OPERATOR’S MANUAL

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SAFETY NOTICES

Safety notices are one of the primary ways to call attention to potential hazards. An absence of specific alerts does not mean that there are no safety risks involved.

This Safety Alert Symbol identifies important safety messages in this manual. When you see this symbol, carefully read the message that follows. Be alert to the possibility of personal injury or death.

WARNING

Use of the word WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Use of the word CAUTION with the Safety Alert Symbol indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION

Use of the word CAUTION without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in equipment damage.
INTRODUCTION

Auto Section Control is an automated row shutoff system that can be added to the IntelliAg planter system to automatically shutoff individual planter sections utilizing a GPS signal as previously planted areas are approached.

A dedicated Auto Section Control terminal displays a field map for easy identification of external field boundaries, seeded areas, and nonseeded areas.

Figure 1
Auto Section Control Terminal and IntelliAg Virtual Terminal

AUTO SECTION CONTROL FEATURES

• Real-time viewing of planting operation within the field without interruption of application rate and seed monitoring information
• Unique GPS latency adjustment for calibration of row shutoff at the precise time the planter enters a previously seeded area
• Manual override of planter sections in the event of a lost GPS signal or in special conditions
• Section(s) shutoff and turn on when exiting or entering a headland
• Day and night mode
• Saving field data by customer, farm, field, and task structure for viewing at a later date

REQUIREMENTS

The Auto Section Control system will only interface and operate with an IntelliAg Planter Control system and compatible virtual terminal.

The Auto Section Control system requires the following to operate:

• Compatible with IntelliAg A1+ virtual terminal, John Deere GS2 2600 display, or AGCO C2000 virtual terminal
• Auto Section Control terminal
• GPS receiver (5 Hz minimum)
• Tru Count WSMB module
• Tru Count WSMB harness
• Implement lift switch
• Row section control switch box
AUTO SECTION CONTROL INSTALLATION

The Auto Section Control cab kit includes:

- Swath Control display
- Display mount
- Display to CAN harness

Refer to (Figure 3) harness connections.

CAB TERMINAL MOUNT

The Auto Section Control terminal is secured in the tractor cab by a ram mount bracket.

- Ball mount at top and bottom of bracket allows for orientation in many different positions.
- Wing bolt in middle of bracket tightens and secures the terminal to the desired position.

Figure 2

Auto Section Control Terminal Mount

Secure VT to bracket using 4 Metric screws (included)

Secure bracket to tractor cab using 4 SAE screws (included)

CAUTION

Position terminal so that operator view is not obstructed and does not interfere with tractor operation.
HARNESS CONNECTIONS

The Auto Section Control terminal connects to the IntelliAg tractor harness for communication with the IntelliAg ISO virtual terminal. A GPS receiver is required to provide implement position via CAN or RS232 communication. A row control switch module/clutch folding switch module provides quick access of turning sections on and off when manual override is required. Ignition wire connects to switched power source.

NOTE: Refer to Appendix A and B for harness connections when using an AGCO or John Deere Console.

A DICKEY-john Tru Count output module WSMB and harness are required for interfacing with Tru Count solenoid modules. Tru Count solenoid modules are not supplied by DICKEY-john. The below items outlined indicate parts required for Auto Section Control functionality.

Figure 3
Harness Connections
NOTE: All Auto Section Control setup is entered on the IntelliAg virtual terminal or other compatible displays.

**AUTO SECTION TERMINAL**

The Auto Section Control terminal displays the field coverage map that shows real-time viewing of the planting operation and indicates the vehicle’s current location.

- Field map appearance on the screen is adjusted using the buttons located on the left and right side of the terminal *(Figure 4)*.

*Figure 4*

**Auto Section Control Terminal Functions**

1. Tractor - Returns to current field position after using the Pan buttons and centers the tractor to screen middle
2. - 5. Pan - Positions field map on screen to the left, right, up, or down
3. - Night Mode/Day Mode - Adjusts screen colors for operating at night or during the day
4. - Max In - Enlarges map to the most detailed view
5. - Zoom In - Enlarges field map with each button press
6. - Zoom Out - Reduces field map with each button press
7. - Max Out - Shows entire field
8. - Increases screen brightness

*Figure 5*

**Day and Night Mode**

(7) - Max In - Enlarges map to the most detailed view
(8) - Zoom In - Enlarges field map with each button press
(9) - Zoom Out - Reduces field map with each button press
(10) - Max Out - Shows entire field
(11) - Increases screen brightness
(12) Decreases screen brightness
(13) Terminal - non functional
(14) Cycle button - Adjusts the implement to its actual heading (North, South, East, West direction) if the initial tractor movement is reverse, such as backing to a corner. The Flip button also performs the same function.
(15) Terminal - non functional
(16) Rotary button - non operational
(17) Video connection - non functional
(18) Terminal harness connection
(19) SD card slot - import task data files
    USB port - terminal software reprogramming

_Figure 6_
_Auto Section Control Terminal Side and Back View_
AUTO SECTION POWER UP

The terminal automatically powers on and off when the ignition switch is powered on and off. At startup, the screen will indicate that the system is initializing until a connection is made with GPS and the IntelliAg PDC controller.

When the power is turned off, an orange LED appears in the upper right corner for approximately 1 minute while data is saving and disappears after completing the save.

Figure 7
Initializing

UNDERSTANDING THE FIELD MAP

The Auto Section Control Terminal displays field coverage maps for real-time viewing of the planting operation without interruption of application rate and seed monitoring information. The full-color display identifies path-driven outlines, external boundaries, areas planted, and areas left to plant.

PATH-DRIVEN OUTLINE

The outline of a field can be driven to use as a visual aid when planting. This is not considered an external boundary so automatic row shutoff will not occur when driving past the outline.

Figure 8
Path-Driven Field Outline Map

1 Path-driven field outline
2 Seeded area
3 Nonseeded area
4 Over applied area
Field Map Descriptions:

(1) Path-driven field outline - Driving an external field path provides a visual outline of the field. Automatic row shutoff does NOT occur when a section extends past the outline.

(2) Seeded area - Areas planted with seed is defined in green.

(3) Nonseeded area - Any areas not seeded remain in yellow or brown

(4) Over applied area - Areas with twice applied seed appears in blue

IMPORTED EXTERNAL BOUNDARY

Field maps created in a PC farm software that is compatible with the IntelliAg Task Control application can be imported to the Auto Section Control terminal. Automatic row shutoff occurs when any defined external and internal boundaries are entered.

(1) External boundary - Any defined boundary outside of the field appears in gray (day mode) or black (night mode). Rows automatically shut off if a section extends past the external boundary.

(2) Internal boundary - Any defined boundary within the field appears in gray (day mode) or black (night mode). Rows automatically shut off if a section extends into the internal field boundary.

(2) Seeded area - Areas planted with seed are defined in green.

(3) Nonseeded area - Any areas not seeded remain in yellow (day mode) or brown (night mode).

(4) Over applied area - Areas with multiple applications appears in blue.

Figure 9

External / Internal Boundary
TRACTOR/IMPLEMENT POSITION

A direction indicator identifies the front of the tractor and direction the tractor is heading.

