

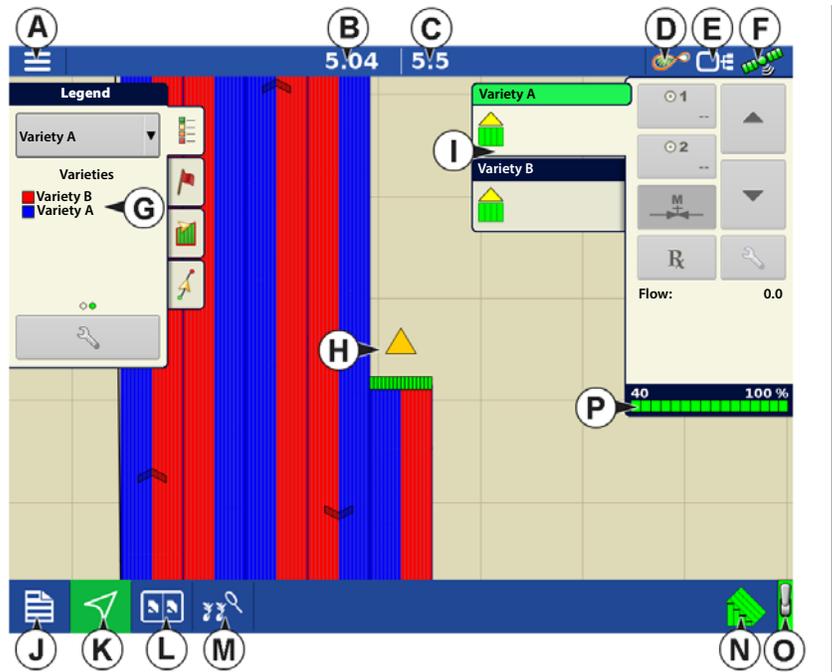
Planting Section Control

By configuring your display with Planter Section Control, you can start and stop seed flow and control planter sections row-by-row, allowing AutoSwath Control to automatically turn planter row units on and off based on your planting map.

Map View

Once a configuration has been completed, the Map View screen appears.

- A. Menu button
- B. Total Logged Field Area
- C. Ground Speed
- D. AgFiniti Status
- E. Diagnostics
- F. GPS Signal Indicator
- G. Display Legend
- H. Vehicle Icon
- I. Product Control toolbox
- J. Event Summary
- K. Map View
- L. Split screen
- M. Advanced Seed Monitoring
- N. AutoSwath
- O. Master Switch Status
- P. Section Status Indicator



i NOTE! Pressing the Map View button will cycle between the available Map Screen views, and the appearance of the Map View button changes.

Create Configuration

A wizard will guide you through the process of selecting or creating a configuration with application settings.

The configuration can be started in two places:



OR



Your Operating Configuration will then be viewable when you start a new Field Operation with the Planting Operation Wizard.

i You can also use the **Manage Equipment** button to create or edit specific vehicles and implements.

Load Configuration



Press the Planting App from the home screen. This will take you through the steps needed to load a configuration.

Creating Products

Creating planting products can be completed during initial setup or from the Product Selection screen of the Field Operation Wizard when starting a field operation.

Follow described steps to create planting varieties during initial setup.



1. Select **Product Type** (Crop) and **Product Units** (seeds or pounds)

2. Enter **Variety** or **Hybrid** name

Press  to enter a unique name for the variety or hybrid.

3. Enter **Variety** or **Hybrid Manufacturer** is applicable

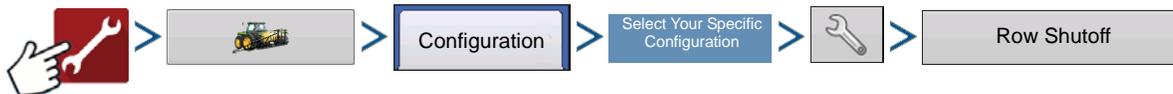
Manufacturer name can be added to the drop-down menu by pressing .

4. Press  to complete Product setup.

Created variety or hybrid should appear under the Planting heading located on the Product tab of the Configuration Setup Screen.

