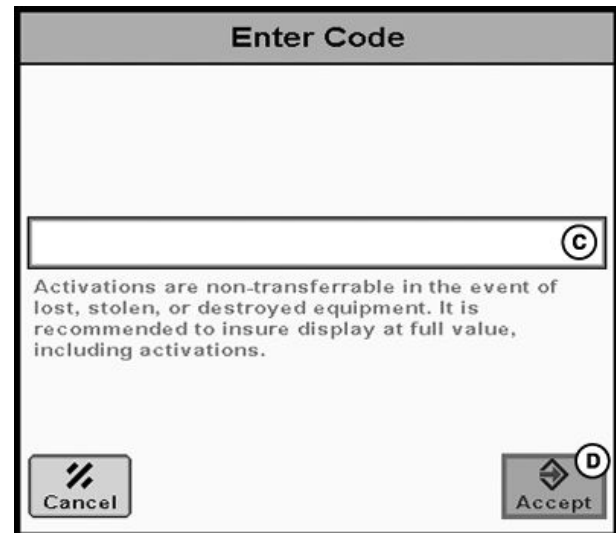
PC21181 —UN—20MAY15



1. Select Menu button.
2. Select GreenStar™ button.
3. Select GreenStar™ softkey.
4. Select Activations tab (A).
5. Select Enter Code button (B).
6. Enter Code (C).
7. Select Accept button (D).

A—Activations Tab
B—Enter Code Button

C—Enter Code Input Box
D—Accept Button



GreenStar is a trademark of Deere & Company

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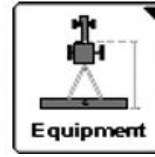
PC21182 —UN—18MAY15

Softkey Legend

GreenStar™—Equipment Softkey

PC21184 —UN—20MAY15

- Machine Tab—Enter machine type, model, name, connection type, turn radius, turning sensitivity, and offsets.
- Implement 1 Tab—Enter implement 1 type, model, name, width, and offsets.
- Implement 2 Tab—Enter implement 2 type, model, and name.
- Network Tab—View and manage wireless networks.



Equipment Softkey

RW00482,00004FA -19-03AUG15-1/1

GreenStar™—Resources Softkey

PC21150 —UN—11MAY15

- Resources Tab—Enter client, farm, field, task, crop season, and operator information.
- Conditions Tab—Enter weather and field conditions.
- Notes Tab—Enter or view field and task notes.



Resources Softkey

RW00482,00004FB -19-10AUG15-1/1

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.



Guidance Softkey

AutoTrac is a trademark of Deere & Company

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

RW00482,00004F9 -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

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

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

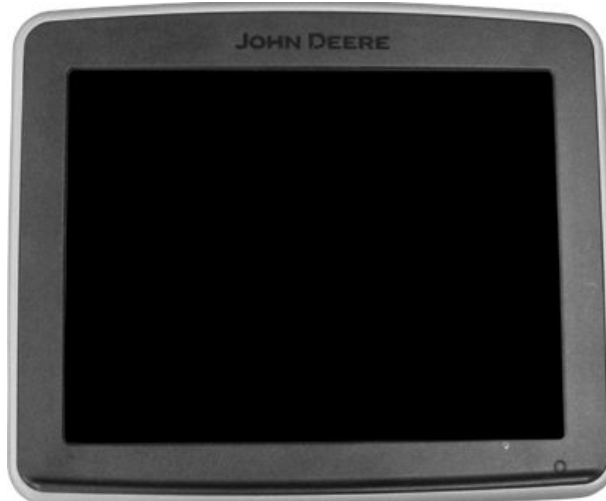
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System Components

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.



PC13407 —UN—20APR11

GreenStar™ 3 2630 Display

GreenStar is a trademark of Deere & Company

HC94949,00006C8 -19-01OCT15-1/1

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).



PC20203 —UN—06NOV14

StarFire is a trademark of Deere & Company

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

System Setup

Machine and Implement Setup

1. Set up machine and implement.

2. Enter machine information and offsets.

3. Enter implement information and offsets.

4. Set up shift track.
5. Set up global position system (GPS) machine and implement (if equipped) receivers.

6. Optimize terrain compensation module (TCM).

7. Calibrate terrain compensation module (TCM) for machine and implement (if equipped) receivers.

RW00482,0000004 -19-20JUL16-1/1

Set Up Machine and Implement

Verify machine and implement configuration before operating Surface Water Pro™ (SWP). Ensure hydraulic hookups are in the proper locations and no implement changes have been made that could cause unexpected behavior or a change in vertical receiver position.

Surface Water Pro is a trademark of Deere & Company

RW00482,000052A -19-10AUG15-1/1

Enter Machine Information and Offsets

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



GreenStar™ Button

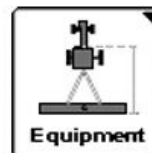
1. Select Menu button.
2. Select GreenStar™ button.
3. Select Equipment softkey.
4. Select Machine tab (A).

NOTE: Drop-down menu or input boxes may be grayed out if machine is automatically recognized.

5. Select or enter the machine information (B—G).
6. Select Change Offsets button (H).

- | | |
|---------------------------|-------------------------|
| A—Machine Tab | E—Connection Type |
| B—Machine Type Drop-down | Drop-down Menu |
| C—Machine Model Drop-down | F—Machine Turn Radius |
| Menu | G—Turning Sensitivity |
| D—Machine Name Drop-down | H—Change Offsets Button |
| Menu | |

PC21184 —UN—20MAY15



Equipment Softkey

PC22855 —UN—19JUL16

GreenStar is a trademark of Deere & Company

Continued on next page

RW00482,0000002 -19-20JUL16-1/2

7. Select or enter the machine offsets information (A—F).
8. Select Accept button (G).

- A—Lateral distance from center-line of machine to GPS receiver.
 B—In-line distance from non-steering axle to GPS receiver
 C—In-line distance from non-steering axle to connection point
 D—Vertical distance from GPS receiver to the ground
- E—Left or Right Offset Toggle Button
 F—Non-Steering Axle Location Drop-down Menu
 G—Accept Button

Machine Offsets

Rear Axle F

A 0.0 (in)

B 70.9 (in)

C 51.9 (in)

D 12.00 (in)

E G

Accept

A Lateral distance from center-line of machine to GPS receiver
 B In-line distance from non-steering axle (machine turning point for track tractor) to GPS receiver
 C In-line distance from non-steering axle (machine turning point for track tractor) to implement connection point
 D Vertical distance from the GPS receiver to the ground
 Note: Only used with Surface Water Pro applications

PC22856—UN—19JUL16

RW00482,0000002 -19-20JUL16-2/2

Enter Implement Information and Offsets

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



GreenStar™ Button

An implement receiver must be installed to enter implement GPS offsets.

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Equipment softkey.
4. Select Implement 1 tab (A).

NOTE: Settings and changes associated to implement are saved under the current Implement Name. Implement Name is used for transferring data to desktop software (if supported). Select the correct name before changing any settings.

5. Select implement information (B—D).
6. Select Change Widths button (E).
7. Enter implement widths information.

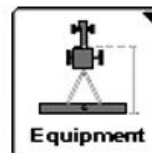
NOTE: Implement width is used to calculate cut volume of a ditch drain. Enter the working width of implement. For example, enter scraper cutting blade width as the implement width.

8. Select GPS Offsets button (F).

A—Implement 1 Tab
B—Implement Type Drop-down Menu
C—Implement Model Drop-down Menu

D—Implement Name Drop-down Menu
E—Change Widths Button
F—GPS Offsets Button

PC21184 —UN—20MAY15



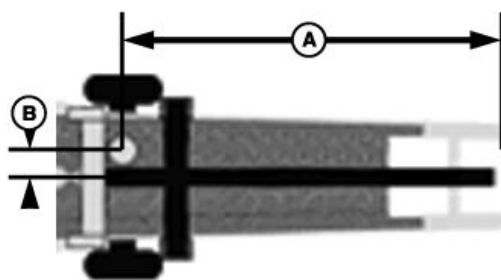
Equipment Softkey

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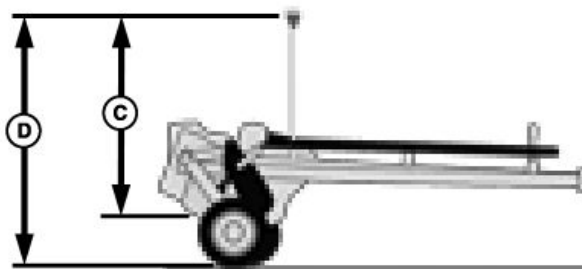
RW00482,0000003 -19-20JUL16-1/2

PC22860 —UN—20JUL16



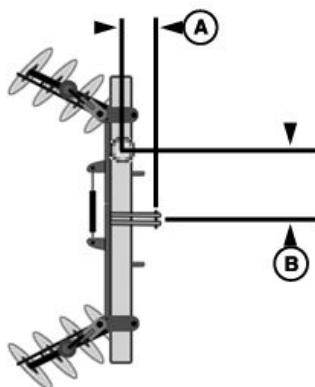
PC10378A —UN—14OCT07

Rotary Ditcher Overhead



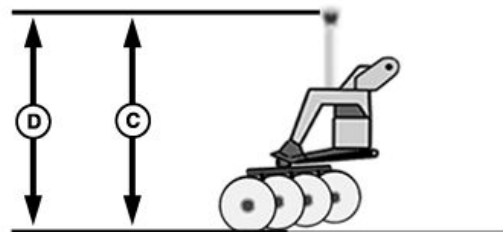
PC10377 —UN—13OCT07

Rotary Ditcher Profile



PC21587 —UN—17SEP15

Levee Plow Overhead



PC21586 —UN—17SEP15

Levee Plow Profile

NOTE: Measure offsets with implement in fully raised position.

9. Select or enter the implement GPS offsets information (A—E).
10. Select Accept button (F).

A—In-line distance from connection pivot point to GPS receiver.

B—Lateral distance from implement center to GPS receiver.

C—Vertical distance from the GPS receiver to the cutting edge.

D—Vertical distance from the GPS receiver to the ground in the fully raised position.

E—Left or Right Offset Toggle Button

F—Accept Button

Implement 1 GPS Offsets

A

16.0

(ft)

B

4.0

(in)

C

90.00

(in)

D

96.00

(in)

E

Verify implement fore/aft and height offsets in the StarFire setup pages

A In-line distance from connection point to GPS receiver

B Lateral distance from implement center to GPS receiver

C Vertical distance from the GPS receiver to the cutting edge

D Distance from receiver to the ground with the implement in fully raised position.

F

PC13801 —UN—02JUN11

RW00482,0000003 -19-20JUL16-2/2

25-5

120716
PN=19

Set Up Shift Track

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



GreenStar™ Button

It is recommended to set up 30.5 cm (12 in) small shifts.

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Guidance softkey.
4. Select Shift Track Settings tab (A).
5. Select Small Shifts checkbox (B).
6. Enter Small Shift Value (C).

