20|20

Operator's Guide – Harvest
For Gen 3 20|20 Displays

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Contents

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20|20 Monitor Overiew

The Precision Planting 20|20 display is a high-definition, easy-to-use monitoring and control system for planting, seeding, harvesting, and liquid application. Its high definition mapping features and metrics on single and dual displays allow you to see exactly what is going on in your fields. Navigate the easy-to-use touch screen for implement and system setup, health checks, diagnostics, and other helpful information. The 20|20 display provides complete monitoring, control, and diagnostics for all of Precision Planting's SRM-based control products for seed and liquid application, down force control, and in-field sensing in addition to basic planter and combine monitoring.

The 20|20 has complete control, monitoring, and diagnostics for: vDrive, DeltaForce, SpeedTube, SmartFirmer, vDrive Insecticide, vApplyHD, FlowSense, vSet Select, mSet, SeederForce, Smart Connector, and YieldSense.
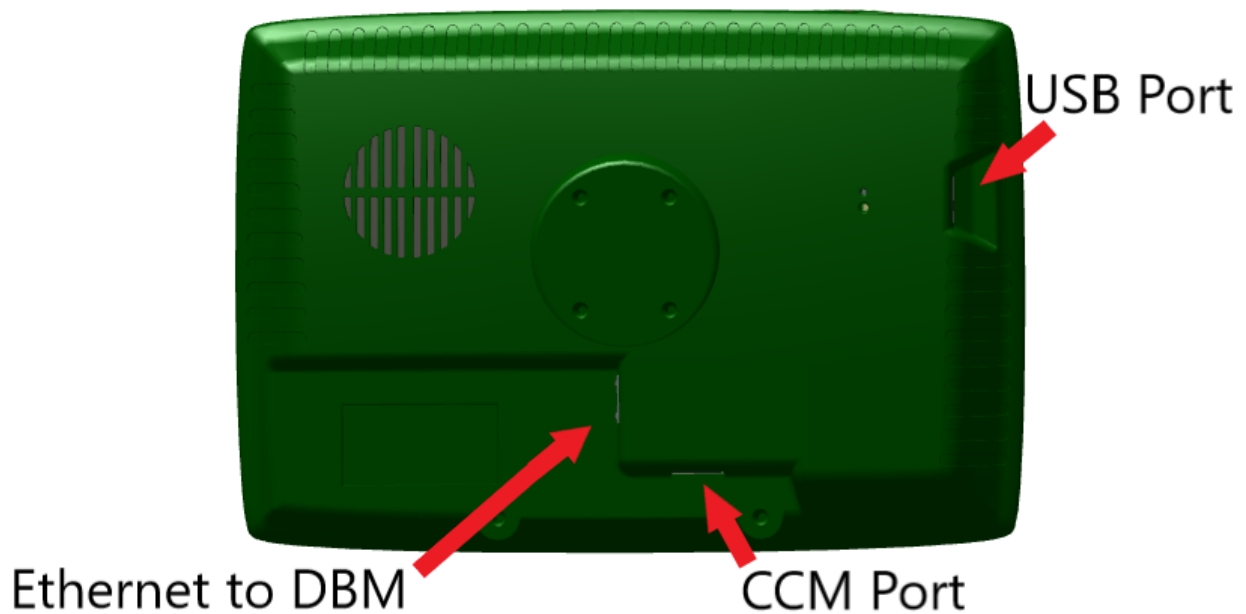
Software Updates

Precision Planting will continue to update and improve the 20|20. Software updates are free of charge and can be downloaded from www.precisionplanting.com/support and installed on the display with a USB drive.

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20|20 Hardware Overview

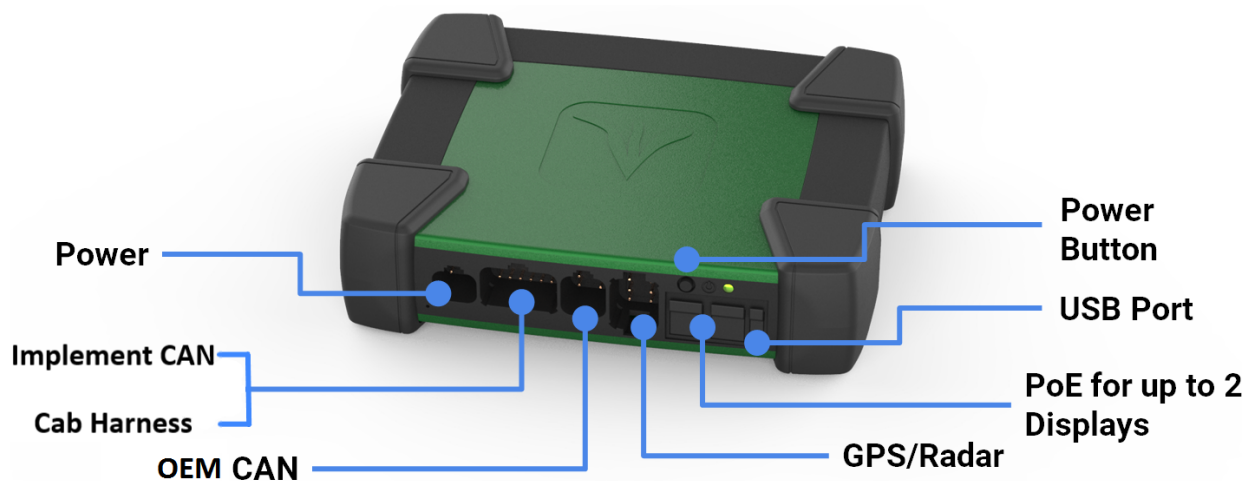Two different screen sizes are available with the 20|20, 10" and 16". Either one or two displays can be connected to the Display Base Module at any time. If two displays from Precision Planting are used, any combination of the two different sizes is acceptable. One of these two displays can be an iPad running the Climate Corporation FieldView Cab app. Displays can be mounted in any location within the cab.

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Back of Display

USB Port

Ethernet to DBM   CCM Port

Display Base Module [DBM]

Power

Power Button

Implement CAN

USB Port

Cab Harness

OEM CAN

PoE for up to 2 Displays

GPS/Radar

The Power over Ethernet [PoE] ports requires a Shielded Twisted Pair [STP] Ethernet Cable to connect to a display. If only one display is being used, use either port. Both ports will be used if connecting to two displays or one display and a FieldView Module [FVM]. The order by which two displays or a single display and FVM are plugged in does not matter.

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Indicator Light Overview

Color	Display Base Module	Display	FieldView Module
Green	Good Connectivity	Good Connectivity	Good Connectivity
White	Initializing	N/A	Downloading Software
Blinking White	Firmware Update in Process	N/A	N/A
Yellow	No Connection between Display and DBM	Initializing	Initializing
Blinking Yellow	Software Update in Process	Software Update in Process	Software Update In Progress
Blue	CCM Connectivity is Missing	N/A	Nothing Connected
Purple	Need to Power Cycle System	N/A	FieldView Not Connected
Red	N/A	Powering On	Powering Up
Blinking Red	Failure - Call Precision Support	N/A	N/A

Powering the 20|20 On and Off

The monitor must have 12 volts of both switched and constant power. With the power harness connected to the DBM and power supply, turn the key on the tractor to the On or Run position. Switch the power button on the DBM to the On position.

To power the system off, either switch the power button on the DBM to the Off position or key the tractor/combine off.

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User License Agreement

Once the 20|20 has booted up, read and agree to the User License Agreement to use the display. This will occur on first boot up and when updates are required for the agreement.

Note: If this system is being set up for a third party, the agreement should be reset to appear on next power up for the end user to agree to the document. This can be done under Advanced Display settings. Refer to the Display section of this manual for more details.

Note: This will only appear on 2019.1 and newer software.

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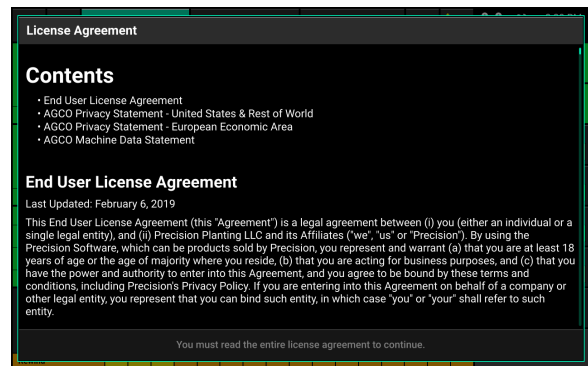
Cab Installation

Step 1:

Mounting locations will vary from combine to combine. Mount the display or both displays for optimal visibility and interaction for the operator. There are several mounting options offered by Precision Planting available for the display. The diagram depicts the display with a RAM mount. Refer to Appendix B and the YieldSense Installation Guides for combine specific harness routing details
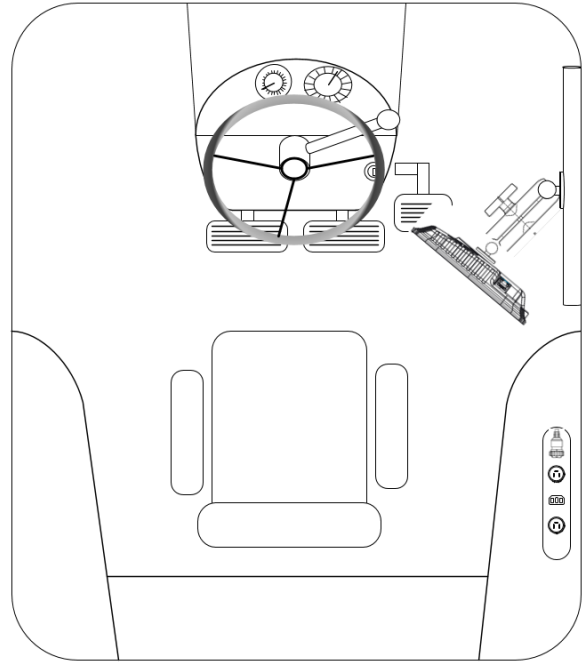
Step 2:

The Display Base Module [DBM] can be located in any convenient area of the cab. Ensure the DBM will not move around when operating the combine. Plug one end of the provided Ethernet cord into either port on the front of the DBM and the other end into the back of the display. If using two displays connect the second display with the provided Ethernet cable to the other open port on the DBM.

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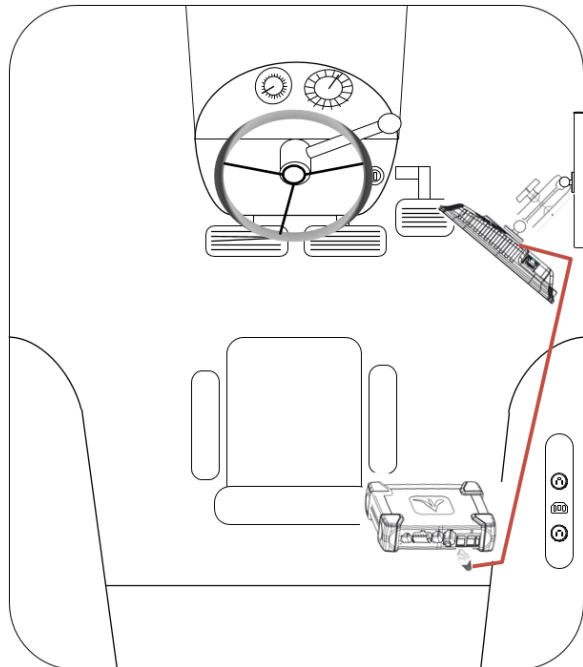
Step 3:

Connect the 725150 Power Harness to the DBM into the 4-pin Deutsch Connector on the DBM and then to the power source in the combine cab. A three pin round convenience port connector is provided to plug directly into a standard convenience port. An adapter may be required to connect to power and may be included in the YieldSense base kit or purchased separately.

Note: John Deere 9x00 and 9x10 combines will use the power connection integrated into the 751227 Cab Harness.
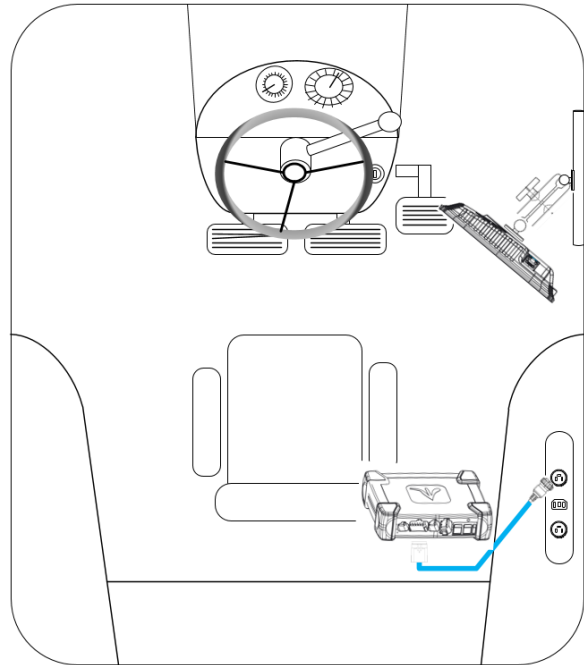

Step 4:

Connect a Cab Harness into the 12-pin Deutsch Connector on the DBM. Refer to the specific combine model's YieldSense Installation Manual for further harness routing details.


12 Pin Deutsch Connection

Firewall connection

GPS to external

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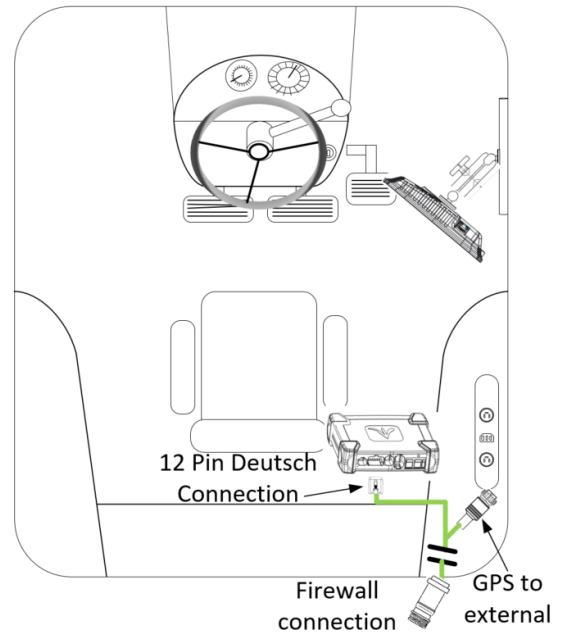
Step 5:

Connect the 725155 Speed Harness to the 8-pin Deutsch connector on the DBM. This will provide you with two 4-pin round connections. The male pin connector will connect to the GPS adapter, while the female pin connector will connect to a Radar adapter (not used for YieldSense). If the installation requires routing a GPS adapter outside of the cab, connect the 725155 GPS connection to the Cab Harness to use the external GPS connection.
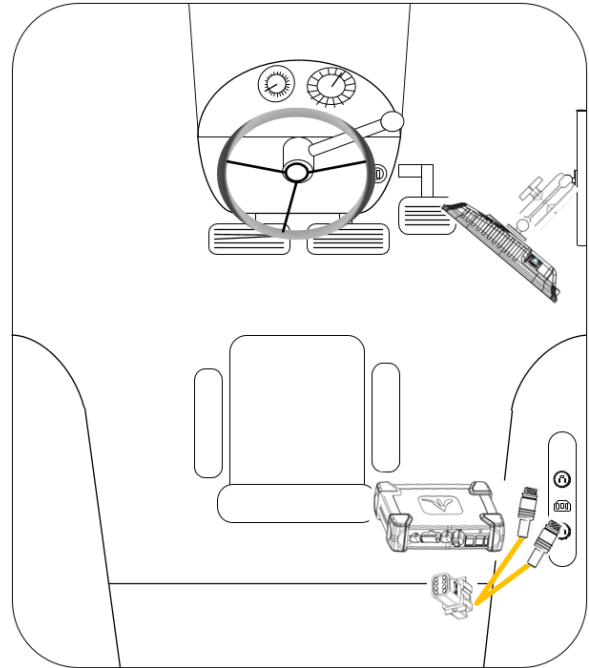
Step 6:

Connect the OEM CAN harness to the 6–pin Deutsch connector on the DBM. (if applicable) Route the OEM CAN connection to the CAN port. Refer to the specific combine model's installation manual for further details on the specific location of the CAN port.

