KINZE BLUE VANTAGE

OPERATOR'S MANUAL

Rev. 9/21

This manual is applicable to: Kinze Blue Vantage System

Record the serial numbers of your planter Blue Vantage system and the purchase date:

Service Tag

Date Purchased

M0288



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Kinze Manufacturing, Inc. thanks you for your patronage. We appreciate your confidence in Kinze farm machinery. Your Kinze planter has been carefully designed to provide dependable operation in return for your investment.

This manual has been prepared to aid you in the operation and maintenance of the planter. It should be considered a permanent part of the machine and remain with the machine when you sell it.

It is the responsibility of the user to read and understand the Operator's Manual in regard to safety, operation, lubrication, and maintenance before operation of this equipment. It is the user's responsibility to inspect and service the machine routinely as directed in the Operator Manual. We have attempted to cover all areas of safety, operation, lubrication and maintenance; however, there may be times when special care must be taken to fit your conditions.

Throughout this manual the symbol and the words **DANGER**, **WARNING**, and **CAUTION** are used to call attention to safety information that if not followed, will or could result in death or injury. **NOTICE** and **NOTE** are used to call your attention to important information. The definition of each of these terms follows:



Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations, typically for machine components which, for functional purposes, cannot be guarded.



Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



Used to address safety practices not related to personal injury.

NOTE: Special point of information or machine adjustment instructions.

The Kinze Limited Warranty for your new machine is stated on the retail purchaser's copy of the Warranty And Delivery Receipt form. Additional copies of the Limited Warranty can be obtained through your Kinze Dealer.

The Warranty, within the warranty period, is provided as part of Kinze's support program for registered Kinze products which have been operated and maintained as described in this manual. Evidence of equipment abuse or modification beyond original factory specifications will void the warranty. Normal maintenance, service and repair is not covered by the Kinze warranty.

To register your Kinze product for warranty, a Warranty And Delivery Receipt form must be completed by the Kinze Dealer and signed by the retail purchaser, with copies to the Dealer, and to the retail purchaser. Registration must be completed and submitted to Kinze Manufacturing, Inc. within 5 business days of delivery of the Kinze product to the retail purchaser. Kinze Manufacturing, Inc. reserves the right to refuse warranty on serial numbered products which have not been properly registered.

If service or replacement of failed parts which are covered by the Limited Warranty are required, it is the user's responsibility to deliver the machine along with the retail purchaser's copy of the Warranty And Delivery Receipt to the Kinze Dealer for service. The Kinze warranty does not include cost of travel time, mileage or hauling. Any prior arrangement made between the Dealer and the retail purchaser in which the Dealer agrees to absorb all or part of this expense should be considered a courtesy to the retail purchaser.

Kinze warranty does not include cost of travel time, mileage, hauling, or labor.

BLUE VANTAGE

Once Blue Vantage has been properly set up, it can be ready to plant in three taps.

The Health screen provides all important planting and diagnostic information. The grower can observe row-by-row planting performance in real-time.

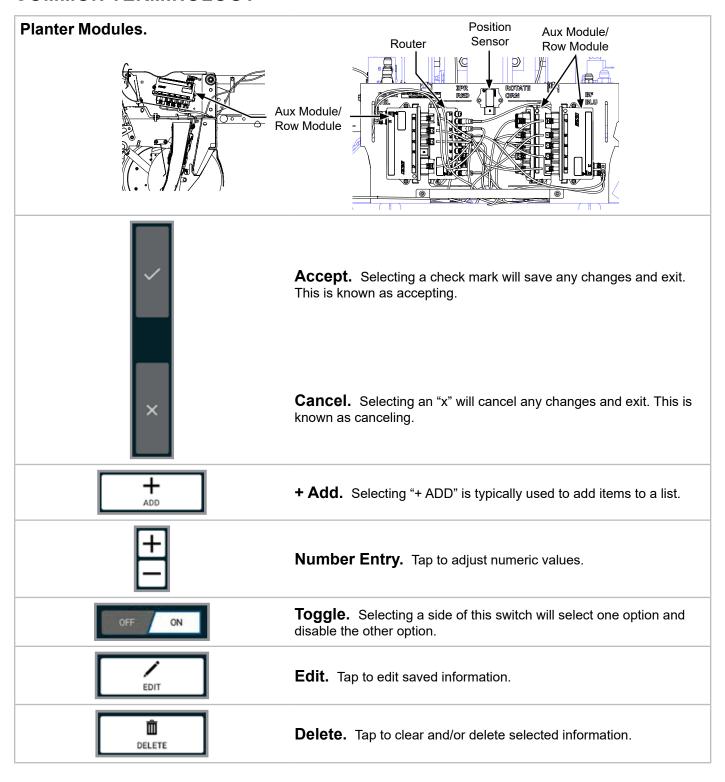
Blue Vantage provides fast and reliable communication with the planter and an easy-to-read, high-definition rugged touchscreen with touch, pinch, and zoom screen actions. The quick disconnect dock and USB ports allow for easy removal and data transfer.

Blue Vantage is designed by Kinze for Kinze. One manufacturer for all components from the display in the cab to the high-speed Ethernet communications on the planter provides a complete solution that is ready to use immediately.

GENERAL INFORMATION

The information used in this manual was current at the time of printing. However, due to Kinze's ongoing product improvement, production changes may cause your planter control system display to appear or operate slightly differently in detail. Kinze Manufacturing, Inc. reserves the right to change specifications or design without notice and without incurring obligation to install the same on machines previously manufactured.

COMMON TERMINOLOGY



With Blue Vantage almost everything can be tapped to select an item, perform an action, view more information, or open more controls.

M0288 Overview
Blue Vantage

POINTS OF PLANTING



Blue Vantage. Blue Vantage must be docked with power being supplied.

Planter Attached. A Blue Vantage compatible planter must be attached.

Aux Modules Ready. All expected aux modules must be in the discovered state.

Power Pack Ready. The power pack must be in either the "healthy" or "unhealthy active" states.

Row Modules Ready. All expected row modules must be in the discovered state.

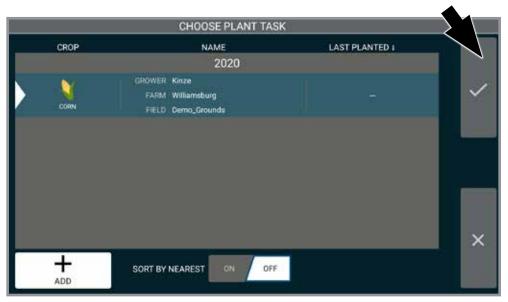
If all five points of planting are true then the system is ready to plant.



Step 1 - Tap the Plant Button.

PLANT - STEP 2

(See (Page 11) for Task Setup.)



Step 2 - Tap the task then Accept to Choose a Plant Task.

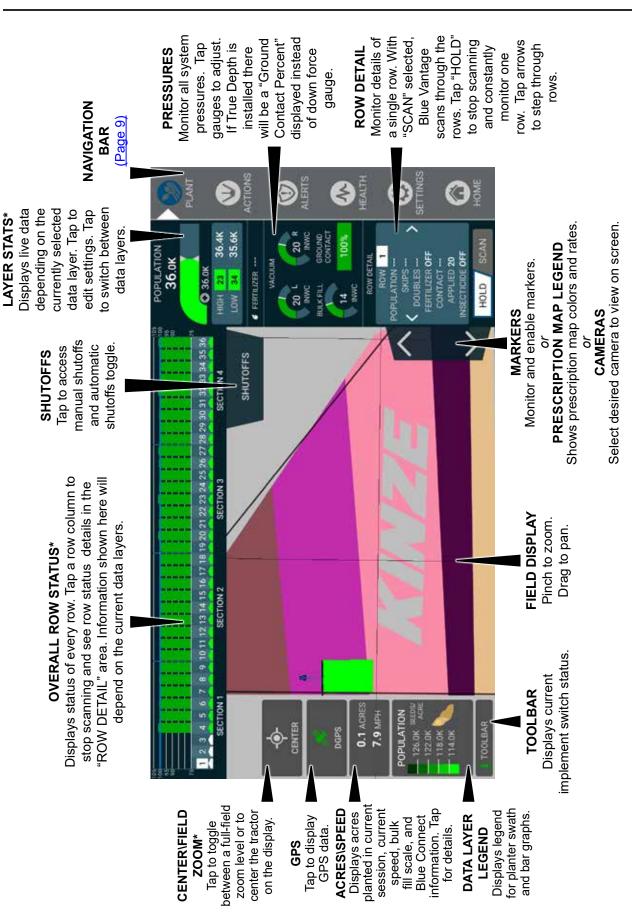
PLANT - STEP 3

(See (Page 12) for task setup.)