PC21148 —UN—11MAY15



Guidance Softkey

A—Shift Track Settings Tab

B—Small Shifts Checkbox

C—Small Shift Value

PC22862 —UN—20JUL16

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RW00482,0000005 -19-21JUL16-1/1

Set Up Global Position System (GPS) Receiver

Mount implement receiver directly over cutting edge of implement or a position that copies vertical movement of cutting edge. The preferred mount direction for implement receiver is forward.

1. Select Menu button.
2. Select StarFire™ button.
 - StarFire™ Machine button.
 - StarFire™ Implement button.

Implement (A) displays at top of page if the StarFire™ Implement button is selected.

3. Select Setup tab (B).
4. Select Correction Mode (C) if using StarFire™ signal. To turn real time kinematic (RTK) on or off, configure RTK.

(Reference StarFire™ Receiver or RTK Operator's Manual.)

NOTE: If machine or implement is automatically detected, Mount Direction (D), Fore/Aft (E), and (or) Height (F) may be grayed out and cannot be changed.

5. If it is not grayed out, select Mount Direction.
6. If they are not grayed out, enter a value for Fore/Aft and (or) Height. Height is measured from ground to middle of receiver (G), or to the top of external antenna (H) (if equipped).

(Reference StarFire™ Receiver Operator's Manual for more information.)

A—Implement
B—Setup Tab
C—Correction Mode
D—Mount Direction

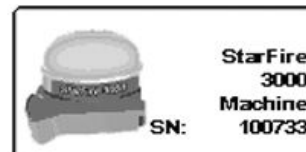
E—Fore/Aft
F—Height
G—Receiver
H—External Antenna

PC8663 —UN—29APR15



Menu Button

PC13006 —UN—05NOV14



StarFire™ Machine Button

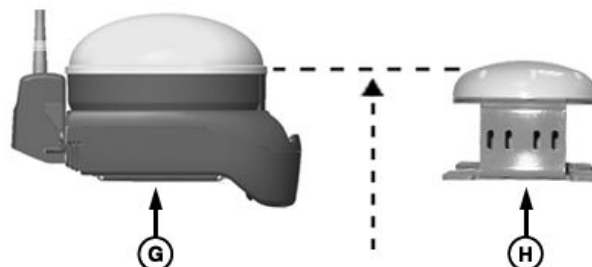
PC20634 —UN—19DEC14



StarFire™ Implement Button

StarFire 3000 - Implement - Main SN: 310431

Info	Setup B	Activations	Serial Port
StarFire Correction Mode RTK C Default ☒ Correction freq 1539.8725 Mount Direction Forward D Fore/Aft (in) 0 E Height (in) 175 F			
		Enable Optimize Shading ☒ Hours On After Shutdown 0	
		3D TCM On Off CAL Last Calibration:	



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RW00482,00004AF -19-30NOV16-1/1

PC20941 —UN—09MAR15

PC23079 —UN—20SEP16

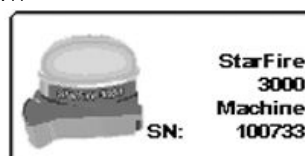
Optimize Terrain Compensation Module (TCM)

PC8663 —UN—29APR15

PC13006 —UN—05NOV14



Menu Button



StarFire™ Button

Optimize TCM calibration by allowing inertial measurement unit (IMU) to measure Roll Angle (A) and Yaw Rate (B) before performing the TCM calibration.

PC21154 —UN—11MAY15



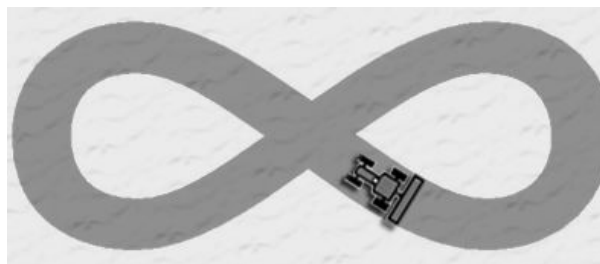
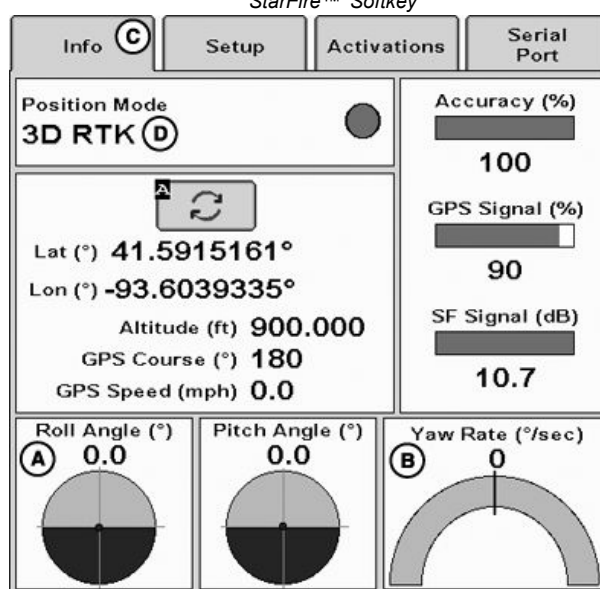
StarFire™ Softkey

1. Select Menu button.
2. Select StarFire™ button.
3. Select StarFire™ softkey.
4. Select Info tab (C).
5. Verify 3D position mode (D) has established SF1 signal or better.
6. Drive machine in TCM optimization drive pattern two times to allow IMU to initialize.
7. Complete TCM calibration.

(Reference Calibrate Terrain Compensation Module [TCM].)

A—Roll Angle
B—Yaw Rate

C—Info Tab
D—Position Mode



TCM Optimization Drive Pattern

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RW00482,0000525 -19-04MAY16-1/1

PC21396 —UN—27JUL15

PC21419 —UN—30JUL15

Calibrate Terrain Compensation Module (TCM)

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

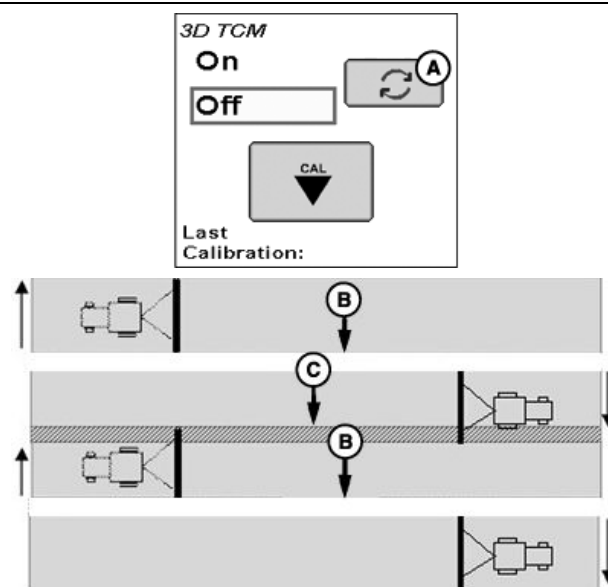
NOTE: TCM must be turned on for AutoTrac™ to activate.

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

Before calibrating, ensure 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 working position when calibrating.

Calibrate TCM every time receiver is removed from machine and reattached or if TCM angle in relation to machine has changed. Changes in 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 StarFire™ mounting bracket is slightly offset, machine cab is slightly offset, or uneven tire pressures from one side to other.

To eliminate offset, position machine and calibrate TCM, drive down a pass, turn around, and drive down same pass in opposite direction. If machine does not



A—TCM Toggle Button
B—Skip

C—Overlap

follow same pass, measure offset distance and enter in implement offset.

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AutoTrac is a trademark of Deere & Company

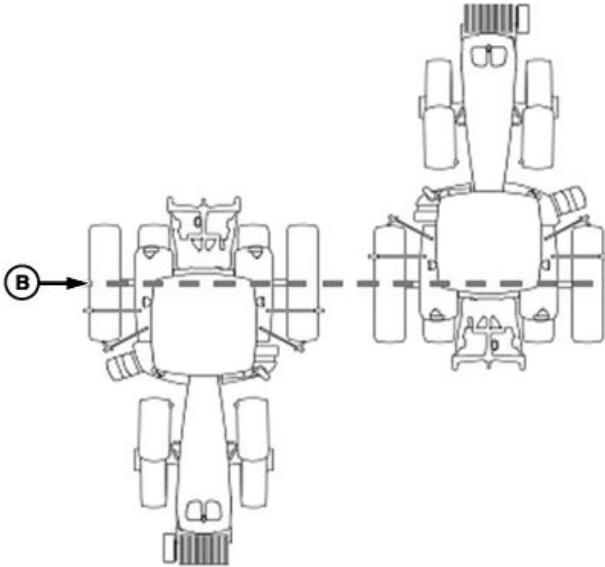
Continued on next page

DK01672,000019E -19-14MAR16-1/2

PC19992—UN—04SEP14

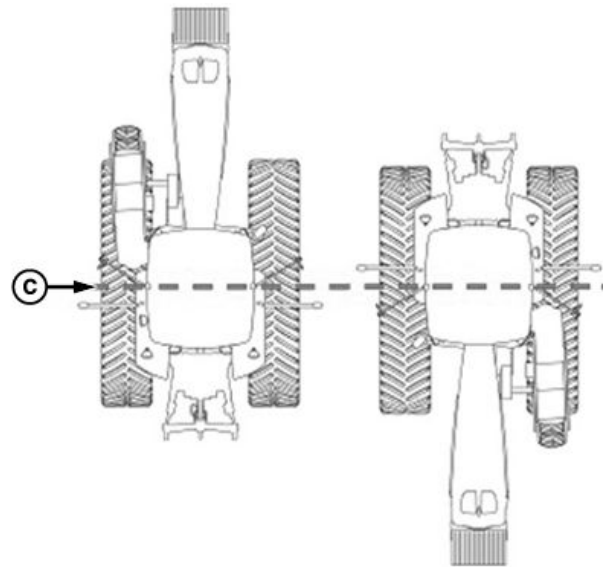
PC19993—UN—03SEP14

Position Machine and Calibrate Terrain Compensation Module (TCM)



Floating Front Axle Machines

PC19995 —UN—03SEP14

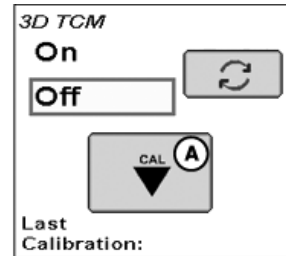


Fixed Axle Wheels Or Tracks Machines

PC19996 —UN—03SEP14

1. Park machine on a hard, level surface and come to a complete stop (cab is not rocking).
2. Mark location of tires or tracks on ground to note location of axle.
3. Select Calibration button (A).
4. Select Accept button. Calibrating status bar appears, then disappears when finished.
5. Turn machine 180 degrees to face opposite direction. Ensure 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 (MFWD (mechanical front wheel drive), ILS™ (Independent Link Suspension), TLS™ (Triple-Link Suspension)), place wheels so rear axle (A) is in same location when performing 2-point calibration.
 - For fixed-axle wheels or tracks machines (track tractors, 47X0 and 49X0 series sprayers, 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 Accept button. Calibrating status bar appears, then disappears when finished.

