

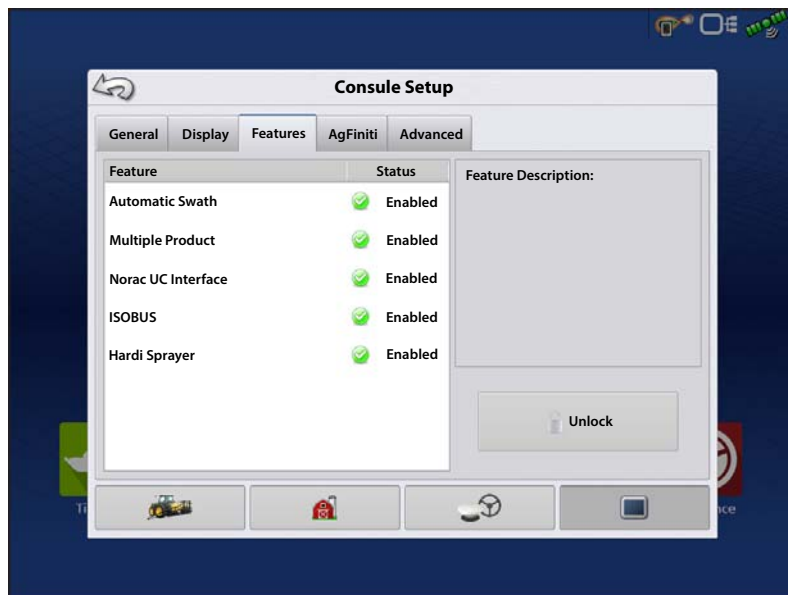


Norac Unlock



The Features Tab is where you can enter unlock codes. Unlock codes are unique to the serial number of each display and the feature registration number. You must supply these numbers to your dealer when purchasing any unlock codes. Press  to enter the unlock code and press  to enable the feature.



Norac UC5 can be used with or without an unlock but how you setup and run the system differs depending on whether the system is locked or unlocked and using CAN A or CAN B.

	Locked	UnLocked
CAN A	No Functionality	Setup using Ag Leader Screens Operate using Ag Leader Screens
CAN B	Setup using Universal Terminal Screens Operate using Universal Terminal Screens	Setup using Universal Terminal Screens Operate using Ag Leader Screens

Create Configuration

To create a configuration, make the following button presses to start the Configuration Wizard and then follow the instructions given on the display. The configuration can be started in two places:



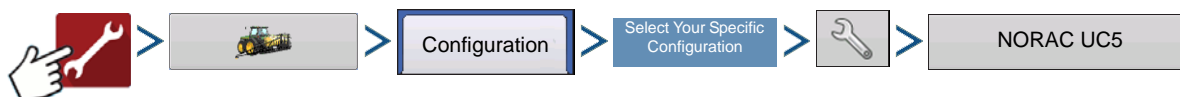
OR



The wizard will guide you through the process of selecting or creating a vehicle, implement and controllers.