Step 3 - Tap the Plant Button.

(See next page for Plant Screen details.)



PLANT

* These options may appear differently depending on the current mode.

NAVIGATION BAR

Plant. Begin task setup. All points of planting (Page 5) must have a "✓" in order to plant. The button will begin to pulse when ready to plant.

Actions. Control planter functions. (Page 27)

Alerts. Display Alerts History as well as Active Alerts. (Page 47)

Health. Display overview of all diagnostics on Blue Vantage. (Page 49)

Settings. Adjust various system and display settings. (Page 56)

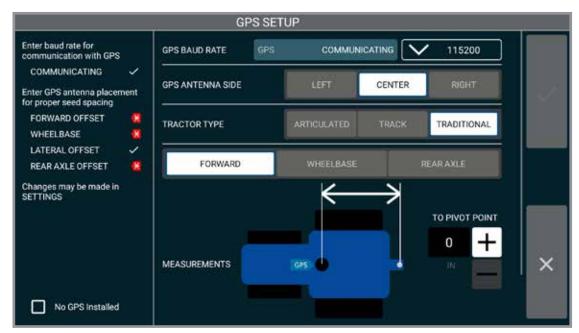
Home. Display the Home Screen. (Page 6) Tapping the home button while in a task gives the option to pause the task.





Manage. Manage Rx and boundary files as well as export reports or as-applied data. Other functions such as Grower/Farm/Field data and other information can be managed here as well. See "Planting Reports" on page 72

TASK SETUP - GPS



GPS Setup

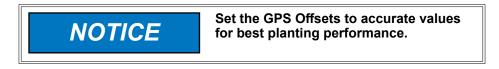
GPS Baud Rate. Set the GPS baud rate to match the GPS settings.

NOTE: Kinze recommends configuring your GPS reciever baud rate to 115200. Make sure that the baud rate on Blue Vantage matches your reciever.

GPS Antenna Side. Change location settings of the GPS antenna.

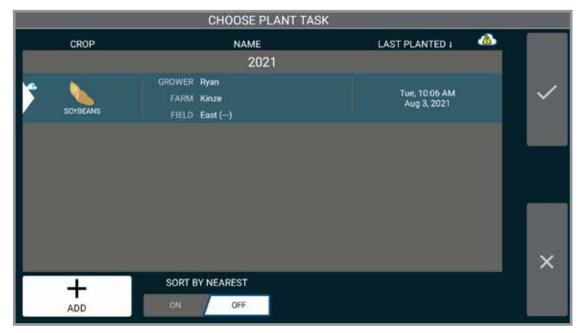
Tractor Type. Change the tractor type: Traditional, Track or Articulated.

GPS Offsets. Supply the offsets between the GPS receiver and various points on the tractor.



Note: This screen will not appear if the GPS has already been configured. However general GPS and tractor settings can be controlled from settings. (Page 55)

CHOOSE PLANT TASK



Plant (Existing Task)

From the Choose Plant Task screen, you can choose to resume a previous task or create a new task. To resume a previously created task, select it from the list and tap the accept button. Tasks are listed in the order they were last planted, with the most recent at the top of the list.

Tapping either "Crop", "Name", or "Last Planted" headers will sort the list by that field. If GPS is active, sort by nearest will sort all tasks based on proximity to the current GPS position.

TASK SETUP

Use Task Setup to enter all necessary task information. Correct task setup is critical for the highest performance of the system.



Task Setup

The task setup screen provides the ability to give detailed task information such as Products, Pressures, and Population.

Tap "GROWER" to Begin Task Setup (Page 13)

Maps. (Page 18)
Products. (Page 14)
Population. (Page 16)
Pressures. (Page 19)

Front Rows. Indicates to the system whether the front rows are raised or lowered.

NOTE: This data can be accessed from the manage screen as well. Additional functions are available in the manage screen. (Page 67)

NOTE: When adding a new task, settings will default to the previous task used. See Grower/Farm/Field; (Page 13).

TASK SETUP - GROWER / FARM / FIELD





Add Grower, Farm, and Field:

Tap "+ ADD".

Enter Grower information using keyboard.

NOTE: If Grower, Farm, and Field are not added, they will be auto-populated:

Grower - "UNNAMED" Farm - Current Date Field - Current Time

To Edit/Delete Grower, Farm, or Field; See (Page 67).

TASK SETUP - PRODUCTS



Product

Crop & Disc. Select a Crop type, then select Disc Size.

NOTE: Disc Size will only be available to edit if there is more than one option for the selected crop. It will still be shown if there is only one option.

Seed Hoppers. Select or add a product for each seed hopper.

NOTE: Any unique seed entered is listed under both tanks and can be selected independently for each tank.

Fertilizer / Insecticide. Displays the current product and tools to add products and display prescription maps. Turn the system on or off using the "On/Off" buttons.





GPS Lost Rate

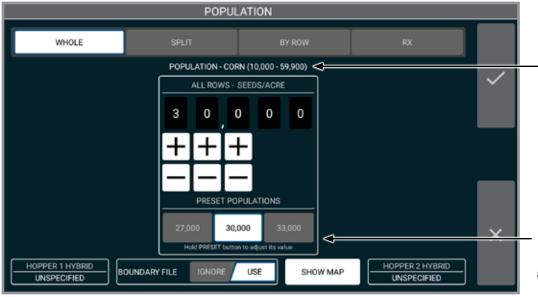
Enter the application rate to apply when GPS signal is lost.

Show Map

Displays the currently selected prescription map.

NOTE: Any of the above can be accessed during planting (if Data Layer is currently displaying "Fertilizer" or "Insecticide"). Tap on "Layer Stats" to view.

TASK SETUP - POPULATION



Population range is specified based on crop selection.

Tap a preset to quickly select a frequently used population. Tap and hold on one of the preset buttons after manually adjusting the value in the upper fields to store the preset in that location.

Population

Select population control type from whole, split, by row, or Rx.

Split Population (shown in figure to right) provides the operator the ability to plant at different rates on each half of the planter.

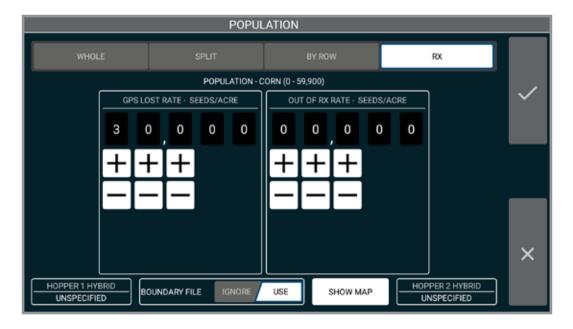
NOTE: Population values will be saved with each task.



By Row Population (shown in figure to right) provides the operator the ability to plant at different rates for each individual rows. Planter summary will show the current state and population for every row, allowing the operator to apply the currently set whole population to every row. The switch allows you to turn each individual row on/off.



TASK SETUP - WHOLE / SPLIT / RX



The population screen will provide a fourth field if a prescription file is selected.

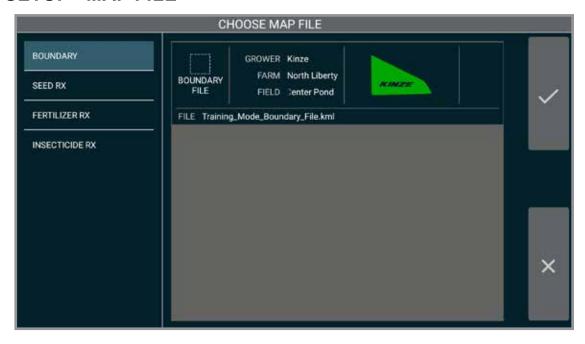
GPS Lost Rate. Enter the application rate to apply when GPS signal is lost.

Out of RX Rate. Enter the application rate to apply while outside prescription zones but within boundary.

Show Map. Shows the currently selected prescription and boundary map. Turn off the prescription map by changing the population type.

Boundary File. Turn the boundary on/off.

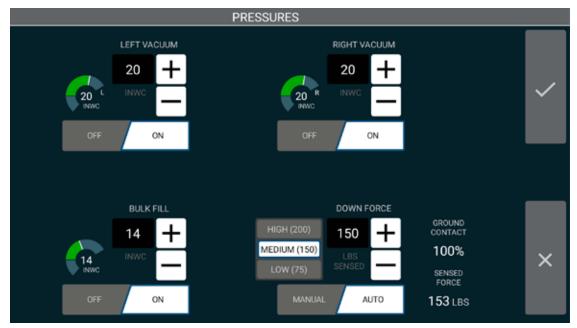
TASK SETUP - MAP FILE



Select a prescription or boundary file, then accept to continue. If you wish to remove a prescription file and continue with no prescription, select nothing and accept.