12 Pin Deutsch Connection

OEM CAN Connection

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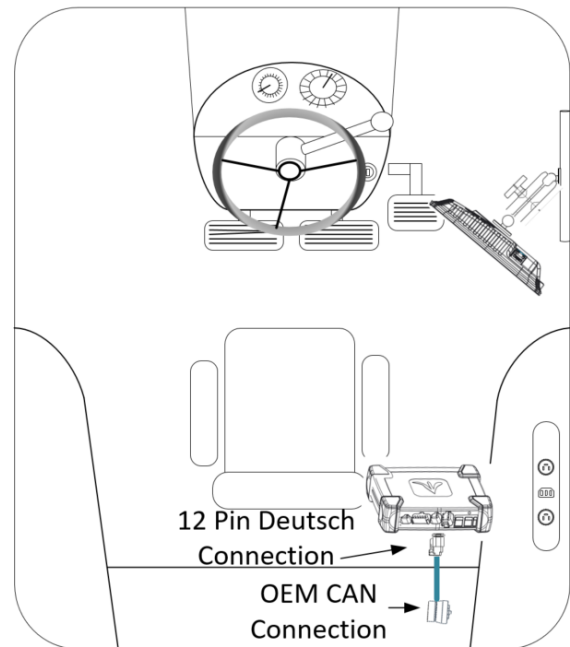
Harvest Mode Overview

Follow the below steps to set up the 20|20 for Harvest mode. Details for each step can be found in the sections of this manual.

Step 1:
Update display software

Step 2:
Change Implement Type to "Combine", page 41

Step 3:
Configure Combine and Head Setup, page 38

Step 4:
Select Active Crop, page 47

Once the above steps have been completed, the system will be ready for operation. The Crop Setup must also be completed for accurate yield reporting. Refer to the section of this manual on Crop Setup, page 30 to complete this procedure.

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Home Screen Overview

The Home Screen displays planting information in an easy to read, easy to navigate format. This information is presented as both metrics and high definition maps. There are three different home screen configurations that can be quickly selected to change the layout of the home screen. All three screens are completely customizable with different types of measurements, button sizes, map sizes, control buttons, and a minichart.

Maps

The 20|20 displays high definition maps while operating. Different map types can be selected and viewed during the harvesting process.

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Selecting the Map Type name (e.g. Dry Yield) at the top of the map will display the Map Layer Selection screen. All map types are listed on this page (the systems installed and configured will determine which map types will build a map). Map types are categorized by Product Application and Prescription. For more information on what each map type is mapping see Appendix A.

Controlling the Map

The map will default to displaying the combine/planter in the center of the screen at a preset zoom level. There are control buttons located around the map to adjust settings. The map will default to displaying the combine/planter in the center of the screen at a preset zoom level. There are control buttons located around the map to adjust settings.

Change the map orientation by pressing the compass button. Switch between two orientation modes:

• North Facing – The top of the map is always pointed towards north. The combine icon will move around the screen in different directions. This is the default orientation mode. Indicated by the red compass arrow always pointing towards the top of the screen.

• Implement Facing – The implement icon is always pointed towards the top of the screen and the map itself moves around the implement. This is indicated by the red compass arrow moving to always show which direction north is.

• A third way to change the map orientation is to place two fingers on the map and rotate the map. Rotating the map in this style will lock the map into the orientation that it was rotated to. To switch back to North Facing press the compass button. Press it a second time to switch to Implement Facing.

Zooms to a view where the entire field is displayed.

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Pressing this button will cause the combine icon to stay centered in the screen. Additionally, the zoom level will be reset and zoomed in on the combine icon.

The Perspective View button will toggle the map view angle from 0, 65, and 75 degrees.

Note: The Perspective View button can only be used once WiFi and background imagery have been enabled. Refer to the Connectivity and Display sections of this manual for further details.
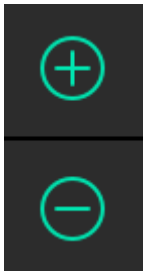
There are two ways to adjust the zoom level of the map.

1. Use the Zoom In (+) and Out (-) buttons to change the zoom level of the map.

2. Use the standard two finger pinch-in & pinch-out gestures.

Legends for each map can be toggled on by pressing the "On" button in the lower left hand corner of the map screen.

Toggle Legends off by pressing the "Off" button.

Most legends can be edited. There are two ways to edit legends:

1. Hold a finger on the legend and slide it up and down to adjust the high and low ends of the legend.

2. Tap on the legend to adjust the High & Low values, number of steps, and use the auto adjust feature.

Note: If a small map has been added to the home screen, none of the control buttons as described above will be available.

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General Mapping Principles

- All maps are mapped at 5Hz, meaning there are 5 data points mapped for each second of time.

- Maps are mapped on a combine head wide basis.

- A dark line will be mapped on either side of the combine to distinguish the combine passes.

- If the combine appears to be mapping incorrectly, ensure that the combine setup is correct.

- Components that are inactive or are not collecting information (for example, a missing moisture sensor) will not map.

- Map types can be changed at any time by selecting a different type.

- If the map has moved away from the combine location, a white arrow will appear on the edge of the map pointing to the direction the combine is in.

Dashboard Mini Chart

The Swath Dashboard Mini Chart is located at the bottom of all Home Screens by default.

The Swath Control bar allows the operator to manually swath off rows on the head from the home screen. To use the Swath Control bar press and hold the box representing the row you want to swath off. Some boxes have numbers to identify their location on the head. When the box turns yellow, that row has swathed off. Multiple rows can be swathed off by dragging a finger across multiple rows once the first row has turned yellow. Once rows have been manually swathed off, swath control is now in Manual mode and rows will NOT swath off to boundaries or coverage. To switch back to automatic mode press the "Manual" button on the left side of the Swath Control bar. When in automatic mode this button will display "Auto".

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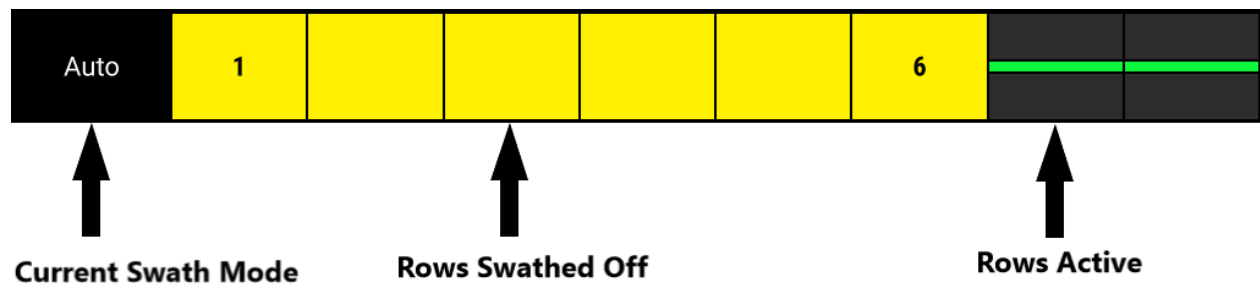
Summary Information

Summary information for the active field can be found by pressing any of the different acre counters on the home screen. When an acre counter is selected, the "Counter Details" page will be selected. On this page summary information will be provided for acres and pounds harvested. At the bottom of the page there are two acre counters (A & B). These acre counters do not reset when a different field is made active. The operator has to press the reset button for these to reset back to 0.

Field Summary information can also be found here by pressing the "Field Summary" button on the right. This page will show summary information for the active field as well as summary information on the active crop.
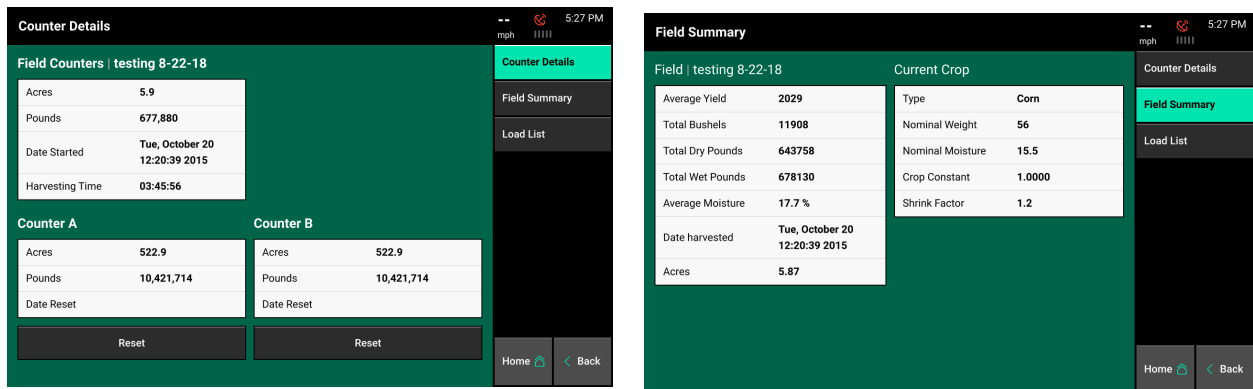
Home Screen Tabs

At the very top of the Home Screen are three tabs that change the layout of the Home Screen. Each tab can be configured. Pressing on a tab (active tab is highlighted) will change the layout of the home screen. This allows different home screen looks to be saved and accessed very quickly. Up to eight total layouts can be configured and named. The arrows or swiping left/right can be used to access more screen layouts.
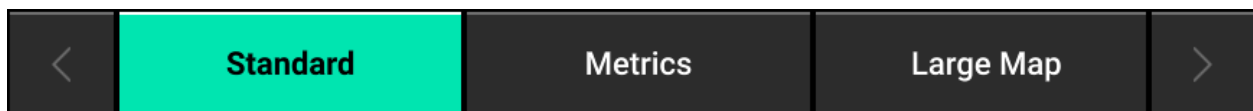

Default settings:

- Standard – Includes a large map with metrics on both sides. At the bottom the Population Mini Chart is displayed. All control buttons default to the right hand side of the screen.
- Metrics – A small map is displayed with the majority of the screen displaying different planting metrics. The Population Mini Chart is displayed at the bottom of the screen.
- Large Map – A full screen map is displayed with a manual swath control bar at the bottom of the screen.

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Each of these three tabs can be renamed and the home screen fully customized for three different home screen looks that can be toggled between very quickly. Refer to Customizing the Home Screen below for information on how to do this.
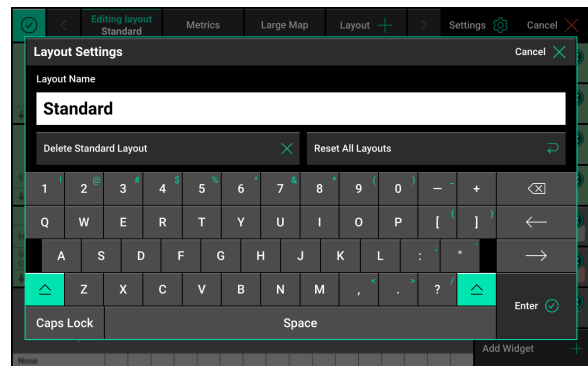
Customizing the Home Screen

To begin the process of customizing the home screen, select the button in the top left hand corner of the screen. When pressing this button the home screen will be dimmed with a grid pattern laid on top. Each screen will be divided into grids, that the buttons will fit into.
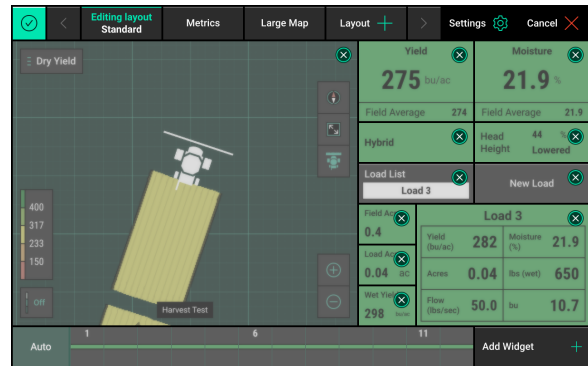
The grids overlaying the home screen are used to place buttons such as, Metrics, Maps, and the Dashboard Mini Chart (these are all referred to as widgets). Every widget takes up a certain about of grid spaces. For example a 2 x 2 metric takes up four grid spaces (two columns and two rows). To remove a widget, press the 'X' at the top right corner. Press and drag a widget to move it to a new location.

At the top of the page is a "Settings" button that can be used to rename the layout and reset all screen layouts back to the factory default.

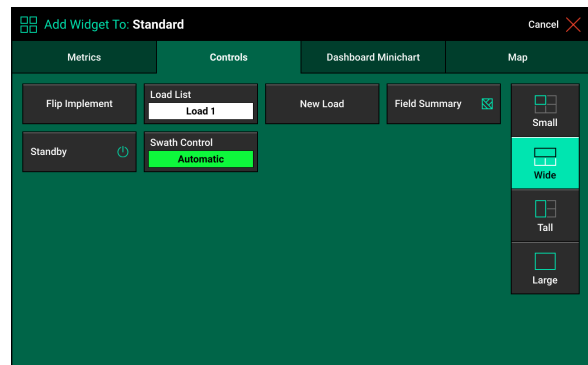To begin editing the home screen, select "Add Widget" from the bottom right corner.

There are four different types of widgets that can be added to the home screen:

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Metrics: The metrics are all of the buttons that display combine information on the home screen. Metrics can be displayed in five different sizes: Small (1x1), Wide (2x1), Tall (1x2), Large (2x2), Extra Large (3x3), and XXL (4x3). Not all metrics are available in Large and Extra Large. Press the size buttons on the right hand side of the screen to view the metrics available in each size.
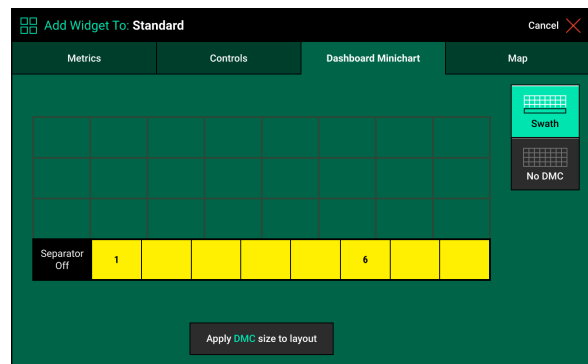
Note: Definitions for the Metric and Control buttons can be found in Appendix A – Understanding the Home Screen Buttons.
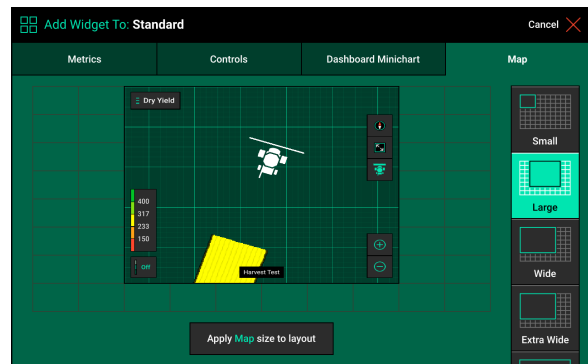
Controls: The control buttons are used to control the YieldSense system installed on the combine. Control buttons can be displayed in three different sizes: Wide (2x1) and Tall (1x2). The Load List and 'New Load' control buttons are set by default on the Standard and Metrics screens.

Dashboard Minichart: Add a Swath Control bar here. Once a selection has been made, press "Apply DMC Size to Layout".
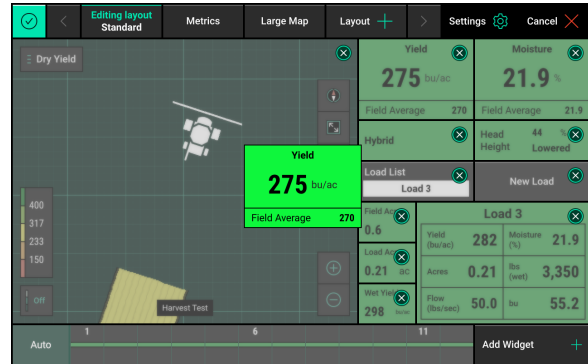
Map: Select the size of map to display on the home screen. There are five sizes of maps available: Large (6x6), Small (3x3), Wide (6x7), Extra Wide (6x8), or Full (7x10). Additionally, there is a No Map option. Once the map type is selected press "Apply Map Size to Layout".