Figure 10

Tractor Position

![Diagram showing tractor position with direction indicator and implement]
INTELLIAG PDC SETUP

The following IntelliAg PDC screens must be configured to communicate with the Auto Section Control application/terminal and perform Auto Section Control functions.

- Implement Layout
- Planter Output Module
- Clutch Module/Switch Assignment

IMPORTANT: Rows must be assigned to a channel before proceeding to implement setup. Row assignment can be verified at the Channel Setup screen.

IMPLEMENT SETUP

To Enter Implement Settings:

1. Press the IntelliAg PDC button to display the IntelliAg Main Work screen.
2. At the Main Work screen, press the Control Setup button.
3. At the Control Setup screen, press the Physical Layout button.

NOTE: If using the IntelliAg system prior to Auto Section Control, some of the IntelliAg screens may already be configured and do not require additional setup.
PHYSICAL LAYOUT

Physical layout of the implement is required to determine the position of the planter control channel in the field. The physical layout of planter center is calculated by measuring the distance from the center of the row units to the hitch pivot point connection.

To measure X/Y Coordinates:

1. Stand behind the implement facing tractor.
   X coordinate:
   – Measured from the hitch pivot point to where the seed is placed in the ground, i.e. bottom of seed tube, and entered as a negative entry (-X). This measurement should be entered for each control channel enabled.
   Y coordinate:
   – Channels to the left of hitch pivot point are entered as a negative entry (-Y).
   – Channels to the right of hitch pivot point are entered as a positive entry (Y).

IMPORTANT: It is critical to enter the exact distances required when setting up the physical layout of the implement position. Do not guess; use a tape measure to find exact measurements. Failure to enter accurate measurements of the implement control channels will impact the system's performance to shut row sections off at the proper location within the field.
2. At the Physical Layout screen, select the appropriate implement layout type by pressing the tractor/implement graphic.

**Figure 14**

*Implement Layout Types*

![Implement Layout Types](image)

3. Enter in the table each channel’s X and Y coordinates. X and Y coordinate measurements will vary based on the implement type selected.

**NOTE:** When operating with only 1 control channel, the “Y” value on the Physical Layout screen should remain at 0 unless the implement is offset left or right of center.

**IMPORTANT:** If there are no rows assigned to a control channel, such as operating in Monitor Only mode, a row column appears on the Physical Layout screen and rows must be assigned an offset.

### 3 POINT HITCH AND TOWED HITCH

**Figure 15**

*Physical Layout Screen - 1 Channel Assignment (3 Point Hitch and Towed Hitch)*

![Physical Layout Screen](image)
RIGID CART MOUNT

An additional -X coordinate measurement from hitch to cart axle is entered in (A1) table.

*Figure 16*

*Physical Layout Screen - 2 Channel Assignment (Rigid Cart Mount)*

![Diagram of physical layout screen for Rigid Cart mount](image)

**NOTE:** When operating with only 1 control channel, the “Y” value on the Physical Layout screen should remain at 0.

---

TOW-BEHIND CART

Two additional -X and -Y coordinate measurements from hitch to cart axle entered in (A1) and cart center to implement hitch (H1).

*Figure 17*

*Physical Layout Screen (Tow-Behind Cart)*

![Diagram of physical layout screen for Tow-Behind Cart](image)

4. To view implement layout, press the **Physical Check** button.
PHYSICAL CHECK

The Physical Check screen visually displays the implement layout and control channel center as entered on the Physical Layout screen. Use this screen to verify channels are setup correctly.

To view Physical Check screen:
1. At the Physical Layout screen, press the Physical Check button.

(Figure 18) depicts channel 1 setup in a correct format.

*Figure 18*

Physical Check Screen Setup Correct (Example Only)

(Figure 19) depicts an incorrect Y channel setup:
1. Y coordinate for channel 1 entered incorrectly.
2. Control channel graphic (gray box) shows that channel 1 and 2 are not aligned correctly and are overlapping.
3. Physical check screen provides another visual of actual control channel center for channel 1 that is incorrectly aligned and overlapping channel 2.

*Figure 19*

Physical Check Screen Setup Incorrect
CLUTCH CONFIGURATION

Clutch module configuration is required to:

• Identify how many planter output modules are connected to the IntelliAg system
• Assign how many outputs are assigned to each output module
• Assign how many rows are assigned to each output
• Assign row shutoff module switches to outputs that enable and disable planter sections

MULTIPLE TRU COUNT OUTPUT MODULE ASSIGNMENT

Output module addresses are a critical parameter used to identify a module’s position on the implement that will control row shutoff switches.

IMPORTANT: If a planter uses more than one output module, modules MUST be installed in increasing serial number order starting on the left side and proceeding to the right so that row assignment is configured correctly.

TRU COUNT OUTPUT MODULE ASSIGNMENT

The Clutch Module Configuration screens displays:

• Module address
• Type
• Number of outputs per module

To enter # of Outputs per Module:

1. At the IntelliAg Main Work screen, press the Module Configuration button.
2. At the Module Configuration screen, press the Clutch Module button.
3. Enter the number of solenoid outputs connected to the specific TCOM. Outputs do NOT always total the number of clutches but the total number of controlled solenoids. The Output Numbers (#s) value is automatically sequenced for each module based on the module address value.
4. Enter the shutoff delay times for engaging and disengaging clutches. Delay times vary based on manufacturer. Refer to (Figure 20) for recommended clutch delay times.

Delay time defaults for both turning on and shutting off is set at 0.0 seconds on the Clutch Configuration screen.

IMPORTANT: The shutoff delay time is a mechanical delay for engaging and disengaging clutches. Seconds entered at this screen will increase the look-ahead time when shutting off and turning on rows controlled at the Auto Section Control screens. Shutoff delay times can effect accuracy of Run in and Run Out functionality.
ASSIGNING ROWS

The Clutch Configuration screen assigns rows to outputs. As rows are assigned to each output, row numbers automatically populate.

1. At the Clutch Module screen, press the **Clutch Configuration** button.
   Enter number of rows to be assigned to each output.

---

**Figure 20**

**Clutch Delay Times**

<table>
<thead>
<tr>
<th>Clutch Type</th>
<th>Turn Off</th>
<th>Turn On</th>
</tr>
</thead>
<tbody>
<tr>
<td>TruCount</td>
<td>0.4 seconds</td>
<td>0.4 seconds</td>
</tr>
<tr>
<td>Great Plains</td>
<td>0.3 seconds</td>
<td>0.4 seconds</td>
</tr>
</tbody>
</table>

Contact DICKEY-john Technical Support at 1-800-637-3302 for recommended shutoff delay times on all other clutches.

**Figure 21**

**Clutch Configuration Screen**

**Figure 22**

**Clutch Configuration**
ASSIGNING ROW SHUTOFF SWITCHES

The Clutch Set screen identifies what switches on the row shutoff switch box enable and disable planter sections or outputs.

1. At the Clutch Configuration screen, press the Clutch Set button. Enter which clutch switch will be assigned to an output module to enable and disable planter sections.