NOTE: These files are imported through MANAGE. (Page 67)

TASK SETUP - PRESSURES



Pressures

Enter and accept the desired pressures.

Refer to planter operator's manual for recommended settings.

NOTE: This screen may appear differently depending on your configuration.

If True Depth is installed extra controls are available:

Auto Mode

Entry sets the desired amount of gauge wheel weight to carry while going through field. The amount of downforce will adjust to achieve that weight on gauge wheel.

While in Auto mode, there are three presets that can be chosen from. Presets can be changed after manually adjusting the value, tap and hold on one of the preset buttons to save desired preset.



Manual Mode

Entry is a set amount of downforce and does not adjust based on guage wheel load. This setting keeps downforce the same no matter conditions, speed etc.

PLANT SCREEN

Plant Screen Introduction. The plant screen provides significant planting information all in a single display. Overall field view, population, and row data are available. The grower can also monitor speed and acres as well as system pressures, or tap to control row markers. Detailed row data is also available at a glance and can be investigated in detail with a tap.



Row Detail. Displays a readout of the current status of an individual row, including the population information, fertilizer system state, and insecticide system state. This box will rotate through all rows while scan is active, changing every few seconds. It will stay on a single row when hold is selected.

Pressures.

Vacuum	Displays vacuum pressure levels.
Bulk Fill	Displays the pressure level of the bulk fill system.
Down Force	Displays the amount of down force being placed on the row units.

NOTE: If a Kinze True Depth 12" Display is installed, instead of a down force gauge there will be a Ground Contact Percentage displayed.

Center/Field Zoom. Toggles between centering on the tractor/planter and zooming to display the entire field.

NOTE: Field zoom may not accurately display large or disparate fields.

GPS. Indicates GPS status.



Shutoffs. Provides the ability to manually disable seed delivery by sections. Manual control is always enabled and the user can select whether there are one, two, or four sections.

NOTE: Other sections will still perform automatic section control if the automatic section control feature is enabled. This is also how automatic section control can be enabled/disabled.

Auto Section Control. Controls whether Auto Section Control is Disabled or Enabled. This enables GPS guided control or row "on/off" when entering or exiting an already planted area or boundary.

Speed/Acres. Displays the current speed, actual acres planted, productivity, and selected Counter. Tap for Acres to Empty, weights, and GPS. Tap on the counter to advance to Counter screen.

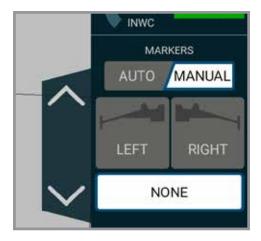


Map. Displays current work progress. Also displays the prescription and boundary maps when applicable.

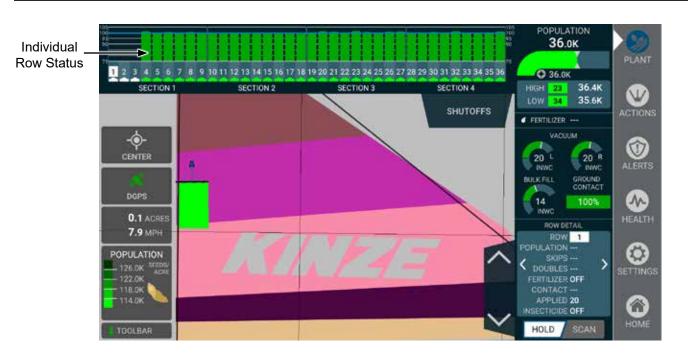
Markers. Allows the user to enable the left and right markers. Includes an auto function to automatically switch markers when the toolbar is lifted.

NOTE: The electronics do not control the lift of the markers. They only enable the deployment. Both markers can be lifted by using the hydraulics. Both can be lowered, but they must be lowered individually.

NOTE: Marker is not enabled until image turns green.



Toolbar. Shows the current implement switch status.



Individual Row Status. Displayed along the top of the screen typically showing a bargraph. Shows row by row information depending on the currently selected map layer.

Target % - Displays the average population for the whole planter in the upper right. Row by row population is also displayed and differs depending on the current population control type (whole, split, prescription). The blue line represents the target population. The bars represent the actual row population and are colored as follows:

Orange	In the over range (above the high threshold)	
Green	In the good range (above the good threshold and below the high threshold)	
Yellow	In the warn range (above the low threshold and below the good threshold)	
Red	In the error range (below the low threshold)	

The high threshold and low threshold can be adjusted in alert settings. The good threshold is calculated as half way between the low threshold and 100%.

NOTE: Population accuracy = 100% + % of Doubles - % of Skips.

Singulation - Displays how consistently the seed meter delivers seeds.

Green	In the good range (above the good threshold)	
Yellow	In the warn range (between the low threshold and the good threshold)	
Red	In the error range (below the low threshold)	

The low threshold can be adjusted in alert settings. The good threshold is calculated as half way between the low threshold and 100%.

NOTE: Singulation accuracy = 100% - % of Doubles - % of Skips.



Data Layers. Displays the stats for the currently selected data layer. Tapping on layer stats will allow you to choose the desired layer to view or edit.

Population Target % - Displays population target %.

Population - Acutal population planted.

NOTE: The individual row stats bar graphs will show population target %.

Hybrid/Variety - Displays the applied Hybrids/Varities.

NOTE: The individual row stats bar graphs will show population target %.

Singulation - Displays how consistently the seed meter delivers seeds.

Ground Contact % - Displays how consistently the gauge wheels are in contact with the ground. Only applicable with True Depth 12".

Applied Force - Displays how much force is being applied. Only applicable with True Depth 12".

Sensed Force - Displays the load seen by the gauge wheels. Only applicable with True Depth 12".

Fertilizer Target % - Displays overall system rate, individual flow or no flow.

NOTE: Will turn red if there is no flow.

Fertilizer - Displays actual rate being applied.

Insecticide Target % - Displays application and target %.

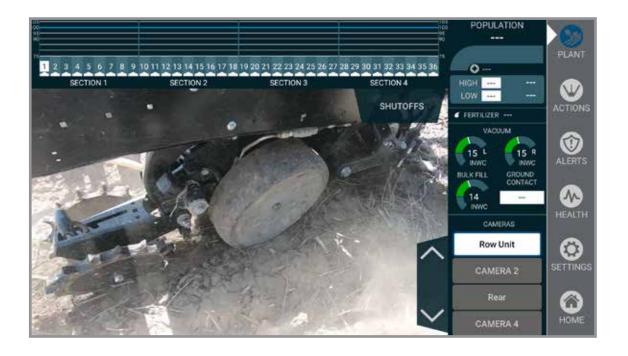


Map Detail. Tapping a spot on the planting map that has data associated with it (either applied data or prescription data) will show information for that point. The information includes the target and applied rates for all applied products.

NOTE: When viewing a task in Manage, tapping the map will also get a map detail box. In Manage map detail will show all the same information as it does while planting, plus the location data (latitude, longitude, speed, and heading) of the point.



Cameras. Camera(s) may be accessed while planting. Camera may be viewed while planting or full screen. Tap camera video to switch views. Display video in different corners of the screen by tapping video. To view another camera (if applicable), tap on desired camera from the list.



ACTIONS - INTRODUCTION

The Actions menu contains all the controls necessary to move components of the planter. These options will be different depending on the planter model. Ensure you are referencing the pages of this manual specific to your planter.

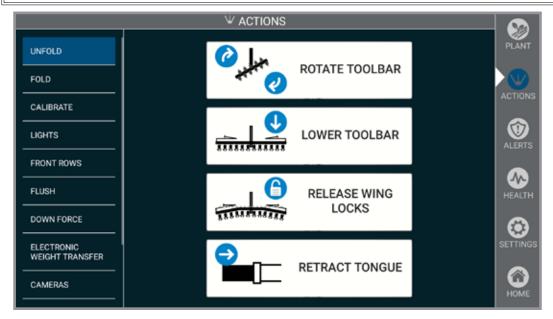
UNFOLD - MODEL 3660, 3665, AND 3605 LIFT & PIVOT



DO NOT fold or unfold planter without planter attached to a tractor. DO NOT unhitch planter from tractor unless fully folded for transport or fully unfolded with planting units lowered to ground.



Improperly operating or working on this equipment could result in death or serious injury. Make sure there is no one in the area of the moving parts of the planter.



Position the planter in a relatively flat open area. Avoid an area with furrows, etc.