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Placing a Widget on the Home Screen

Once a widget has been selected from any of the four categories, it can be placed anywhere on the home screen. After selecting a widget, that widget will be placed directly in the center of the screen. To move the widget press – hold – drag the widget to the area of the screen for it to be placed at. Once the finger is removed from the screen the widget will be placed in that position.

Note: If the widget is placed on top or on top of part of another widget (e.g. the map) the entire widget that it was placed on top of will be removed and a blank green area will be left.
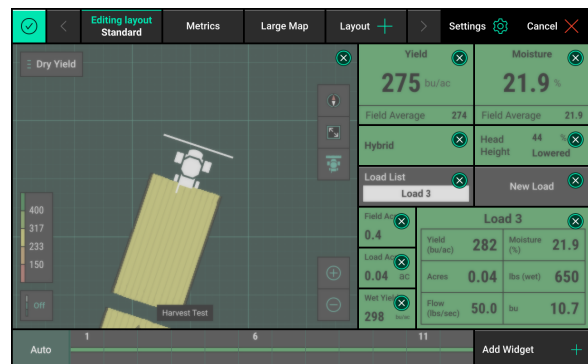
After the widget has been set, select "Add Widget" to continue customizing the home screen. Once finished press the check mark in the top left corner to save the current layout.

Note: When customizing the home screen, only the home screen for the selected tab at the top of the home screen will be changed.
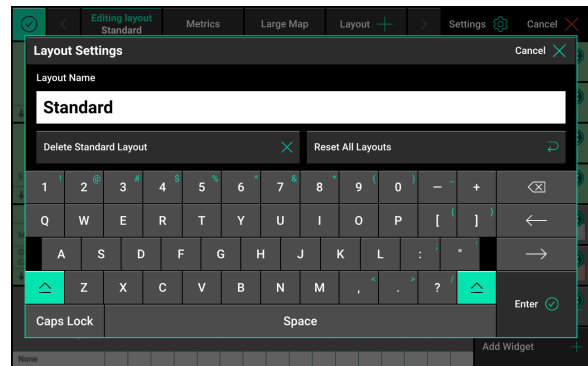
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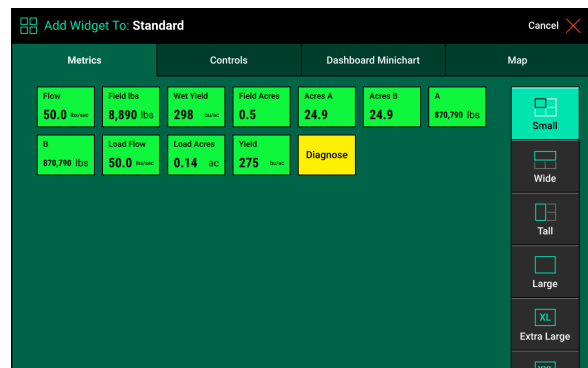
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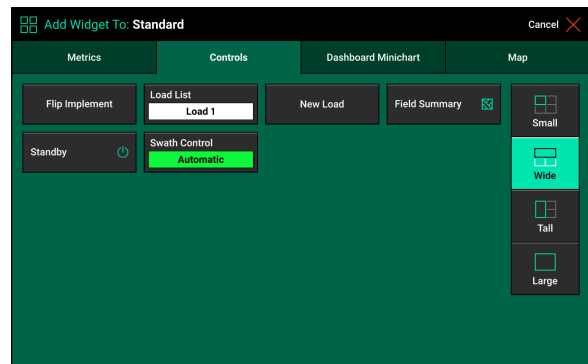To begin editing the home screen, select "Add Widget" from the bottom right corner.

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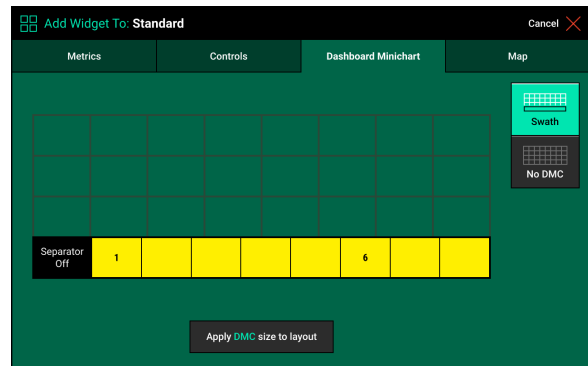**Note:** Definitions for the Metric and Control buttons can be found in Appendix A – Understanding the Home Screen Buttons.
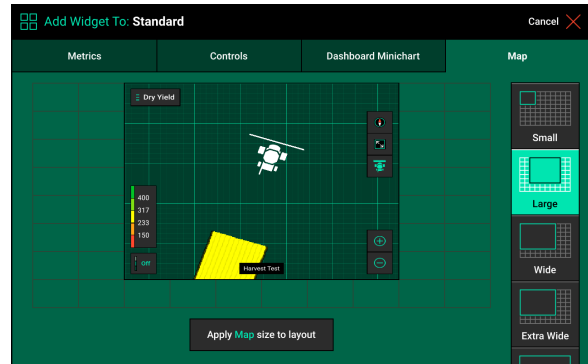
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Dashboard Minichart: Add a Swath Control bar here. Once a selection has been made, press "Apply DMC Size to Layout".
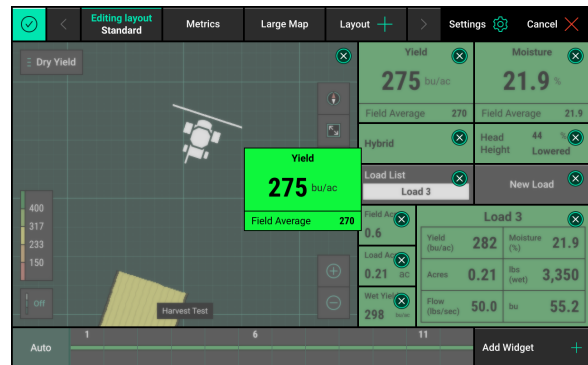
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Notification Center

The Notification Center is designed to alert the operator of issues. The Notification Center button on the home page will give a number indicating the number of Event Codes that have taken place since the last reset. Press the button to display all event codes and a description of the issue.

Select an event code to view additional details about the event code and recommendations for fixing the issue.

Press "Dismiss All Notifications" to clear out all event codes in the Notification Center. Events will still be stored in the Event Log.

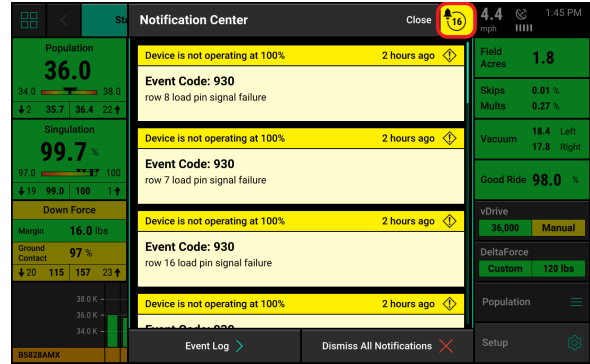The "Event Log" button will display a list of all notifications from the entire system with the newest at the top. This list is permanent so that event codes can be referenced when needed. Event codes from just SRMs can be viewed by selecting SRM on the navigation pane. Select individual event codes to view additional details and recommendations for fixing the issue.
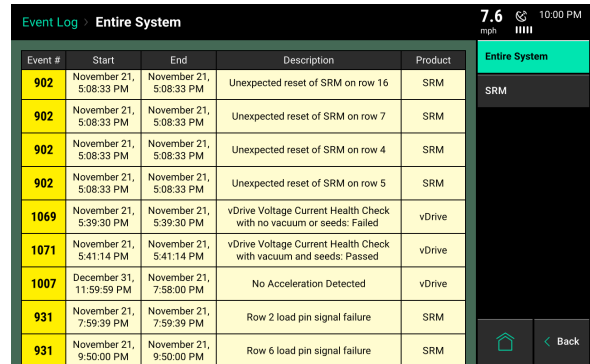
Connectivity

Speed & GPS

Speed

The top right hand corner of the home screen displays the current speed of the tractor. The bars under the speed source icon indicate signal strength. The icon itself will be white if the speed source state is good. It will turn yellow if communication is lost momentarily, there are errors in the signal, or the GPS fix is lost. The icon will turn red if the speed source becomes unusable.

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There are three different icons that can be displayed:

1. GPS Receiver icon – indicates the speed source is coming from the GPS system.

2. Tractor/Radar icon – indicates the speed source is coming from the Radar system.

3. A capital R inside of a box – indicates the tractor is moving in Reverse.
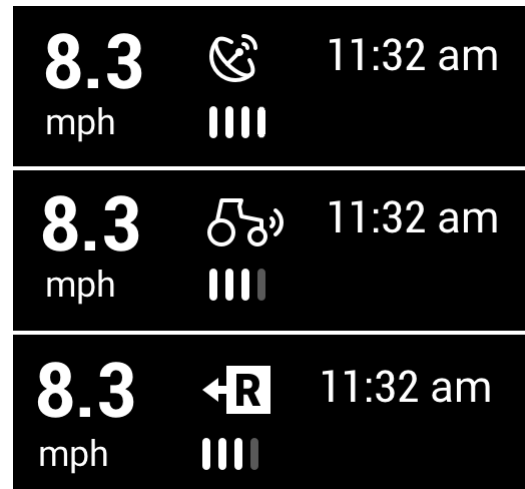
Pressing on the Speed button in the top right hand corner will direct the operator to the GPS Communication page. This page displays information about the GPS information that the 20|20 is receiving. For best GPS results:

• Set the Baud Rate to 19200 or 38400 in the system ouputting the GPS.

• The communication Quality should be as close to 100% as possible.

• There should be at least three satellites within view

• The HDOP should be between 0 – 2.

• Set NMEA messages GGA, RMC (or ZDA), and VTG at 5 Hz in the system outputting the GPS.. (Additional NMEA messages may degrade the GPS information due to too much information being received).

GPS Communication

GPS logs may be Enabled at the bottom of this page if requested by Precision Planting Support. Additionally, a "Reacquire GPS" button is located in the bottom center of the screen. Press this button to force the system to try to reacquire the GPS signal.

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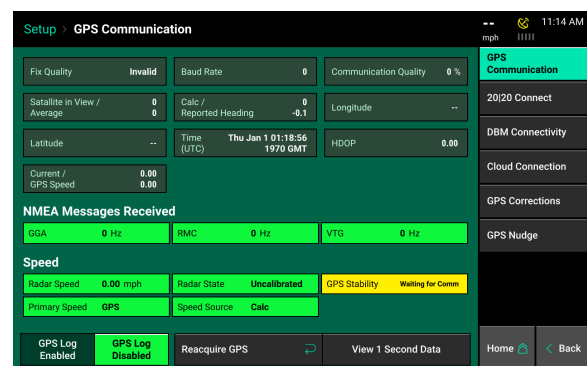
GPS Corrections

The GPS Correction page can be used to configure how the system handles the GPS signal.

> **Bad GPS Correction** — This can be changed between Calculated and GPS speed. Use Calculated for lower grade GPS systems.

> **Heading Mode** — This can be changed between Calculated and GPS. Use Calculated for lower grade GPS systems.

> **Correction Level** — This setting can be changed from Normal to High. High correction level will raise the minimum GPS quality percentage for mapping to occur.

> **Primary Packet** — This setting will allow for the user to switch between GGA and RMC for the primary NMEA packet.

Note: Do not change any of the GPS correction settings unless instructed to do so by a Dealer or Product Support.
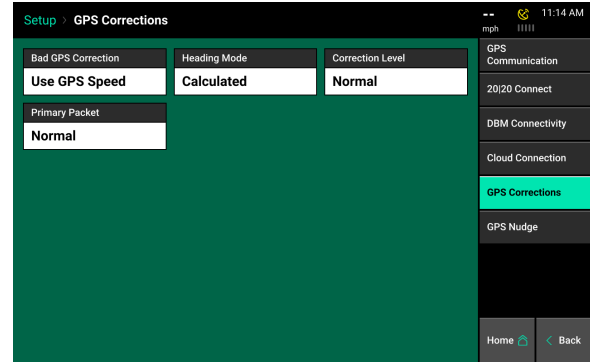
GPS Nudge

GPS nudge can be used to move the map data in situations where GPS shift has occurred. Use the '+1' buttons to nudge the map in that direction.
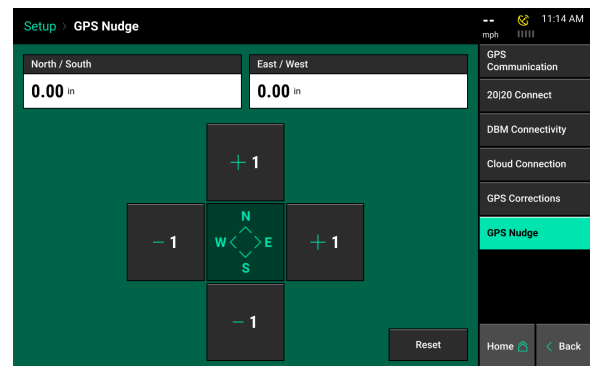
Cloud Connectivity

The 20|20 system can join a local WiFi network to back up data to the 20|20 Cloud. These features include Data Backup, Background maps, Software Updates, and sending support data to our Product Support Team.

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Wifi Setup

To connect to WiFi, press the Speed button from any page and select Cloud Connection. Select the Connected Network button to begin the process of connecting to WiFi.
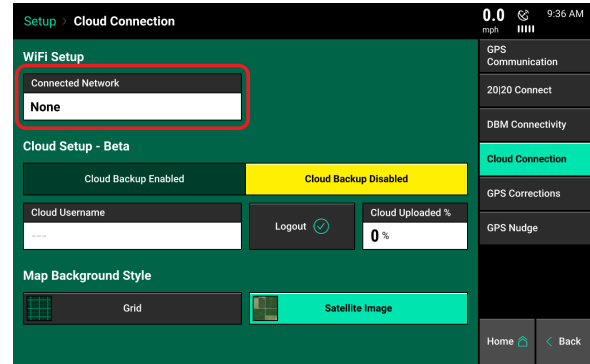
Select the WiFi network you would like to join, and enter the password. The scan button at the bottom of the page can be used to refresh the available networks. Use the Disconnect button at the bottom of the page to leave the active network.
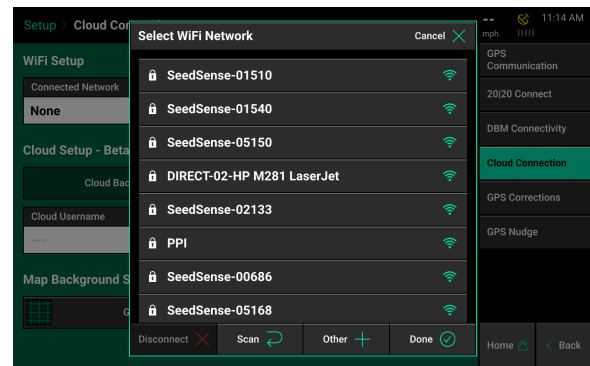
Once the network has been joined, a WiFi symbol will appear in the GPS button. This symbol will also indicate the strength of the network signal.

While WiFi is connected, background imagery can be viewed on the home screen. The background map style can be changed at the bottom of the Cloud Connection Page. Once this setting has been changed, a background image will display on the map, and perspective mode can be used to change the angle of view.

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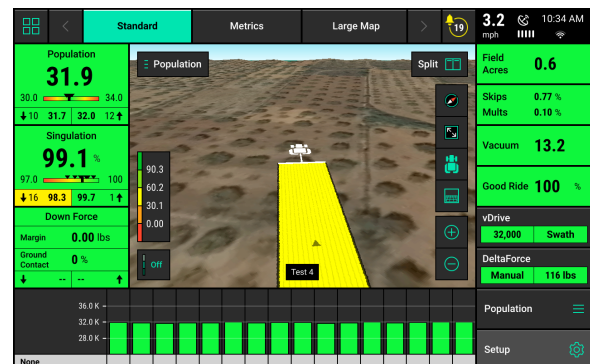
Cloud Setup

The 20|20 Cloud can be used to backup field map data and send support data to our Product Support team. Before logging into the 20|20 Cloud on the display, sign up for the Cloud at 2020.ag.

Select the Cloud Username box, and enter your cloud Username and Password.

Note: WiFi must be connected prior to logging in to properly authenticate your login information.