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

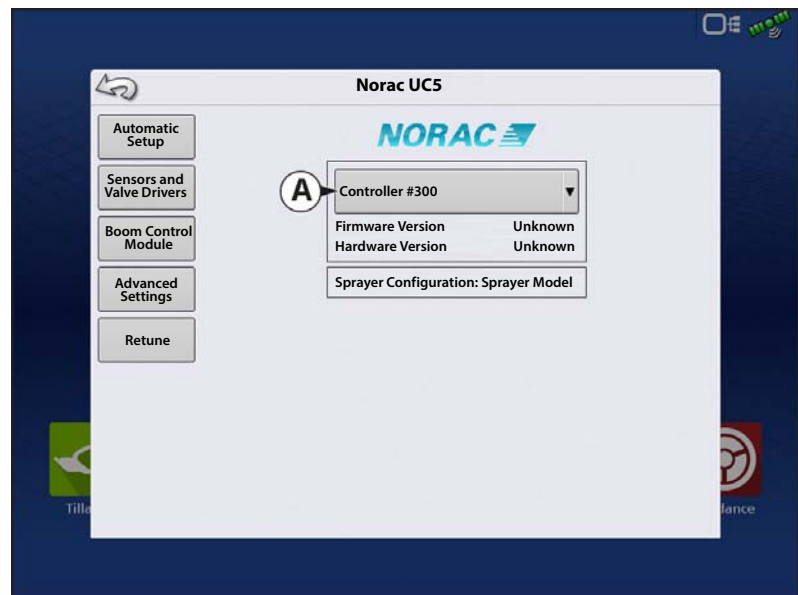
Setup Configuration



A. Norac Devices drop-down menu—The drop down menu shows the devices communicating on the NORAC UC5 CAN Bus along with the serial number of each device. The Firmware Version and Hardware Revisions of your NORAC UC5 devices are shown underneath.

• **Automatic Setup**—Automatic Setup walks through a series of steps that configures the NORAC UC5 electronics to the sprayer hydraulic functions. You must perform an Automatic Setup routine after the NORAC UC5 system is installed. The following items are configured during an Automatic Setup routine:

- Sprayer Make and Model
- Input module wiring and configuration
- Number of sensors and location
- Sensor zero point
- Valve deadzone and gain values.



NOTE!: For detailed Automatic Setup information, see the NORAC UC5 manual.

- **Sensors and Valve Drivers**—Opens the Sensor and Valve Driver Settings screen (for more detail see the next page).
- **Boom Control Module**—Turn motion detection on/off, choose source as GPS or AUX.
- **Advanced Settings**—For use by a technician.
- **Retune**—From time to time it may be necessary to recalibrate (Retune) the UC5 electronics to your sprayer's hydraulics. Examples of such times are:
 - When a hydraulic solenoid valve is changed.
 - When the hydraulic pump is changed or adjusted.
 - When the normal working temperature of the hydraulic oil has shifted significantly from when the system was previously calibrated.

If you are running a pull type sprayer and use different tractors to operate the sprayer, you should run the Retune procedure each time the tractor is changed. If you have a flow control for the boom hydraulics, set it prior to tuning. If you change the flow setting by more than 20 percent, you should Retune.

Press **Sensors and Valve Drivers** to open the Norac UC5 Setup.


General Tab

Minimum Height Mode includes three selections:

- **Absolute**—no sensors are allowed to move closer to the target than the minimum height setting.
- **Relative**—no sensors are allowed to move closer to the target than the distance of the target height minus the minimum height setting.
- **Disabled**—Disables the minimum height mode.