- 1. Remove and store the tongue safety pin.
- 2. Remove and store the transport latch locking pin.
- 3. Remove and store the safety lockup.
- 4. Press and hold "ROTATE TOOLBAR". Operate proper hydraulic tractor control until planter has fully rotated into field position. Transport latch will automatically release.
- 5. Press and hold "LOWER TOOLBAR". Operate proper hydraulic tractor control to fully lower the planter on center post.
- 6. Operate hydraulic control to raise the planter using field lift.
- 7. Press and hold "RELEASE WING LOCKS". Operate proper hydraulic tractor control, releasing wing locks.
- 8. Press and hold "RETRACT TONGUE". Operate proper hydraulic tractor control to fully retract the tongue. Tongue latch automatically engages.
- 9. Lower the planter to the ground.
- 10. Remove the row marker lockups.

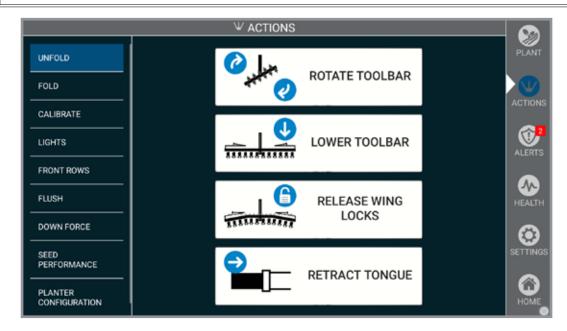
FOLD - MODEL 3660, 3665, AND 3605 LIFT & PIVOT



DO NOT fold or unfold planter without planter attached to a tractor. DO NOT unhitch planter from tractor unless fully folded for transport or fully unfolded with planting units lowered to ground.



Improperly operating or working on this equipment could result in death or serious injury. Make sure there is no one in the area of the moving parts of the planter.



Position the planter in a relatively flat open area. Avoid an area with furrows, etc.

- 1. Install the row marker lockups.
- 2. Operate the hydraulic control to raise planter using field lift.
- 3. Press and hold "EXTEND TONGUE". Operate the hydraulic control to fully extend the tongue. The tongue latch automatically engages.
- 4. Press and hold "ENGAGE WING LOCKS". Operate the hydraulic control.
- 5. Lower the planter to ground.
- 6. Press and hold "RAISE TOOLBAR". Operate the hydraulic control to fully raise the planter on center post.
- 7. Press and hold "ROTATE TOOLBAR". Operate the hydraulic control to rotate the planter to transport position. Transport latch automatically engages.
- 8. Install the safety lockup.
- 9. Install the hitch safety pin.
- 10. Install the transport latch locking pin.

UNFOLD - MODEL 4900 AND 4905 FRONT FOLDING

NOTICE

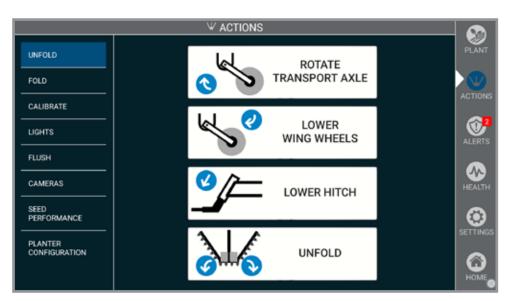
Tractor must be in neutral and allowed to roll freely when unfolding to prevent equipment damage, especially in soft conditions or when loaded with seed. Use tractor assist as needed to aid in unfolding and to reduce stress on frame and transport components.

NOTICE

DO NOT fold or unfold planter without planter attached to a tractor. DO NOT unhitch planter from tractor unless fully folded for transport or fully unfolded with planting units lowered to ground.



Improperly operating or working on this equipment could result in death or serious injury. Make sure there is no one in the area of the moving parts of the planter.



Note: Detailed folding/unfolding instructions can be found in the Model 4905 or 4900 Operator's Manual.

UNFOLD - MODEL 4900 AND 4905 FRONT FOLDING (CONTINUED)

- 1. Remove the lockups.
- 2. Press and hold "ROTATE TRANSPORT AXLE". Operate proper hydraulic tractor control to lower the transport axle to field turnaround position.
- 3. Press and hold "LOWER WING WHEELS". Operate proper hydraulic tractor control to lower the wing wheels into field turnaround position.
- 4. Press and hold "LOWER HITCH". Operate proper hydraulic tractor control to unhook the wings.
- 5. Press and hold "UNFOLD". Operate proper hydraulic tractor control to move the wing out, away from tractor. The planter is completely unfolded when the stub wings are latched into the H-frame.

Note: Place tractor in reverse and slowly reverse when unfolding to prevent damage to wheel arm.

- 6. Lower the planter and hold the hydraulic lever for an additional 30 seconds to rephase the lift cylinders.
- 7. If equipped with row markers, remove lockups and place in storage position.
- 8. Lower the hitch to level the machine during planting.

FOLD - MODEL 4900 AND 4905 FRONT FOLDING

NOTICE

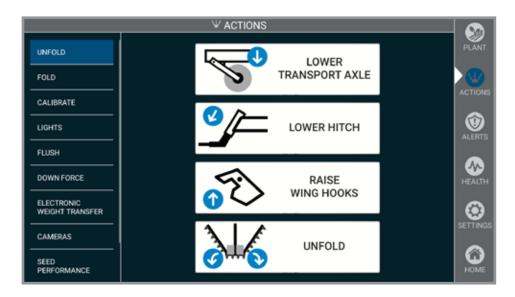
Tractor must be in neutral and allowed to roll freely when folding to prevent equipment damage, especially in soft conditions or when loaded with seed or fertilizer. Use tractor assist as needed to aid in folding and to reduce stress on frame and transport components.

NOTICE

DO NOT fold or unfold planter without planter attached to a tractor. DO NOT unhitch planter from tractor unless fully folded for transport or fully unfolded with planting units lowered to ground.



Improperly operating or working on this equipment could result in death or serious injury. Make sure there is no one in the area of the moving parts of the planter.



Note: Detailed folding/unfolding instructions may be found in the Model 4905 or 4900 Operator's Manual.

FOLD - MODEL 4900 AND 4905 FRONT FOLDING (CONTINUED)

- 1. If equipped with row markers, remove the lockups from the storage and install on marker cylinder rods.
- 2. Place the planter into field turnaround position.
- 3. Press and hold "RAISE HITCH" (If equipped). Operate proper hydraulic tractor control to raise the drawbar to level the planter frame.
- 4. Press and hold "FOLD". Operate proper hydraulic tractor control until the 2 hooks are over the top of the inner hitch.

Note: If tractor assist is needed place tractor in forward and slowly move forward when folding to prevent damage to wheel arm.

- 5. Press and hold "RAISE HITCH" (If equipped). Operate proper hydraulic tractor control to fully raise the drawbar to lock wings into place.
- 6. Press and hold "ROTATE TRANSPORT AXLE" button. Operate proper hydraulic tractor control to raise the transport axle to either transport height.
- 7. Press and hold "RAISE WING WHEELS". Operate proper hydraulic tractor control to raise the wing wheels into transport position.
- 8. Install the locking pin on the drawbar (if equipped).
- 9. Install the lockups.

UNFOLD - MODEL 4700, 4705, 4800, AND 4805 FRONT FOLDING

NOTICE

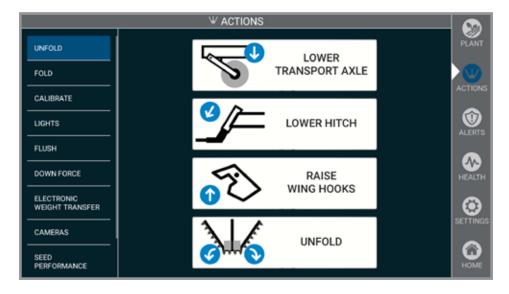
Tractor must be in neutral and allowed to roll freely when folding to prevent equipment damage, especially in soft conditions or when loaded with seed or fertilizer. Use tractor assist as needed to aid in folding and to reduce stress on frame and transport components.

NOTICE

DO NOT fold or unfold planter without planter attached to a tractor. DO NOT unhitch planter from tractor unless fully folded for transport or fully unfolded with planting units lowered to ground.



Improperly operating or working on this equipment could result in death or serious injury. Make sure there is no one in the area of the moving parts of the planter.



Note: Detailed folding/unfolding instructions may be found in the Model 4700/4800 Operator's Manual.

M0288 Actions
Blue Vantage

UNFOLD - MODEL 4700, 4705, 4800, AND 4805 FRONT FOLDING (CONTINUED)

- 1. Remove the lockups.
- 2. Press and hold "LOWER TRANSPORT AXLE". Operate proper hydraulic tractor control to lower the transport axle to the field turnaround position.
- 3. Press and hold "LOWER HITCH". Operate proper hydraulic tractor control to lower the hitch.
- 4. Press and hold "RAISE WING HOOKS". Operate proper hydraulic tractor control to disengage the wing hooks.
- 5. Press and hold "UNFOLD". Operate proper hydraulic tractor control to fold the wings outward until the stub wing latch pins are sealed into the H-frame receivers.
- 6. Raise the hitch to level the machine during planting if necessary.