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 TLS is a trademark of Deere & Company



PC22267 —UN—14MAR16



Accept Button

A—Calibration Button
 B—Rear Axle

C—Machine Pivot Point

7. Select Accept button to return to Setup tab. If calibration was unsuccessful, re-calibrate the TCM.

PC19994 —UN—04SEP14

DK01672,000019E -19-14MAR16-2/2

Topography Maps

Surface Maps

NOTE: For ease of operation, use the Layout Manager to configure display homepage for specific operations.

(Reference the GreenStar™ 3 2630 Display Operator's Manual for more information.)

Topography and elevation maps provide a visual of the terrain for a specific area. These maps can be used as a reference for moving material from higher areas to lower areas before forming a plane. Once a boundary is defined and a survey is created, a map can be generated as a paper reference or as a background layer displayed on the GS3 2630 Display.

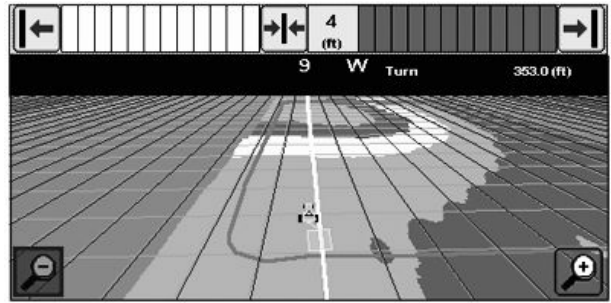
NOTE: Elevation maps utilize a five color map legend. Minimum and maximum elevation points determine the threshold. The difference between minimum and maximum elevation is calculated and elevation bands are spaced out evenly among five colors.

- Blue = maximum elevation point
- Green
- Yellow
- Orange
- Red = minimum elevation point

Available sources to obtain elevation information:

- Surface Water Pro™ Plus survey
(Reference Topography Maps for more information.)
- Documentation elevation layer

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Surface Water Pro is a trademark of Deere & Company
Apex is a trademark of Deere & Company



Topography Maps

The GS3 2630 Display captures elevation information when it documents a product application, planting, harvest, or tillage operation. Apex™ is able to create an elevation map as a background map.

(Reference Apex™ help for more information.)

- GSDNet (Available in the United States only)
GSDNet requires the boundary and Documentation Elevation Layer of the area to be mapped. GSDNet offers the following maps:
 - Elevation data map
 - Digital elevation map
 - Drainage map
 - Depression map
- Land Surveyor
Commercial land surveyors are a source of elevation maps and data. A surveyor may provide the data as shapefiles or CSV files that can be imported into Apex™.

PC20994—UN—19MAR15

RW00482,00004C5 -19-19JUN15-1/1

Retrieve Elevation Maps

If elevation maps have previously been saved, they can be retrieved.

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Resources softkey.
4. Select Resources tab (A).
5. Select Client (B), Farm (C), and Field (D) from drop-down menus.

A—Resources Tab

B—Client Drop-down Menu

C—Farm Drop-down Menu

D—Field Drop-down Menu

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



GreenStar™ Button

PC21150 —UN—11MAY15



Resources Softkey

Resources A		Conditions	Notes
Client	John Deere B		3.09 (20)
Farm	Test Farm C		
Field	West Field D		
Task	Grading		
Crop Season	2015		
Operator	Bubba		
Lic #			
			Field Locator (Requires exterior boundary)
			Field Locator On/Off ☐
			Find Field

PC21283 —UN—17JUN15

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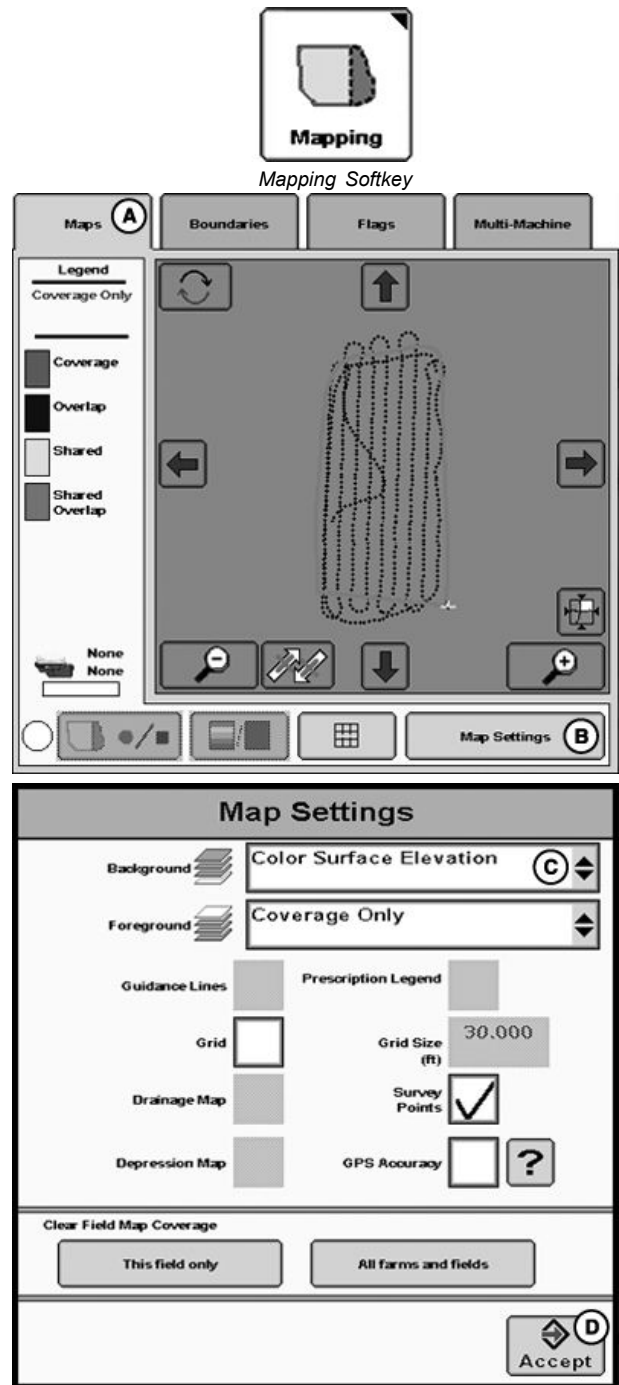
RW00482,00004C9 -19-10AUG15-1/2

6. Select Mapping softkey.
7. Select Maps tab (A).
8. Select Map Settings button (B).
9. Select Color Surface Elevation from Background drop-down menu (C).
10. Select Accept button (D).

A—Maps Tab
B—Map Settings Button

C—Background Drop-down Menu
D—Accept Button

PC21152 —UN—11MAY15



PC21281 —UN—17JUN15

PC21282 —UN—17JUN15

RW00482,00004C9 -19-10AUG15-2/2

Survey Setup

Survey Setup

Required:

1. Client, Farm, Field, and Task Setup.
2. Record External Boundary.
3. Setup Survey Mode.

Optional:

1. Manage Benchmark Settings.
2. Create a Benchmark Control Point.
3. Calibrating a Control Point.

RW00482,000050A -19-22JUN15-1/1

Client, Farm, Field, and Task Setup

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Resources softkey.
4. Select Resources tab (A).
5. Select or enter Client (B), Farm (C), Field (D), and Task (E) from drop-down menus.

NOTE: Task is required only if Documentation is used. It is not required to set or AutoTrac™ ditch or levee tracks.

A—Resources Tab
B—Client Drop-down Menu
C—Farm Drop-down Menu

D—Field Drop-down Menu
E—Task Drop-down Menu

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



GreenStar™ Button

PC21150 —UN—11MAY15



Resources Softkey

Resources (A)		Conditions	Notes
Client	John Deere (B)		0.00 (ac)
Farm	Test Farm (C)		
Field	West Field (D)		
Task	Planting (E)		
Crop Season	2015		
Operator	Bubba		
Lic #			
			Field Locator (Requires exterior boundary)
			Field Locator On/Off ☐
			Find Field

PC21117 —UN—27APR15

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RW00482,000050B -19-10AUG15-1/1

Record an External Boundary

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15

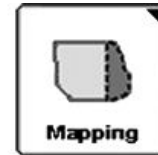


GreenStar™ Button

NOTE: Accurate boundaries are necessary for accurate system performance and are required for surveying functions.

NOTE: Boundaries are recommended, but not required for ditch and levee tracks.

PC21152 —UN—11MAY15



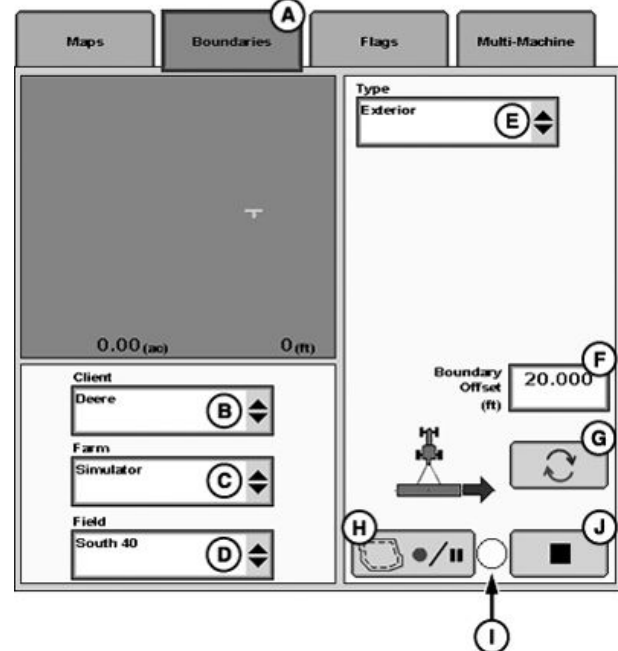
Mapping Softkey

1. Drive machine to boundary of field.
2. Select Menu button.
3. Select GreenStar™ button.
4. Select Mapping softkey.
5. Select Boundaries tab (A).
6. Select Client (B), Farm (C), and Field (D) from drop-down menus.
7. Select Exterior from Boundary Type drop-down menu (E).
8. Select Boundary Offset (F) and enter distance from global positioning system (GPS) receiver to edge of field. Enter 0 if offset is not used.
9. Select Offset Toggle button (G) to select left or right of machine or implement.
10. Select Record button (H). Recording Indicator Light (I) blinks when recording and stays solid when paused.

NOTE: A boundary cannot intersect itself. Select Pause Recording button (H) before stopping. Always start moving forward before recording again.

11. When recording is completed, select Stop Recording button (J).

(For more information on Boundaries, refer to the GreenStar™ 3 2630 Display Operator's Manual.)



A—Boundaries Tab
B—Client Drop-down Menu
C—Farm Drop-down Menu
D—Field Drop-down Menu
E—Boundary Type Drop-down Menu

F—Boundary Offset Input Box
G—Offset Toggle Button
H—Record and Pause Button
I—Recording Indicator Light
J—Stop Recording Button

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RW00482,000050C -19-10AUG15-1/1

PC21033 —UN—01APR15

Set Up Survey Mode

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Water Management softkey.