*Figure 23*

*Clutch Set Screen*
MODULE OUTPUT ASSIGNMENT EXAMPLE

1. Three solenoid outputs to be controlled by Tru Count output module.
2. Number of rows assigned to each output.
3. Row shutoff switches assigned to corresponding outputs.
4. Corresponding row shutoff switches will turn sections on and off.

**Figure 24**
Clutch Setup for Row Shutoff Module

**IMPLEMENT SECTION CHECK**

IMPORTANT: After clutch row assignment, it is recommended to perform a diagnostics check to verify the order of clutch sections shut on and off correctly. Refer to the Diagnostics section for section check instruction.
AUTO SECTION CONTROL SETUP

Auto Section Control setup is entered on the IntelliAg virtual terminal. The following Auto Section Control screens must be configured to perform Auto Section Control functions.

- GPS Setup/Calibration
- System Setup
- Selecting a Task

GPS SETUP

GPS setup and calibration is required for the system to know implement position in relation to the GPS receiver mounting location on the tractor and effectively operate Auto Section control.

IMPORTANT: A minimum 5 Hz GPS receiver is required for communication with the Auto Section Control system. Any receiver less than 5 Hz will not provide adequate communication to run the Auto Section Control system.

GPS SOURCE

The Auto Section Control system communicates with the GPS receiver using either:

- CAN (GPS receiver signal broadcast over CAN)
- RS232 (GPS receiver connected to RS232 port)

If using an RS232 GPS source, the receiver must be connected to the Auto Section Control terminal to prevent any additional system communication delays.

GPS LAG

GPS lag time is the amount of delayed communication time in seconds that occurs between the Auto Section Control system and the GPS receiver. A GPS calibration is required to define the GPS lag time.

BAUD RATE AND DATA MODE (RS232 ONLY)

Baud Rate and Data Mode are communication signals as defined by the manufacturer of the GPS receiver. Reference the receiver manual for settings.

GPS OUTPUT

The GPS Output setting converts an RS232 output to CAN in a NMEA 2000 format and should be enabled when the following conditions occur:

- Using an RS232 receiver and
- Using Task Controller functionality

The default setting is disabled.
TRACTOR SETUP (FIXED)

To determine an accurate reference point between the GPS receiver and Auto Section Control, three distance positions are required:

- Distance from the GPS receiver antenna mounting location to the rear axle center
- Distance from rear axle center to the implement hitch
- Distance from GPS receiver antenna mounting location to implement hitch center of tractor

To enter GPS Setup:

1. At the Auto Section Control screen, press the System Setup button.
2. At the System Setup screen, press the GPS Setup button.
3. Select the GPS Source as RS232 or CAN.
4. Enter GPS lag time only after a calibration is performed. Refer to the GPS Calibration section to perform test.
5. Select the Baud Rate and Data Mode if RS232 is the GPS source for the GPS receiver. Reference the GPS receiver manual for settings.
6. If RS232, check the GPS Output input box to enable GPS messages in NEMA 2000 format. This allows a GPS signal to be communicated over CAN and available for use by the IntelliAg virtual terminal or Task Controller.
7. Select Tractor Setup as Fixed.
8. Enter receiver/implement distances per below.

To determine Receiver/Implement Position (Fixed):

IMPORTANT: It is critical to enter the exact distances required when setting up the receiver/implement position. Do not guess; use a tape measure to find exact measurements. Failure to enter accurate receiver and implement positions will impact the system’s performance to shut row sections off at the proper location with the field.

9. Place the tractor on a flat, level surface. Tractor should be straight for accurate measurement.
10. Measure the horizontal (side-to-side) distance between the receiver and implement hitch center. If the receiver is mounted in the center, the value is 0. Enter the value in inches into the Receiver to Center input box.
   - Use the Left/Right button to position the blue receiver indicator to visually represent if the antenna is located on the left or right side of the tractor.
11. Measure the distance from the center of the receiver to the center of the fixed axle. Enter the value in inches into the Receiver to Axle input box.
12. Measure the distance from the center of the rear axle to the implement hitch pin pivot point for pull-type implements. Enter the value in inches into the Axle to Hitch input box.
TRACTOR SETUP (ARTICULATED)

To determine an accurate reference point between the GPS receiver and Auto Section Control, four distance positions are required:

- Distance from the GPS receiver antenna to the front axle center position
- Distance from front axle center to pivot point
- Distance from pivot point to rear axle center
- Distance from rear axle center to implement hitch

To enter GPS Setup:

1. At the Auto Section Control screen, press the **System Setup** button.
2. At the System Setup screen, press the **GPS Setup** button.
3. Select the GPS Source as RS232 or CAN.
4. GPS lag time should only be entered after a calibration is performed. Refer to the GPS Calibration section to perform test.
5. Select the Baud Rate and Data Mode if RS232 is the GPS source for the GPS receiver. Reference the GPS receiver manual for settings.
6. If RS232, check the GPS Output input box to enable GPS messages in NEMA 2000 format. This allows a GPS signal over CAN and available for use by the IntelliAg virtual terminal.
7. Select Tractor Setup as Articulated.
8. Enter receiver/implement distances per below.

To determine Receiver/Implement Position (Articulated):

9. Place the tractor on a flat, level surface. Tractor should be straight for accurate measurement.
10. Measure the horizontal (side-to-side) distance between the receiver and implement hitch pin pivot point. If the receiver is mounted in the center, the value is 0. Enter the value in inches into the Receiver to Center input box.
   - Use the **Left/Right** button to position the blue receiver indicator to visually represent if the antenna is located on the left or right side of the tractor.
11. Measure the distance from the center of the receiver to the distance from the center front axle. Enter the distance into the Axle to Receiver input box.

12. Measure the distance from the center of the front axle to the center of the tractor pivot point. Enter the distance into the Front to Pivot input box.

13. Measure the distance from the center of the rear axle to the center of the tractor pivot point. Enter the distance into the Pivot to Rear input box.

14. Measure the distance from the rear axle center to the implement hitch pivot point for pull-type implements. Enter the distance into the Axle to Hitch input box.

**Figure 26**

*Articulated GPS Setup Screen*

---

**GPS CALIBRATION**

A GPS calibration test should be performed to determine the GPS lag time that occurs between the Auto Section Control system and the GPS receiver.

**IMPORTANT:** The most accurate calibration test is to drive over a fixed reference line that can visually be seen from the cab versus driving past an object.

1. Place a fixed reference line in the field to drive over, such as a rope or painted line.
2. Drive until the front tires are sitting on the reference line.
3. At the System Setup screen, press the **GPS Setup** button.
4. At the GPS Setup screen, press the **Calibration** button.
5. With ground speed at 0, press the **Set Reference** button.

**IMPORTANT:** Ground speed must be 0 for the Set Reference button to appear.
When the **Set Reference** button is pressed, the Auto Section Control terminal will indicate tractor position and mark a blue line on the screen as a site of reference. It is important that the tractor be perpendicular to the blue line to drive straight across the line.

6. Follow the onscreen instructions on the IntelliAg virtual terminal and begin driving forward at the desired planting speed. Continue driving in an oval until the reference line is crossed heading the same direction that the reference line was set.