FOLD - MODEL 4700, 4705, 4800, AND 4805 FRONT FOLDING

NOTICE

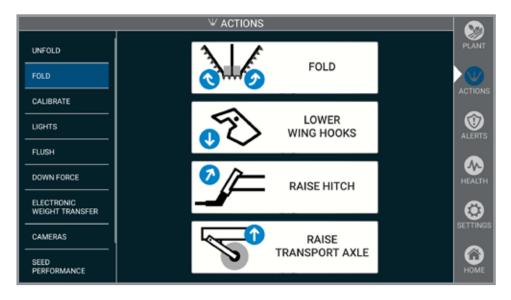
Tractor must be in neutral and allowed to roll freely when folding to prevent equipment damage, especially in soft conditions or when loaded with seed or fertilizer. Use tractor assist as needed to aid in folding and to reduce stress on frame and transport components.

NOTICE

DO NOT fold or unfold planter without planter attached to a tractor. DO NOT unhitch planter from tractor unless fully folded for transport or fully unfolded with planting units lowered to ground.



Improperly operating or working on this equipment could result in death or serious injury. Make sure there is no one in the area of the moving parts of the planter.



Note: Detailed folding/unfolding instructions can be found in the Model 4700/4800 Operator's Manual.

FOLD - MODEL 4700 / 4800 FRONT FOLDING (CONTINUED)

- 1. If equipped with row markers, remove the lockups from storage and marker cylinder rods.
- 2. Place the planter into the field turnaround postion.
- 3. Press and hold "FOLD". Operate proper hydraulic tractor control to fold the wings in toward the tractor.
- 4. Press and hold "LOWER WING HOOKS". Operate proper hydraulic tractor control to engage the wing latches around the hitch tube to lock the wings.
- 5. Press and hold "RAISE HITCH". Operate proper hydraulic tractor control to raise the hitch to transport height.
- 6. Press and hold "RAISE TRANSPORT AXLE". Operate proper hydraulic tractor control to raise the transport axle to transport height.
- 7. Install the lockups.

CALIBRATE



Calibrate

Speed Wheel. Bring the tractor to 4 MPH. Tap "CALIBRATE". Maintain speed until the timer expires. When the timer has expired, the calibration is complete.

NOTE: If speed wheel does not match GPS, re-run calibration.

Zero Bulk Fill Pressure. The bulk fill system must be turned off, then tap "ZERO". When the timer has expired, the calibration is complete.

Note: All calibrations EXCEPT SPEED WHEEL can be cancelled by tapping zero before the timer expires. If the calibration is cancelled, the last value registered by the system is used.

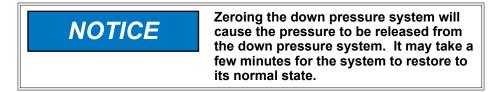
CALIBRATE (CONTINUED)



Calibrate

Zero Vacuum Pressure Sensor (Left/Right). Confirm that the vacuum fan is off. Tap "ZERO". When the timer has expired, the calibration is complete.

Zero Down Pressure Sensor (only applicable when pneumatic down force is installed).Confirm that the toolbar is down. Tap "ZERO". The toolbar must remain down until the timers expire. The first timer will count down while the pressure is released. When the second timer has expired, the sensor has reset and the calibration is complete.



Zero Down Force Links. When planter is equipped with True Depth 12". The toolbar must be raised to calibrate.

LIGHTS



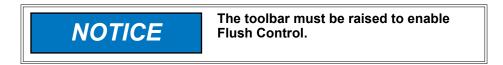
Lights

Turns the planter work lights off and on.

FLUSH

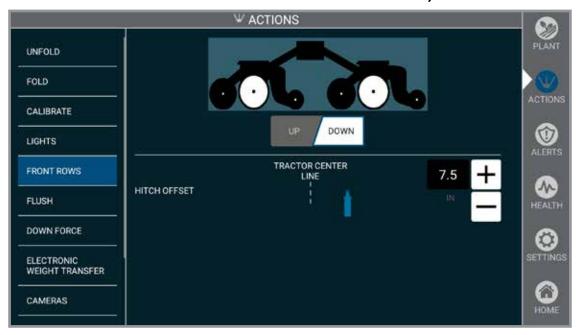


Flush



Flush allows you to clear out each product individually. Vacuum and bulk fill will use the last set of pressures when turned on. While flushing, the square corresponding to each row and product will pulse blue. When flushing has finished, the square will remain solid grey. The bulk fill and vacuum fans can be turned on and off to allow flushing of the bulk fill system and the row hoppers individually.

FRONT ROWS (ONLY AVAILABLE WITH FRONT ROWS INSTALLED)



Front Rows

Indicates to the system whether the front rows are raised or lowered. The front rows must still be manually raised/lowered.

Hitch Offset. Specifies how much the hitch is offset to allow the system to account for it. The offset is only applied when the front rows are down.

NOTE: This Hitch Offset Option is only available when even row is installed.

SEED PERFORMANCE

Test the performance of individual row units while they are installed.

 Set up the test parameters and select the rows to be tested. The parameters needed are the crop type, population, and speed to run at as well as the length, in seeds, to run for.

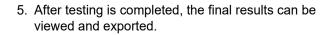
Tap "Ready".

2. Set the bulk fill and vacuum pressures and prime the planter as needed.

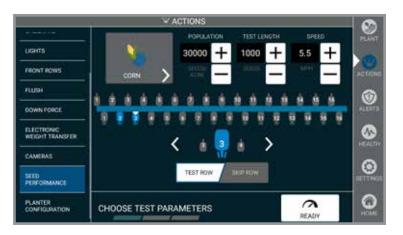
NOTE: In order to get accurate results all rows must be fully primed.

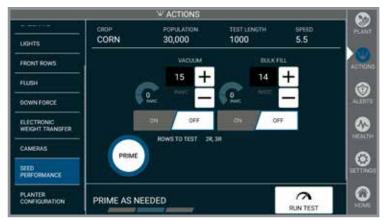
3. Tap "Run Test" to begin test.

4. While testing, pressures can be adjusted as needed. The current status of the test for each row can be viewed live.

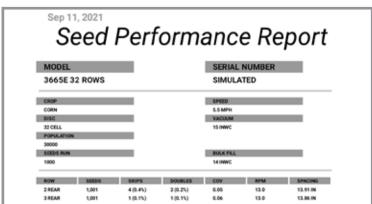


6. Select New Test to begin another test.





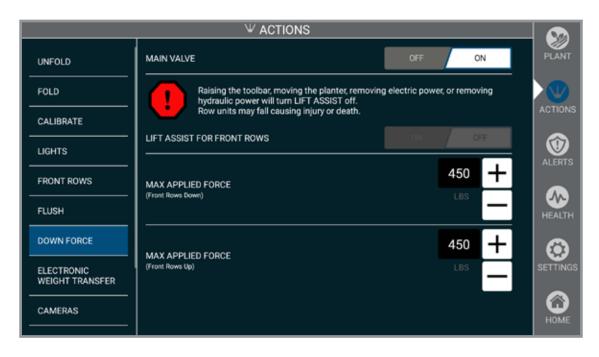




PLANTER CONFIGURATIONS

	Models							Outland			
	4700/4705	4800/4805	4900/4905	3660/3665	3505	3605	Options				
Hitch Type	Х	Х	✓	✓	✓	✓	Drawbar	2-Point			
Markers	✓	✓	✓	✓	х	✓	Installed	Not Installed			
*Bulk Fill Scales	✓	✓	✓	✓	✓	√	Installed	Not Installed			
Fertilizer			✓	х	х	х	Installed	Not Installed			
Insecticide	✓	✓	✓	✓	✓	√	Installed	Not Installed			
Front Rows	х	х	х	✓	✓	✓	Installed	Not Installed			
Even Row	х	х	х	✓	✓	✓	Installed	Not Installed			
Down Force Type	✓	✓	✓	✓	✓	✓	Springs	Pneumatic	True Depth 7"	True Depth 12"	
PTO Pump	x	✓	х	✓	✓	✓	Installed	Not Installed			

DOWN FORCE



NOTE: Only applicable if True Depth 12" Display is installed.

Main Valve. Controls the main valve for the True Depth Hydraulic System.

