

# Trimble GFX Series

## DISPLAY SYSTEM



### GFX SERIES DISPLAYS

The Trimble® GFX series of displays were designed and developed to work in the most rugged of farm environments. With various sizes available, each display includes built-in Wi-Fi and Bluetooth® support and provides the operator with an extensive view of any field task.

### GNSS GUIDANCE CONTROLLERS

Paired with either the NAV-900 or NAV-500™ GNSS guidance controller, a complete precision agriculture experience awaits you!

### PRODUCTIVITY SOFTWARE

Each display is available with the basic tools you need to get the most out of your equipment.

#### Precision-IQ™ field application:

In-field ag software that allows you to visualize, execute, and record operational tasks.



**App Central:** Download and try value-added applications. Manage system licenses and software updates.



NAV-900



NAV-500

## GFX SERIES DISPLAY

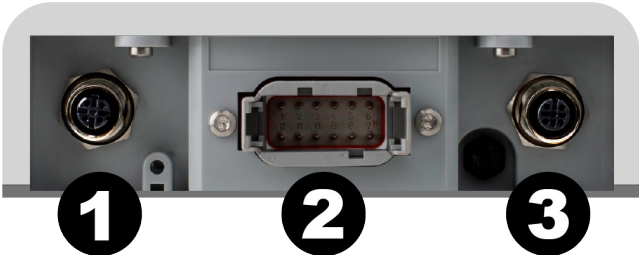
Rear View (GFX-1060 display shown)



	Description	Use to ...
1	Power button	Turn the display on or off.
2	USB ports 7-inch display: 1 port only	Connect a USB drive to transfer data to/from the display.
3	Expansion Port 1 (M12 5-pin)	Connect to various inputs and outputs.
4	Expansion Port 2 (M16 8 Pin) Port not available on some models	Connect to various inputs and outputs.
5	Power connector	Connect to vehicle power source.
6	Ethernet port/ Power out (4-pin D code)	Connect to and power guidance controller (GNSS-1).

## GUIDANCE CONTROLLER

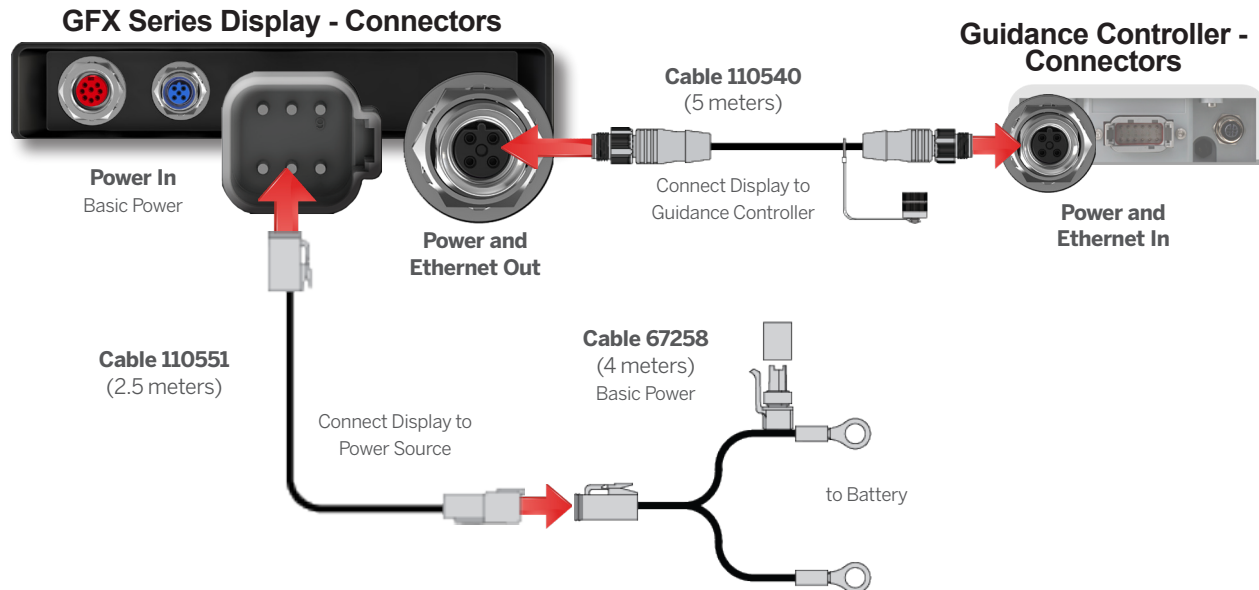
Rear View (NAV-900 shown)



	Description	Use to ...
1	Ethernet port/ Power in (4-pin D code)	Data and power connection from the display.
2	Main Port (12 pin DTM)	Connects to various Autoguidance systems.
3	RTK Radio Port (5-pin A code) Available on NAV-900 only.	Connects to RTK radios.