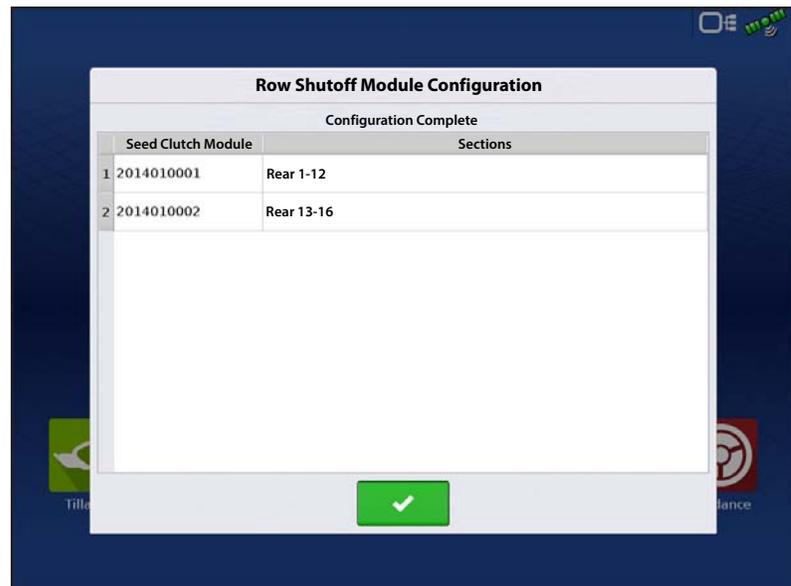
Configuration Setup

Once the configuration is created and it appears on the Configuration Setup screen, AutoSwath should be configured correctly. However, if you cannot get the configuration to load on the Field Operation Wizard, or if your vehicle does not appear on the Map screen, you may wish to check if the row clutches have been correctly set up in Implement Setup. Use the following procedure to enable Seed Row Shutoff and/or configure the Clutch Module.

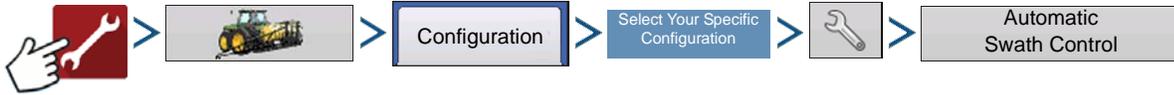


The Row Shutoff Module Configuration screen appears. This screen shows the number of Row Shutoff Modules and the sections that each module controls.

 **NOTE!** If you receive the message **“Configuration Failed. The number of detected module outputs does not equal the number of planter sections.”** refer to the Troubleshooting section of this User Guide.



Automatic AutoSwath Control



OR



i NOTE!: To use AutoSwath for planting operations, you are required to use a 5 Hz or higher GPS output rate. AutoSwath control will not allow sections to be turned on until the master and planting section switches are on. If you have less than a 5 Hz GPS output rate and you select AutoSwath, a warning appears, telling you that AutoSwath Control is not available at less than 5 Hz.

The Automatic Swath Control feature turns sections off and on automatically based upon the following conditions:

- Entering and exiting internal and outer field boundaries.
- Entering and exiting previously-applied areas within a field.

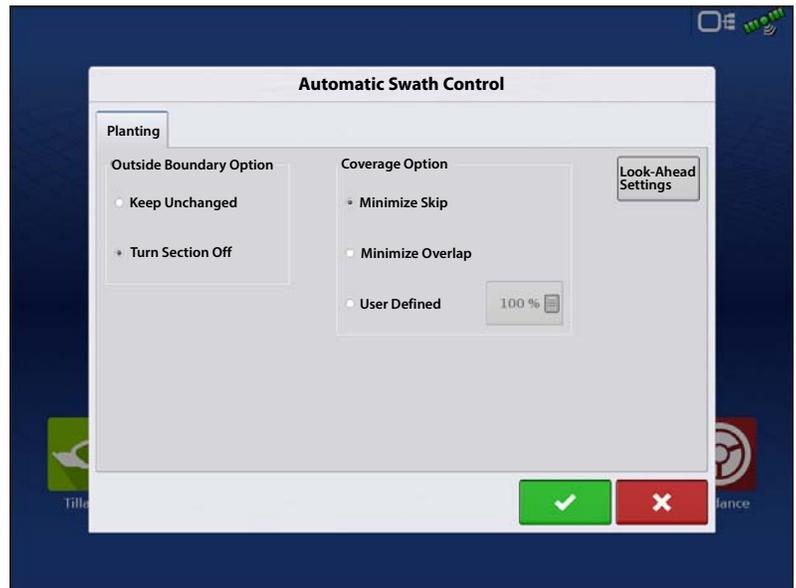
Outside Boundary Option—Select one of the two options to determine system behavior when a section exits a field boundary.