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



GreenStar™ Button

PC21185 —UN—21MAY15



Water Management Softkey

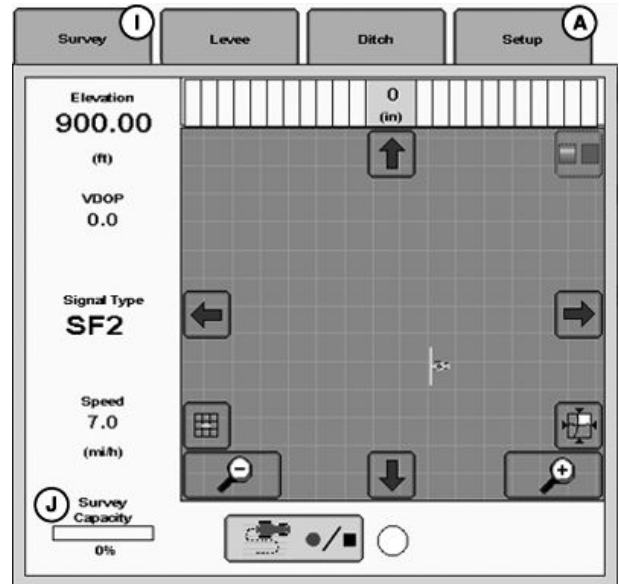
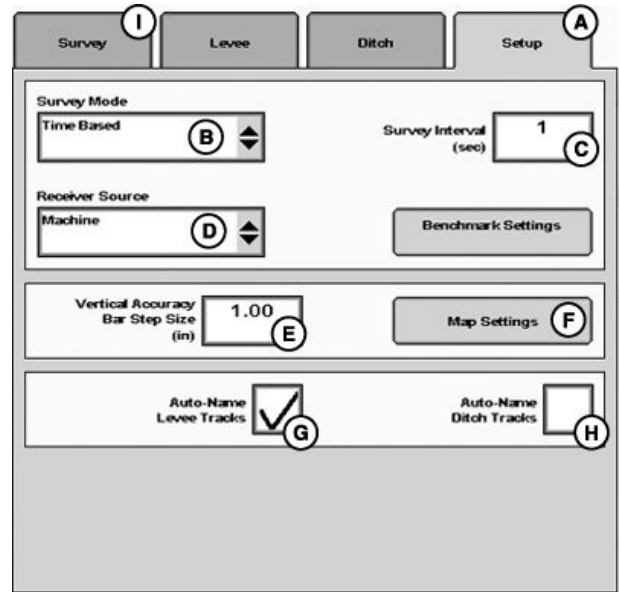
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RW00482,00004DB -19-10AUG15-1/2

4. Select Setup tab (A).
5. Select survey mode from drop-down menu (B).
 - Distance Based—is suited for lower speed surveys. Survey points are consistently spaced at a user-defined distance.
 - Time Based—is suited for higher speed survey. Distance between survey points varies based on speed and interval.
6. Enter Survey Interval (C).
7. Select receiver source from drop-down menu (D).
8. For Surface Water Pro™ Plus, enter Vertical Accuracy Bar Step Size (E). Step Size is used to specify vertical distance that triggers the vertical lightbar arrows (difference between drain design height and cutting blade height).
9. Select Map Settings button (F) to edit map settings to operator preference. For example, setting an elevation map as a background layer.
(Reference GreenStar™ 3 2630 Display Operator's Manual for more information.)
10. Select Auto-Name Levee Tracks (G) to automatically generate levee track names by numbers, starting at 1 and increasing each time a new levee is created. If not selected, operator is required to name new levee tracks.
11. Select Auto-Name Ditch Tracks (H) to automatically generate ditch track names by numbers, starting at 1 and increasing each time a new ditch is created. If not selected, operator is required to name new ditch tracks.
12. Select Survey tab (I) and verify display has enough Survey Capacity (J) to store additional information.
(Reference Data Management in GreenStar™ 3 2630 Display Operator's Manual for more information.)

- | | |
|--|--|
| A—Setup Tab | F—Map Settings Button |
| B—Survey Mode Drop-down Menu | G—Auto-Name Levee Tracks Checkbox |
| C—Survey Interval Input Box | H—Auto-Name Ditch Tracks Checkbox |
| D—Receiver Source Drop-down Menu | I—Survey Tab |
| E—Vertical Accuracy Bar Step Size Input Box | J—Survey Capacity |



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GreenStar is a trademark of Deere & Company

RW00482,00004DB -19-10AUG15-2/2

PC21111—UN—24APR15

PC21112—UN—21MAY15

Benchmark Settings

A benchmark is a control point within the field that is used to account for global positioning system (GPS) drift. Once the control point is created, place a flag or marker at the location so operators can return to that location and calibrate their GPS differential. The differential is the difference between the saved control point GPS coordinates and the current GPS coordinates. The differential is used to compensate for the GPS drift.

CAUTION: Prevent injury from collision with bystander traffic. Do not set benchmark in high traffic areas, such as roadways and bridges. Use a location that is free of bystanders and easily accessible.

A benchmark is recommended if using quick survey real time kinematic (RTK) or SF2 corrections. A benchmark allows quick survey base station users to achieve repeatable accuracy similar to a permanent base station.

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Water Management softkey.
4. Select Setup tab (A).
5. Select Benchmark Settings button (B).

A—Setup Tab

B—Benchmark Settings Button

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



GreenStar™ Button

PC21185 —UN—21MAY15



Water Management Softkey

PC21113 —UN—24APR15

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RW00482,00004DC -19-29SEP15-1/2

Only one control point and differential calibration can be created per field.

Control Point drop-down menu (A)—shows existing control point for the field or allows operator to create a new control point. Changing control point updates position data displayed.

Set Point button (B)—sets global positioning system (GPS) coordinates and date for the control point.

Mast Height input box (C)—sets mast height. If implement receiver is used to set control point, mast height on a scraper is equal to implement dimension C from GreenStar™ equipment setup.

Calibrate button (D)—calculates the difference between current GPS coordinates and the control point GPS coordinates. The value is saved as the differential for the field.

To enable button:

- A valid control point must be selected from the drop-down menu.
- GPS signal must be available.
- Operator must enter a valid mast height.

Clear button (E)—clears the differential setting.

Enter button (F)—saves changes and returns to the previous page.

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A—Control Point Drop-down Menu
B—Set Point Button
C—Mast Height Input Box

D—Calibrate Button
E—Clear Button
F—Enter Button

PC13770 —UN—17MAY11

RW00482,00004DC -19-29SEP15-2/2

Creating a Benchmark Control Point

1. Position receiver on the control point.

NOTE: The StarFire 3000 receiver **CANNOT** be moved during the creation of a Benchmark Control Point. Any movement causes the Benchmark to be inaccurate

2. From CONTROL POINT drop-down box (A), select NEW.
3. Type in name of control point.
4. Enter mast height in the MAST HEIGHT input box (C). If the implement receiver is used to set the control point, the height dimension on a scraper is equal to Implement Dimension C if blade is lowered to the ground or Implement Dimension D if blade is fully raised.
5. Select SET POINT button (B).
6. Select ENTER button (F).

A—CONTROL POINT
drop-down box
B—SET POINT button
C—MAST HEIGHT input box

D—CALIBRATE button
E—CLEAR button
F—ENTER button

PC13770—UN—17MAY11

JS56696.00009DC -19-12MAY11-1/1

Calibrating to a Control Point

1. Position receiver on the control point.

NOTE: The StarFire 3000 receiver **CANNOT** be moved during the calibration of a Benchmark Control Point. Any movement causes the calibration to be inaccurate.

2. Enter mast height (C) if it is at a different height than when benchmark was set.
3. Select CALIBRATE button (D).
4. Select ENTER button (F).

A—CONTROL POINT
drop-down box
B—SET POINT button
C—MAST HEIGHT input box

D—CALIBRATE button
E—CLEAR button
F—ENTER button

PC13770—UN—17MAY11

JS56696.00009DD -19-17MAY11-1/1

Survey Field

How to Survey a Field

Surface Water Pro™ enables the operator to record field surveys. For each field, the GreenStar™ Display creates a survey file that contains a collection of data points. Each point represents a latitude and longitude coordinate with an elevation value.

The data that is collected is used to create elevation maps. Any maps created from this data are only as good as the data that is used to create them. In order to create quality maps, perform field surveys with the highest quality. Observe these minimum guidelines when performing a field survey.

1. Use the correct differential correction for the application. Use real time kinematic (RTK) corrections for the highest accuracy survey data. SF2 correction is allowed, but consult with your John Deere dealer to see if it is right for your application. Using an inappropriate differential correction for collecting elevation data leads to inaccurate maps.
2. Record first pass as close to the exterior field boundary as possible to ensure sufficient data is collected around the field perimeter. Record second pass approximately 15 m (50 ft.) inside of the first pass.
3. Conduct a thorough survey by using guidance straight track lines while Parallel Tracking™ through the field.

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

(Refer to Data Collection Drive Patterns for more information.)

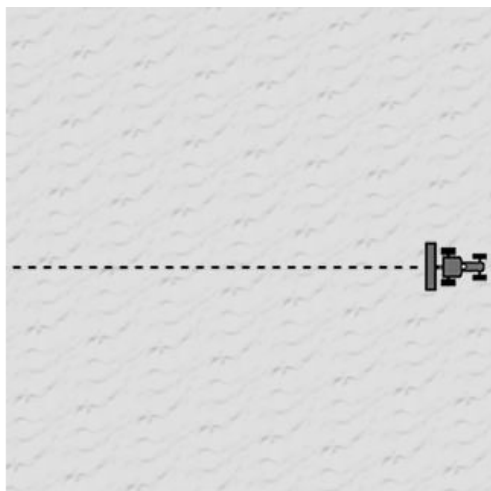
4. Two forms of survey recording modes are available:
 - Distance Based—is ideal for low speed surveys and consistently spaced points at user-defined distances.
 - Time Based—is ideal for high speed surveys and the distance between points varies with the speed at which the survey is recorded.
5. Survey the entire field. Ensure there is enough time and that field conditions allow a survey to be performed. Do not skip parts of the field because they are inaccessible due to wet or muddy conditions. Skips in the field have negative impact on the quality of the maps that are generated.
6. Survey the bottom of any ditches with measurable width and depth. Utilizing straight track guidance lines can cause the operator to miss elevation features that are between passes.

Survey mode is designed to allow an operator to collect elevation and position data as a separate documentation operation. Elevation data points can also be obtained from documentation data that is recorded with other operations, such as planting or harvesting.