7. Redrive the same course in the same direction.

8. A beep should occur at the same spot the set reference point was set.
   - If the beep occurs after the set reference point is crossed, increase the GPS lag time on the GPS Calibration screen.
   - If the beep occurs before the set reference point is crossed, decrease the GPS lag time on the GPS Calibration screen.
   - The **Plus** and **Minus** buttons adjust lag time by 0.1 seconds entered on the GPS Calibration screen.

9. Continue to perform the test, at least three times, until the beep and crossing the reference line occurs at the same time. If the reference point needs adjustment, press the **Cancel** button to abort calibration.

**IMPORTANT:** Take adequate time and care for proper calibration of GPS receiver. Run this test at least 3 times after proper calibration has been determined to verify accurate GPS lag value has been set.

10. When the beep occurs at the reference line, perform another complete test (3 test runs) setting a new reference line to confirm that the GPS lag value from the previous calibration test is correct.

11. Press **OK** button to accept the changes.

**NOTE:** GPS lag time range is 0 to 2.5 seconds.

**Figure 27**

**GPS Lag Time Test**

**IMPORTANT GPS CALIBRATION NOTES**

- Do not manually change the GPS lag after successful calibration is completed in attempt to correct Run In or Run out section shutoff points.
- If accuracy of the GPS lag value is in question, complete a full GPS calibration as described for a new GPS lag value to be calculated.
When diagnosing system accuracy issues, it is recommended to re-run the GPS calibration.
In the event a new software version is loaded in the Auto Section Control or GPS receiver, the GPS calibration should be executed as the software update could cause the GPS lag value to change.

Figure 28
GPS Calibration Screens
FIELD PREPARATION

SETTING OVERLAP

An automatic delay or advance can be configured to enable and disable planter sections when approaching or leaving an area by setting a Run In/ Run Out Overlap or Skip and a side-to-side overlap. A distance is entered in inches/metric to enable this feature.

RUN IN OVERLAP

A Run In Overlap sets the distance (inches) to automatically delay section shutoff when a planted area is entered.

RUN OUT OVERLAP

A Run Out Overlap sets the distances (inches) to automatically turn on sections before a planted area is exited.

RUN IN SKIP

A Run In Skip sets the distance (inches) to automatically shutoff sections before a planted area is entered.

RUN OUT SKIP

A Run Out Skip sets the distance (inches) to automatically turn on sections after a planted area is exited.

SIDE-TO-SIDE OVERLAP

When entering an angled headland, a side-to-side overlap defines the percent of overlap to occur when the angle is crossed. A percentage adjustment between 50% to 100% in increments of 10% is allowed. At 100%, the shutoff and turn on point is calculated as each section reaches the angle. At 50%, the shutoff and turn on point is calculated as each section middle crosses the angle. (Figure 29) illustration depicts a planter configured as one entire section with a 50% and 100% overlap.
Example:

One-to-One Row/Clutch Assignment

A one-to-one row/clutch assignment set at 100% turns individual rows on and off with an overlap and no gap. As the side-to-side overlap percentage decreases, the overlap decreases and the gap increases. As the side-to-side overlap percentage adjustment increases, the amount of overlap increases and the gap decreases. A 50% adjustment results in a 50% overlap and 50% gap when the section center crosses the angle.
IMPORTANT FUNCTIONALITY NOTES

The below situations can effect how Run In/Run Out functionality operates in the field. Take into account the following when determining what values to enter on the System Setup screen.

• A Run In/Run Out value of “0” turns on and off sections as soon as the planter rows reach an area equal to 50% of the programmed row spacing entered on the IntelliAg PDC setup of Row I/O. Example: If the row spacing is set at 30” a Run In value of “0” will initiate shutoff of the planter row 15” before reaching the first inner row of the headland. A Run In value of “15” will initiate shutoff of the planter row at the first inner row of the headland.

• To ensure the correct Run In/Run Out settings are entered, dig and locate seed within the furrow and then measure distance from last seed planted in row to desired shutoff point at headland. Mechanical delays associated with the planter (chains, drives, hydraulics) can have a direct impact on the row unit stopped versus the last seed placed in the furrow.

• A side-to-side overlap adjustment percentage from 50% to 100% can be changed during operation to increase or decrease the amount of overlap. The steeper the angle, the greater the overlap percentage should be to minimize gap.

• Population rate can also affect Run In/Run Out accuracy. This should be accounted for when determining Run In/Run out values due to meter speed ramp down time, i.e., higher population requires higher meter RPM so it can take a fraction of a second longer for seed placement to stop compared to a lower population and meter speed.

• Do not adjust the GPS lag value to compensate for shutting off and turning on row units.

• When using a WAAS only signal, that has +/-12” accuracy, GPS position drift may affect shutoff points. This drift can effect how the Auto Section Control terminal identifies planter position as it relates to turning rows on and off outside.

• Rows can unexpectedly turn on or off due to drift while driving or the inaccuracy of the WAAS signal on pass-to-pass and headlands can shift in and out over time due to the inaccuracy of the WAAS signal.
To Enter a Run In and Run Out Settings and Overlap:

1. At the Auto Section Control Main screen, press the **System Setup** button.
2. Press the **Run In and/or Run Out** buttons to cycle between Skip or Overlap.
3. Enter the amount of Run In and/or Run Out in inches into the appropriate input boxes.
4. Press the **Increase and Decrease % Side-to-Side** buttons to adjust to desired overlap and gap percentage from 50% to 100%.

**IMPORTANT:** If a Run In and Run Out Overlap or Skip do not perform as entered at System Setup, verify that an additional delay value is not entered at the IntelliAg Clutch Configuration screen (**Figure 14**) and a GPS calibration has been performed.

**Figure 31**

*System Setup Screen*
LOAD A TASK

A task must be created or selected first before Auto Section Control will operate. A task can be created at the Auto Section Control menu on the IntelliAg virtual terminal or existing tasks established in Task Controller can be imported using an SD card.

CREATE TASK

1. At the Auto Section Control Main screen, press the **Select Task** button.
2. At the Select Task screen, press the **New Client** button.
3. Press the New Client input box and enter name using the keypad.
4. Press the **OK** button to accept.
5. Continue to enter New Farm, New Field, and New Task names.
6. Press the **Open Task** button to select the created task.

*Figure 32*  
Creating a Task
IMPORT A TASK OR FIELD BOUNDARY FILE

Client, Farm, Field, and Events created in Task Controller or a farm management software tool can be saved and imported into the Auto Section Control terminal eliminating the step of re-creating a task.

Tasks and boundary file data are saved to an SD card inserted into the IntelliAg terminal and then transferred to the Auto Section Control terminal. The Import button only appears when Task Controller is enabled on the IntelliAg VT with an SD card.

Maps and boundaries created in a farm management software tool on a computer can be saved as task data files with a specific file structure for transfer to the terminal.

To Prepare a Field Boundary File for Export:

1. Within the farm management software create a file folder named TaskData. The task data file must be contained within this folder for the terminal to recognize the files.
2. Select the file(s) to export and save with an .xml extension within the TaskData folder.
3. Insert SD card into computer and begin export. Verify tasks are saved and then remove SD card from computer.