**CAUTION!** Some connectors may appear similar, but are keyed differently to ensure correct component connection. Ensure that you have the correct cable before connecting, and do not use excessive force or damage may result.

## CONNECTING A GFX SERIES DISPLAY TO A GUIDANCE CONTROLLER



### APP CENTRAL

App Central includes a variety of tested, third-party apps you may find useful for your farm.

From the Launcher screen, tap the **App Central** icon to open the App Central Marketplace.



#### App Central Menu



**Manage Apps:** Browse all available apps, view your installed apps, configure update notifications.

**Manage Licenses:** Browse active licenses for the display and GNSS guidance controller, view license start/expiration dates, manually apply a license.

**Engage Support:** Retrieve system log files to save to a USB drive.

### System Information



Tap the System Information icon to view details about your display, including manufacturer, brand, model, and serial number. The installed firmware version is also available from here.

*Note: Must be connected to the internet.*

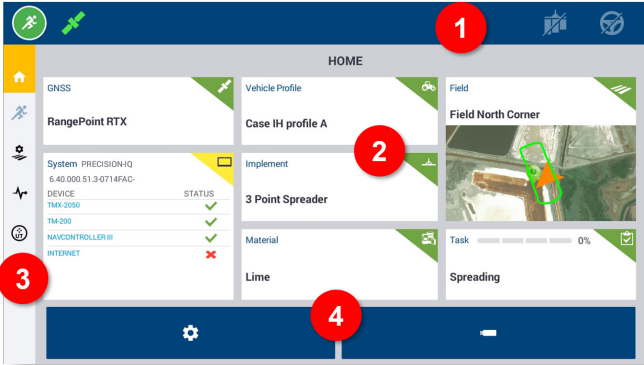
### Other Licenses Available

Trimble offers a wide variety of tools and features you can purchase to effectively and efficiently manage your farm. Contact your reseller for more information or to schedule a demonstration.

# Precision-IQ HOME SCREEN EXAMPLE

	Region	Use to ...
1	Status Bar	At-a-glance view of application control, autoguidance, satellite connectivity, and more.
2	Resource Tiles	Create and select a resource profile you need for your task.
3	Activity Bar	Navigate to other functional screens within Precision-IQ.
4	Function Buttons	Access the settings to customize your Precision-IQ environment, access the data transfer function.

Tap the **Precision-IQ** widget on the Launcher screen to begin.



## Resource Tile Color Codes

Each resource tile is color coded to show you at-a-glance status of each resource.

Resource

Resource Selection

Green

indicates the resource has been properly selected and configured for entering the Run screen.

Resource

Resource Selection

Tap to select

Red

indicates the resource has not been selected, that the selected resource contains a configuration error or that a peripheral device, or resource required by the resource is not connected or has a conflict. You cannot enter the Run screen.

Resource

Resource Selection

Tap to select

Yellow

indicates that the selection of a resource is required but has not yet been made or that the selected resource requires the selection of another resource.

Resource

Resource Selection

Gray

is reserved for the Vehicle tile and shows that the vehicle is ready for use.

## FUNCTION BUTTONS

### Data Transfer

All data collected by Precision-IQ can be transferred to Trimble Ag Software or to other Precision-IQ displays. This data is used to efficiently and effectively manage your farm. On the Home screen, tap the **Data Transfer** button



You can transfer this collected data:

- **Automatically** using Trimble Ag Software's AutoSync™ feature through a cellular or Wi-Fi connection.
- **Manually** using a USB drive through the USB port on the display.

User data can also be deleted from this screen.