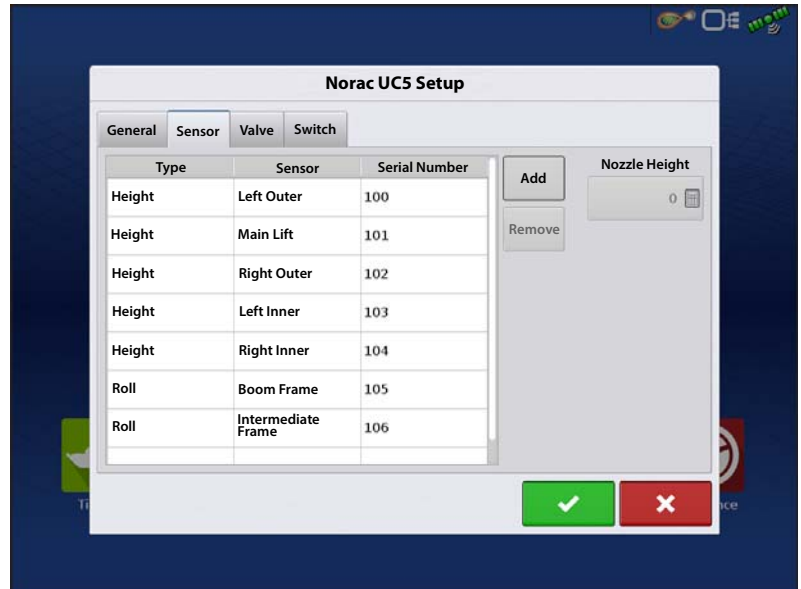
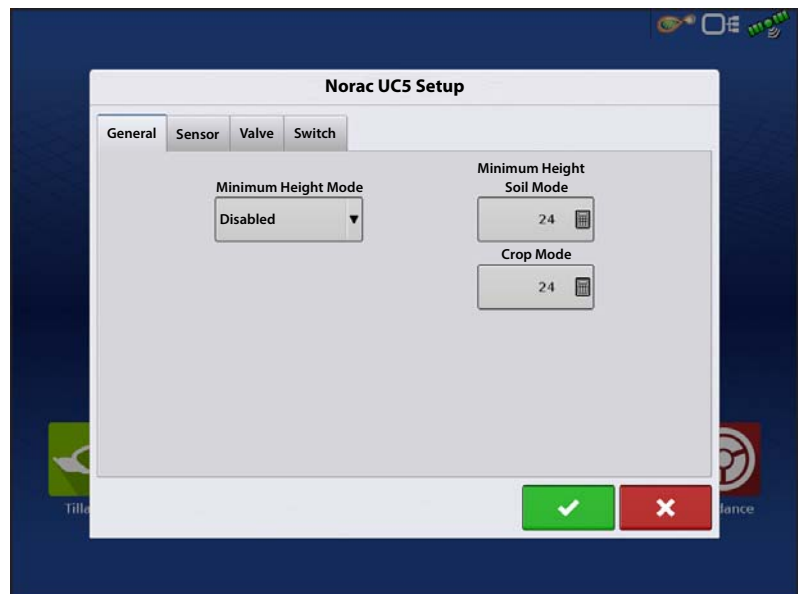


NOTE: “Target” refers to the ground in Soil Mode, and the crop canopy in Crop Mode.

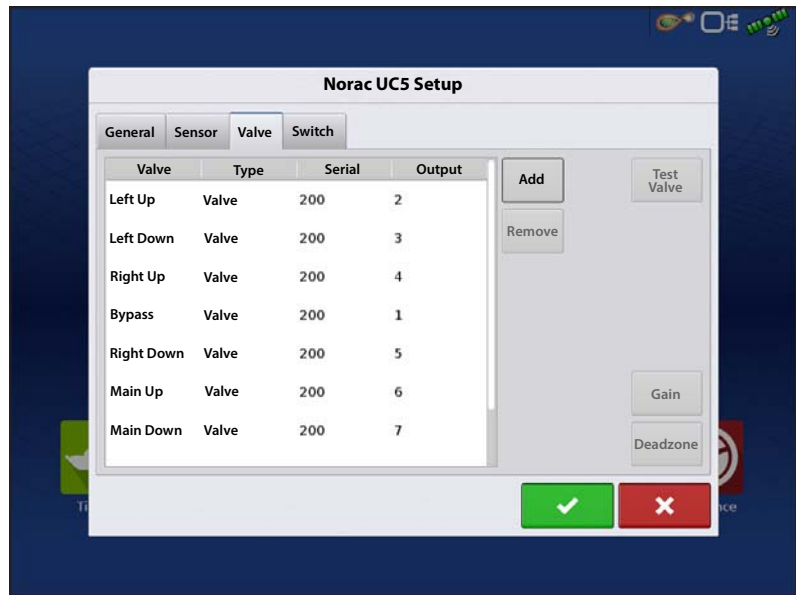
- **Minimum Height**—If desired, press  to adjust the following settings.

- **Soil Mode** - The minimum height setting when operating in Soil Mode.
- **Crop Mode** - The minimum height setting when operating in Crop Mode. Also, consult the NORAC UC5 manual for more information.