- **Keep Unchanged**—Clutch section on/off status will not change when exiting the field as defined by the outside boundary.
- **Turn Section Off**—Clutch section will cease planting when exiting the field as defined by the outside boundary.

• Coverage Option

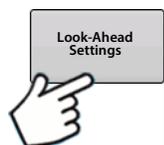
In the Coverage Option area, you must choose between three options:

- The **Minimize Skip** option turns off the implement section after the entire section is fully inside your coverage area. This prevents the possibility of skips.
- The **Minimize Overlap** option turns off the implement section when that section first enters your coverage area. This prevents the possibility of overlaps.
- The **User Defined** option allows you to choose what percentage of the implement section is within the coverage area before that section turns off. For example, if you choose 50%, then the section will switch off when half of it is within your coverage area.



Look-Ahead Settings

AutoSwath Control settings are saved per controller per configuration. There can be different Look-Ahead settings saved for equipment of the same operation. The Look-Ahead Settings screen will contain every controller's Look-Aheads.



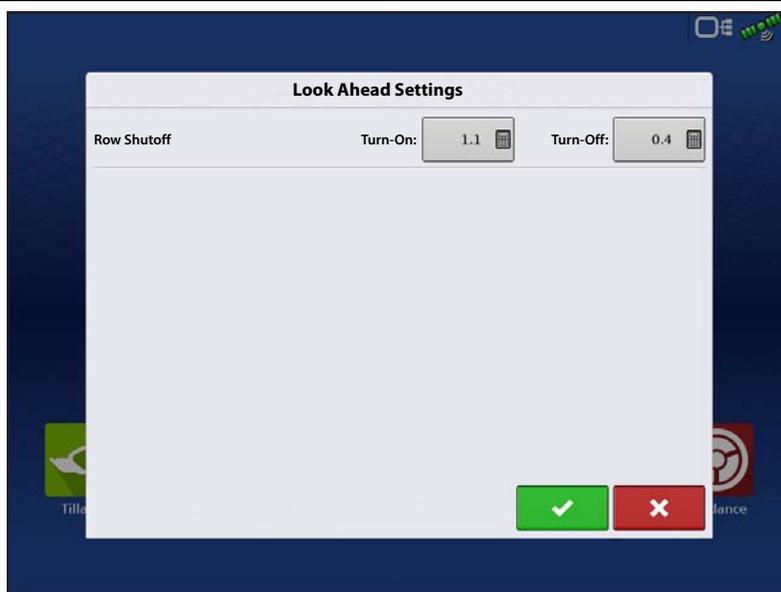
On the AutoSwath Control screen, press the Look-Ahead button.

Turn-On—This setting determines how far ahead the system looks to turn the sections back on. This setting compensates for delay in the planting control system when the implement sections are turned on.

 **ATTENTION!**: For best performance, do not change travel speed as you are entering the unplanted area. Accelerate either well before entering the unplanted area, or after all clutch sections have turned On.

Turn-Off—This setting determines how far ahead the system looks to turn the sections off. This setting compensates for delay in the product control system when the sections are turned off.

 **ATTENTION!**: For best performance, do not change travel speed as you are nearing the planted area. Decelerate either well before entering planted area, or after all clutch sections have turned Off.



Row Shutoff Look-Ahead Numbers

This table references the Turn-On Look-Ahead and Turn-Off Look-Ahead numbers for both Electric Clutch and Air Row Shutoff Modules.

Planter Unit Seed Meter Type	On/Off	Electric Clutch	Air Clutch
Finger Units	Turn On	0.9	1.1
	Turn Off	0.3	0.3
Vacuum	Turn On	0.9	1.1
	Turn Off	0.4	0.4

 **NOTE!**: Using the above settings should produce good field results. However, always take the time to check for proper seed placement in the field and make system setting adjustments as needed. Do not rely solely upon the appearance of the On-Screen map. The on screen map will not show gaps and overlaps caused by incorrect GPS Offsets or AutoSwath Look-Ahead settings.