To Transfer Task and/or Boundary File Data to IntelliAg Terminal:

4. Insert SD card into IntelliAg VT.
5. Press the Auto Section Control button. At the Auto Section Control Main screen, press the Select Task button.

6. At the Select Task screen, press the Task Control Import button. The Import Task Control screen displays a question mark as the source until the appropriate import source button is pressed (Figure 34).
7. Press the Task Control Import TC button to begin transfer.

NOTE: Tasks created in the Auto Section Control terminal will NOT transfer to the IntelliAg Task Controller application.
8. When transfer is complete, the number of clients, farms, fields, tasks, and field boundaries appear on screen.
9. Press the Back button to return to the Select Task screen.
10. Select the desired client, farm, field, task, and field boundary. A Boundary Exists icon appears when a boundary file (created with farm management software) is available.
11. Press the Open Task button.

**IMPORTANT:** Depending on file size, transfer time of Task Controller data to the Auto Section Control terminal can take several minutes.

*Figure 34*

**Importing Tasks**
OVERWRITE FIELD BOUNDARY

An Overwrite Field Boundary screen appears if the Auto Section Control terminal already has the existing boundary with the same file name associated with a field.

- Press the OK button to overwrite the existing boundary.
- Press the Cancel button to retain the existing boundary.

Figure 35
Overwrite Field Boundary

AUTO SECTION CONTROL STATUS

The Auto Section Control terminal will be in ready mode at the Select Task screen. Auto Section Control status will indicate No Field Selected until a task is opened and the system is enabled once GPS has been acquired.

Figure 36
Auto Section Control Terminal
SYSTEM OPERATION

AUTO SECTION MAIN SCREEN

When a task is loaded, the Auto Section Control Main Menu displays on the IntelliAg virtual terminal and provides a visual representation of implement section status that can be controlled from this screen.

NOTE: Pressing a section indicator button represents what action will occur when pressed, not the current action.

Figure 37
Auto Section Control Main Screen Functions

MAIN SCREEN FUNCTIONS

1. Implement section bar
   Represents the total number of sections controlled by output modules and gives a visual indicator of which sections are turned on (green) and off (white)
2. Manual section indicator
   Defines a section area to turn on (green) and off (white)
3. Manual section On/Off buttons
   Toggles sections within the defined area on or off when pressed
4. Left Section Indicator buttons define all sections in the left group to be controlled by the left Auto On/Off button when moved. The color of the left and right indicator identifies the action (on or off) to occur when section indicators are moved.
5. All sections on/off
   Toggles all sections to an on or off state and moves the section indicators back to the outside of the implement section bar on screen.
6. Manual/Auto mode
   Puts system in Auto and Manual mode when pressed
7. Auto Section Control internal storage
   Internal storage capacity indicator of imported, created, and stored fields
8. Current Task
   Active task running
9. GPS signal
   GPS signal strength
10. Satellites
    Number of active satellites
11. System status bar
    Provides current status of Auto Section Control
12. Right Section Indicator buttons define all sections in the right group to be controlled by the right Auto/On/Off button when moved. The color of the left and right indicator identifies the action (on or off) to occur when section indicators are moved.

**Figure 38**

**System Status Bar**

<table>
<thead>
<tr>
<th>System Status</th>
<th>Cause</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controller Offline</td>
<td>WSMT (PDC) not found</td>
<td>Error 100 (See Troubleshooting section)</td>
</tr>
<tr>
<td>No Controller</td>
<td>WSMT (PDC) not talking or incompatible version</td>
<td>Error 100 (Contact dealer to update WSMT (PDC) software.)</td>
</tr>
</tbody>
</table>
| System Fault        | System has encountered a nonrecoverable error | 1. Power cycle the system.  
                      |                                                                   | 2. Disconnect connector on the Auto Section Control display and reconnect.  
                      |                                                                   | 3. Create new field or clear current task.                                |
| No GPS              | No data from the GPS Receiver       | Error 102 (See Troubleshooting section)                                    |
| Controller Setup    | WSMT (PDC) is on a Setup screen     | 1. Finish setup changes on WSMT (PDC) and return to Main Work screen.  
                      |                                                                   | 2. Wait for WSMT (PDC) to finish power up process.                        |
| Controller Update   | Need to get data from WSMT (PDC)    | Error 200 (See Troubleshooting section)                                    |
| Controller Sync     | Obtaining data from WSMT (PDC)      | Wait. System busy.                                                         |
| No Outputs          | No outputs configured on the WSMT (PDC) | Outputs not assigned or assigned incorrectly. Check IntelliAg Module Configuration screens. |
| Poor GPS            | Quality or number of satellites is not at acceptable levels | Error 102 (See Troubleshooting section)                                    |
| Init                | Loading coverage file               | Wait. System busy.                                                         |
| Pause               | WSMT (PDC) is not running           | WSMT (PDC) system is not active.                                           |
| Ready               | WSMT (PDC) is running               |                                                                           |
| Coverage Override Pause | Coverage override is on with the implement up |                                                                           |
| Coverage Override Active | Coverage override is on with the implement down |                                                                           |
ENABLE AUTO SECTION CONTROL

To enable Auto Section Control:

1. Once a task is selected, press the Open Task button.
2. At the Auto Section Control Main Menu screen enable the following system functions:
   - Lower implement into the ground
   - Turn master switch on
   - Verify all clutch section switches are on

IMPORTANT: Vehicle speed must be greater than the shutoff speed set at the IntelliAg Speed Setup screen.

3. Begin driving at desired planting speed.
4. Auto swath lines will appear on the Auto Section Control screen to the path being driven.

DISABLE AUTO SECTION CONTROL

Auto Section Control is disabled by performing any of the following functions:

- Lifting the implement
- Master switch is turned off
- Manual override of the system (Manual button)
- Vehicle speed is lower than the shutoff speed set at the IntelliAg Speed Setup screen
- Master section switch is turned off on the row control module
- A lost GPS signal
AUTO MODE

Auto mode automatically enables and disables individual planter sections utilizing a GPS signal as previously planted areas or boundaries are approached. As planted areas and boundaries are approached, the Auto Section Control Main Menu screen indicates which outputs turn on and off and the row control switch module/clutch folding module indicator lights automatically turn on and off. Sections can be forced OFF in Auto mode.

IMPORTANT: If using boundary files for Auto Section Control, pay close attention to the first pass around the boundaries to ensure outside clutches perform correctly. If the boundary is drawn a little tight, outside clutches may turn off when a percent of the section width is outside the boundary based on the side-to-side overlap set at the System Setup screen. To correct, run outer pass in Manual mode and widen boundary file in PC software. This scenario is typically prevalent when using WAAS.

NOTE: Pressing a section indicator button represents what action will occur when pressed not the current action.

Figure 40
Main Screen (Auto Mode)

MANUALLY FORCE SECTIONS OFF IN AUTO

Section indicators can be positioned to turn sections off while in Auto mode. **Auto Active** button remains in Auto mode when sections are off.