For details about Trimble Ag Software or AutoSync, see: <https://agriculture.trimble.com/software/farmers/>

### Settings

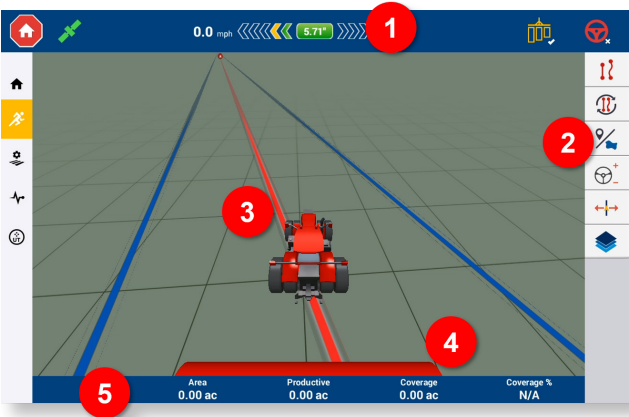
A variety of settings allows you to customize your Precision-IQ environment and adjust the features to suit the field task. On the Home screen, tap the **Settings** button to begin.



# PRECISION-IQ RUN SCREEN EXAMPLE

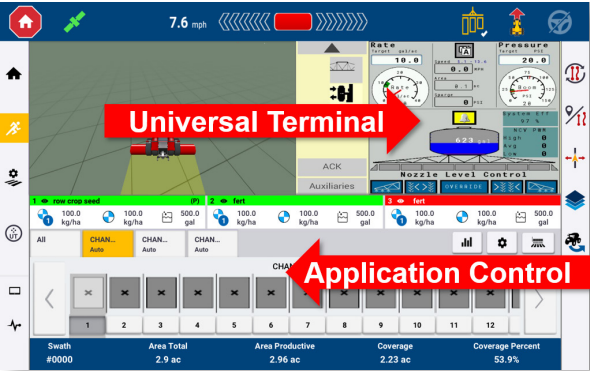
	Region	Use to ...
1	Dynamic Lightbar	Shows the accuracy of the vehicle as it travels a defined guidance line.
2	Feature Buttons	Tap to open a drawer for adjusting your Run screen experience, including recording new guidance lines, landmarks, etc.
3	Virtual Vehicle	Shows the direction of the vehicle in relation to the defined guidance lines.
4	Virtual Implement	Shows a model of the implement in relation to the vehicle.
5	Info Bar	Shows activity information. The details will update to show the work in progress.

Tap the **Run** button on the Home screen to enter the Run screen.



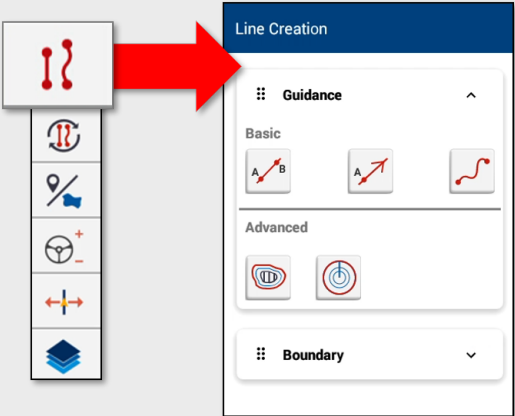
## Run Screen Views

The Run screen is divided into virtual quadrants. You can choose how much or how little detail on which to focus, as in this example:



## Customize Run Screen Functions

Tap a feature button to open a drawer where you can configure and modify on the fly the settings for that function. For example, tap the **Line Feature** button to open the **Line Creation** drawer. From here you can record a guidance line, pivot point, boundary, and more:









Collapse/Expand icons will toggle the view to be full screen or basic size.

**Swap:** Some quadrants can display more than one view. If you see this icon in the upper-right corner of the quadrant, then long press it to switch between views.



# COMMON PRECISION-IQ ICONS AND BUTTONS

The Precision-IQ user interface includes icons and buttons used to enable and configure a variety of functions and activities in the application.


## Activity Bar Icons

-  Return to the Precision-IQ **Home** screen.
-  When active, return to the **Run** screen.
-  Open the **Field Manager**. Customize and configure details about your field.
-  Open the **Diagnostics** screen. Generate detailed reports on various Precision-IQ activities.
-  Open the **Universal Terminal (UT)**. The UT is the interface for connected ISOBUS implements.
-  Access an optional **External Camera**. If your system does not have an external camera, then this icon will not appear.







## Function Buttons


-  Customize your Precision-IQ session with the **Settings** button available on the Home screen.
-  Transfer data to and from your display using the **Data Transfer** button available on the Home screen.