Once the system has authenticated your cloud login information, a white cloud symbol will appear in the GPS button. A red cloud indicates that the cloud is not currently connected.

Cloud Backup

Once the 20|20 Cloud is connected, change the Cloud Backup toggle to Enabled. The Cloud Uploaded percentage will display a progress for the percentage of data that has been backed up to the cloud.

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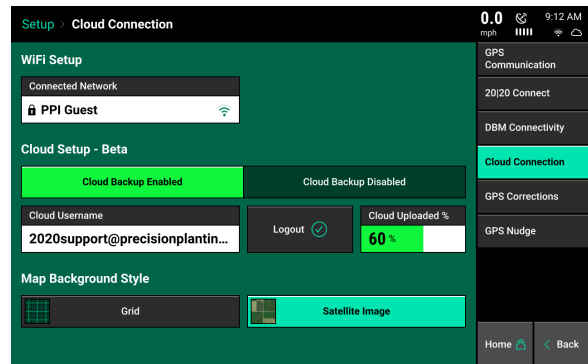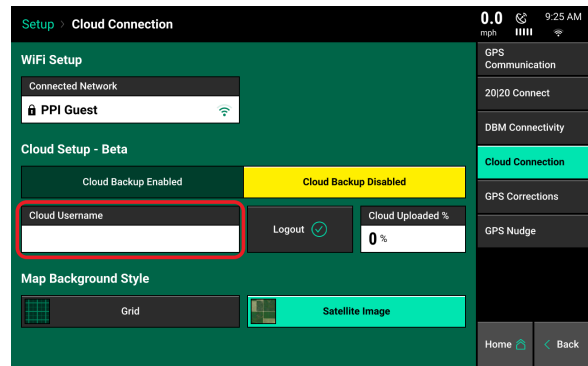
20|20 Connect

20|20 Connect is a mobile app available through the App Store and Google Play that connects locally to the on-board DBM WiFi. This app can be used for Calibrations, Health Checks and other system controls. Once the app has been downloaded, follow the on-screen instructions to pair it to your device.

For more information on 20|20 Connect and how to use it, refer to the 20|20 Connect Operator's Guide.

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Crop Setup

Step 1:

A crop setup must be completed once per season for each crop. With an empty hopper, press "Start" to begin accumulating measured weight.
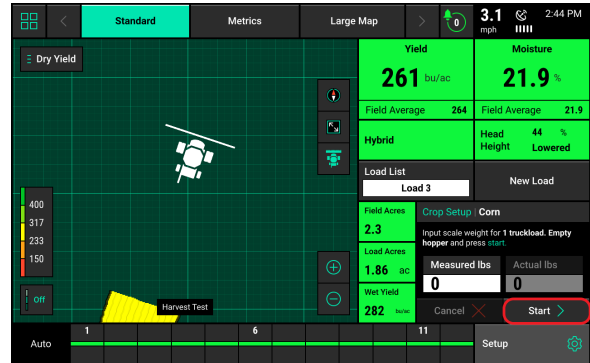
Step 2:

Once at least 25,000 lbs. is harvested, press "Next", then "Actual LBS" on the screen to enter the actual weight.
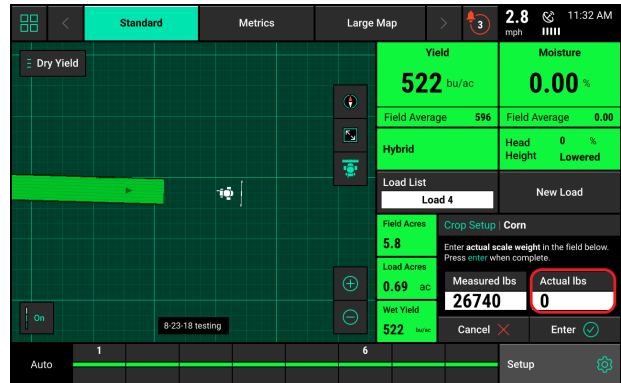
Step 3:

After entering the actual weight, Press "Enter" to save the crop calibration.

Note: If this is the first crop setup that has been completed for the year, the crop constant will be applied retroactively to all the fields harvested of the same crop for that year.

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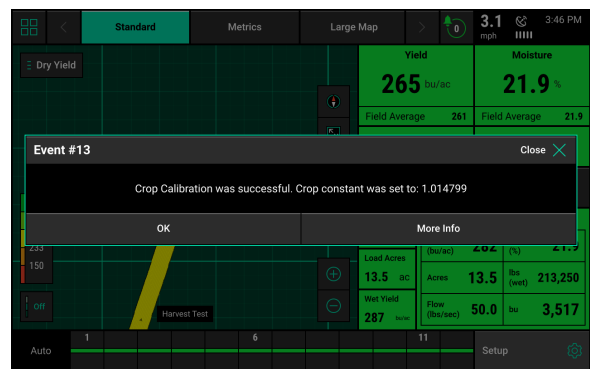
Load List Management

Load List management can be found on the Home Screen by pressing "Load List".

The Load List screen presents all of the loads taken for the active field and crop. For each load except the active load, both actual and measured weights are displayed along with other metrics. The combine total for the field also displays at the bottom.
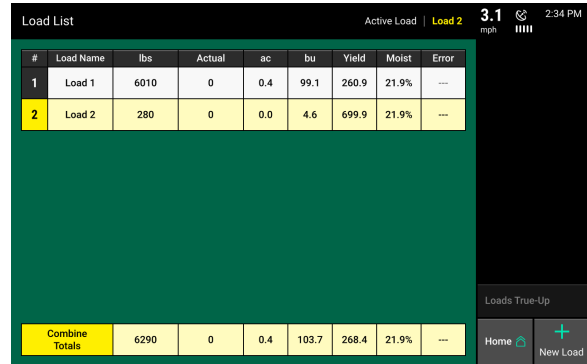
Load List Management

A new load can be created by pressing on "+ New Load". Enter a name for the new load or use the default name.

A previous load can also be re-activated by pressing on that load and selecting "Make Active".
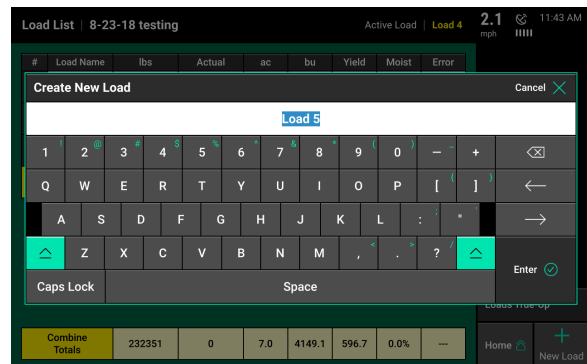
Loads True-Up

A loads true-up will calculate a new crop constant for the active field. This crop constant will continue to be applied to the yield until a new crop constant is calculated through a new loads true-up. It is recommended to have at least three loads, or 25,000 lbs harvested prior to performing a loads true-up.

Enter the actual weight for a load or the combine total for the field to perform a loads true-up. Once the actual weight has been entered, press "Done".

Note: The actual weight for the load or combine total must be taken from a grain elevator or a calibrated weight cart to perform an accurate loads true-up.

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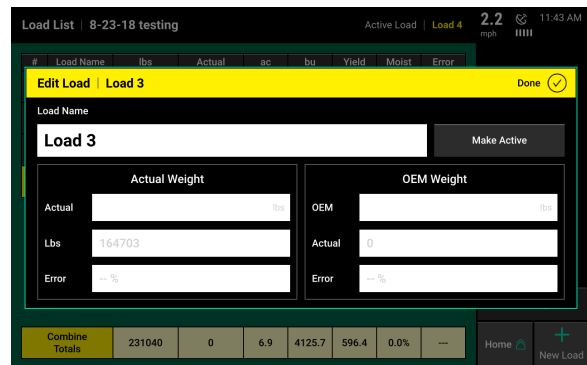
Setup Button

Press the Setup button on the home screen to access the main navigation screen for equipment and control systems' setup, diagnostic, and data pages. This page is divided into information about the system including diagnostics, information about products being applied, and the main navigation pane.
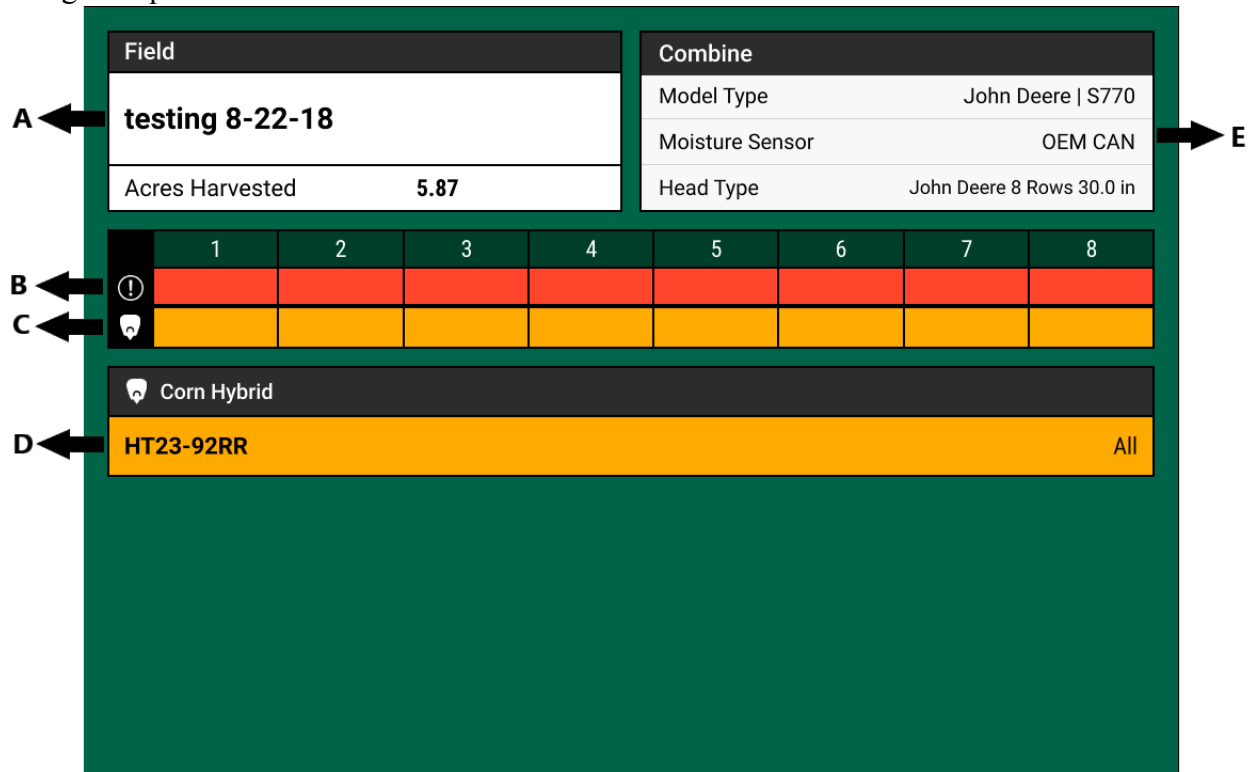
The combine portion of the main setup page displays basic combine setup, diagnostic, and product assignments. Additionally the active field name and total acres planted will be displayed.

A - Displays the active field name as well as the total acres planted for the field in the current season. Press on the field name to select a different field name.

B - Diagnostic Information. Displays the diagnostic color from the diagnose page.

C, D - Hybrid Information. A color will be assigned to each row indicating the hybrid name that is assigned. Colors correspond to the hybrids listed underneath the row information. Only one hybrid can be assigned at one time.

E - Combine setup information. Displays the combine make and model, the moisture sensor type, and the head type

On the right hand side of the Setup screen is the Navigation Pane. The Navigation Pane is used to access all other menus in the system.
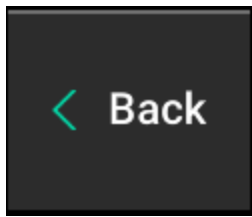
When navigating through different screens, there will always be a "Back" button that will navigate the user to the previously viewed page.
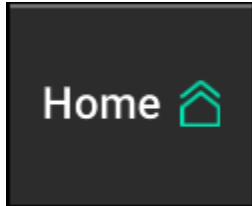
The "Home" button will navigate the user to the main home screen.

Basic Overview of the Main Navigation Menu

Fields: Change the active field name, assign a boundary to the field, and create or edit Client, Farm, & Field names.

Products: Assign the active crop and hybrid being harvested.

Equipment: Configure the combine profile, combine measurements, and head setup.

Systems: Setup and configure all YieldSense settings for the combine as well as the monitor.

Crops: Edit the active crop as well as the crop constant, grain shrink information, and yield units.

Diagnose: The primary location for troubleshooting issues related to the operation of the display and products being controlled/ monitored on the combine.

Data: Export, Import, and delete data into the monitor as well as updating software.

Note: More information for each of these menus can be found below.

If a button on the Navigation Pane has a warning icon on it, the system has recognized an issue with the setup and configuration that must be addressed.

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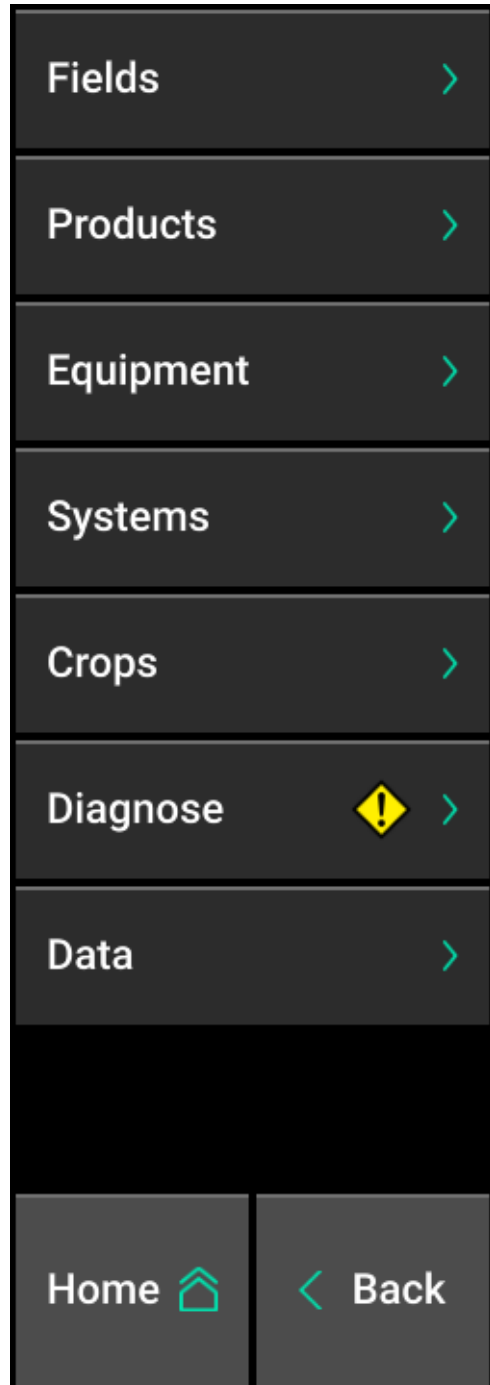
When navigating through the 20|20 there will be a "bread crumb" trail at the top left hand side of the screen showing the navigation path that has been taken. Select any part of the bread-crumb to navigate directly to that screen.

Example of a bread crumb trail:

Fields

Precision Planting uses a three tiered naming structure for field names: Client, Farm, & Field. Each tier of the naming architecture becomes more specific. At all times there will be an active field. The active field (a field consists of a Client, Farm, and Field name) is the field in which all data and map is being created for and stored under.

The Fields Menu is where the Client – Farm – Field structure can be created and edited. Select the Fields Menu from the Navigation Pane after pressing Setup on the home screen. (Selecting the active field name on the setup page will direct to the same page).