1. Left **Auto On/Off** button turns all sections to the left of the section indicator off (white) when pressed and is depicted in white on the implement bar.
2. Right **Auto On/Off** button turns all sections to the right of the section indicator off (white) when pressed and is depicted in white on the implement bar.
3. **Auto/Off** buttons toggle all sections between the section indicators to an off or Auto mode state.
4. **Left Section Indicator** buttons define all sections in the left group when moved. The color of the left and right indicator identifies the action (on or off) to occur when section indicators are moved.

5. **Right Section Indicator** buttons define all sections in the right group when moved. The color of the left and right indicator identifies the action (on or off) to occur when section indicators are moved.

6. **All On or All Off** buttons turns all sections on or off when pressed and moves left and right section indicators back to the outside.

**MANUAL MODE**

Manual mode allows the operator to manually control planter sections in the event of a lost GPS signal or in special conditions, such as marking headlands in Override. When the system is in manual mode, sections must be turned on and off either on the Auto Section Control screen or the Row Control Switch module or Clutch Fold module.

**NOTE:** Pressing a section indicator button represents what action will occur when pressed, not the current action.

**MANUAL ON/OFF CONTROL OF SECTIONS**

In manual mode, section indicators allow manual control of turning implement sections on and off. **Manual Active** button must be pressed to enable Manual mode.

1. Left **On/Off** button turns all sections to the left of the section indicator on (green) or off (white) when pressed as depicted on the implement bar.
2. Right **On/Off** button turns all sections to the right of the section indicator on (green) or off (white) when pressed as depicted on the implement bar.
3. **On/off** button turns all sections between the section indicators on or off when pressed.
4. **Left Section Indicator** buttons define all sections in the left group to be controlled by the left Auto/On/off button when moved. The color of
the left and right indicator identifies the action (on or off) to occur when section indicators are moved.

5. **Right Section Indicator** buttons define all sections in the right group to be controlled by the right Auto/On/Off button when moved. The color of the left and right indicator identifies the action (on or off) to occur when section indicators are moved.

6. **All On or All Off** buttons turn all sections on or off when pressed and moves left and right section indicators back to the outside.

### ADDITIONAL OPERATING CONDITIONS

#### ADJUSTING IMPLEMENT POSITION

The **Flip** button performs a flip function that adjusts the implement to its actual heading (North, South, East, West direction) if the initial tractor movement is reverse, such as backing to a corner. The **Flip** button should only be used after a true moving heading has been established to reposition the implement.

The **Cycle** button located on the bottom of the Auto Section Control terminal also performs the Flip functionality. Refer to (Figure 4) for **Cycle** button location.

#### MARKING/PLANTING HEADLANDS

For use if headlands will be planted last or after all long internal areas of the field have been planted.

**IMPORTANT:** Auto Section Control **MUST** be in Manual mode when planting marked headlands.

The **Override** button allows headland swaths to be marked first and planted last and allows for inland rows to automatically turn on and off when the marked headland is reached.

**To Mark a Headland Swath:**

1. Drive to the beginning of the headland.
2. Press the **Override** button and put implement lift switch in down position (hydraulic drive systems leave master switch off).
3. Start driving the headland swath to mark.
4. At the end of the headland swath, press the **Override** button or lift the planter (implement lift switch in up position) to disengage override.
5. Continue to mark additional headland swaths until complete. Swaths can be marked as follows:
   - If the inner most headland is known, this is the only swath that is required to be marked.
   - If the inner most headland is not known, all swaths can be marked.
6. Ensure system is placed back in Auto mode once headland swaths have been completed.

**Planting a Marked Headland:**
The system cannot differentiate between a marked and already planted area. Therefore, when planting the marked headland, the section control must be in manual. The field map planting area will appear in blue which is the indication of overplanting. However, overplanting is not occurring since the first pass was marked and no seeds were dropped.

If only the inner most headland is marked, this is the only headland that requires the control to be in manual. All other headlands can be planted in Auto mode.

Figure 42
Planting a Marked Headland

STORING HEADLANDS

The following steps should be performed to ensure that headlands are saved:

1. At the Auto Section Main Work screen, press the Select Task button.
2. At the Select Task screen, press the Open Task button to return to the Main Work screen.
3. No further action required.

LOST GPS SIGNAL

A NO GPS screen on the Auto Section Control terminal indicates a GPS signal cannot be found, has been lost, or the signal quality is not at acceptable levels.

Potential causes:

- GPS setup incorrect.
  - Check GPS Setup screen for proper inputs
  - Check GPS status at the Diagnostics screen
- GPS signal blocked.
  - Move to a clear area
- GPS receiver failure.
  - Check receiver connection

In the event of a lost GPS signal, switch Auto Section Control to Manual mode to continue planting.
OUT OF FIELD RANGE

An Out of Field screen on the Auto Section Control terminal occurs when the field is outside of range to display on the screen. Select the correct field or start a new task to continue.
TERMINAL STORAGE CAPACITY

All created and imported fields are stored on the Auto Section Control terminal. Storage capacity is indicated on the Auto Section Control terminal Main Menu screen.

When full, storage can be cleared or deleted by clearing tasks or deleting files. Task or files cannot be exported.

TIP: It is recommended that imported and created fields are cleared after use to avoid the system from running slow.

CLEAR TASK

1. At the Select Task screen on the IntelliAg VT, select the task to be cleared.
2. Press the Clear Task button.
3. At the Clear Task Coverage screen, verify the correct task is selected.
4. Press the OK button to delete.

IMPORTANT: Deleted tasks cannot be restored.

NOTE: The Clear Task button only appears for an existing task stored on the terminal.
DELETE/RENAME FILES

Individual clients, farms, fields, and tasks can be renamed at the Rename/Delete screen by pressing the appropriate yellow selection box. Use virtual keypad to enter new name.

NOTE: Individual clients, farms, fields, and tasks can be renamed at the Rename/Delete screen by pressing the appropriate yellow selection box. Use virtual keypad to enter new name.

Individual clients, farms, fields, and tasks can be deleted.

1. At the Select Task screen, select the desired client, farm, field, or task to delete.
2. Press the Rename/Delete button.
3. At the Rename/Delete screen, press the appropriate Delete button.
4. Verify the appropriate data is selected and press the OK button to delete.

IMPORTANT: Deleted files cannot be restored.

Figure 46
Delete Files Screen
DIAGNOSTICS

The Diagnostics screen provides information about the Auto Section Control software version and GPS status. Information on the screen cannot be edited.

Press the Diagnostics button to access the GPS Status and System Information screens.

GPS STATUS

The GPS Status screen provides information about the current status of the GPS functionality used for troubleshooting. Information on the screen cannot be edited.

1. At the Diagnostics screen, press the Status button to access the GPS Status screen.

The average GPS Rate must be lower than 200 ms for the 5 Hz requirement to be met.

Figure 47

GPS Status Screen

![GPS Status Screen Diagram](image-url)
SYSTEM INFORMATION

The System Information screen provides system software version information. Information on this screen cannot be edited.

1. At the Diagnostics screen, press the Information button to access the System Information screen.

Figure 48

System Information Screen
CLUTCH SECTION CHECK

A recommended pre-test to verify correct module and clutch assignment ensures that clutches turn on and off appropriately.