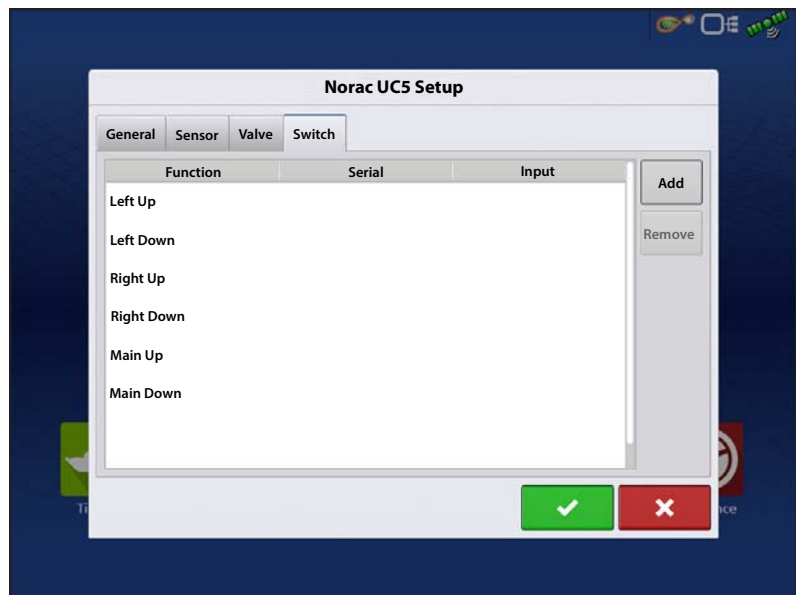
Sensor Tab—List of each sensor type and serial number, add or remove a sensor, input nozzle height.



Valve Tab—List of each valve, type, serial number, and output. Add or Remove a valve, test valve, adjust gain and deadzone.



Switch Tab—List of switches, functions, serial numbers, and input. Add or Remove a switch.



Load Configuration



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

Engage button



If the NORAC UC5 Boom Height Control is included in your Operating Configuration, then the NORAC Engage button appears on the display's Task Bar. The Engage button enables boom height control. This button is green when the NORAC UC5 system is engaged; and grey when disengaged. Press on this button to engage and disengage the NORAC UC5 Boom Height Control.

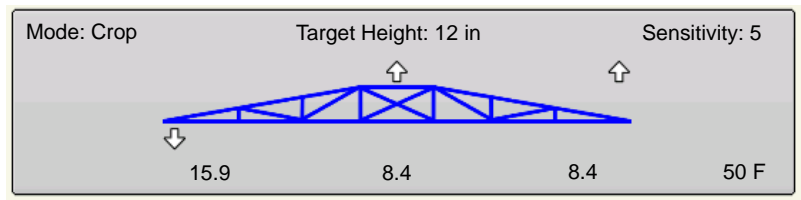
This button can be used to toggle back and forth between Automatic Mode and Manual Mode.

- When you enable **Automatic Mode**, this button turns green and the display beeps three times.

- When you disable **Automatic Mode** on any part of the boom and the display switches to **Manual Mode**, this button turns white and the display beeps twice. If less than the full boom remains in **Manual Mode**, the display will continue beeping twice every three seconds.

Boom Height Control Options Button

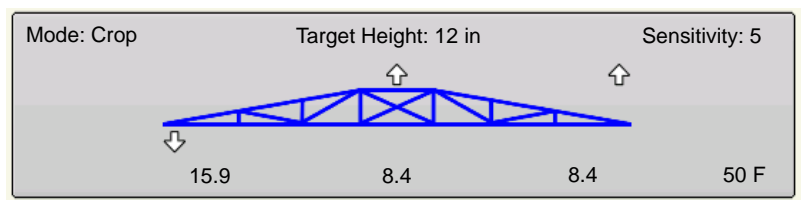
At the center of the Map screen’s Equipment Tab, the Boom Height Control Options button displays data on NORAC UC5 Run Time performance.