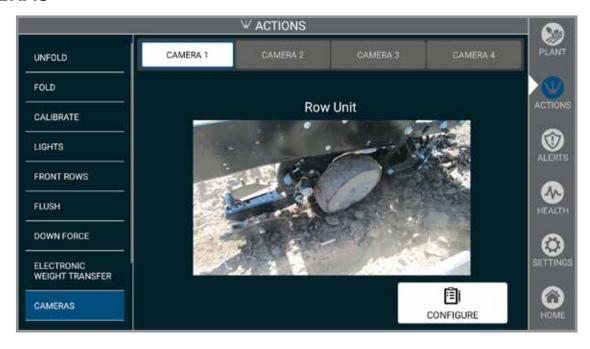
Lift Assist. Controls the hydraulic up force for the Front Rows to assist when locking up or unlocking the Front Rows.

NOTE: Lift assist is only present when front rows are installed.

Max Applied Force. Limits how much force can be applied to reach the target setting to prevent the planter from being lifted out of the ground.

NOTE: There are two max applied force settings when equipped with Front Rows, one for when the rows are up and another for when they are down. Values will change when front rows are selected to go down or up automatically.

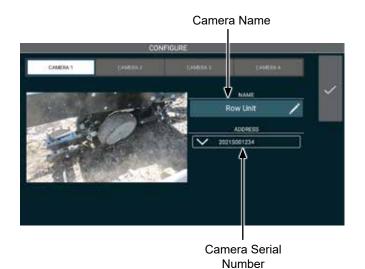
CAMERAS



Configure up to four cameras.

To begin, choose the camera serial number from address list and then name camera as desired.

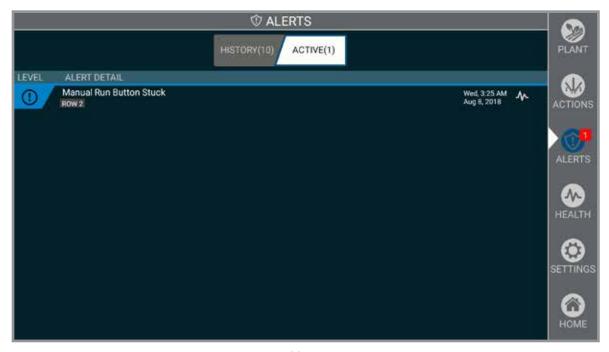
To enlarge camera video to full screen tap on video, tap again to return to orginal size.





ALERTS - INTRODUCTION

The Blue Vantage Alerts screen gives you an overview of all the alerts generated by the system.



Alerts

All active alerts will be displayed including the level, contributors, date, and time. Tapping on an alert will take you to the appropriate area of the Health screen or the appropriate diagnostic. An alert will be cleared from the active list once it has been corrected. All cleared alerts will remain visible in the history list.

- **Error.** Planting or safety is affected, problem needs to be corrected before proceeding with planting.
- Warning. Planting may be affected, problem should be investigated.
- Information. Planting should not be affected, problem should be investigated at a lower priority.

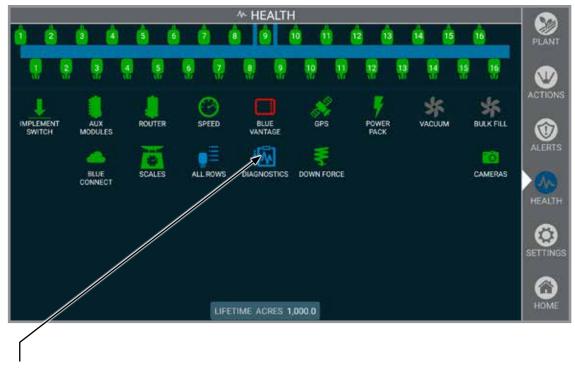
ALERTS - DEFINITIONS

Alert	Description				
Alternator Power Low	The alternator power output is low.				
Battery Low	The alternator battery is low.				
Bulk Fill Pressure High	The bulk fill fan has high pressure.				
Bulk Fill Pressure Low	The bulk fill fan has low pressure.				
Down Force High	The pneumatic down force is high.				
Down Force Low	The pneumatic down force is low.				
Fertilizer Flow High	The rate of flow through the fertilizer system is high.				
Fertilizer Flow Low	The rate of flow through the fertilizer system is low.				
Fertilizer Flow Not Detected	The specified rows do not have fertilizer flow detected.				
Fertilizer Flow Unexpected	The specified rows have unexpected fertilizer flow detected.				
Fertilizer Level Low	The level of the fertilizer in the fertilizer tank is low.				
Fertilizer Tank Empty	The fertilizer tank is empty.				
GPS Signal Lost	The planter router is no longer receiving messages from the GPS receiver.				
Implement Switch Mismatch	The implement switches are in mismatched states.				
Insecticide Flow Not Detected	The specified rows do not have insecticide flow detected.				
Insecticide Meter RPM Exceededing	The insecticide meters for the specified rows have exceeded the maximum RPM.				
Manual Run Button Stuck	The manual run buttons for the specified rows are stuck.				
Module Communication Lost	The planter router can no longer communicate with the specified modules.				
Module Duplicate Detected	Multiple modules with the same ID have been detected.				
Motor Stall	The motors on the specified rows have stalled				
Planter Characteristics Invalid	The planter characteristics of the planter router were not recognized by Blue Vantage.				
Planter Communication Lost	Blue Vantage can no longer communicate with the planter router.				
Population High	The specified rows are reporting a high population.				
Population Low	The specified rows are reporting a low population.				
Position Sensor Failure	The position sensors for the specified modules are failing.				
Power Pack Inactive	No alternator power is detected.				
Row Power Low	The specified rows are receiving low power.				
Scale Failure	The specified bulk fill scale is failing				
Seed Low	The specified bulk fill hopper seed level is low				
Seed Meter RPM Exceeded	The seed meters for the specified rows have exceeded the maximum RPM.				
Seed Sensor Failure	The seed sensors on the specified rows are failing.				
Singulation Low	The specified rows are reporting a low singulation.				
Vacuum Pressure High	The specified vacuums have high pressure.				
Vacuum Pressure Low	The specified vacuums have low pressure.				
Zero Ground Contact	The specified rows are reporting no ground contact.				
Low Ground Contact	The planter is experiencing low ground contact.				
Link Error (formerly know as Broken Link)	The specified rows are reading voltages that are outside the expected range.				

HEALTH - INTRODUCTION

The Blue Vantage Health screen provides an overview of all of the metrics recorded by the system. All of the subsystems can be monitored quickly and easily from this screen. The Health screen also provides an access point for system diagnostics.

HEALTH SCREEN



Diagnostics (Page 55)

ROWS



Rows. Select a row in the top toolbar view to display detailed row information. Select "ALL ROWS" from the row detail screen for detailed statistics for all rows.

BLUE VANTAGE



Blue Vantage. Provides the current battery charge level and lifetime hours of Blue Vantage display.

GPS



GPS. Displays the overall GPS status, positional information, and NMEA sentence information.

SPEED



Speed. Displays the overall speed status, source, and reported speeds.

ROUTER



Router. Displays the overall router status, model and option information, and version information.

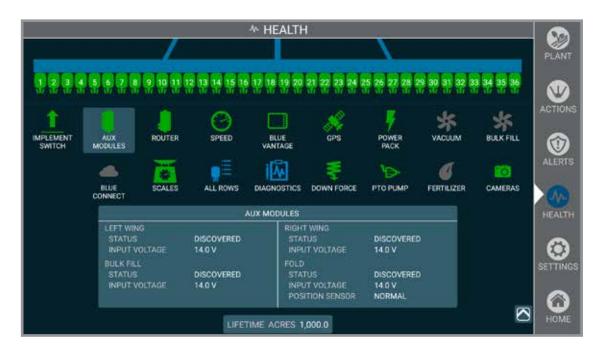
AUX MODULES



Aux Modules. Displays the overall status, firmware version, hardware version, unique ID, and supply voltage.

	3660, 3665, 3505, 3605	4700, 4705, 4800, 4805, 4900, 4905
Fold		X
Bulk Fill	X	X
Left Wing		X
Right Wing		X
Raise	Х	
Rotate	X	

Aux Module Use By Planter Model



IMPLEMENT SWITCH



Implement Switches. Displays the overall toolbar status and left and right implement switch position.

DOWN FORCE



Down Force. Displays the overall down force status.

VACUUM



Vacuum. Displays the overall vacuum status and pressures.

SCALES



Scales. Displays the overall bulk fill scales status, weights, and overall acres to empty.

Note: Overall Acres to Empty is calculated by doubling the Acres to Empty of the lowest tank value.

POWER PACK



Power Pack. Displays the overall power pack status, voltages, and on/off statuses.

BULK FILL FAN



Bulk Fill Fan. Displays the overall bulk fill fan status and pressures.

FERTILIZER



Fertilizer. Displays the overall fertilizer status.