When the Fields menu is selected, the Active Field name will be displayed with a green heading. Also, the Client and Farm name of the Active field will be shown. At the bottom of the screen other fields for the same Client and Farm name will be shown. To access the Field Setup screen for the active field, press on the field name. To access the field setup screen for a different field or to make a different field active, select the field name from the bottom of the screen. If too many field names exist to fit on the page, either scroll down by using a single finger or use the "Search All Fields" function.
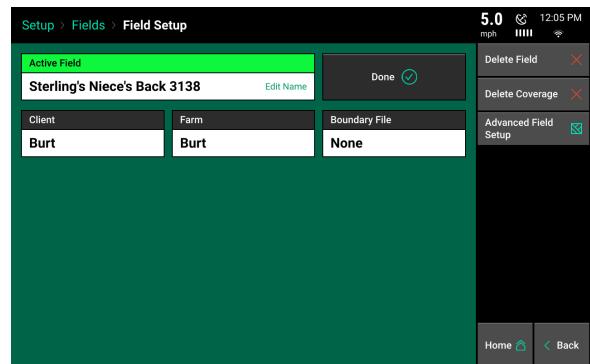
Additional field names can be added under the same Client and Farm name by selecting "Add Field to *current Farm name*".

Use the keyboard on the screen to type in a new Field name. When finished, press the check mark on the bottom right side of the keyboard.

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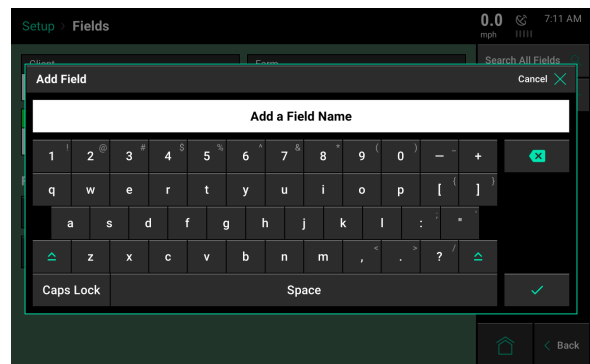
To view different field names, select a different Client or Farm name. Select either the Client or Farm name displayed towards the top of the page to select a different Client or Farm.

When the Client box is selected, a list of all Client names is displayed. Client names can be Added or Deleted by using the options at the bottom of the screen.
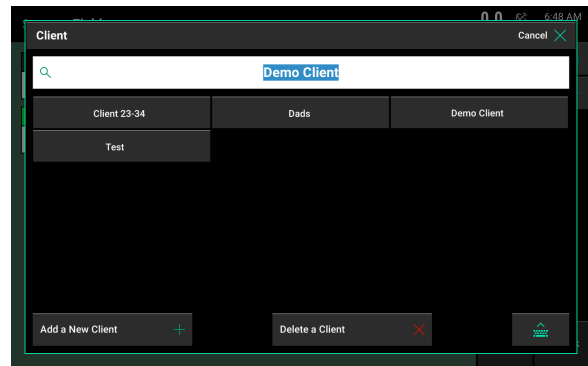
Select the keyboard icon in the bottom right to search for an existing Client name. Select a Client name listed on the screen to view the Farm names under the selected Client name.

Once a Client name is selected a Farm name must be selected. All Farm names under the selected Client name will be displayed. Farm names can be created and deleted. Select the appropriate Farm name to view all Field names under the selected Client & Farm name.
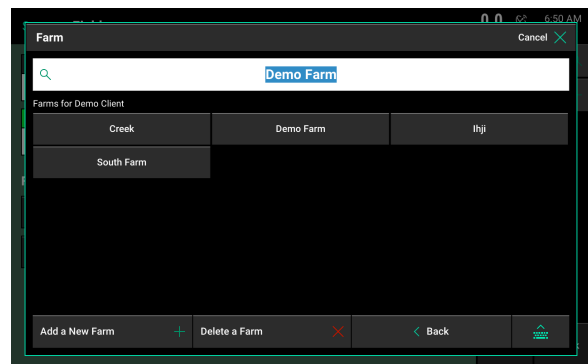
The Field Setup screen will appear when a Field name has been selected (including the active field name). Select "Make Active" to make the selected field active; so data and maps are stored under the field name. (If the large button says "Done" then the selected field is already the active field.
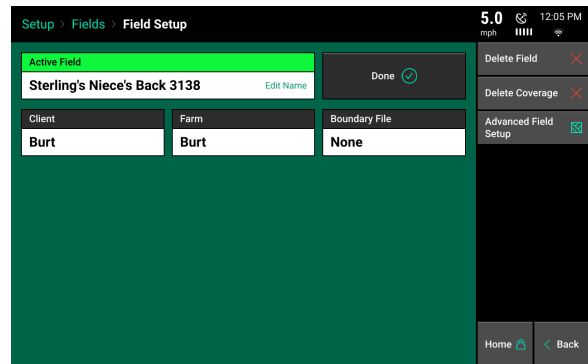
A field name can be deleted by selecting the Delete Field button. Data for the field will not be deleted and can still be exported off the display.

If coverage already exists for a field, select "Delete Coverage" to clear all coverage from the selected field.

Boundary files can also be assigned to fields on this page. Boundary files must be in a Shape File format and include the .dbf, .shx, and .shp file extensions. (Shape files are imported in the Data menu.)

Select the Boundary File button to view a list of all imported shape files. Choose the appropriate boundary file for the selected field.

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Below the Boundary option are entries for Tillage, Field Number, and Field Acres. This is optional information that can be entered for record keeping.

Products

The Products menu on the Navigation Pane is used for assigning a crop and hybrid/variety name to the product being harvested.

The active crop can be set by selecting "Active Crop", then selecting from the available crops.

Note: To add crops to this list, go to the Crops menu under Setup and select "Add Crop".
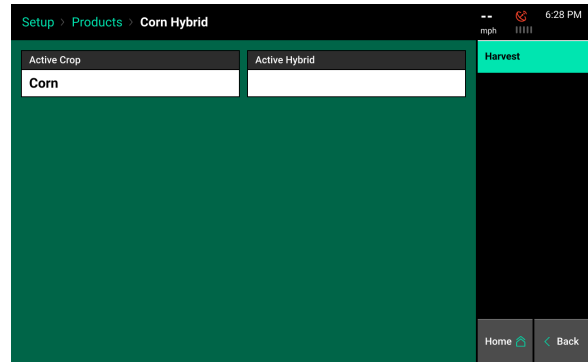
To enter the hybrid information from the dashboard select "Active Hybrid".
To add a new hybrid, select "Add Hybrid from database" for selecting a hybrid from the AgX database. Or select " Add custom hybrid" to manually type a hybrid name in.
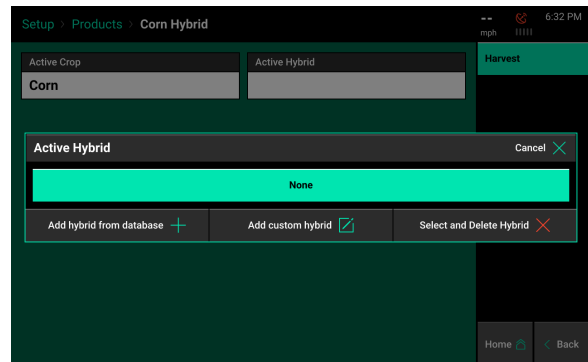
If "Add hybrid from database" was selected, Use the on screen keyboard to search for the name of the product. Select the appropriate name when it is displayed at the top of the screen. If the name is not displayed select the checkmark button the right side of the screen to the typed name as a custom hybrid name.
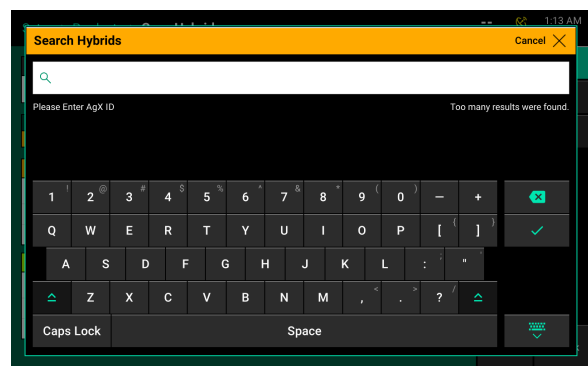
Once a hybrid name has been selected or created, select "Enter" to activate the hybrid.

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Equipment Menu

The Equipment menu is where the combine and combine head are configured. It is important to ensure that all information is entered correctly in the Equipment Pages.
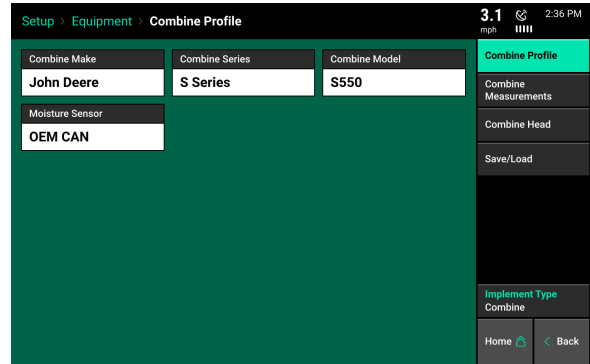
Equipment — Profile

Press the "Combine Make" button. Select the appropriate make of the combine. Choosing the Combine Make will define some of the choices available in later selection screens.
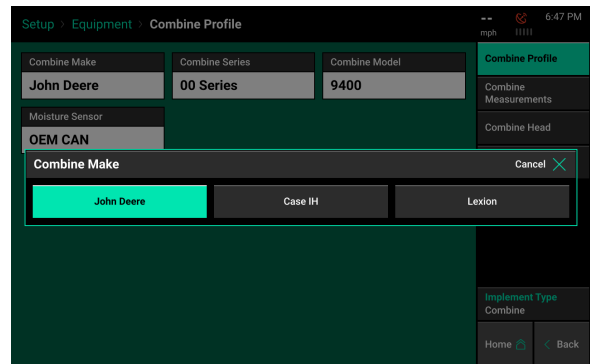
Press the "Combine Series" button. Select the appropriate series of the combine.
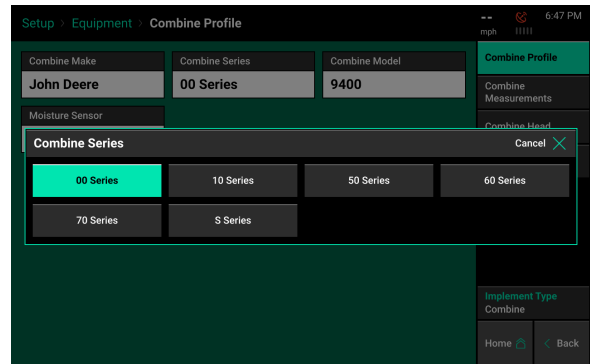
Press the "Combine Model" button. Select the appropriate model of the combine.

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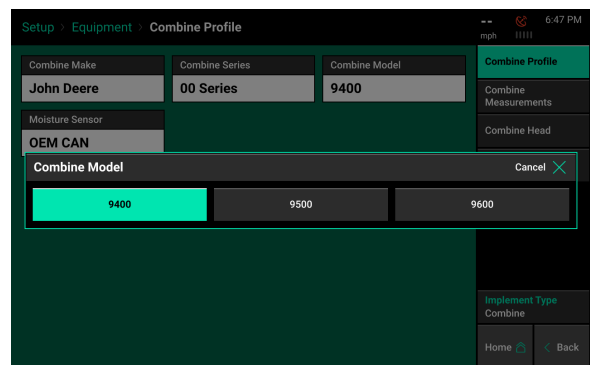
Press the "Moisture Sensor" button. Select the moisture sensor installed.

OEM CAN — If the moisture sensor information is being sent through the CAN network, select this option.

Precision Planting — If a Precision Planting moisture sensor is installed, select this option.

Aftermarket AL Analog — If an AgLeader moisture sensor is installed and Precision Planting is connected through an analog harness, select this option.

Note: *Auto* will attempt to determine the AgLeader moisture sensor type and will work in most scenarios. *Wide/Silver* or *Narrow/Black* can also be used, and refers to the moisture sensor size and color. Select the moisture sensor color/size to ensure the best performance.

Aftermarket AL CAN — If an AgLeader moisture sensor is installed and is being connected to through a CAN connection, select this option. *Wide/Silver* or *Narrow/Black* refers to the moisture sensor size and color. Select the moisture sensor color/size that is installed.

Fixed Moisture Value — Select this option for a fixed value.
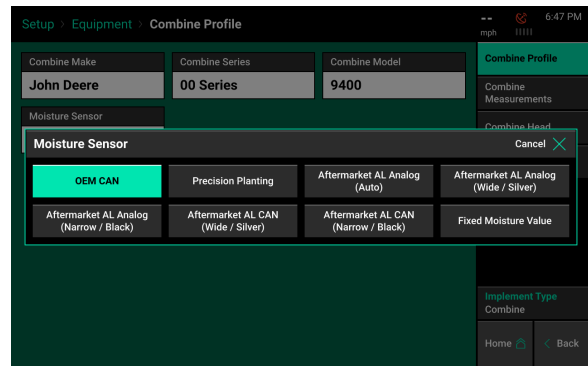
Combine Measurements

GPS offset measurements must be set up prior to harvesting in order for the monitor to correctly model the combine. From the home screen select Setup — Equipment — Combine Measurements.
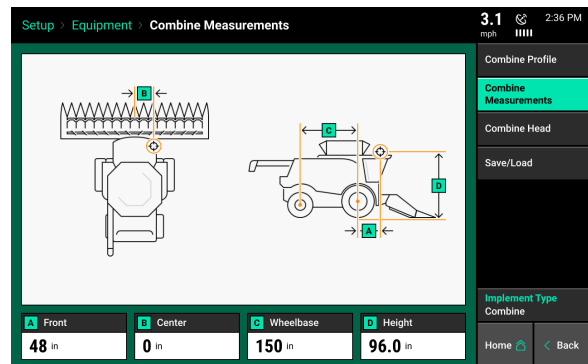
A — Enter the distance, in inches, between the front axle of the combine and the GPS receiver on the combine. If the receiver is behind the axle, press **Measure to Back** to move the receiver behind the axle.

B — Enter the distance, in inches, from the GPS receiver to the center-line of the combine. If the receiver is on the other side of the center-line, press **Measure to Left** to move the receiver. If it is directly on the center, enter "0".

C — Enter the distance, in inches, from the center of the front axle to the center of the rear axle of the combine.

D — Enter the distance, in inches, from the surface of the ground to the GPS receiver

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Combine Head

To configure the display for the combine head, press "Setup" on the Home Screen, then press "Equipment". Select the "Combine Head" to enter the settings.

Setup › Equipment › **Combine Head**			3.1 mph	2:36 PM
Head Make	Head Type	Harvesting Height	Combine Profile	
John Deere	Row Head	48 %	Combine Measurements	
			Combine Head	
			Save/Load	
A Forward	**B** Head Offset	**C** Row Spacing	Number of Rows	
0.00 in	0 in	30.0 in	12	Home 🏠 ‹ Back

Setup › Equipment › **Combine Head**			3.1 mph	2:37 PM
Head Make	Head Type	Harvesting Height	Combine Profile	
John Deere	Platform	48 %	Combine Measurements	
			Combine Head	
			Save/Load	
A Forward	**B** Head Offset	**C** Harvestable Width	Swath Sections	
0.00 in	0 in	360 in	12	Home 🏠 ‹ Back

To begin entering the head information, enter the Head Make and Head Type at the top of the screen.

Head Make — Select the Head Make, or use custom head make to type a custom make in.

Head Type — Select between a platform and row head.

Head Measurements

A — Enter the distance, in inches, between the center of the front axel of the combine and the front of the gathering chains on the head.

B — Enter the distance between the center-line of the combine and the center-line of the head. If it is off center select either **Measure to Left** or **Measure to Right.**

C — Enter either row width (Row Head) or harvestable width (Platform Head).

Number of Rows/Swath Sections — Enter the number of rows on the head (Row Head) or the number of swath section the head will be divided into (Platform Head).

Harvesting Height

To set the harvesting height for the head select the "Harvesting Height" button on the screen. Raise the head to the position where the acre counter should stop recording. Press "Set" on the right side of the screen to set the harvesting height position.

Note: If using head presets, this setting should be a few percent below the preset raised position.