- The Boom Icon appears as blue when in Automatic Mode; and black when in Manual Mode. The right, left and center sections appear independently on this icon. Press the Boom Height Control Options button to open the Boom Height Control Options screen.
- The white arrows indicate the direction that the boom section is being commanded to move. The arrows shown around the boom appear either 1) In Automatic Mode, or 2) When the boom is in Manual Mode and the boom is moved by the operator.
- **Mode**—Indicates whether the Boom is in Crop Mode, Soil Mode, or Hybrid Mode.
- **Target Height**—The desired boom height above the ground (for Soil Mode), or the crop canopy (for Crop Mode).
- **Sensitivity**—Adjusts the boom response. Higher values make the height control more responsive.
- **Distance Between Boom and Target**—The numbers that appear below the Boom Icon show the distance between the boom section and the target.
- **Temperature**—Shows the measurement of the outside ambient air temperature.

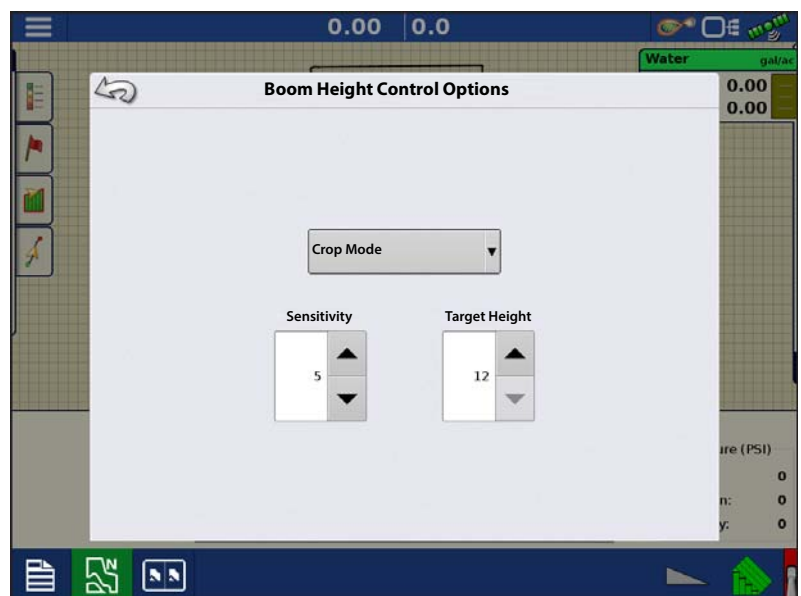
Boom Height Control Options Screen

Pressing the **Boom Height Control Options button** opens the **Boom Height Control Options screen**.



At this screen, you can adjust the boom’s Mode, Sensitivity and Target Height.

- **Mode**—The drop-down menu is where you can choose one of three modes:
 - Soil Mode**—the UC5 controls boom height relative to the distance from the soil.
 - Crop Mode**—the UC5 controls boom height relative to distance from the crop canopy.
 - Hybrid Mode**—The UC5 controls boom height using a combination of soil and crop readings. For detailed Hybrid Mode information, see the Norac UC5 manual.



- **Sensitivity**—Adjusts the boom response. Higher values make the height control more responsive; settings range from 0-10.
- **Target Height**—User-defined boom height in relation to the selected control mode.

Boom Height Diagnostics

The Boom Height Diagnostics screen shows all data for individual sensors, including Height, Roll and Temperature.



To go to the Boom Height Diagnostics screen, press on the **Device Information** button. At the **Devices** screen, highlight the item marked **NORAC UC5** then press the **Diagnostics** button.

The NORAC UC5 Diagnostics screen appears.