NOTE: *Survey Mode is not allowed with Section Control.*

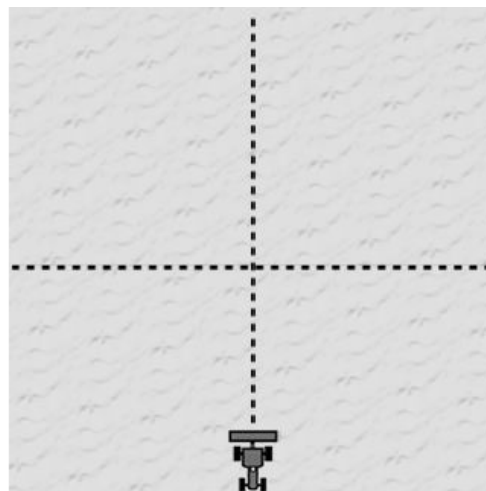
RW00482,00004D8 -19-12AUG15-1/1

Data Collection Drive Patterns



Not Recommended

PC21061 —UN—06APR15

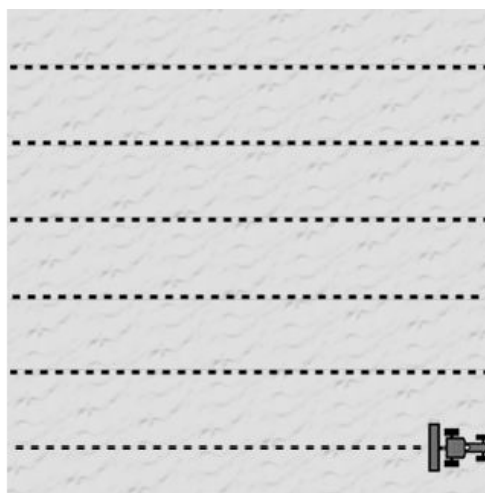


Minimum

PC21062 —UN—06APR15

The more data points that are collected results in higher accuracy. Conducting a thorough survey can be done by setting up straight track lines through the field. Depending on the field being surveyed, create tracking lines with the following track spacing.

- For fields with significant elevation changes and slopes, track spacing of 7.5—15 m (25—50 ft.) is recommended.
- For flatter fields, track spacing of 15 m (50 ft.) is recommended.
- For flat or precision leveled ground, track spacing of 15—30 m (50—100 ft.) is recommended. Do not exceed 50 m (164 ft.) track spacing for surveying purposes.



Recommended

PC21064 —UN—06APR15

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

Survey Field

Before recording survey, an external boundary must exist for the field.

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Water Management softkey.

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



GreenStar™ Button

PC21185 —UN—21MAY15



Water Management Softkey

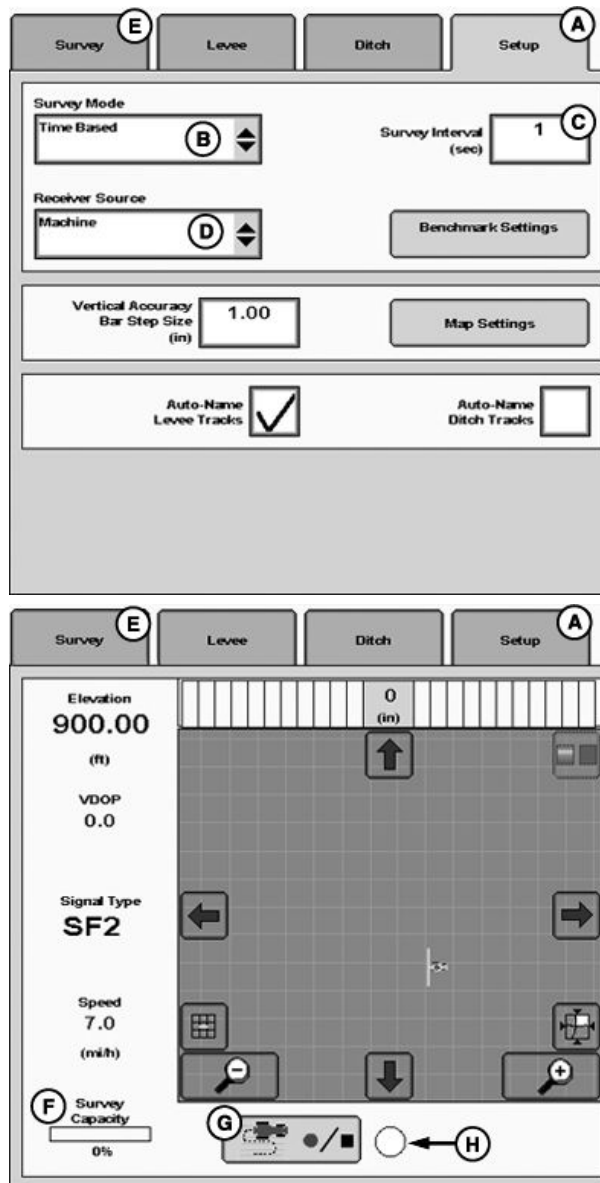
GreenStar is a trademark of Deere & Company

Continued on next page

RW00482,00004DE -19-12AUG15-1/2

4. Select Setup tab (A).
5. Select survey mode from drop-down menu (B).
 - Distance—is ideal for low speed surveys and consistently spaced points at user-defined distances.
 - Time—is suited to survey at higher speeds and the distance between points varies with the speed at which the survey is recorded.
6. Enter Survey Interval (C).
7. Select receiver source from drop-down menu (D).
(Reference Recorded Path for Ditching for more information.)
8. Select Survey tab (E) and verify there is enough Survey Capacity (F) to store additional information.
(Reference Data Management in GreenStar™ 3 2630 Display Operator's Manual for more information.)
9. Select Record button (G). Recording Indicator Light (H) blinks while recording.
10. Set up guidance line if using AutoTrac™.
(Reference Optimization section for guidance lines.)
11. Drive through field and collect data for topography map. The more data points that are collected results in higher accuracy.
(Reference Data Collection Drive Patterns for recommendations.)
12. When entire area has been surveyed, select Record button to stop recording.
13. Retrieve elevation maps.
(Reference Retrieve Elevation Maps for more information.)

A—Setup Tab	E—Survey Tab
B—Survey Mode Drop-down Menu	F—Survey Capacity
C—Survey Interval Input Box	G—Recording Button
D—Receiver Source Drop-down Menu	H—Recording Indicator Light



PC21036 —UN—14APR15

PC21037 —UN—21MAY15

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AutoTrac is a trademark of Deere & Company

RW00482,00004DE -19-12AUG15-2/2

Ditch

Set Up Ditch Operation

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



GreenStar™ Button

Surface Water Pro™ Plus requires both machine and implement receivers to operate ditching software.

PC21186 —UN—21MAY15



Documentation Softkey

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

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GreenStar is a trademark of Deere & Company*

Continued on next page

RW00482,00004DF -19-11AUG15-1/2

4. Select New tab (A).
5. Select Water Management button (B). If Water Management button is grayed out, select Water tab (C).
6. Select Ditch from drop-down menu (D).

A—New Tab C—Water Tab
 B—Water Management Button D—Type Drop-down Menu

The first screenshot shows a window with a 'New' tab (A) and a grid of buttons: Tillage, Planting / Seeding, Product Application, Harvest, Water Management (B), and Other. The second screenshot shows the 'Water' tab (C) selected, with a 'New' tab (A) also visible. In the 'Water' tab, there is a 'Type' drop-down menu (D) showing 'Ditch' and a 'Remove' button at the bottom left.

PC21120—UN—28APR15

PC21121—UN—28APR15

RW00482,00004DF -19-11AUG15-2/2

Set Tracking Mode to Ditch Track

NOTE: Ditches must be recorded from high to low, but can be cut in either direction. If the track is not recorded from high to low, the drain design software in Surface Water Pro™ Plus does not function correctly.

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Guidance softkey.
4. Select Guidance Settings tab (A).
5. Select Ditch Track from drop-down menu (B).

A—Guidance Settings Tab

B—Tracking Mode Drop-down Menu

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



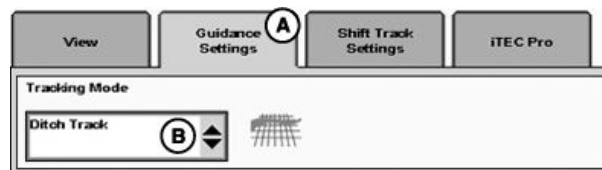
GreenStar™ Button

PC21148 —UN—11MAY15



Guidance Softkey

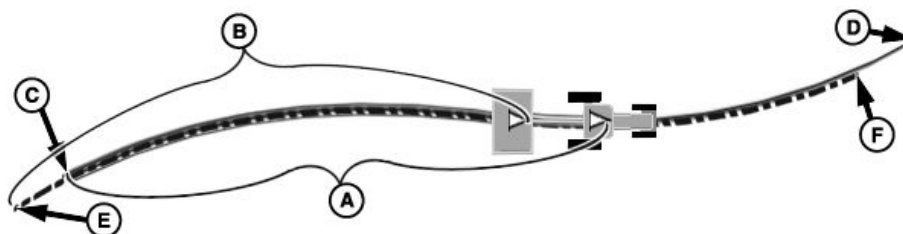
PC21229 —UN—03JUN15



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GreenStar is a trademark of Deere & Company

RW00482,00004E0 -19-23JUN15-1/1

Recorded Path for Ditching



A—Path Recorded by Tractor for AutoTrac
B—Path Recorded by Implement for Ditch Track

C—Start of recorded Tractor Path
D—End of recorded Tractor Path

E—Start of recorded Implement Path
F—End of recorded Implement Path

If an implement receiver is used to record elevation data for ditch track, the resulting path differs from the AutoTrac path. AutoTrac is always based off of the receiver on the tractor. AutoTrac and Ditch Track paths have different starting and stopping points. Although the tractor may

be driving on the Ditch path, ditching guidance does not become active until the implement receiver is on the cut line path. The cut line is updated when the implement receiver is over the recorded ditch.

JS56696,00009E3 -19-16MAY11-1/1

PC10857DW —UN—07OCT08

Record Ditch Track

PC8663 —UN—29APR15



Menu Button

1. Place machine so source receiver is at beginning position (high point) for ditch track. Face machine in the direction of the low point.
(Reference Set Up Survey Mode for information on receiver source.)
2. Select Menu button.
3. Select GreenStar™ button.
4. Select Water Management softkey.
5. Select Ditch tab (A).
6. Select New button (B).
7. Select Set A button to begin recording ditch track.
8. Drive the ditch track.
9. Stop when the source receiver is in the position where drain water exits.
10. Select Set B to stop recording the ditch track.
11. To rename ditch track, select List Cleanup from drop-down menu (C).
12. Create linear drain design or create best fit drain design.

A—Ditch Tab
B—New Button

C—Ditch Track Name
Drop-down Menu

PC12685 —UN—29APR15

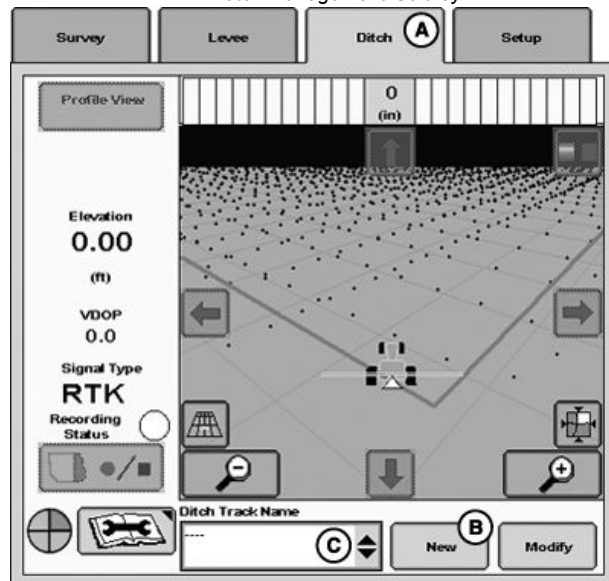


GreenStar™ Button

PC21185 —UN—21MAY15



Water Management Softkey



PC13748 —UN—16MAY11



Set A button

PC13749 —UN—16MAY11



Set B button

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RW00482,00004E1 -19-28AUG15-1/1

PC21124 —UN—28APR15

Create Linear Drain Design

PC8663 —UN—29APR15



Menu Button

NOTE: Cut volume is calculated based on implement width. Verify value before designing drains.