Setup › Equipment › **Combine Head**			-- mph	8:08 PM
Head Make	Head Type	Harvesting Height	Combine Profile	
John Deere	Row Head	Disabled	Combine Measurements	
		Raise head to position where **harvesting acre counters should stop** and press **Set**.	**Combine Head**	
			Save/Load	
			Set ✓	
			Disable ✕	
			Cancel ✕	
Current Position	Current Status	Current Setting		
0 %	Lowered	Disabled	Home 🏠 ‹ Back	

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Salve/Load

Both Combine and Head configurations can be saved in the 20|20. Once a Combine and or Head has been configured press the Save/Load button to save these setup configurations. Press the "Save Current Combine Head (or Combine) Configuration" button to create a name for the current configuration on the 20|20. It will be saved under the entered name. The saved configuration can then be deleted, updated with future changes, or loaded to change to that configuration.
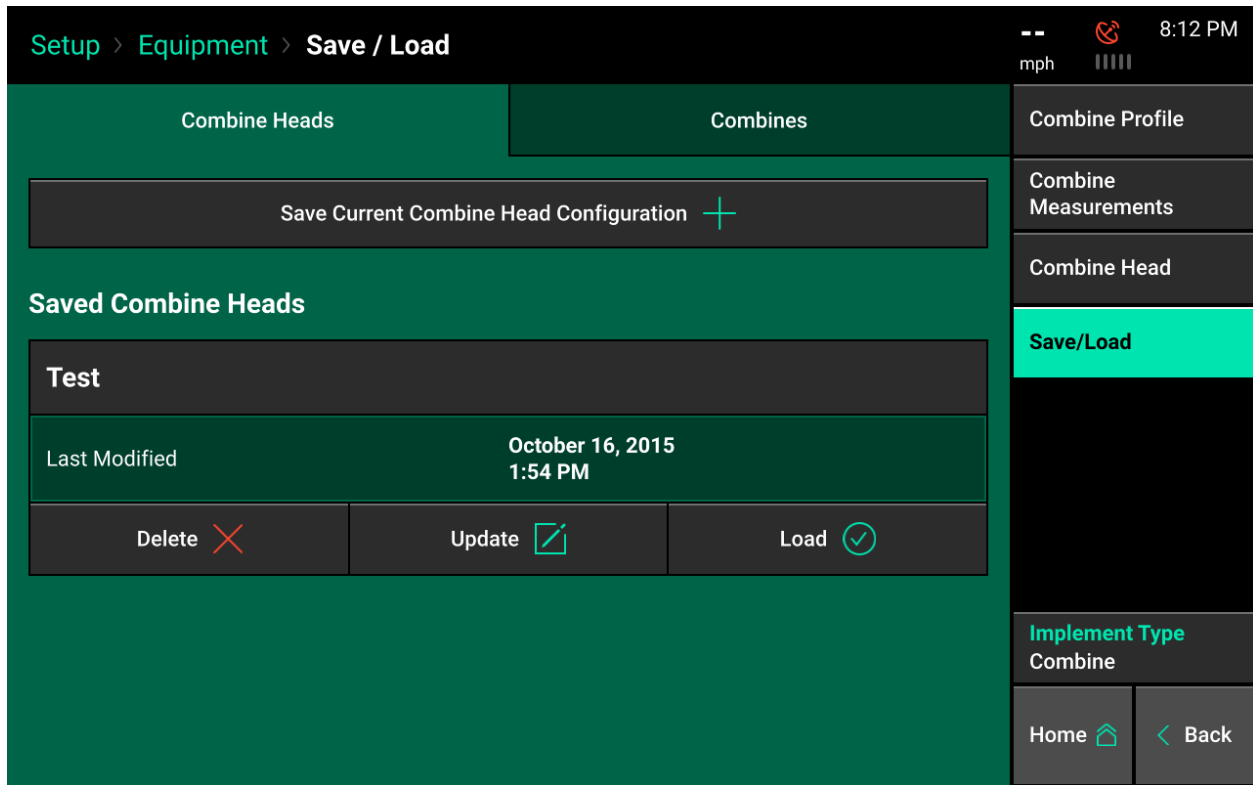
Implement Type

The Gen3 20|20 has different implement modes that can be enabled. These modes include Planters, Combines, Air Seeders, and Sidedress Bars. To switch modes, select Setup – Equipment – Implement Type.

Note: Use the Save/Load option in the equipment menu to save the Tractor, Implement, Combine and Head configurations. Any configurations have been set up in each implement mode **MUST** be saved before changing to a different implement type, or the active implement settings will **be lost**.

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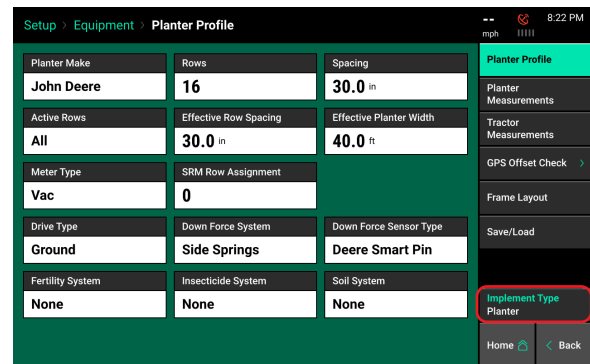
Systems Menu

The Systems menu contains setup for YieldSense and the Display.

YieldSense Settings

The YieldSense settings can be edited to configure the YieldSense system. Refer to each setting below for a description on each setting.
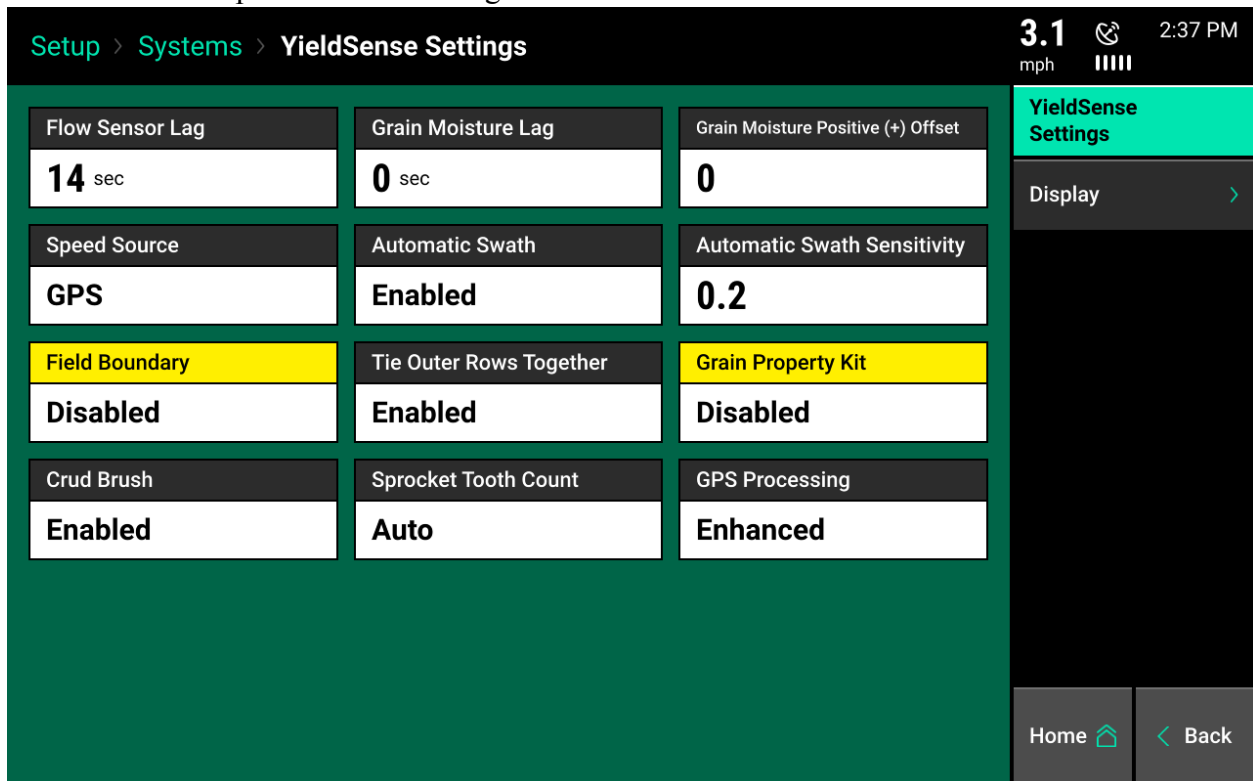
- Flow Sensor Lag- Flow Sensor lag defines the number of seconds that pass between when the grain enters the head and the grain hits the paddle. This number can be adjusted if the yield maps overlap into the headlands or stop short of the headlands. Make small adjustments to this number (a few tenths at a time) to adjust flow sensor lag until the map looks correct.

- Grain Moisture Lag- This defines the number of seconds that pass between when the grain leaves the elevator and hits the moisture sensor.

- Grain Moisture Positive /Negative Offset- This allows you to calibrate your moisture sensor to a certified moisture sensor. Change the offset as necessary until the moisture sensor values match your samples. First adjust moisture on your combine display or your AgLeader display. If a moisture offset is entered on the combine display, it will not need to be entered into the 20|20. If entered in an aftermarket display, it will need to be entered into the 20|20.

- Speed Source- Will give you the option of using GPS only, Wheel Speed only, or Auto which will choose the more stable option.

- Automatic Swath- If enabled, rows or swath sections will turn off automatically when entering areas previously harvested. If disabled, rows or swath sections will always be on when harvesting unless manually disabled.

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- Automatic Swatch Sensitivity- Refers to the percentage that a row needs to be off center before it is automatically swathed off. A setting of 0.2 means if there is less than 20% of the row between two rows of corn (combine has shifted over more than 80% of the row width into an already harvested row) then the outside row will swath off. The lower the setting the less sensitive the system is because the combine can shift over further before automatically swathing off.

- Field Boundary- If enabled, a field boundary can be assigned in the Field Setup Page. The boundary will automatically swath off rows on the combine head if they go outside of the boundary.

- Tie Outer Rows Together- This links the swath control of the outside two rows together on either side of the head. They will swath on and off together. Generally used when RTK GPS correction is not available.

- Grain Property Kit- IF the Grain Property Kit (bucket on chain) has either been removed or is not available for the combine model being used then this setting should be changed to Disabled. If the Grain Property Kit is installed then this setting must be Enabled in order for the system to use the information gathered from it.

    Note The Grain Property Kit is not installed on any John Deere 94XX, 95XX, and Lexion 6" chain systems. This should be set to 'disabled' on these systems.

- Crud Brush- If the crud brush has been removed or damaged and is not working properly, then this setting should be disabled. This will stop popups from being displayed. If the crud brush is installed then keep this setting set to Enabled.

- Sprocket Tooth Count- This should be left to auto based on the make and model of the combine that you entered into the display.

- GPS Processing- Set to Legacy as default, but changing to Enhanced allows for accelerometer to be used for GPS processing.

Display General

Select the "Display" option in the Systems menu to configure the Display Settings.

If two displays are being used, each display has its own display settings that can be adjusted.
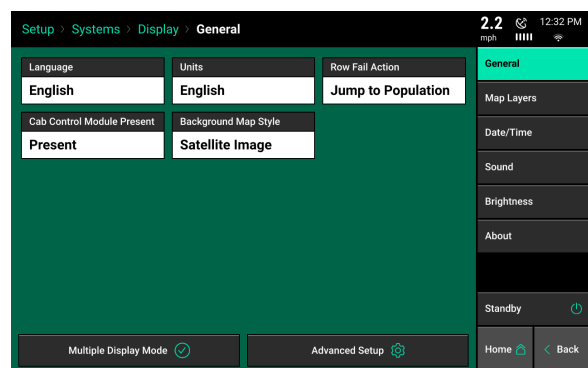
Language - Change the language of the display.

Units - Select this option to change between English and Metric units.

Row Fail Action - Select this option to change the display action when a row failure occurs.

    Jump to Row - This option will redirect the screen to the Row Details page when a row failure occurs.

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Jump to Dashboard - This option will redirect the screen to the Population Dashboard to display Row-by-Row population information.

None - This option will cause no redirection of the screen when there is a row failure.

Note: Row Fail Action is not available when in Harvest mode.

Cab Control Module Present - If a Cab Control Module is **NOT** connected to the display, change this to "Not Present". If using two displays, the display that does not have a CCM must also change this to "Not Present".

Multiple Display Mode - Select this option to disable certain notifications on the active monitor. Options include: "Alerts and Alarms", "Screen Jump", and "Event Popups".

Background Map Style - Once the system has been connected to WiFi, use this option to change the Home Screen map background between the standard grid to a background map.

Display — Advanced Setup

Debug Code - if a code has been provided from a Precision Planting representative for a specific support issue, it must be entered in this location.

Demo Mode - Enables the demo mode which will display planting or harvest data on the display. A demo file is required for this to mode to function. Press on this button to Enable demo mode.
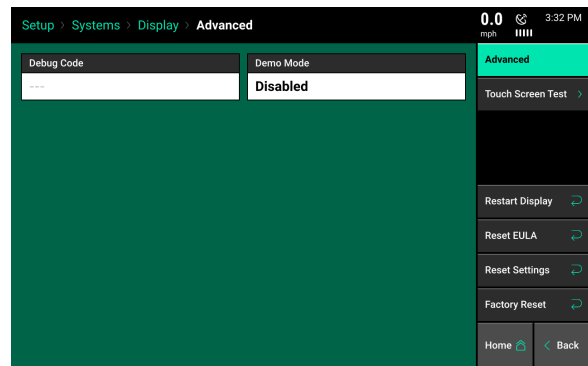
Touch Screen Test - Tests to see if all areas of the touch screen work correctly. When in the test, touch to the screen to paint the screen a different color of where it was touched to see if that area of the screen is responding to touch correctly. Hold a finger in a stationary spot for five seconds to exit the test.

Reset EULA - Resets the User License Agreement. This will reset the EULA so that it will need to be agreed to when the display boots up next.

Restart Display - Restarts the display screen only. The connected modules will not restart.

Reset Settings - Resets ALL display settings and ALL configurations for tractor, planter, and control products back to the default.

Factory Reset - Wipes all data from the Display Base Module and resets all settings back to default.

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Display — Map Layers

Use the Map Layer option to enable or disable map layer availability on the Home screen. Select a map layer to disable it. Active map layers will be highlighted in Green, inactive map layers will turn grey.
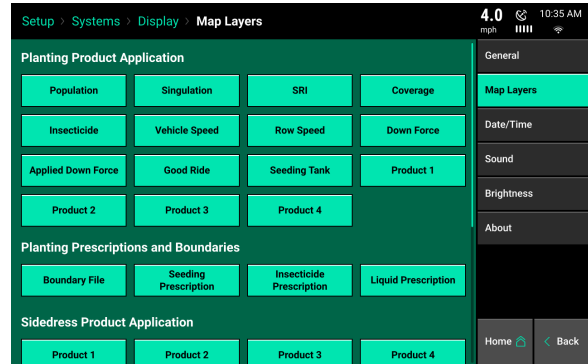
Display — Date/Time

The date and time for the 20|20 are set by the GPS system that is connected. If an adjustment is needed, the Time Zone, Time, and Date can be adjusted on this settings page.
Select each box to adjust the settings. For the Time, enter the time in the standard 0-23 hour clock.
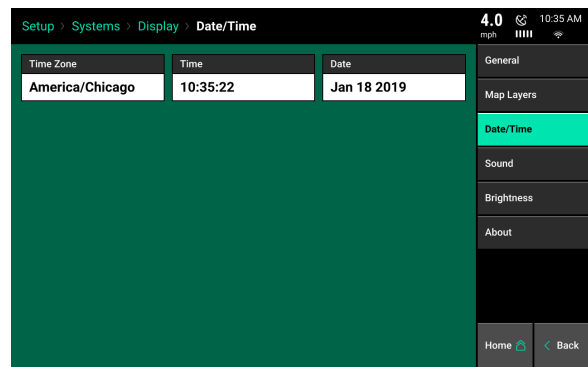
Display — Sound

Select the Sound option in the navigation pane when in the Display menu to configure the sound settings. The volume can be controlled using the volume sliders below each sound type. Selecting each sound type allows the selection of different sound options. If a sound option is selected, a demo will play. If no sound is desired for a certain sound type, select the "Mute" button under the slider bar.
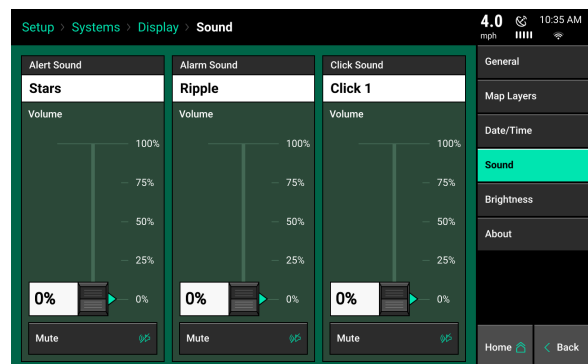
Alert - This sound will play when an item is yellow on the home screen.