CAMERAS

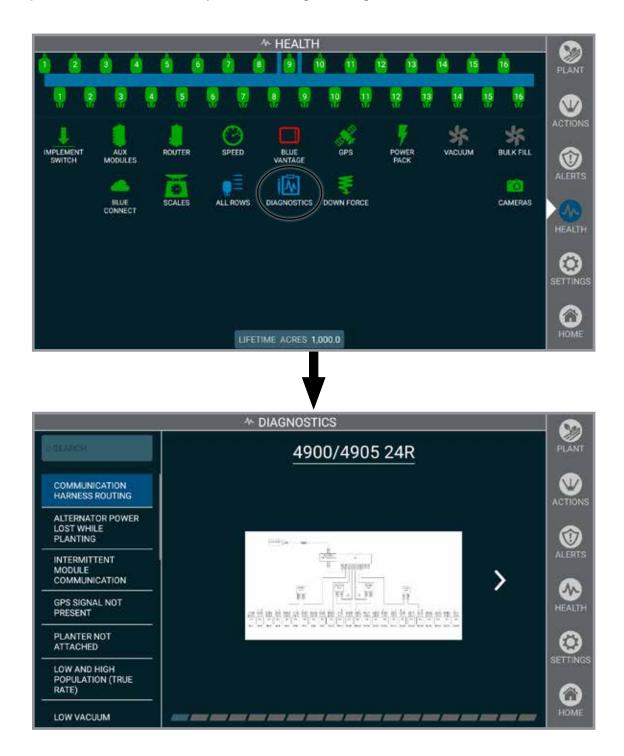


Cameras. Displays camera(s) by name, serial number, and if camera is connected.

DIAGNOSTICS - INTRODUCTION

Diagnostics guides you through the most common issues that might occur with Blue Drive / Blue Vantage. Enter diagnostics by selecting "DIAGNOSTICS" from the main HEALTH screen. The topics will appear on the left hand side of the screen, select the topic to begin step by step diagnostics.

NOTE: Tap on schematics, charts, or photos to enlarge viewing detail.



SETTINGS - INTRODUCTION

Blue Vantage provides the settings for many areas pertaining to the planter, tractor, and Blue Vantage display.

PLANTER



Planting Start. Controls the distance for the meter to turn on and start dropping seed when leaving an already-planted area, or entering an area defined by a boundary or prescription file.

Planting Stop. Adjusts the distance for the seed meter to turn off when entering an already-planted area or leaving an area defined by a boundary or prescription file.

Manual Sections. Select the desired number of sections for manual shutoffs. See Shutoffs - (Page 21). Accept to continue.

NOTE: Section controls have been calibrated by planter model. They can be adjusted manually for personal preference.

NOTE: Planting accuracy may be affected by sudden speed changes.

Outer Rows Locked. Locks the auto section control of the two outer rows so they will only be shut off when the row next to them is shut off. Use this setting when lower quality GPS receiver signal is being used.

ALERTS



Alerts

Turn alerts on and off, set the thresholds that trigger applicable alerts, and set the time delay between when the condition is met and the alert is triggered.

Example: If the vacuum pressure high/low threshold is set to 10% and the delay is set to 10 seconds, a Vacuum Pressure High alert will be triggered when the vacuum pressure is above 10% of the desired value for more than 10 seconds.

TRACTOR



Tractor

Tractor-specific GPS and tractor offset information must be entered for accurate planting.

GPS Baud Rate. Set the GPS baud rate, setting needs to match GPS receiver baud rate being used.

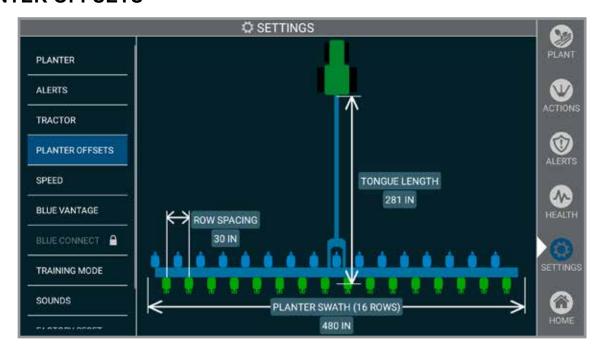
GPS Antenna Side. Set the location of GPS antenna.

Tractor Type. Set the tractor type.

Measurements. Set the tractor and GPS offsets.

Tractor Color. Set the display tractor color.

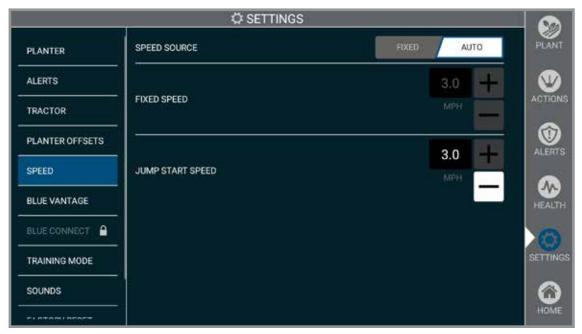
PLANTER OFFSETS



Offsets

Planter offsets are static and provided for the user's benefit. They cannot be edited in the system or physically.

SPEED



Speed

Speed Source. When auto is selected, the system will choose source based on available options. When fixed is selected, the system will use the fixed speed set by the user as the speed source.

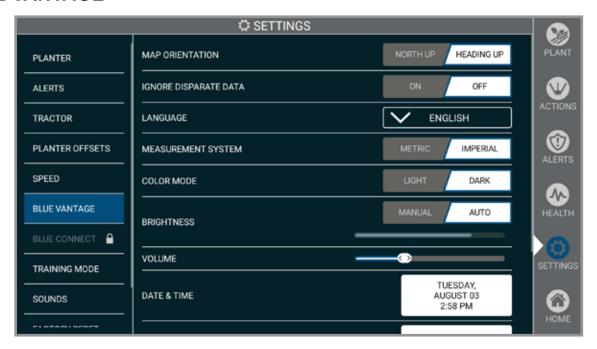
Fixed Speed. Overrides other speed sources with a user-defined fixed speed.

NOTE: The planter seed meters will turn as soon as the toolbar is down.

Jump Start Speed. Sets the speed limit for jump start. Once planter reaches the jump start speed, jump start will cease.

NOTE: Jump Start Speed is used for the first several seconds of movement, as GPS is acquired. Kinze recommends that the jump start speed be set to 2 mph.

BLUE VANTAGE



Blue Vantage

Map Orientation. Sets the map orientation. In the North Up option the map will remain oriented with North at the top. In the Heading Up option the map will change its orientation so that the planter's heading is always at the top.

Language. Set the language.

Measurement System. Sets either metric or imperial measurement.

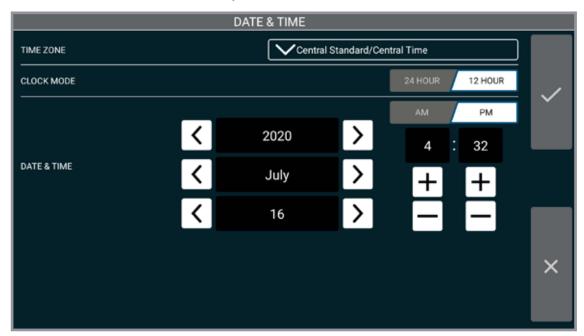
Color Mode. Toggle between light and dark color modes.

Brightness. Sets the screen brightness. In the Auto option the display automatically adjusts brightness based on current light conditions. In the Manual option the brightness is manually set using the slider.

Volume. Use the Volume slider to adjust the volume of sounds, including alerts.

BLUE VANTAGE (CONTINUED)

Date & Time. Opens the Date & Time screen. Date and time will be set automatically when you have a valid GPS signal. The time zone will not be set automatically however.

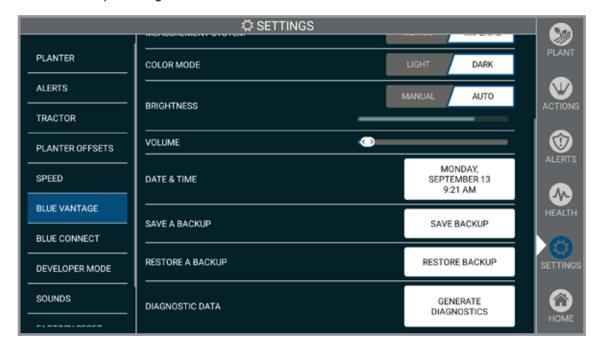


Date & Time

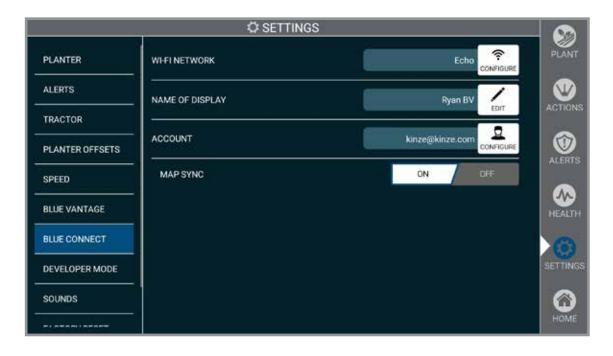
Save A Backup. Backs up the settings and user data to a inserted USB drive.