Checking AutoSwath Performance for Row Shutoff

The settings given in the above AutoSwath Look-Ahead table shown previously have been tested with each clutch and seed meter combination to work for your planter. However, always take the time to check for proper seed placement in the field and make system setting adjustments as needed. Do not rely solely upon the appearance of the On-Screen map. The on screen map will not show gaps and overlaps caused by incorrect GPS Offsets or AutoSwath Look-Ahead settings. Verify settings with the following procedure:

1. Stop the planter within 20 feet of the planted headland.
2. Select one row unit from each planter swath section to observe.
3. Remove the down pressure from the closing wheel of each selected row unit.
4. Hold the closing wheels off the ground by attaching a chain or strap from the hopper support panel to the closing wheel arm. (This prevents the closing wheels from closing the seed trench).

 **NOTE!** Securing these closing wheels up allows you to observe the planted seed in the trench so that you can observe when the AutoSwath is turned off and on during the seed application.

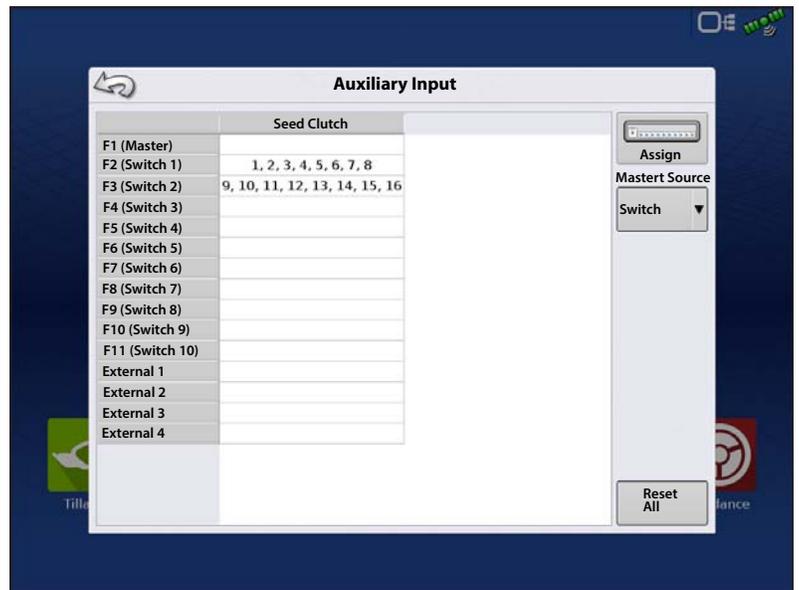
5. Resume planting in your normal fashion, then stop when you are 20 feet out of the headland of the next pass.

- Stop the planter and observe the AutoSwath shutting off and turning on to see if the results are acceptable.
 - If the results are correct, then return the closing wheels to their previous operational state. Close the seed trench on the observed rows and return to planting.
 - If you suspect the results are incorrect, then adjust the appropriate Look-Ahead setting one-tenth (.1) second per trial. Larger adjustments can cause unintentional large changes in the AutoSwath's performance. When adjusting the Look-Ahead numbers from the suggested settings, it is recommended that you observe multiple trials to confirm the operations' accuracy.
 - If you encounter overplanting or underplanting problems, see "Fixing Overplanting and Underplanting in AutoSwath" in the TroubleShooting section.

Auxiliary Input

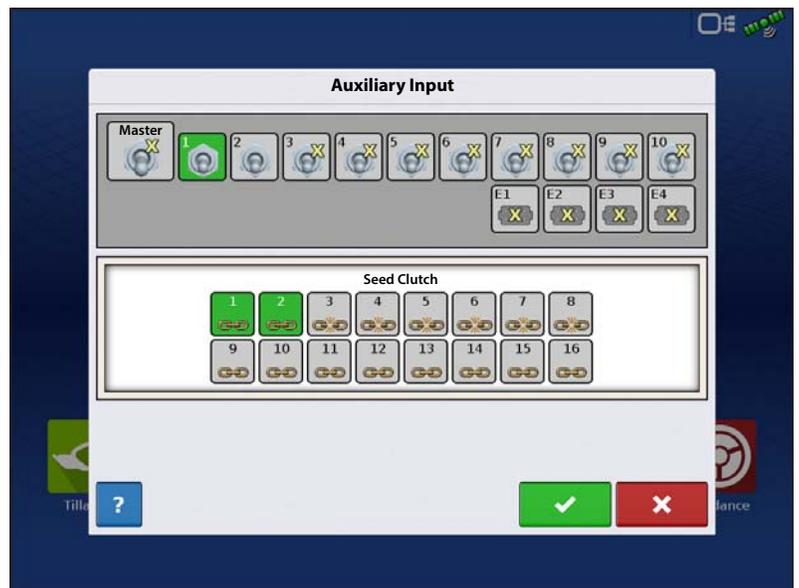
Clutch control planter sections will default to the first two switchbox switches with a planting operation. AutoSwath will still trigger sections on/off by each section in a planting application. If the operator would like to turn section(s) on/off by a single switch, the sections will need to be assigned.