To create or edit a drain design associated with a ditch track:

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Water Management softkey.
4. Select Ditch tab.
5. Select Create/Edit Drain button.

PC12685 —UN—29APR15



GreenStar™ Button

PC21185 —UN—21MAY15



Water Management Softkey

PC10857BS —UN—15JUL08



Ditch Tab

PC21130 —UN—07MAY15



Create/Edit Drain Button

GreenStar is a trademark of Deere & Company

Continued on next page

RW00482,0000520 -19-11AUG15-1/2

6. Select Linear from Drain Type drop-down menu (A).

NOTE: Black drain line (B) and cut volume (C) are updated every time Generate Drain button (D) is selected.

7. Select Generate Drain button.

NOTE: Black line is the location of cut created after selecting Generate Drain button. Blue line (E) is the starting drain profile saved when track was recorded.

8. Select Zoom buttons (F and G) to adjust drain profile view. If generated drain profile is adequate, select Accept button (H).

9. To adjust slope, select Slope Decrease button (I), Slope Increase button (J), or enter desired Slope (K). Each increase or decrease adjusts slope by 0.01%.

10. To adjust offset, select Offset Decrease button (L), Offset Increase button (M), or enter desired Offset (N).

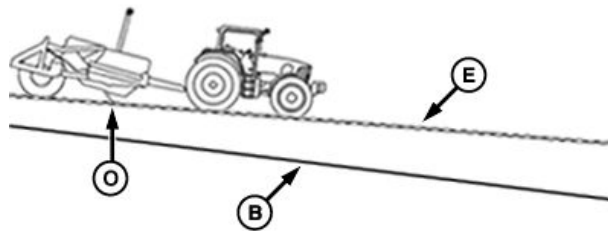
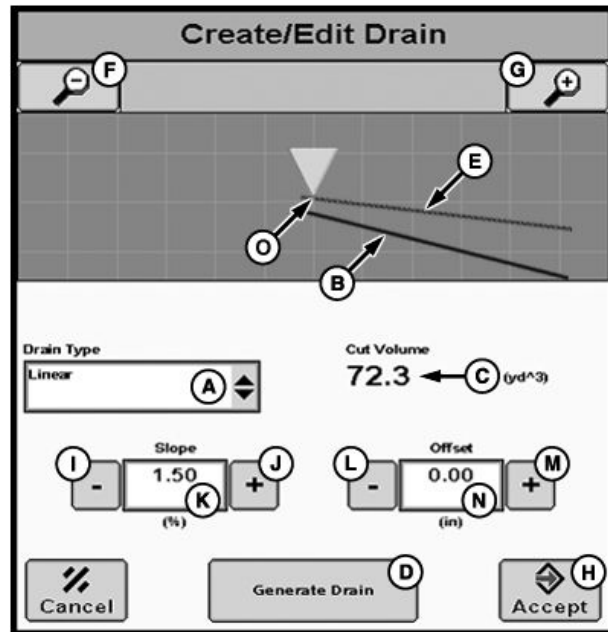
11. Select Generate Drain button and view updated drain design or offset.

12. Repeat steps 9–12 until desired drain is created.

13. Select Accept button.

A—Drain Type Drop-down Menu
B—Black Line
C—Cut Volume
D—Generate Drain Button
E—Blue Line
F—Zoom Out Button
G—Zoom In Button
H—Accept Button

I—Slope Decrease Button
J—Slope Increase Button
K—Slope Input Box
L—Offset Decrease Button
M—Offset Increase Button
N—Offset Input Box
O—Cutting Edge



PC21187 —UN—21MAY15

PC21188 —UN—21MAY15

RW00482,0000520 -19-11AUG15-2/2

Create Best Fit Drain Design

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



GreenStar™ Button

NOTE: Cut volume is calculated based on implement width. Verify values before designing drains.

Surface Water Pro™ Plus creates a best-fit drain design using an existing ditch track vertical profile. It creates multiple shorter segments to move the least amount of dirt to allow water to flow. Best fit drain design is dependent upon the input parameters. Min Slope is the minimum slope value the software allows for a segment. Max Slope is the maximum slope value the software allows for a segment.

To create or edit a drain design associated with a ditch track:

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Water Management softkey.
4. Select Ditch tab.
5. Select Create/Edit Drain button.

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PC21185 —UN—21MAY15



Water Management Softkey

PC10857BS —UN—15JUL08



Ditch Tab

PC21130 —UN—07MAY15



Create/Edit Drain Button

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RW00482,0000521 -19-05DEC16-1/2

NOTE: Black line (A) is the location of cut created after selecting Generate Drain button. Blue line (B) is the starting drain profile saved when track was recorded.

6. Select Best Fit from Drain Type drop-down menu (C).
7. Select Zoom buttons (D and E) to adjust drain profile view.

8. Enter Minimum Slope (F) and Maximum Slope (G).
9. Enter Minimum Cut (H) and Maximum Cut (I).

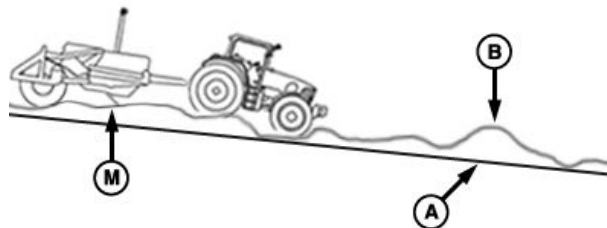
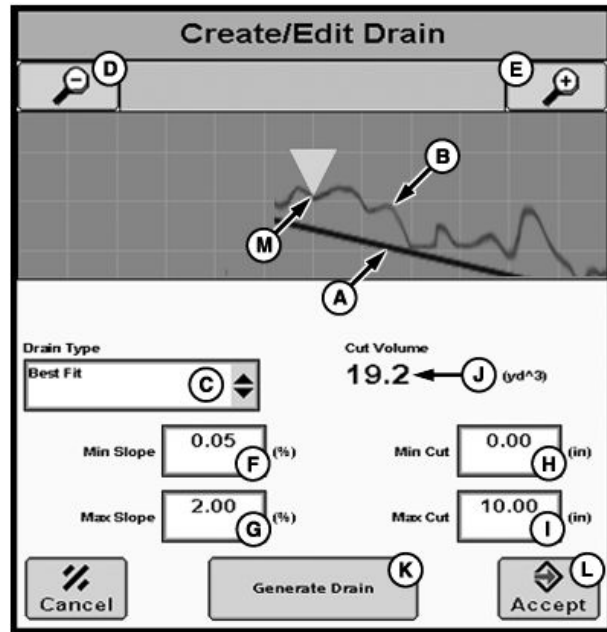
NOTE: Black drain line and cut volume (J) are updated every time Generate Drain button (K) is selected.

10. Select Generate Drain button and view updated drain design and cut volume.

NOTE: It is possible to get "No Solution" with this feature. If software fails to create a drain design, adjust parameters to produce a valid drain design.

11. Repeat steps 8—10 until desired drain is created.
12. Select Accept button (L).

- | | |
|------------------------------|-------------------------|
| A—Black Line (desired grade) | H—Minimum Cut Input Box |
| B—Blue Line (initial grade) | I—Maximum Cut Input Box |
| C—Drain Type Drop-Down Menu | J—Cut Volume |
| D—Zoom Out Button | K—Generate Drain Button |
| E—Zoom In Button | L—Accept Button |
| F—Minimum Slope Input Box | M—Cutting Edge |
| G—Maximum Slope Input Box | |



RW00482,0000521 -19-05DEC16-2/2

PC21189 —UN—02JUN15

PC21190 —UN—02JUN15

Modify Ditch Track

- Cancel button—allows operator to return to the previous page without an action being taken.
- REPLACE button—existing ditch track is removed and a new ditch track with the same name can be recorded immediately to that track.
- REMOVE button—Existing ditch track is removed.

If Remove button is selected, the operator must verify removal of the existing ditch track. If a track is removed and AutoName is selected on the SETUP page, the numbered track names are not adjusted down. For example, if ditch tracks 1, 2, 3, 4, and 5 have been created, and track 3 is removed, the remaining tracks are: 1, 2, 4, and 5. The tracks do NOT adjust to: 1, 2, 3, and 4.

- Cancel button—ditch track is not deleted.
- Enter button—ditch track is deleted.



Modify Ditch Track



Remove Ditch Track

PC10312 —UN—29AUG07

PC10313 —UN—29AUG07

JS56696,00009E5 -19-16MAY11-1/1

View Drain Profile

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



GreenStar™ Button

NOTE: Edit Drain button is not available until Surface Water Pro™ Plus is activated.

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Water Management softkey.

PC21185 —UN—21MAY15



Water Management Softkey

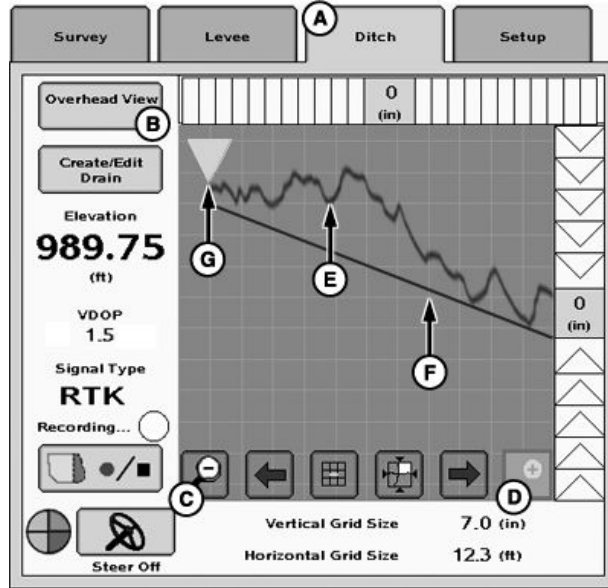
Surface Water Pro is a trademark of Deere & Company
GreenStar is a trademark of Deere & Company

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RW00482,0000001 -19-19JUL16-1/2

4. Select Ditch tab (A).
5. Select Profile View button (B).
6. Use zoom buttons (C and D) to view the recorded drain profile (E). This view is a side (cutaway) view of the drain.