To perform test:

1. At the Diagnostics screen, press the Section Check button.
2. Enter the cycle time duration of turning clutches on and off.
3. Select the type of test to perform
   - All output test
   - Single output test
4. Press the Start Test button to begin test.
5. Press the Stop Test button to end test.

IMPORTANT: Master switch and all clutch switches must be ON, if equipped.

Figure 49

Clutch Section Check

<table>
<thead>
<tr>
<th>Diagnostics</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section Check:</td>
<td></td>
</tr>
<tr>
<td>Cycle Time</td>
<td>10</td>
</tr>
<tr>
<td>All Output Test</td>
<td>X</td>
</tr>
<tr>
<td>Single Output Test</td>
<td></td>
</tr>
<tr>
<td>Testing Section</td>
<td>1</td>
</tr>
</tbody>
</table>

System: Pause

Cycle Time
Desired cycle time duration of turning clutches on and off during test.

All Output Test
Turns all clutches on and off at the same time.

Single Output Test
Selects which section to perform an individual section test. Plus button goes to next higher section. Minus button goes to next lower section.
TROUBLESHOOTING

FIRST PASS NEXT TO BOUNDARY IS SHUTTING OFF ROWS WHEN USING BOUNDARY FILES

- Outside clutches will turn off when a section width is outside the boundary based on the side-to-side overlap setting. To correct, run outer pass in Manual mode and widen boundary file in PC software to prevent this issue next time. This scenario is typically prevalent when using WAAS.

AUTO SECTION CONTROL TERMINAL DOES NOT POWER ON

- Verify that the Auto Section Control terminal ignition wire is connected to switched power source.
- Check fuse connections of Auto Section Terminal Interface harness p/n 467980458 to the Tractor VT harness p/n 467980451A and to the Tractor Power harness p/n 467980455.

AUTO SECTION CONTROL TERMINAL READS NO GPS SIGNAL

- Poor GPS signal. Check GPS Status on the Auto Section Control Diagnostics screen for signal status.
- Verify that GPS RS232 receiver is connected to the Auto Section Terminal Interface Harness p/n 467980458 and not the Tractor Harness p/n 467980451A.
- Verify that proper settings have been entered at the GPS Setup screen for quality of GPS signal. An average GPS Rate must be lower than 200 ms for the 5 Hz requirement to be met.
- Check GPS status at the Auto Section Control Diagnostics screen for signal status.
- GPS may be blocked. Move to a clear area.
- Check that receiver connection is powered up and secure.

To continue planting in the event of a lost GPS signal, switch Auto Section Control to Manual mode and use section switch on CFM module.

AUTO SECTION CONTROL SCREEN SHOWS GAPS IN SWATH PATTERN (SIDE TO SIDE)

- Adjust the Side-to-Side overlap percentage to adjust the amount of overlap and/or skip at the System Setup screen. The higher the percentage the larger the planting overlap. Decreasing the percentage reduces the overlap and increases the skip.
• Clutch assignment may be incorrect.
  – Verify that output modules have been correctly assigned to rows at
    the Module Configuration screen.
  – Verify that row shutoff switches are correctly assigned to
    corresponding outputs.
  – Run a Clutch Section check to verify the order of clutch sections
    shut on and off correctly (refer to Diagnostics screen).
  – Auto section control screen shows gaps in swath pattern (start/stop)
  – Driving to wide.
  – GPS accuracy issue.
  – Verify Physical Layout screen to verify layout is correct.

**AUTO SECTION CONTROL SCREEN SHOWS GAPS IN SWATH PATTERN (START/STOP)**

  – Swath coverage map is drawn based on seed flow. If stopped in the
    field, there will be a slight delay in seed flow when starting up
    causing a slight skip in the coverage map, i.e., seeding rate must
    exceed row fail rate before coverage can be painted.

**AUTO SECTION CONTROL SCREEN SHOWS OUT OF FIELD**

  • Wrong field loaded.
  • The field is too far out of range to display on the screen.

**ROWS ARE NOT SHUTTING OFF AND TURNING ON AS EXPECTED**

  • Implement measurements could be incorrect.
    – Verify that measurements were entered as described at Physical
      Layout screen.
    – X measurements should be taken from the hitch pivot point to
      where the seed is placed in the ground.
    – Y coordinates are measured from implement center to the center of
      each channel.
    – Verify implement/channel assignment are correct at the Physical
      Layout screen.
  • Verify that the correct Implement Layout type was selected (3 point
    hitch, towed hitch, rigid cart mount, or tow-behind cart).
  • When operating in Monitor only mode there are no rows assigned to a
    channel on the IntelliAg. However, row assignment must be entered at
    the Physical Layout screen for Auto Section to perform correctly.
  • If operating with only one control channel, the Y coordinate on the
    Physical Layout screen should remain at “0”.
  • Clutch assignment may be incorrect.
    – Verify that output modules have been correctly assigned to rows at
      the Module Configuration screen.
    – Verify that row shutoff switches are correctly assigned to
      corresponding outputs.
    – Run a Clutch Section check to verify the order of clutch sections
      shut on and off correctly (refer to Diagnostics screen).
  • Swath control is not in Auto mode.
SWATH PATTERN IS OFFSET FROM THE SWATH DIRECTION INDICATOR

- Implement measurements could be incorrect.
  - Verify that measurements were entered as described at Physical Layout screen.
  - X measurements should be taken from the hitch pivot point to where the seed is placed in the ground.
  - Y coordinates are measured from implement center to the center of each channel.
- Check row pattern setup at IntelliAg I/O screen.
- Check Physical Layout screen to verify layout is correct.

ROWS TURNING ON/OFF TOO EARLY OR LATE WHEN ENTERING OR EXITING HEADLANDS

- Check Run In/Run Out overlap settings.
- Verify and check GPS calibration and run a new GPS calibration test, if required.
- Verify that an additional delay value is not entered at the IntelliAg Clutch Configuration screen.
- Verify implement measurements are correct.

AUTO SECTION CONTROL TERMINAL INDICATES INITIALIZING PLEASE WAIT

- GPS has not been detected.

DATA LOSS AFTER POWER CYCLE

- Check power connections.
- Ensure ignition wire is connected to switched source.
- Ensure console has continuous power.

GPS ACCURACY

RTK (1 inch pass-to-pass accuracy)

RTK is used with a reference receiver placed on a known reference point. This receiver then communicates over a radio signal to the roving receiver to determine position or navigation. RTK is a highly precise technique that results in one inch year-to-year accuracy. RTK GPS requires two specialized GPS receivers and two radios. One GPS receiver is set as a base station with a 6 mile radius of the field you are working so it can send the correction message to the roving receiver. Both receivers collect extra data from the GPS satellites, known as L2 Band, that enables better precision.