## Emergency Stop

-  Tap the **Emergency Stop** icon from any screen to stop all activities controlled by the display.

## Status Bar Buttons and Icons

-  When green, the **Run** button shows that work is ready to begin. Tap this button to enter the Run screen.
-  When red, the **Stop** button shows that work is being done in the Run screen. Tap this button to end a task.
-  Check the **GNSS Status** with this icon. Tap this icon to show the number of satellites currently in use. Color coded to show at-a-glance status.
-  When enabled, shows activity of **Master Coverage Logging**. Color coded to show the different states.
-  When enabled, shows the availability of **Autosteer**. Color coded to show the different states.
-  **Vehicle Heading Swapper**. Changes the vehicle heading.

 **CAUTION!** Take care when setting up these details. The values you set in these steps are critical for in-field system performance and data integrity during run time operations.

**For details on how to configure and select Precision-IQ resources, contact your authorized Trimble Reseller.**

## Run Screen Icons



Tap the **Line Creation** button to open a drawer to define the boundaries, pivots, and lines for your field.



Cycle through the available patterns for your field using the **Pattern Select** button.

*Long press for manually created options*



Tap the **Field Features** button to open a drawer to define points, lines, and areas for your field.



Tap **Steering** to set the steering aggression.



Tap **Nudge** to adjust the amount of nudge or trim currently applied to the implement position.



Tap **Layers** to see different aspects (*layers*) of coverage on the screen.

## Guidance Patterns

On the Run screen, you can define the boundaries, guidance patterns, and any number of landmarks. Tap the **Line Creation** button to define the boundaries, pivots, and lines for your field.



Record a **Boundary** for your field. This setting defines the edges of your field.



Create a **Headland** for your field. Use this pattern to create a boundary with infilled lines.



Record a **Pivot** for fields that are irrigated using a center pivot.



Create a simple **AB Guidance Line** when you do not need a headland and you want to drive the field in parallel straight lines.



Create an **A+ Directional Guidance Line** when you need guidance exactly parallel to the last AB line.



Record a **Curved Line** when you want to work the field with gentle curves.

## Recording Buttons



**Record** a guidance pattern.



When recording a guidance line, tap to **Set A**.



When recording a guidance line, tap to **Set B**.



Once you are satisfied with the guidance pattern recording, tap **Complete**.



**Pause** the recording of a guidance pattern.



**Cancel** the recording of a guidance pattern.

## Landmarks

On the Run screen, you can define a variety of point, lines and area landmarks. Tap the **Field Features** button to define them for your field:



Create a **Landmark Point** for your field. A Landmark Point identifies singular elements of your field to be avoided, such as a tree, rock, etc.



Create a **Landmark Line** for your field. Use this line to identify continuous elements of your field to be avoided, such as a fence, ditch, access road, etc.



Create a **Productive Landmark Area** for your field, such as a crop zone.



Create a **Nonproductive Landmark Area** for your field, such as a pond, marsh, or area that does not need to be worked again.



## Declaration of Conformity

Hereby, Trimble Inc, declares that the radio equipment type Autopilot, GFX-350, GFX-1060, NAV-500, and NAV-900 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:

<https://agriculture.trimble.com/solutions/guidance-steering/>

## Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**FCC Caution:** Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

**Radiation Exposure Statement:** This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

## Documentation Resources

This document provides a general overview of the basic features of Precision-IQ and the GFX/XCN display series. For complete documentation, including installation guides and reference manuals, visit the following URL:

<https://agriculture.trimble.com/solutions/guidance-steering/>

## Industry Canada Statement

This device complies with ISSED's licence-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'ISSED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

### Caution:

- (i) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
- (ii) where applicable, antenna type(s), antenna model(s), and worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in section 6.2.2.3 shall be clearly indicated.

### Avertissement:

Le guide d'utilisation des dispositifs pour réseaux locaux doit inclure des instructions précises sur les restrictions susmentionnées, notamment:

- (i) les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;
- (ii) lorsqu'il y a lieu, les types d'antennes (s'il y en a plusieurs), les numéros de modèle de l'antenne et les piles angles d'inclinaison nécessaires pour rester conforme à l'exigence de la p.i.r.e. applicable au masque d'élévation, énoncée à la section 6.2.2.3, doivent être clairement indiqués

### Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with greater than 20cm between the radiator & your body.

### Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements ISSED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à plus de 20 cm entre le radiateur et votre corps.

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