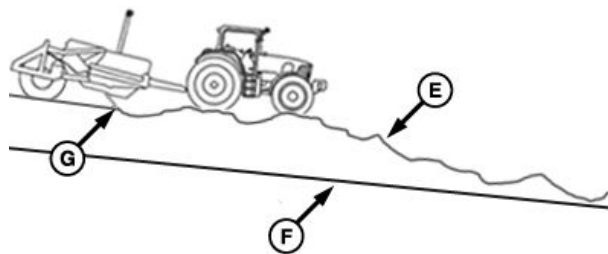
A—Ditch Tab
 B—Overhead View and Profile View Toggle Button
 C—Zoom Out Button
 D—Zoom In Button
 E—Recorded Drain Profile (Starting Drain Profile Saved When Track was Recorded)
 F—Desired Drain Profile
 G—Scraper Cutting Edge



PC21136 —UN—06MAY15

Profile View

Profile View Button



RW00482,0000001 -19-19JUL16-2/2

PC21473 —UN—28AUG15

PC22853 —UN—19JUL16

Cut or Clean Ditch Track

PC8663 —UN—29APR15



Menu Button

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Water Management softkey.

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PC12685 —UN—29APR15



GreenStar™ Button

PC21185 —UN—21MAY15



Water Management Softkey

Continued on next page

RW00482,00004E5 -19-31AUG15-1/2

4. Select Ditch tab (A).
 5. Select Overhead View button (B).
 6. Position implement cutting edge (C) on control point with machine heading (D) in direction of ditch.
- NOTE: It may be necessary to toggle between overhead and profile view while acquiring track.*
7. Begin cutting and engage AutoTrac™ (resume switch) to acquire ditch track.
 8. Select Profile View button.

Red line (E) is the elevation after making a cut. The red line should follow the black line (F) when ditching is complete.

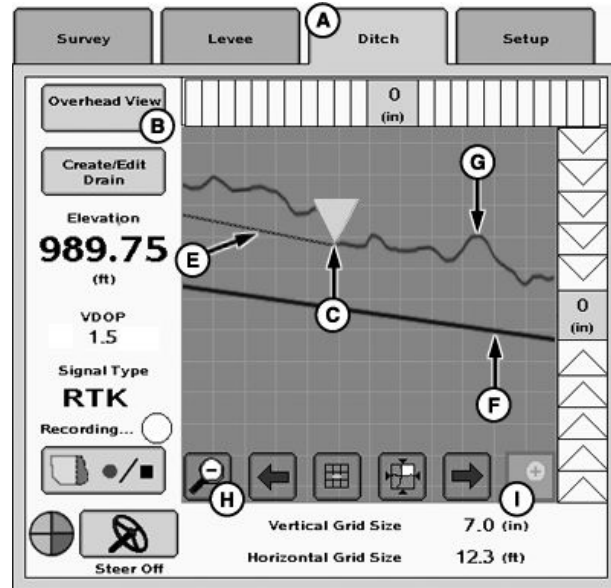
Black line is the desired location of cut created after selecting Generate Drain button on Edit Drain page.

Blue line (G) is the starting drain profile saved when track was recorded.

Green Triangle represents current cutting edge of the implement. It moves up and down as cutting edge is raised and lowered.

9. Select Zoom buttons (H and I) to adjust view.
10. Use hydraulic controls to adjust cutting blade to desired position.

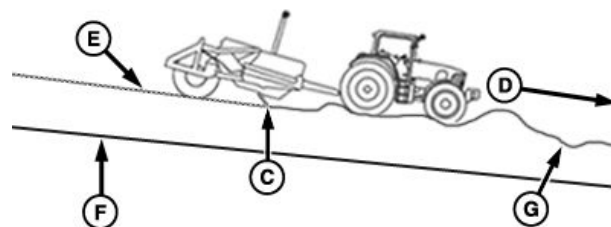
- | | |
|------------------------------|------------------------------|
| A—Ditch Tab | F—Black Line (Desired Grade) |
| B—Overhead View Button | G—Blue Line (Initial Grade) |
| C—Cutting Edge | H—Zoom Out Button |
| D—Machine Heading | I—Zoom In Button |
| E—Red Line (Grade After Cut) | |



PC21136 —UN—06MAY15



Profile View Button



PC21139 —UN—06MAY15

PC21140 —UN—06MAY15

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RW00482,00004E5 -19-31AUG15-2/2

Levee

Set Up Levee Operation

PC8663 —UN—29APR15



Menu Button

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

PC12685 —UN—29APR15



GreenStar™ Button

PC21186 —UN—21MAY15



Documentation Softkey

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RW00482.00004E6 -19-23JUN15-1/2

4. Select New tab (A).
5. Select Water Management button (B). If Water Management button is grayed out, select Water tab (C).
6. Select Levee from drop-down menu (D).

A—New Tab C—Water Tab
 B—Water Management Button D—Type Drop-down Menu

The top screenshot shows a software window with a tab labeled 'New' (A). Inside the window, there is a grid of six buttons: 'Tillage', 'Planting / Seeding', 'Product Application', 'Harvest', 'Water Management' (B), and 'Other'. The 'Water Management' button is highlighted with a circle B.

The bottom screenshot shows a software window with two tabs: 'Water' (C) and 'New' (A). The 'Water' tab is active. Inside the window, there is a 'Type' dropdown menu (D) with 'Levee' selected. At the bottom left of the window, there is a 'Remove' button.

PC21120 —UN—28APR15

PC21122 —UN—28APR15

RW00482,00004E6 -19-23JUN15-2/2

Set Tracking Mode to Levee Track

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Guidance softkey.
4. Select Guidance Settings tab (A).
5. Select Levee Track from drop-down menu (B).

A—Guidance Settings Tab

B—Tracking Mode Drop-down Menu

PC8663 —UN—29APR15



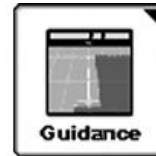
Menu Button

PC12685 —UN—29APR15



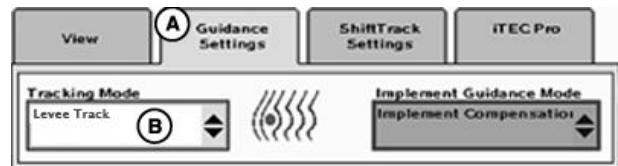
GreenStar™ Button

PC21148 —UN—11MAY15



Guidance Softkey

PC13742 —UN—16MAY11



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RW00482,00004E7 -19-23JUN15-1/1

Set Up Drive Dial

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



GreenStar™ Button

PC21185 —UN—21MAY15



Water Management Softkey

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Water Management softkey.
4. Select Levee tab (A).
5. Drive to levee starting point.
6. Select Set Elevation button (B) to set target elevation to the current height of machine.
7. To set increment step value, enter Elevation Drop (C). Each time Increase (D) or Decrease (E) Elevation buttons are selected, target elevation changes Elevation Drop value.

A—Levee tab
B—Set Elevation button
C—Elevation Drop input box

D—Increase Elevation button
E—Decrease Elevation button

PC21477 —UN—28AUG15

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RW00482,000052E -19-28AUG15-1/1

Create Levee

Creating a levee requires a minimum of three passes through the field.

Pass 1—Drive along planned levee path and retain drive dial as close to a zero value as possible. Maintaining a zero value indicates machine is operating at target elevation.

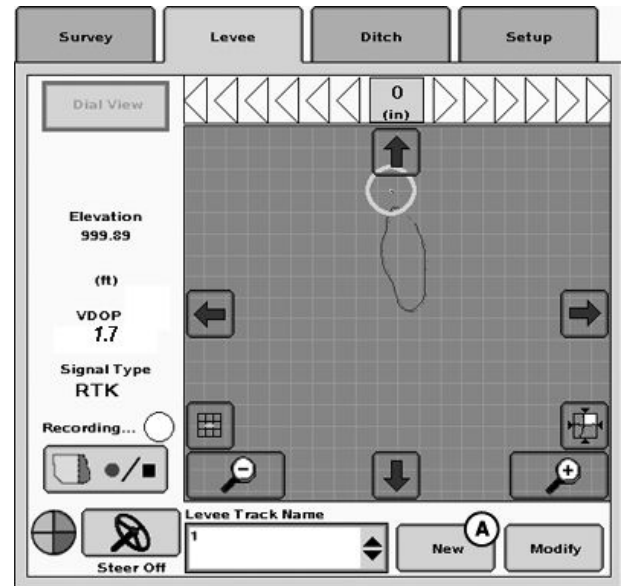
Pass 2—Record levee track by driving back over your wheel tracks in the soil.

1. Select New button (A).
2. At beginning of planned levee, select Set A button and navigate along wheel tracks made from pass 1.
3. At end of levee, select Set B button.

Pass 3—Pull levee.

1. Turn around and approach the levee track recorded in pass 2.
2. Press AutoTrac™ resume switch.
3. Set implement in ground at desired height and drive along planned path.

A—New Levee Track Name button



PC13748 —UN—16MAY11



Set A button

PC13749 —UN—16MAY11



Set B button

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RW00482,000052F -19-31AUG15-1/1

PC13747 —UN—16MAY11

Remote Control

Theory of Operation

Surface Water Pro™ with an Application Controller 1100 and iGrade™ can automate the vertical control of a compatible implement. Application controller automatically

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iGrade is a trademark of Deere & Company

controls implement elevation and sends point commands for a ditch or levee created with Surface Water Pro™.

(For more information, contact your John Deere dealer or reference iGrade™ Operator's Manual.)

RW00482,000050D -19-11AUG15-1/1

Control Selection

1. Select Menu button.
2. Select Application Controller 1100 button.
3. Select Setup softkey.
4. Select Control Selection button.

NOTE: Remote Control can utilize dual scrapers. Selective control valve (SCV) 1 must be used for front scraper and SCV 3 for rear scraper. When utilizing dual scraper functionality, change SCV Control Type for both SCV 1 and SCV 3 to Remote Control.

5. Select Remote Control from SCV1 Control Type drop-down (A).
6. Select Back button (B).

A—SCV1 Control Type
Drop-down Menu

B—Back Button

PC8663 —UN—29APR15



Menu Button

PC14926 —UN—27APR12



Application Controller 1100 Button

PC21157 —UN—11MAY15

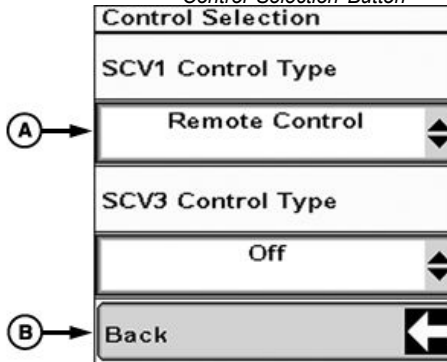


Setup Softkey

PC17972 —UN—07NOV13



Control Selection Button



Control Selection

PC18072 —UN—10DEC13

RW00482,000050E -19-11AUG15-1/1

Engaging Remote Control

1. Set selective control valve (SCV) to auto mode.
(Reference iGrade™ Operator's Manual for more information.)

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AutoTrac is a trademark of Deere & Company

2. Engage AutoTrac™ on ditch or levee track.

RW00482,0000530 -19-31AUG15-1/1

Operation

Offsets are based on desired command from third-party software, not ground level (distance off grade, not a maximum cut limit).

1. Select Main softkey.
2. Select Remote Control Main button.

After SCV(s) have been placed in detent and AC enabled, iGrade™ controls blade height to grade.

- Set Offset—Zero Error (A) takes current error and applies it as an offset to desired command.
- Shift offsets are useful when implement is attempting to control an elevation that machine cannot attain. Shift Offset Up (B) to achievable cut and Shift Offset Down (C) back to 0 over subsequent passes.