Alarm - This sound will play when an item is red on the home screen.

Key Press - This sound will play when the touch screen is pressed.

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Display — Brightness

Select the Brightness option in the navigation pane when in the Display menu to configure the brightness of the display and the LED lights on the Cab Control Module (switch box connected to the display).

The default setting is "Automatic" for both the Display Brightness and LED Brightness. Automatic mode uses an ambient light sensor to change the brightness for day/night. Select "Manual" to display a slider bar to manually adjust the brightness.
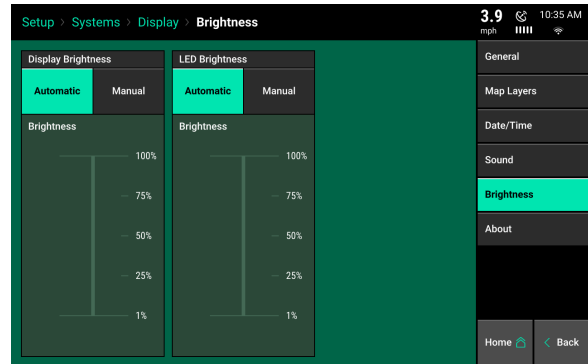
Display — About

View software versions and serial numbers for both the Display and the Display Base Module. Press on the software versions to be directed to the Software Update Screen. Serial Numbers cannot be manually entered, but will automatically update when plugged into a Display and Display Base Module.

The Disk Usage shows the percent of the total memory that is being used.

The License Agreement can also be viewed by pressing the License Agreement button at the bottom of the screen.

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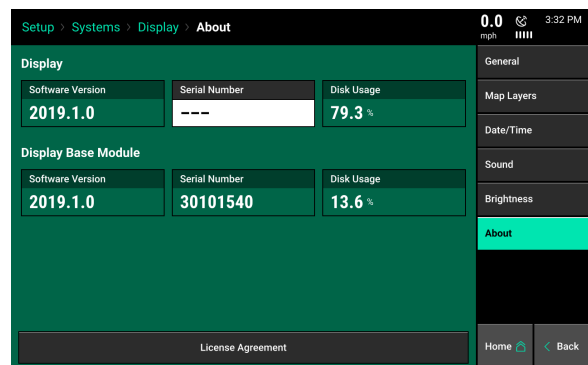
Crops Menu

The Crops Menu is used to change the active crop for harvesting. Press "Active Crop" to change the crop. Use the Add and Delete Crop button at the bottom of the screen to modify which crops are available to select as an active crop.

The non-crop constant settings on this page can be reset by pressing "Restore Crop Defaults" on the right side. The entire crop setup can be reset by pressing "Reset Crop Setup".
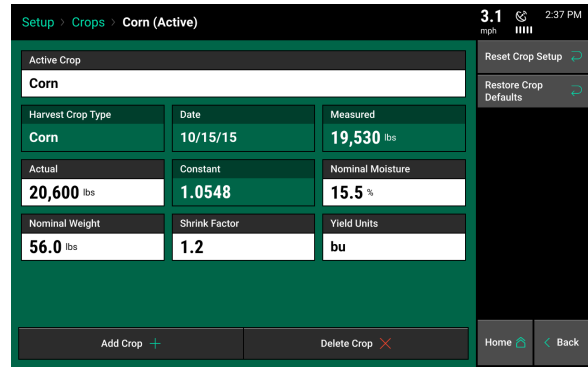
Note: If the Crop Setup is reset, the crop constant will be erased.

Harvest Crop Type — This is the active crop type used for yield calculations.

Note: If a custom crop is created, this setting will have Small, Medium, or Large Grain available. Select the grain size that best fits the active crop.

Date — The date of the most recent Crop Constant change. (including any field and load true-ups)

Measured — The Measured weight of the original crop setup.

Actual — The actual weight (entered by user) of the original crop setup.

Constant — This is the current crop constant value.

Nominal Moisture — The moisture value that the grain will be dried down to in the dry bushels calculation.

Nominal Weight — The nominal weight used in the bushel calculation.

Shrink Factor — The shrink factor used in the dry bushel calculation.

Yield Units — Both bushels and pounds can be selected to change what the home screen displays for yield.

Precision Planting

Diagnose

The Diagnose Menu is the primary location for trouble shooting issues related to the operation of the 20|20 system itself and all products configured on the monitor. The schematic on this page shows each component including the Base Module that the display screen connects to. Each product that is configured is displayed along with a combine showing a drawing of the product (s).
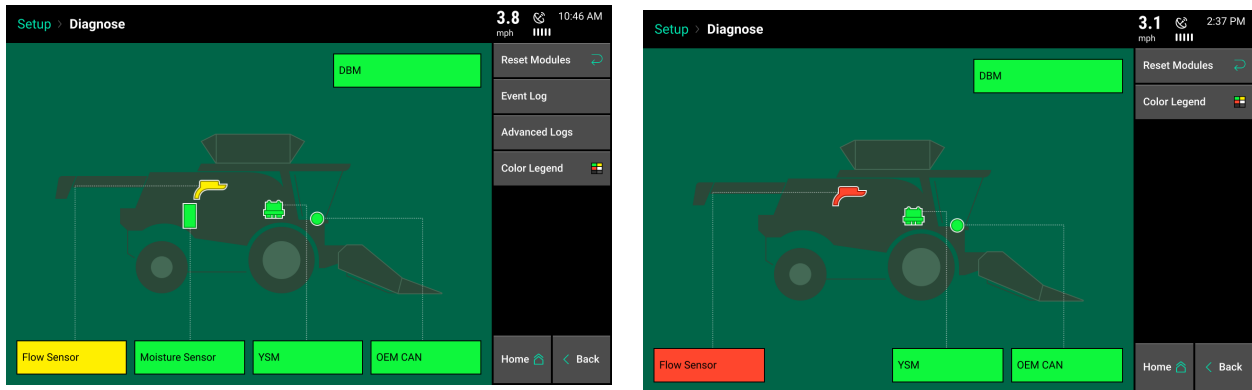
Color Legend

Green - the system is working correctly and communications are good. Select "Color Legend" to view an explanation of what each color indicates.

Yellow - a Device or sub-component is not 100%.

Red - Device has failed, or is expected, but not detected.

White - Device is detected, but is not expected.

Black - System has been disabled in the configuration.

Gray - Device is being detected, updating firmware, or unreachable.

All systems should be Green before using the system in the field. The color of each system on the top level diagnose page will be reflected by any issues within the system. For example if there is an issue with the Flow Sensor, the Flow Sensor will also be red. Touch on the system name to view the level two details page. Anything on the level two detail pages that is working correctly (indicated by a green color) will be marked by a different color that fits the color legend. If a system is green on the top level page, then everything will also be green on the level two diagnose page for that system.

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The Navigation Menu on the right hand side of the screen offers additional options within the Diagnose Menu.
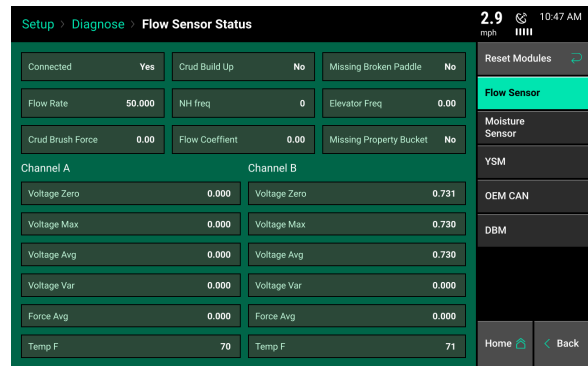
Display Base Module - Displays information about the DBM including the CAN bus usage, Temperatures, voltages, Ethernet ports, and software versions.

Reset Modules - Pressing this button breaks and reestablishes communication between the 20|20 components and is often used as a troubleshooting tool for communication issues.

Event Log

Select the Event Log button to view a list of all event codes/error codes that have happened on the system. The Event Log is in order from the most recent event to the oldest event with the newest event codes at the top of the list. All events will have a number and a date/time when the event happened along with a description of the event. Select any event code to view additional details for that specific code
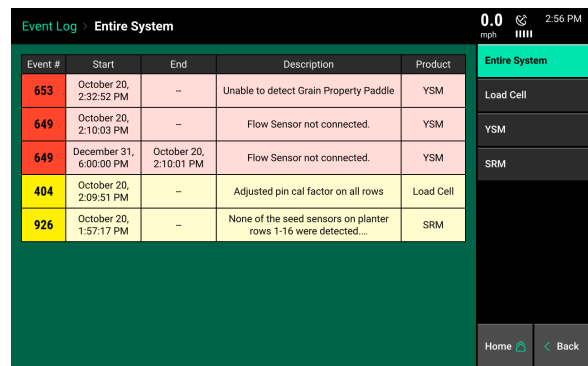
Advanced Logs - Allows for a detailed log to be Enabled, Exported, and Deleted. To begin a detailed log, press the "Enable Detailed Log" so that it turns Green. Detailed Logs are taken when requested by the Precision Planting Support Team. A detailed log will run for one minute and then automatically be disabled. Once a log is captured, select the "Export – System Data Log" button to export the log to a USB drive plugged into display. Once exported logs can be deleted by pressing the "Delete – Log File" button.

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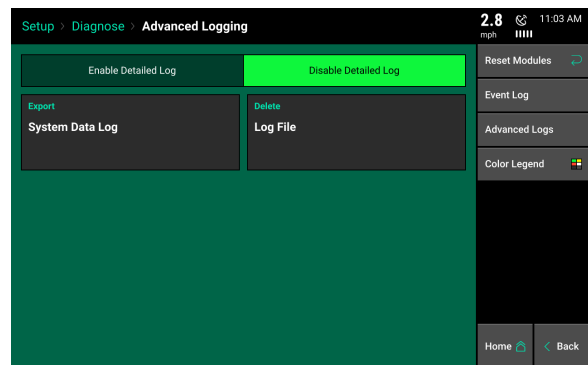
YieldSense Level 2 Screens

Flow Sensor

The Flow Sensor Tab on the diagnose page is showing the information gathered from the impact sensor in the clean grain elevator. It will show the following:

Connected

Crud Build Up

Missing Broken Paddle

Flow Rate

NH Frequency

Elevator Frequency

Crud Brush Force

Flow Coefficient

Missing Property Bucket

Channel A and B Voltage and Diagnostic information.
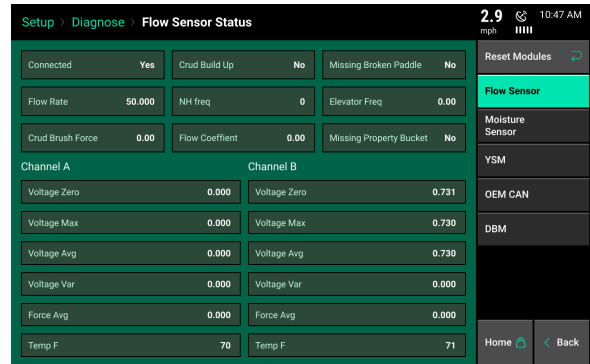
OEM CAN

The OEM CAN button on the diagnose page is showing the CAN information we are receiving from the combine. It includes the following:

Connected

Model

Moisture

Feed House angle

Seperator

Engine RPM

Wheel Speed

Gear

Auger Status

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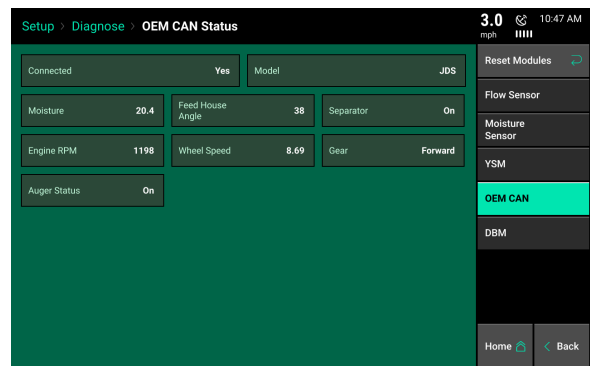
Moisture Sensor

There will be a moisture sensor tab displayed if the moisture sensor selected is not OEM CAN. It will display the following:

Connected

Analog Moisture

Analog Temperature

Moisture Temperature Voltage

Moisture A and B Voltage

Motor Status

Motor State

Grain Present

Proximity Sensor Voltage

Detected Harness
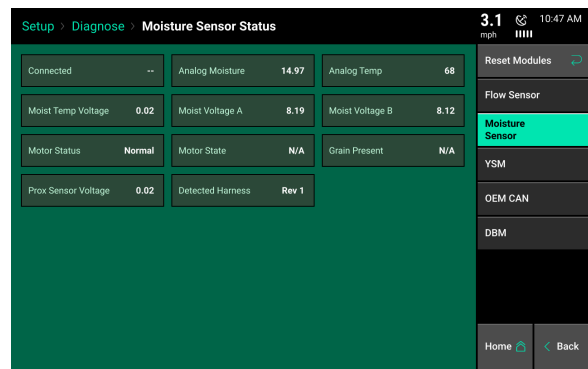
YSM

The YSM (YieldSense Module) is what processes all of the information for the YieldSense system. In the YSM tab on the diagnose screen it includes the following:

Connected

Communication Quality

Fw Version

Active tooth count

Detected tooth count

YSM crop type

Display Machine Config

YSM Machine Config

YSM Aus (which shows gyro information)

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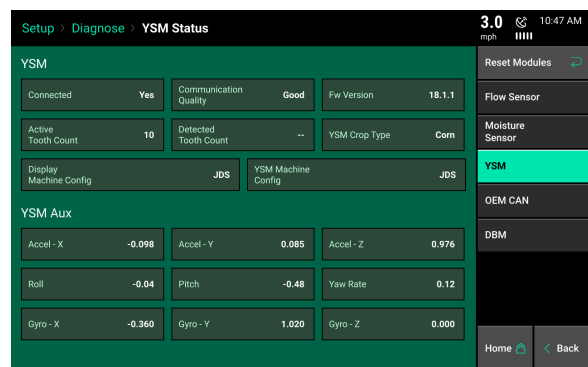
DBM

The DBM (Display Base Module) on the diagnose page is showing all the information that the module is sending and receiving. It includes the following:

Coprocessor

Precision Planting CAN

OEM CAN

Temperature

Battery

Voltage

Ethernet Ports

Module Software Versions
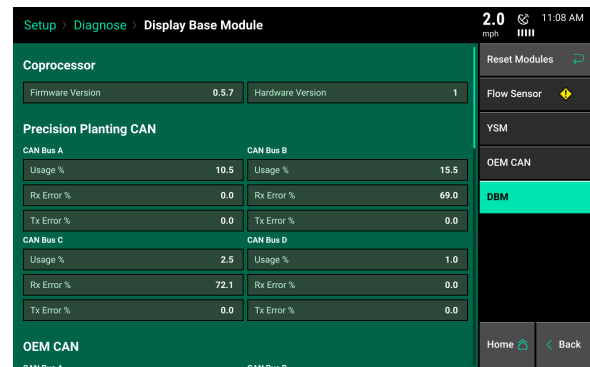
FieldView Info

Select the FVM option on the diagnose page to view the FieldView Module settings.

Shared Swath— Sharing swath between equipment in a field can also be toggled between enabled or disabled. For this to work, shared swath must be enabled on all 20|20s in the field.

Config Changes— This setting changes the ability for configuration changes to be accepted from the FieldView platform can be enabled or disabled. (including all settings changes such as Client/Farm/Field, Prescriptions) This setting choice will be prompted the first time a FieldView Module is plugged into the 20|20 system.

Unpair FieldView Account— Displays the firmware version installed on the FVM.

Delete FVM SD Card Data— Deletes all field map data on the FVM.

Converted to FVDAT— Displays the percentage of fields that have been converted from .2020 files to .DAT files.

Precision Planting
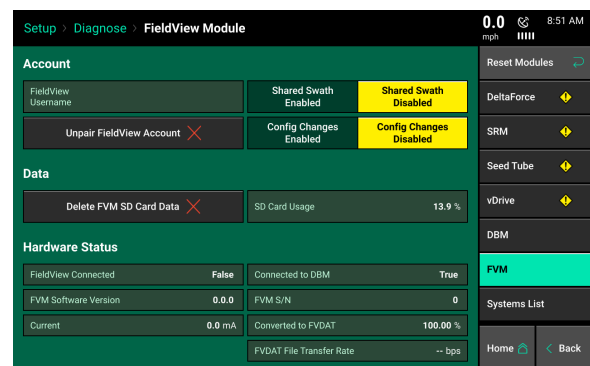
FieldView Connected — Indicates if the system is communicating with the FieldView Cab app.