- Press .



- Highlight the desired switch to assign a function to it.
- Select appropriate function(s) (clutch sections for this operation) to assign to the desired switch. Chain icons with in each function will "link" once pressed to indicate they are assigned. If a function has a "broken link" then it is not assigned. If a switch has a "X" then it is not assigned to a function. Press the  to save the setup.

i NOTE! Even if no specific functions are assigned to the Master switch, the Master switch will still serve as the total system on/off switch.

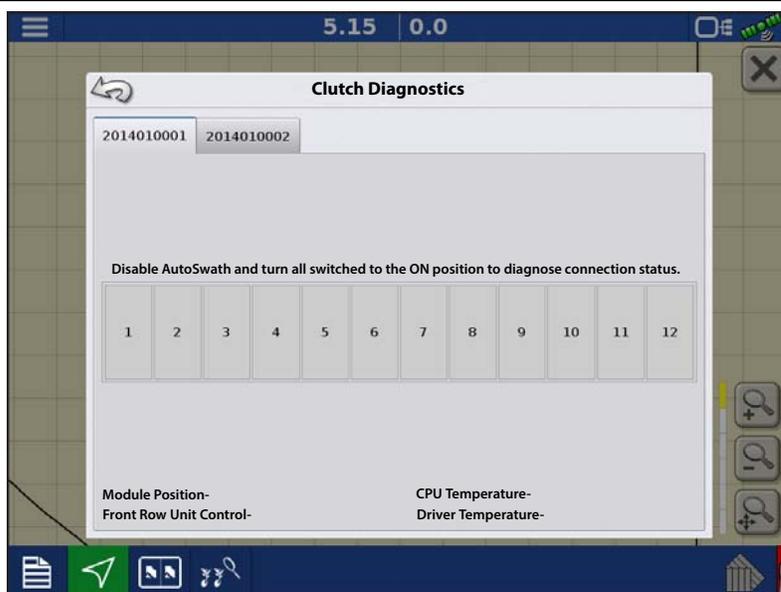


Clutch Diagnostics



There will be a Seed Clutch Module in the CAN A tab for each module on the CAN BUS.

The Clutch Diagnostic screen includes section status for the module. If there are multiple clutch modules, there will be a tab for each identified by the Serial Number. This screen can be used to diagnosis section status, and what sections are mapped to specific switches. If a section is Off the indicators will be gray, if the section is On the indicators will turn green.



Troubleshooting Planter Section Control

Problem—Receiving the message “Configuration Failed. The number of detected module outputs does not equal the number of planter sections.”

Solution—The number of detected clutch sections by the module(s) does not match the sections setup in the configuration.

1. Verify the configurations clutch sections is setup to match the planter setup. The number of clutch sections is determined by the clutch adapter cable plugged into the module.
2. If the number of sections detected is less than what it's supposed to be, check for wiring damage leading to the first failed section. (Ex: On an 8 row planter with 8 clutch sections, if sections 1-6 are detected, check the wiring going to section 7). A clutch may not be plugged in, or wires damaged.
3. If the number of sections detected indicates "0-0" verify high power (12V) going to the clutch control module. Also verify the high power "T" connection leading off the adapter cable is connected.

- If 12V is verified at the clutch control module, check for wiring damage leading to the first clutch section.

i NOTE!: Testing for 12V will be done at the 2-pin duetsch connections.

Fixing Overplanting and Underplanting in AutoSwath

AutoSwath Function—Turn Off Look Ahead

Problem—Underplanting

Recommended Action—Decrease Look-Ahead number

Result—The AutoSwath anticipates headlands later and turns the planter off later.

Problem — Overplanting

Recommended Action—Increase Look-Ahead number

Result—The AutoSwath anticipates headlands sooner and turns the planter off sooner.

AutoSwath Function—Turn On Look Ahead

Problem—Underplanting

Recommended Action—Increase Look-Ahead number

Result—The AutoSwath anticipates headlands sooner and turns the planter on sooner.

Problem—Overplanting

Recommended Action—Decrease Look-Ahead number

Result—The AutoSwath anticipates headlands later and turns the planter on later.