When setting zero point in Remote Control a value is displayed next to Offset. This value represents difference between surveyed receiver elevation and elevation of front implement receiver when zeroing error.

A—Set Offset—Zero Error
B—Shift Offset Up

C—Shift Offset Down

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PC13072 —UN—16NOV10



Main Softkey

PC18066 —UN—12NOV13



Remote Control Main Button

Remote Control Main	
Status	No GPS
Control Error (ft)	0.00
Offset (ft)	0.000
Command (ft)	0.00
A → Set Offset - Zero Error	
B → Shift Offset Up	
C → Shift Offset Down	

Remote Control Main

PC18067 —UN—12NOV13

RW00482,00001D6 -19-11FEB14-1/1

Troubleshooting and Diagnostics

Diagnostic Readings

Diagnostic readings display the requirements for Surface Water Pro™ to function.

1. Select Menu button.
2. Select GreenStar™ button.
3. Select Diagnostics Readings softkey.

PC8663 —UN—29APR15



Menu Button

PC12685 —UN—29APR15



GreenStar™ Button

PC21185 —UN—21MAY15

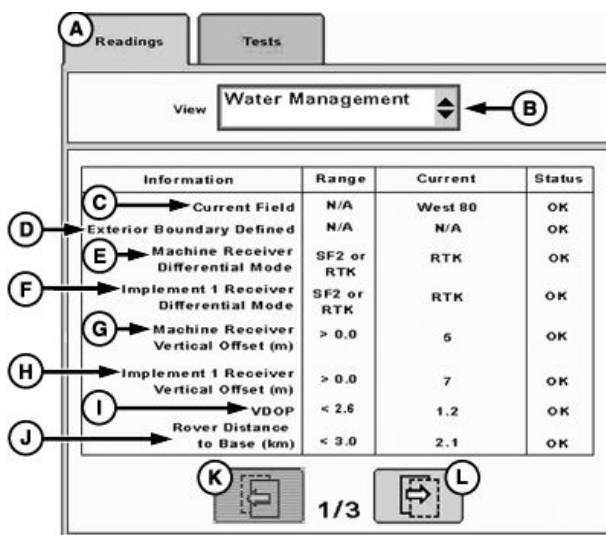


Water Management Softkey

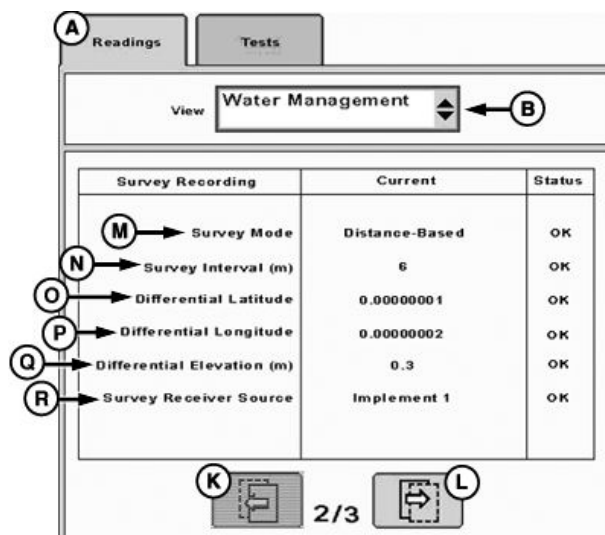
*Surface Water Pro is a trademark of Deere & Company
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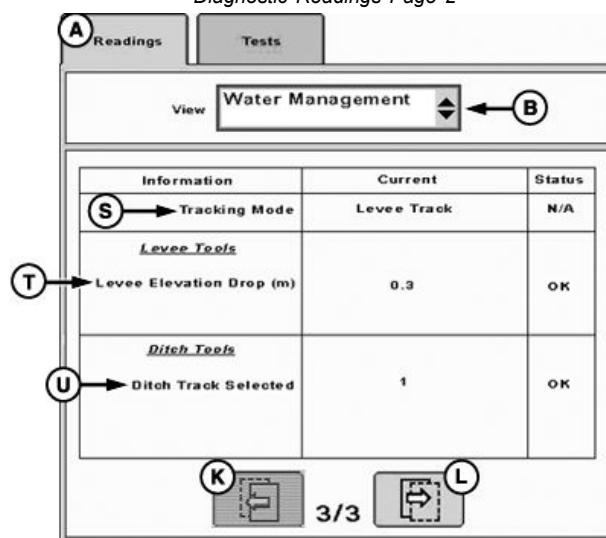
Diagnostic Readings Page 1



Diagnostic Readings Page 2

4. Select Reading tab (A).
5. Select Water Management from drop-down menu (B).

- | | |
|--|--------------------------|
| A—Readings Tab | L—Next Page button |
| B—Diagnostic View Drop-down Menu | M—Survey Mode |
| C—Current Field | N—Survey Interval |
| D—Exterior Boundary Defined | O—Differential Latitude |
| E—Machine Receiver Differential Mode | P—Differential Longitude |
| F—Implement 1 Receiver Differential Mode | Q—Differential Elevation |
| G—Machine Receiver Vertical Offset | R—Survey Receiver Source |
| H—Implement 1 Receiver Vertical Offset | S—Tracking Mode |
| I—VDOP | T—Levee Elevation Drop |
| J—Rover Distance to Base | U—Ditch Track Selected |
| K—Previous Page button | |



Diagnostic Readings Page 3

Troubleshooting

Blade height is incorrect.

Symptom	Problem	Solution
Displayed blade height does not match actual blade height.	Offset C or D had an incorrect measurement during ditch track recording.	Measure all offsets as instructed in Operator's Manual.
Ditch or levee depth or height does not match desired height/depth.	Offset C should be the exact height of the receiver when implement is in the fully raised position.	Ensure that offsets are measured according to how the machine is used. for example if ditch track is recorded with scraper blade skimming the ground, set up offset measurements to reflect that in offsets C = offset D.
	Offset D should be the height of the blade when the implement is in the fully raised position.	Can correct error, for example, if blade (cutting edge) is on the ground, but Profile View shows it as 2 in. above the ground, increase Implement GPS Offsets C (vertical distance from receiver to ground) by 2 in.
	Offset C and D were measured with the implement in the fully raised position but ditch track was recorded with implement skimming the ground.	
	Machine receiver was used to record ditch track and machine receiver height measurement is incorrect.	

Cannot record Ditch Track.

Symptom	Problem	Solution
Ditch track not showing up on map.	Operator has not selected correct "client, farm, field".	Ensure correct "client, farm, and field are selected.
GS3 does not let operator record ditch track.	Operator has not selected correct tracking mode.	Ensure that correct tracking mode has been selected from the Guidance page—from the Guidance settings tab select ditch track or levee track mode.
	Guidance lines on map have been turned off.	Ensure that guidance lines are turned on—from the maps page select map settings and then check the guidance lines checkbox.

GS3 shows Machine travel direction reversed.

Symptom	Problem	Solution
GS3 shows machine direction of travel reversed.	Direction of travel has been changed on the Guidance page.	Under the StarFire softkey choose to change the mount direction of the receiver to match actual receiver direction on machine.
SWP does not allow recording.	Some applications require mounting the StarFire Receiver backward.	
When in survey mode using a pick-up or ATV, GS3 shows direction of vehicle travel to be reversed.		Under the Guidance page select View tab. On the View page select direction of travel, change to match actual travel direction.

Cannot get a valid solution from Best Fit Drain.

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Symptom	Problem	Solution
Best Fit Drain does not return a valid solution for a drain design.	Minimum and Maximum slope are not set low and high enough respectively, in other words the range is not wide enough. The ditch track may have been recorded from low elevation to high elevation, and best fit drain is looking for a solution to make water run uphill.	Set Minimum and Maximum slope to lowest and highest allowable levels to widen the range of cut depths. Re-run best fit drain. If ditch track was recorded from low elevation to high elevation best fit drain is attempting to find a solution to make water run uphill. Record ditch from the highest elevation to lowest elevation.
Drain Map shows and upward swale(vertical) at end of drain track.		
Symptom	Problem	Solution
Recorded drain design has a vertical rise or uplift at the end of the ditch track.	Ditch track stop point was recorded while receiver was not at the lowest point of elevation on the ditch track.	When ending at ditch track at a point where the water drains, ensure that the implement receiver is stopped and recording is finalized with the receiver at the lowest point of the ditch track. In other words, if the ditch track is recorded traveling downhill finalize recording BEFORE proceeding up any incline from the ditch drain.
Vertical guidance appears after Machine starts to AutoTrac. Implement is still active after AutoTrac shuts off at the end of a track.		
Symptom	Problem	Solution
Vertical guidance bar does not shows correction at same time or position that AutoTrac is engaged. While implement is still active or engaged AutoTrac guidance is lost. AutoTrac is engaged and AutoTrac guidance is present before the implement height guidance is available.	Ditch track was recorded in one direction and Ditch was cut in the opposite direction. AutoTrac guidance is based on location of the Machine receiver and Implement height Guidance is based on the location of the Implement Receiver. If track was recorded driving one direction and cut in the opposite, the distance between the receivers is the distance driven without guidance from either AutoTrac or Implement height depending on direction of travel in relation to the direction of the recorded pass. Ditch track was recorded using machine receiver as source. Implement height guidance is active when the implement receiver is over the track recorded by the machine receiver.	Cut the ditch track in the same direction that the track was recorded in. If it is not feasible or practical to record and cut or pull in the same direction, machine begins to AutoTrac before implement requires ground engagement, and Autotrac guidance is lost before the end of the track or before the implement height guidance ends. Machine begins to AutoTrac before implement requires ground engagement, and Autotrac guidance is lost before the end of the track or before the implement height guidance ends.

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Guidance does not show track right away.

Symptom	Problem	Solution
When recording straight sections of a ditch or levee track, guidance recorded track does not show up as quickly as when recording curve sections of track.	Guidance does not need to update the track as often for straight sections of track, and will therefore take longer to display the recorded track.	Allow more time for straight sections of track to show on screen. Zoom out—track may be displayed outside of viewed area.
Symptom	Problem	Solution
Scraper or Ditcher icon will not show up when selected from Implement Type drop-down menu.	Files on USB flash drive contain a setup error and will not allow the icons to be shown.	Insert a blank USB flash drive into GS3 and select Scraper or Ditcher from Implement Type drop-down menu.
Symptom	Problem	Solution
GPS offsets do not contain offset "D" or The vertical distance from the GPS receiver to the ground with the implement in the fully raised position.	Scraper or ditcher has not been selected as the implement type. The implement receiver is not connected. The data on USB flash drive contains a setup error and will not allow a scraper or rotary ditcher to be set up.	Select Scraper or Ditcher from Implement Type drop-down menu. Connect an implement receiver to the system. Insert a blank USB flash drive into GS3.

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



TS189 —UN—17JAN89



TS191 —UN—02DEC88



TS224 —UN—17JAN89



TS1663 —UN—10OCT97

DX,SERV LIT -19-21APR16-1/1

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—15APR13

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/.

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