DBM Connected — Indicates if the Display Base Module is communicating with the FVM.

The FieldView Username displays the username that the 20|20 is linked to. This username is saved when an operator selects "Yes" this is my 20|20 on the FieldView Cab app.

Sharing swath between equipment in a field can also be toggled between enabled or disabled. For this to work, shared swath must be enabled on all 20|20s in the field.

Data

The Data menu has features that assist with exporting, importing, and deleting information. Information is exported and imported through the USB slot on the left hand side of the display. The Backup/Restore option allows for backup or restore of an entire monitor or configurations in one action. Software Updates are also done through the Data tab and can be done with a USB drive.

Data — Export

Field and Crop Config – Exports all field names, crop settings, and seeding, liquid, & insecticide settings to a USB Drive. After selecting "Field and Crop Config" enter a name for the configuration. This is done to separate configurations if multiple configurations have been exported to the same USB drive. This data can be imported back into a display.
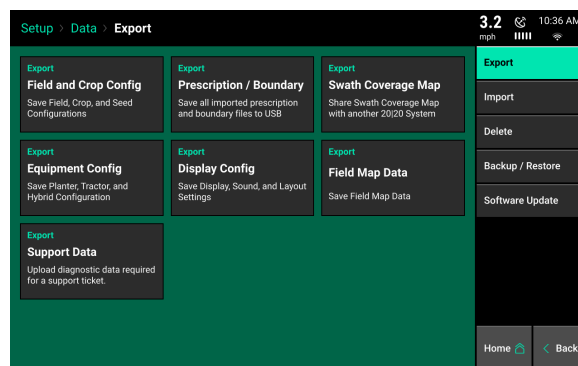
Prescription / Boundary – Exports all prescription and boundary shapes files to a USB drive that had been previously imported into the monitor.

Swath Coverage Map – Export to a USB drive the active field's swath coverage map. This map can then be imported into another display so that the second implement swaths off to the original implement's coverage map.

Equipment Config – Exports the active implement type (e.g. planter, combine, or seeder), and seeding, liquid, & insecticide settings to a USB Drive. After selecting "Equipment Config" enter a name for the configuration. This is done to separate configurations if multiple configurations have been exported to the same USB drive. This data can be imported back into a display.

Display Config – Exports all Display, Sound, and Layout Settings to a USB drive. After selecting "System Config" enter a name for the configuration. This is done to separate configurations if multiple configurations have been exported to the same USB Drive. This data can be imported back into a display. If dual displays are being used only the Display Config for the display that the USB is connected to will export the Display Config. Each display will have its own config.

Support Data – Uploads Field Map data and diagnostic logs to Precision Planting Product Support.

Note: This requires WiFi connectivity prior to uploading.

Field Map Data – Displays a list of all data for all implement types. Data is organized by Name, Data Size, Acres, Season, and Pass. Only fields that have data will be displayed. Select the column header to reorganize the list. Use the "Search Fields" button on the navigation pane to search for a specific field name.

Data can be filtered by Season or by the type of field pass at the top of the screen.

The "Transfer All Fields" will export all data for all fields to a USB drive. To export specific fields, select the field(s) to export by pressing on them (selected fields will be highlighted) and then press the "Transfer Selected Fields" button.

Data — Import

Select the Import button on the navigation pane to import files onto the display. Files to import into a display must either in a folder that was exported directly from another display or placed directly onto the root directory on the USB drive.
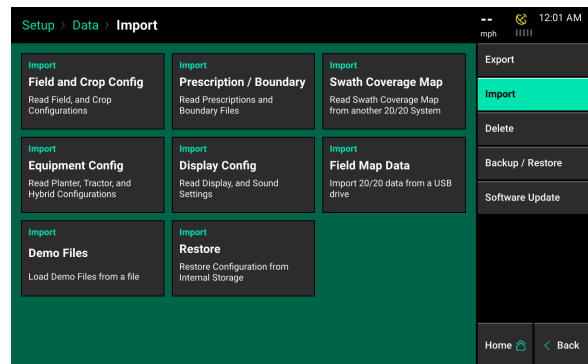
Field and Crop Config – Import Client, Farm, and Field names as well as the crop and hybrid configurations from another 20|20 or a Generation 1 & 2 20/20 SeedSense monitor

Prescription / Boundary – Imports prescription and boundary files from a USB Drive. Files must be in the form of Shape Files and include the .shp, .shx, and .dbf file extensions.

Swath Coverage Map – Import a Swath Coverage Map from another implement, currently running in the same field. This allows the system that is importing the file to swath off in the areas of the field planted/applied/harvested by the other implement.

Equipment Config – Import configuration files to change the active implement (e.g. planter, tractor, combine, or seeder). Crop and system settings such as population, liquid, & insecticide setting will also be imported.

Display Config – Import a Display configuration to change the home screen layouts as well as all other settings that can be adjusted on the Display pages under Setup-Systems.

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Field Map Data – Import Field data onto the display to view maps, and field information from previously exported data or from other Gen 3 20|20 displays.

Demo Files – Import Demonstration files into the monitor that will run when the monitor is in Demo Mode (See Display Settings – Advanced Settings for more information on Demo Mode.)

Restore – Monitor Configurations are automatically backed up and saved by date. Select a date to restore the configuration settings that were saved on that date.

Data — Delete

Select the Delete button on the navigation tab delete data from the display. Different types of data can be deleted.
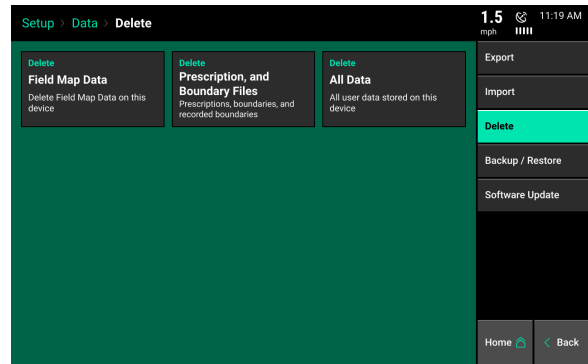
Field Map Data – Displays a list of fields that have data. Data can be filtered by Season or by the type of field pass at the top of the screen. Select an individual field, multiple fields, or all fields to delete the data. This does not delete the Client-Farm-Field name for the field.

Prescription and Boundary Files – Displays a list of all shape files imported into the display and recorded on the 20|20. Select either individual, multiple, or all files to be deleted.

All Data – This deletes ALL user data from the 20|20. All settings, configurations, data, fields, and shapefiles will be deleted. This is a irreversible operation.

Note: Once data is deleted, it cannot be recovered.

Backup/Restore

The Backup/Restore tool backs up all data and configuration files on the monitor to a USB drive. The files saved to the USB drive can then be used to restore just the configurations or to restore an entire system by bringing back all the data and configurations to a monitor.

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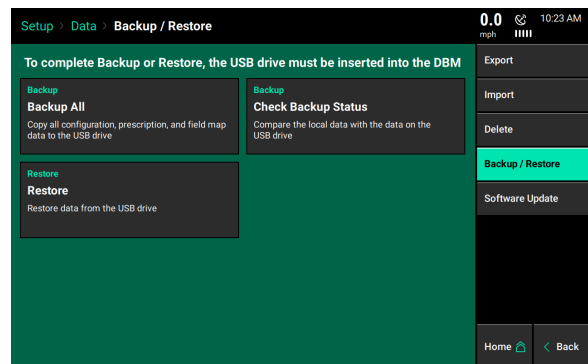
Backup All – Copies all Configurations, Data, and Imported Files from the monitor to a USB drive. Ensure the USB drive is large enough to handle an entire backup. The internal memory in the Display Base Module is 32 gig. Place the USB drive into the USB port on the DBM.

Check Backup Status – Compares the data on a USB stick with the data on the hard drive to determine if the monitor is completely backed up. Will also display the date of when the last backup was done.

Restore Config – Select Restore to put files back onto a 20|20 that had been previously been backed up to a USB drive from either the same or different 20|20.

Once Restore has been selected, all Backed Up files on the USB drive will be displayed. Select a specific backed up file to restore. Then select either:

Restore All – to restore everything that had been backed up (including field data, prescriptions/ boundaries, and all settings). Essentially this makes a duplicate 20|20 of the one that had been previously backed up.

Restore Config – Restore just the configurations to the 20|20 (Equipment Configurations, Display Configurations, and Field & Crop Configurations)

Software Update

Select the Software Update button on the navigation tab to change the software version on the Display Base Module and Display.

Install from USB – Software can be downloaded for free from the Precision Planting website and saved to a USB drive. Ensure the software file is on the root directory on the USB drive. Place the USB drive in the side of the display and then select "Install from USB". All software versions that are correctly saved to the USB drive will be displayed. Select the software version to update the monitor too and wait for the monitor to reboot. This process will update both the Display Base Module and Display. If two displays are connected, an extra reboot may be necessary for the second display to update (or go through the update process a second time, with the USB stick plugged into the second display.)
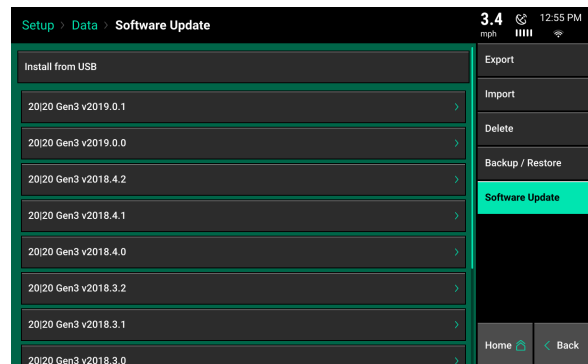
Install over WiFi – Software can be downloaded over WiFi once the system has been connected to WiFi. There will be a list of software versions below 'Install from USB' that the system can be upgraded/downgraded to.

Precision Planting

Appendix A

Yield — The Yield box displays two values of dry yield in bushels per acre (bu/ac). The "Instant" value represents yield at your current position and is based on a three second average. Field Average is the average dry yield for the entire field.

Moisture — The Moisture box displays two values for moisture measured by the moisture sensor. The "Instant" value represents the moisture of the grain at your current position and is based on a three second average. Field Average is the average of moisture for the entire field.

Load — The Load box displays information for the active load. The values are Yield, Moisture, Acres, Lbs., Flow, and Bushels.

Note: Loads will not show until the crop setup is complete.

Flow — Grain flow across the Flow Sensor measured in pounds per second.

Lbs (wet) — The total mass of grain harvested.

Yield (wet) — Wet weight divided by acres harvested.

Bushels — Dry weight divided by crop pounds per bushel. If dry weight is less than nominal moisture for a crop then wet weight is used. We do not scale up dry pounds to be more than wet weight.

Bushels/ Hour — Instant bushels rate scaled up to an hour.

Acres/ Hour — Distance traveled times Active Head Width scaled up to an hour.

Acres (Field) — Distance traveled times Active Head Width for the active field.

Head Height — Displays current head height percentage as well as status of lifted or lowered.

Precision Planting

Appendix B — Harness Layouts

John Deere 50/60/70/S YieldSense Electrical System Overview

GPS/Radar Gen3
725155

Radar Connection
(Not Used for Harvest)

DBM Power Harness
725150

Internal GPS Connection.

OEM CAN Harness
725151

Connect together if using the external GPS connection

Cab Harness
751200

Flow Sensor
751150

Gen3 YieldSense Module
(YSM2)
751131

Flow Sensor Harness
750411

Bulkhead Harness
751202

Aux Connection
Used for Analog Moisture Sensor

Analog Primary

Analog Secondary

PP/OEM CAN Power

CAN Connection and Plug
(Not Used)

External GPS Connection

12V Power Connection

Precision Planting

John Deere 9x00/9x10 Gen3 YieldSense Electrical System Overview

GPS/Radar Gen3
725155

Radar Connection
(Not Used for Harvest)

JD 9X00/10 Cab
Harness
751227

Internal GPS Connection.

Connect together if using
the external GPS
connection

Flow Sensor
751153

Flow Sensor
Harness
750217

Aux Connection
Used for Analog Moisture
Sensor

Gen3 YieldSense Module
(YSM2)

Analog Primary

Analog Secondary

PP/OEM CAN Power

Cab Harness

JD Bulkhead
Harness
751228

Bulkhead Harness

External GPS
Connection

CAN Connection and Plug
(Not Used)

Ground Speed

Secondary YSM
Base Harness
750819

Elevator Speed

15Amp
Fuse

12V Power
Connection

Aux

Head Height

Power

Power Harness
750841

Case IH Flagship Gen3 YieldSense Electrical System Overview

Cab Power Harness Adapter
750529
Only required on pre 2013 machines

Relay

DBM Power Harness
725150

GPS/Radar Gen3
725155

Radar Connection
(Not Used for Harvest)

Internal GPS Connection.

OEM CAN Harness
725151

Connect together if using the external GPS connection

Flow Sensor
750527

Cab Harness
751203

Gen3 YieldSense Module
(YSM2)
751131

Flow Sensor Harness
750527

Aux Connection
Used for Analog Moisture Sensor

Analog Primary

Analog Secondary

PP/OEM CAN Power

CAN Connection and Plug
(Not Used)

External GPS Connection

12V Power Connection

Case IH Midrange Gen3 YieldSense Electrical System Overview

Cab Power Harness Adapter
750771

Relay

DBM Power Harness
725150

GPS/Radar Gen3
725155

Radar Connection
(Not Used for Harvest)

OEM CAN
Harness
725151

Internal GPS Connection.

Connect together if using the external GPS connection

Flow Sensor
751160/751161

Cab Harness
751203

Gen3 YieldSense Module
(YSM2)
751131

Flow Sensor Harness
750411

Aux Connection
Used for Analog Moisture Sensor

Analog Primary

Analog Secondary

PP/OEM CAN Power

CAN Connection and Plug
(Not Used)

External GPS Connection

12V Power Connection

Precision Planting

Case IH 2x77/2x88 Gen3
YieldSense Electrical
System Overview

Cab Power Harness Adapter
750771

Relay

DBM Power
Harness
725150

GPS/Radar Gen3
725155

Radar Connection
(Not Used for Harvest)

Internal GPS Connection.

Connect together if using
the external GPS
connection

Flow Sensor
751162

Cab Harness
751203

Flow Sensor Harness
750411

Gen3 YieldSense Module
(YSM2)
751131

Aux Connection
**Used for Analog Moisture
Sensor**

Analog Primary

Analog Secondary

PP/OEM CAN Power

CAN Connection and Plug
(Not Used)

External GPS
Connection

12V Power
Connection

Ground
Speed

Aux

Head Height

Elevator
Speed

Secondary YSM
Base Harness
750819

Lexion 700 YieldSense
Gen3 Electrical System
Overview

3 Pin Power
Adapter
(725719)

DBM Power
Harness
725150

GPS/Radar Gen3
725155

Radar Connection
(Not Used for Harvest)

Internal GPS Connection.

Connect together if using
the external GPS
connection

OEM CAN
In Harness
751208

Flow Sensor
751164

Cab Harness
751203

Flow Sensor Harness
725411

Gen3 YieldSense Module
(YSM2)
751132

Aux Connection
Used for Analog Moisture
Sensor

Analog
Primary

Analog
Secondary

PP/OEM CAN
Power

CAN Connection and Plug
(Not Used)

External GPS
Connection

12V Power
Connection

Precision Planting

Lexion 400/500
YieldSense Gen3 Electrical
System Overview

GPS/Radar Gen3
725155

Radar Connection
(Not Used for Harvest)

DBM Power
Harness
725150

Internal GPS Connection.

Connect together if using
the external GPS
connection

Lexion 400/500
Power Adapter
751226

OEM CAN
In Harness
751208

Flow Sensor
751164(9")/
751153(6")

Cab Harness
751203

Flow Sensor Harness
725411

YieldSense Module
(YSM2)
751132

Aux Connection
Used for Analog Moisture
Sensor

Analog
Primary

Analog
Secondary

PP/OEM CAN
Power

CAN Connection and Plug
(Not Used)

External GPS
Connection

12V Power
Connection

Precision Planting