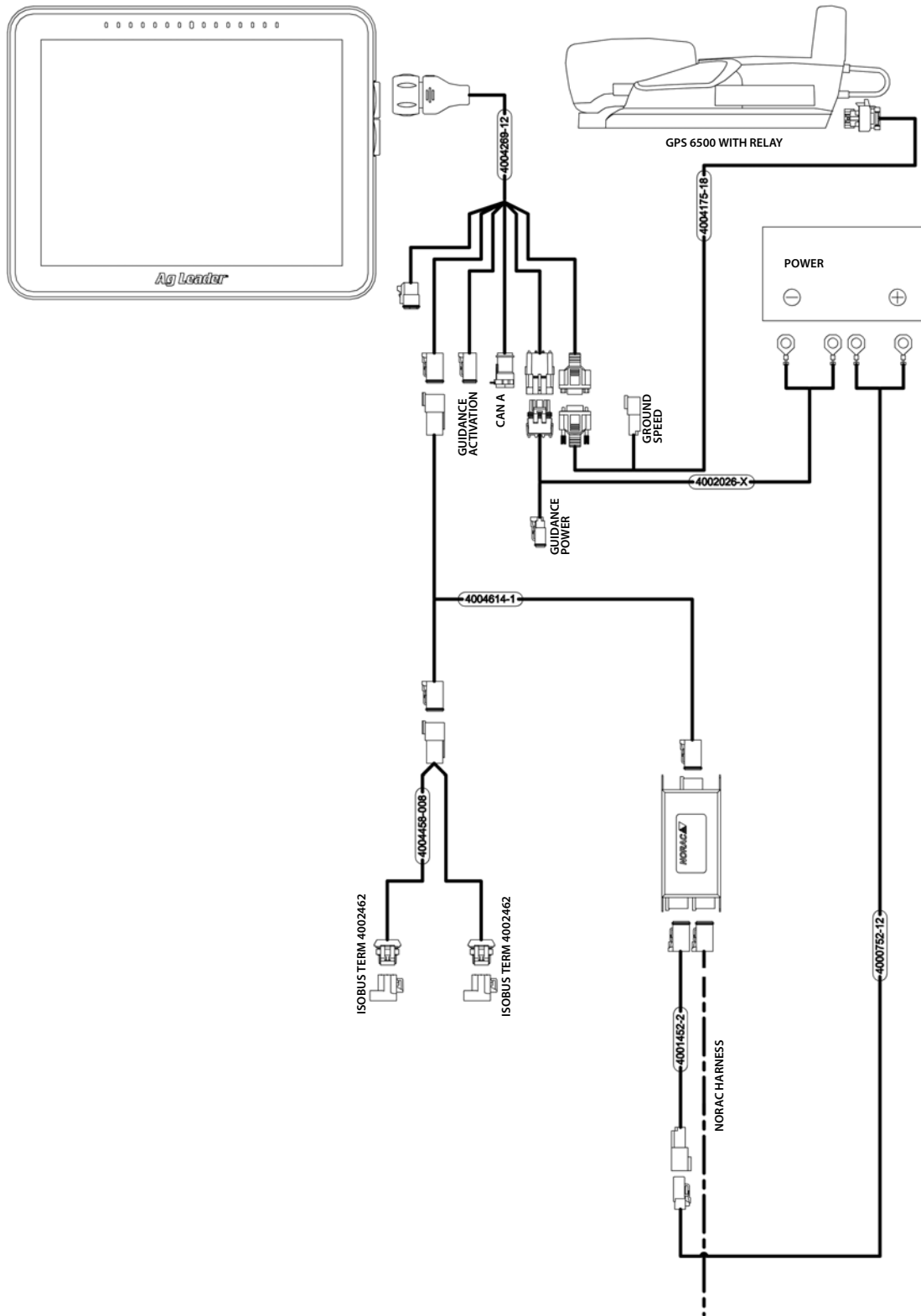
Boom Height Diagnostics

General		Boom Control State		
Control Mode	Crop	Left	Center	Manual
Target Height	30.5	Right	Roll	Manual
Remote Switch				Manual