Restore A Backup. Restores settings and user data from the most recent back up on a connected USB drive.

Diagnostic Data. Exports diagnostic data to a connected USB drive.



BLUE CONNECT



WI-FI Network. Wi-Fi connects Blue Vantage to the Internet.

Name of Display. Defaults to serial number of Blue Vantage display, name can be changed. Display name will be associated with data planted by that display and viewable across other Blue Vantage displays on the Blue Connect account.

Account. Create a Kinze Blue Connect account to share data across your Blue Vantage displays.

Map Sync. If enabled, the Blue Vantage display will use Wi-Fi network to share data with other Blue Vantage displays associated with the Blue Connect server on the Internet.

TRAINING MODE



Training Mode

Training Mode. Anything that is created in training mode is not available live.

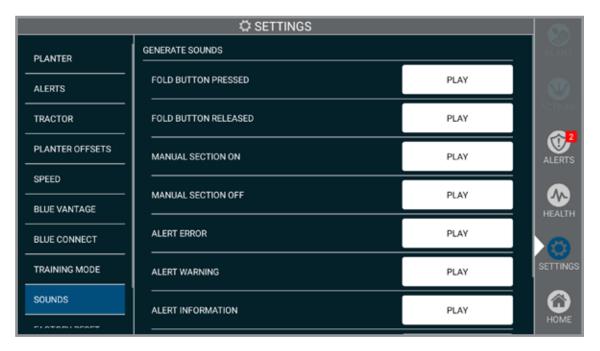
Importing boundaries or prescriptions from live mode is not possible, pre-loaded boundaries and prescriptions are available while in training mode.

NOTE: A Training Mode control box will appear on Home screen or Plant screen. This message is collapsible.

NOTE: Training Mode is still available while attached to a planter.

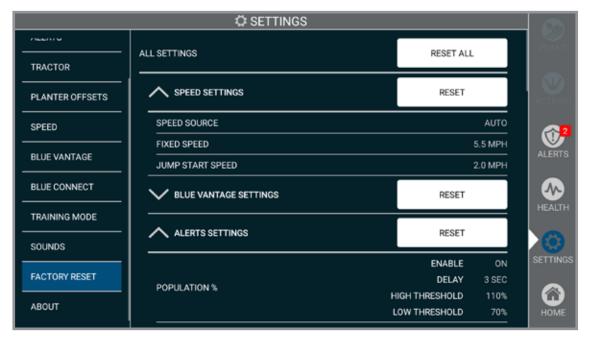
NOTE: Planting will not occur while Training Mode is active.

SOUNDS



Sounds. Systems sounds are available to become familiar with the different sounds that are generated.

FACTORY RESET



Factory Reset

Reset All. Resets all settings to factory default.

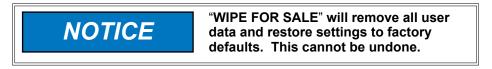


Other Settings:

Tap the arrow to expand the list and reset individual settings.

Speed Settings
Blue Vantage Settings
Alerts Settings
Tractor Settings
Planter Settings
Products

Wipe for sale. Restores Blue Vantage to factory defaults.



MANAGE - INTRODUCTION



Blue Vantage provides management tools, tasks, reports, and file management.

TASKS



Tasks

Tasks. Manage the current tasks. Adding and editing tasks mirrors the task setup described on (Page 12). Tasks displayed here can also be deleted and exported to a connected USB drive.

Tap "2021 [SELECT ALL]" to select all tasks for the season, either "Export" or "Delete" the selected tasks.



To deselect tasks, tap "2021 [DESELECT ALL]". -

NAMES



Names

Names. Manage the current grower, farm, and field names. Adding names here is the same as in task setup described on (Page 12). Names can also be edited and deleted here. Any planted fields will be noted under the field name.

COUNTERS





Counter

Counters. Track number of acres planted. Counters have a name, a tag image, and a count. Counters can be switched between paused and counting. Mulliple counters can be counting at once.

One counter will always be selected for display on the plant screen, with the default being the Lifetime counter.

Counters can also be reset, renamed or deleted.

PRODUCTS



Products

Products. The process to add products mirrors the task setup as described on (Page 12).

BASIC REPORTS



Reports

View and export reports to a USB drive as a PDF file.

Crops Report. View a field by name, acres planted, products used.

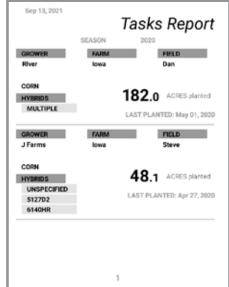
Task Report. View hybrids/varieties planted for each grower, farm, and field by season.

Planter Report. View model information, lifetime acres, options, software version.

Products Reports. View products applied by fields.

Alerts Reports. View a log of alerts, dates and times when events occured.







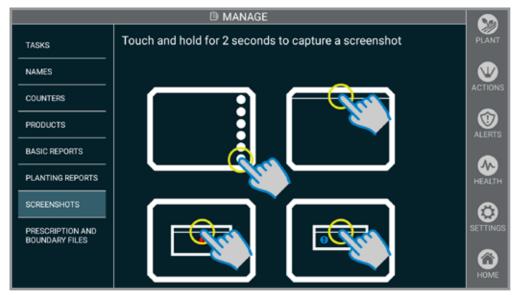
PLANTING REPORTS



Planting Reports

View and/or export a PDF file of any tasks performed. this requires a USB drive.

SCREENSHOTS



Screenshots

Title Bar. If the screen has a title bar, touch and hold for 2 seconds to capture a screenshot. A "Screenshot captured" message will appear at the bottom center of the screen.

NOTE: Capturing screenshots will vary depending on which page you are on.

Other Screen. If the screen does not have a title bar, hold on "HOME". A "Screenshot captured" message will appear at the bottom center of the screen.

Manage. Screenshots can be deleted and exported to a connected USB drive.

PRESCRIPTION AND BOUNDARY FILES

Import and select prescription and boundary files.



Prescription and Boundary Files

Tap "Select All" to select all prescription files.

Tap "Import" to load new prescriptions onto blue vantage.

NOTE: Supported prescription files include Ag Leader SMS, Climate Crop, Granular, and JD Ops Center for FMIS support.

NOTE: Prescription files should be in ISOXML file format, boundary files can be standard shape files. If the prescription file is a shape file format, it must be configured to a specific file format (see below).

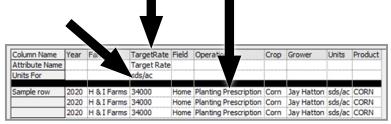


Shape File Setup

When making prescriptions and/or desire to use shape files for prescription creation there are three things that must be configured.

In order for Blue Vantage System to recognize the shape file as a prescription, shape file must include three main categories:

- 1. Target Rate
- 2. Units (sds/ac)
- 3. Operation (Labeled Planting Prescription)



Example of SMS Shown.

When the three categories above are used, the system will be able to read the prescription file.

UNDOCKING BLUE VANTAGE



If previously locked, unlock docking station with the supplied key.



While holding the display with one hand, lift the latch handles. The front hooks will release the tablet.



When unlatched, grab both sides of the display and carefully lift up and out of the docking station, top end first.

Undocking Blue Vantage

NOTE: Manage and Settings can be accessed while the display is out of the dock, but all functions requiring Blue Drive will be unavailable. The display will run on battery power unliess connected to an AC power source.

BLUE VANTAGE PORTS



Blue Vantage Ports

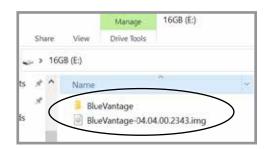
- 1. Power Connector
- 2. Micro Serial Connector
- 3. USB 3.1 Gen1 Type-C Connector
- 4. USB 3.0 Connector
- 5. Micro SD Card Reader
- 6. Headset Connector
- 7. Power Button

UPDATING BLUE VANTAGE



Updating Blue Vantage

System updates will be released periodically on the Kinze website. To update the Blue Vantage system, simply download the file and place it on the root (top file level) of a USB drive. Insert the USB drive and follow the on-screen prompts to update.



NOTE: The planter systems will be automatically updated when the Blue Vantage system restarts. Additional time may be required before the system is ready to plant.