WAAS (6-8 inch accuracy) AND OMNISTAR HP (XP 3-5 inch pass-to-pass accuracy) HP (2-4 inch pass-to-pass accuracy)

Waas and Omnistar services have many GPS receivers at known reference locations that send the correction messages to control stations that uplink the message to a geostationary satellite. The geostationary satellite (WAAS or OmniSTAR) then sends the correction message to the GPS antenna on the vehicle applying the correction.
IMPORTANT: OmniSTAR correction types require paid subscription. For an AgGPS 252 or 332 receiver, select either OmniSTAR HP/XP or OmniSTAR HP/XP-VBS. Refer to Ag GPS Autoseed fast restart technology.
**ERROR CODES**

Various alarm conditions may be presented whenever the system encounters an abnormal condition or detects a specific alarm. Alarms are typically in a full screen display describing the alarm and, dependent upon the alarm type, may give instructions on how to fix the alarm. Each alarm type has an associated alarm number.

Some alarms require a specific action before the alarm condition will cease. In these cases, instructions are indicated on the alarm display.

Other alarms can be acknowledged by pressing the **Alarm Cancel** button of **ESC** key on the IntelliAg virtual terminal.

For any failure that persists, contact DICKEY-john Technical Support at 1-800-637-3302

<table>
<thead>
<tr>
<th>Error Codes</th>
<th>Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
</table>
| 100         | ECU Control Module Lost | COMMUNICATION WITH AN ACTIVE MODULE HAS FAILED  
1. Damaged CAN or module harness.  
2. Blown module harness fuse.  
3. Defective module. | 1. Identify missing module in the Module Configuration list. Inspect CAN/module harness of the missing module for damage. Repair or replace harness.  
2. Inspect module harness fuse, replace if necessary.  
3. Identify missing module in the Module Configuration list. Inspect missing module for damage or replace. |
| 101         | ECU Control Module Intermittent | 1. A module that had previously failed communication has come online. | 1. Inspect harness connections to this module. |
| 102         | GPS Signal Quality Low | GPS signal quality has degraded below a usable level. | 1. Check GPS antenna corrections.  
2. Inspect GPS harness for damage.  
3. Check GPS communication settings.  
4. Inspect GPS receiver for damage. |
| 103         | Internal Data Storage Space Low | Internal data storage is low on free space. | 1. Clear old coverage lags.  
2. Delete unused fields.  
3. Delete unused farms.  
4. Delete unused clients. |
| 104         | Internal Data Storage Space is Critical | Internal data storage is low on free space. | 1. Clear old coverage lags.  
2. Delete unused fields.  
3. Delete unused farms.  
4. Delete unused clients. |
| 105         | In Setup with System Running | Detected implement controller running and not in Ready state. | 1. Complete setup operations.  
2. Complete Task Selection.  
3. Return to the Work Screen. |
| 200         | Setting Change Active | System settings changed and operating began before system could initialize. | 1. Stop operating by lifting implement, turning master switch off, or stopping.  
2. Restart the system. |
APPENDIX A

AGCO GTA CONSOLE

AGCO tractors with a factory installed cab harness and GTA console requires the GTASWATHKIT. This kit contains the required harnesses that connect to the GTA console and auxiliary power connector in the cab.

Figure 50

AGCO GTA Console and RSM or CFM Harness Connections

Implement Harnessing

Hitch Extension Harness 46798013x
ISO Tractor Hitch

WSMT 2 'T' Harness 467980850

Tru Count Clutch Harness 467983505

Add a CAN Extension or CAN Terminator

Tru Count Solenoid Modules (available from Tru Count)

GPS Receiver connects direct to RS232 on Auto Section Terminal Harness. Refer to Auto Section Control Setup to transmit GPS signal over CAN.

Corner A Post

To Auxiliary 12 V in Cab

GTA Console Harness

Auto Section Control Terminal

CFM or RSM Switch Module Harness 467980330

Terminator Auto Section Terminal Interface Harness 467980337

GPS input from GPS Receiver

Add a CAN Extension or CAN Terminator

WSMB Tru Count Output Module

WSMT 2 PDC Module

GPS Receiver connects direct to RS232 on Auto Section Terminal Harness. Refer to Auto Section Control Setup to transmit GPS signal over CAN.
JOHN DEERE GS2 CONSOLE

John Deere tractors with a factory installed cab harness and GS2 console requires the GS2SWATHKIT. This kit contains the required harnesses that connect to the GS2 console and auxiliary power connector in the cab.

Figure 51
John Deere GS2 Console and RSM or CFM Module Harness Connections

Cab Harnessing

Implement Harnessing
DEERE GS2 CONSOLE CAB HARNESS CONNECTIONS

1. Standing on the outside of the cab near the Starfire GPS receiver, remove the dust plug connector on the GPS receiver harness.

**IMPORTANT:** Do not unplug the male connector of the GPS receiver harness connected to the John Deere cab/electronics.

*Figure 52*
Remove GPS Receiver Dust Plug from Starfire Receiver Harness

2. Connect the Dickey-John (Starfire) Interface harness part number 46798-0460 to the dust plug and the female connector of the GPS Receiver harness.

*Figure 53*
Attach Interface Harness to Starfire Receiver Harness
3. Inside the cab, connect CFM/RSM Module harness part number 46798-0335 to the mating 4 pin connector of the GS2 console harness.

*Figure 54*

*Connect CFM or RSM Harness to GS2 Console*

4. Connect the mating connectors of the Auxiliary Interface Module harness part number 46798-0336 to the CFM/RSM Switch Module harness part number 46798-0335.

*Figure 55*

*Connector CFM or RSM Harness to Auxiliary Interface Harness*
5. Connect the Auto Section Control harness part number 46798-0337 to the mating connector of the Auxiliary Interface harness part number 46798-0336.

Figure 56
Connect Auto Section Control Harness to Aux Interface Harness

6. Plug in the Auxiliary Power 3 pin connector of the Auto Section Control harness part number 46798-0337 to the auxiliary power in the cab.

Figure 57
Connect Auto Section Control Connector to Cab Auxiliary Power
7. Connect the RS232 connector from the Starfire Interface cable to the RS232 connector of the Auto Section Control harness part number 46798-0337.

*Figure 58*
*Connect Starfire RS232 to Auto Section Control RS232*
Dealers have the responsibility of calling to the attention of their customers the following warranty prior to acceptance of an order from their customer for any DICKEY-john product.

**DICKEY-john® WARRANTY**

DICKEY-john warrants to the original purchaser for use that, if any part of the product proves to be defective in material or workmanship within one year from date of original installation, and is returned to DICKEY-john within 30 days after such defect is discovered, DICKEY-john will (at our option) either replace or repair said part. This warranty does not apply to damage resulting from misuse, neglect, accident, or improper installation or maintenance; any expenses or liability for repairs made by outside parties without DICKEY-john’s written consent; damage to any associated equipment; or lost profits or special damages. Said part will not be considered defective if it substantially fulfills the performance expectations. THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF MERCHANTABILITY, FITNESS FOR PURPOSE, AND OF ANY OTHER TYPE, WHETHER EXPRESS OR IMPLIED. DICKEY-john neither assumes nor authorizes anyone to assume for it any other obligation or liability in connection with said part and will not be liable for consequential damages. Purchaser accepts these terms and warranty limitations unless the product is returned within fifteen days for full refund of purchase price.

For DICKEY-john Service Department, call 1-800-637-3302 in either the U.S.A. or Canada

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