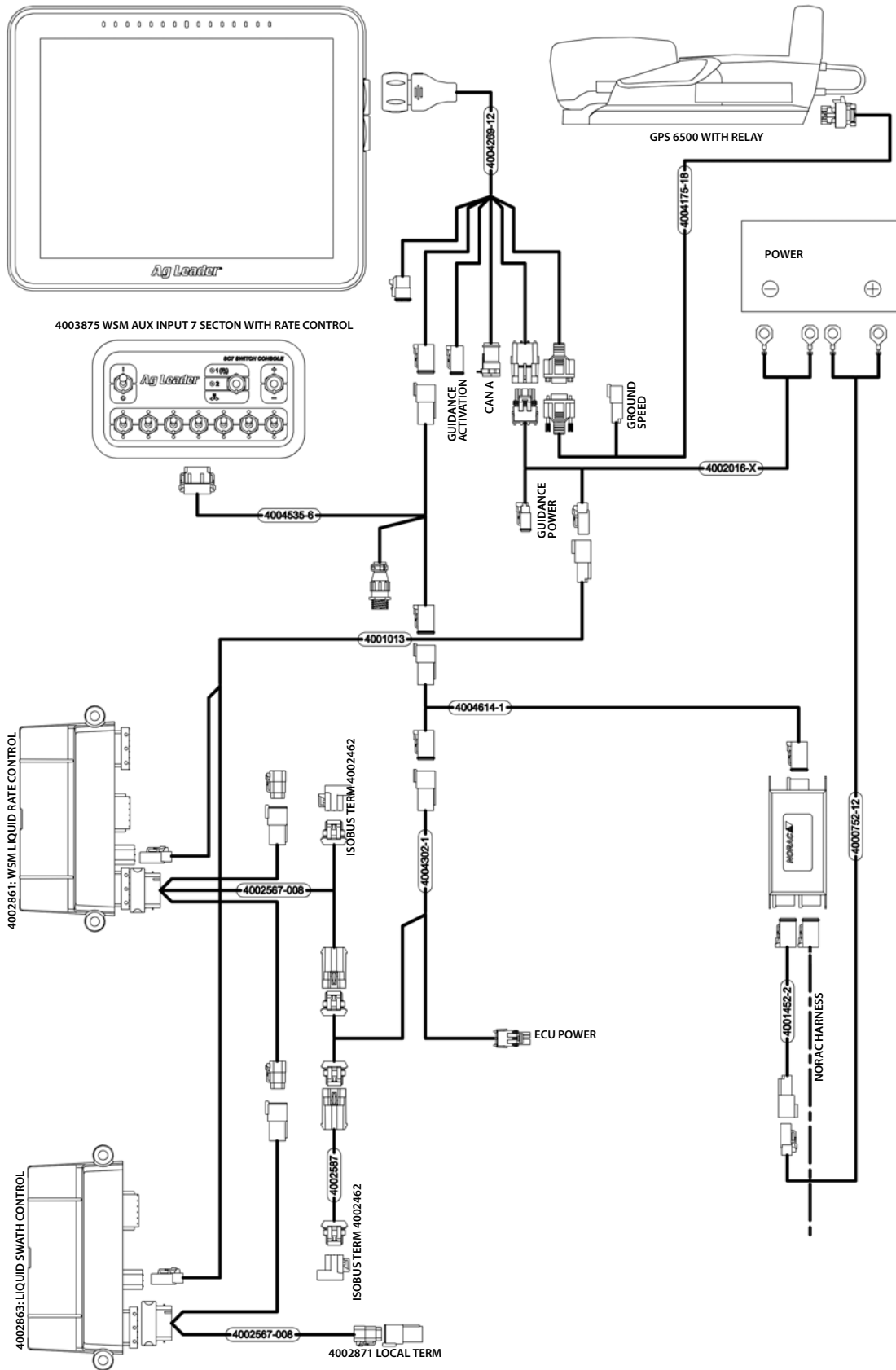
Sprayer Configuration: Sprayer Model

Location	Serial	Height / Roll	Temperature
1	100	0 cm	21.0 °C
2	103	0 cm	21.0 °C
3	101	0 cm	21.0 °C
4	104	0 cm	21.0 °C
5	102	0 cm	21.0 °C
6	105	0.0 °	N/A
7	106	0.0 °	N/A

UC5 Stand-Alone System



UC5 Self-Propelled with Modules



CAN CABLE PART NUMBER TO MODULES AND SWITCHBOX MAY DIFFER FROM CABLES SHOWN

UC5 ISOBUS Vehicle

