

John Deere Mobile Weather (S.N. PCXL01C or D)



JOHN DEERE

OPERATOR'S MANUAL

John Deere Mobile Weather
(S.N. PCXL01C or D)

OMPFP27863 ISSUE E6 (ENGLISH)

CALIFORNIA

Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

If this product contains a gasoline engine:

WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

The State of California requires the above two warnings.

John Deere Ag Management Solutions

Introduction

Foreword

THANK YOU for purchasing a John Deere product.

READ THIS MANUAL carefully to learn how to operate and service your product correctly. Failure to do so could result in personal injury or equipment damage. This manual and safety signs on your product may also be available in other languages. See www.techpubs.deere.com (Ag&Turf/JDPS), www.johndeeretechno.com (C&F), or your John Deere dealer to order.

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your product and should remain with the product when you sell it.

MEASUREMENTS in this manual are given in both metric and customary U.S. unit equivalents. Use only correct replacement parts and fasteners. Metric and inch fasteners may require a specific metric or inch wrench.

RIGHT-HAND AND LEFT-HAND sides are determined by facing in the direction the product or implement will travel when going forward.

WRITE PRODUCT IDENTIFICATION NUMBERS (PIN) in the Specification or Product Numbers section. Accurately record all the numbers to help in tracing the

product should it be stolen. PIN information is helpful when ordering parts. File the identification numbers in a secure place off the product.

WARRANTY is provided as part of John Deere's support program for customers who operate and maintain their equipment as described in this manual. The warranty is explained on the warranty certificate or statement which you should have received at time of purchase.

This warranty provides you the assurance that John Deere will back its products where defects appear within the warranty period. In some circumstances, John Deere also provides field improvements, often without charge to the customer, even if the product is out of warranty. Should the equipment be abused, or modified to change its performance beyond the original factory specifications, the warranty will become void and field improvements may be denied.

If you are not the original owner of this product, it is in your interest to contact your local John Deere dealer to inform them of this unit's serial number. This will help John Deere notify you of any issues or product improvements.

DX,IFC5E-19-05NOV25

Trademarks

Trademarks	
AMPSEAL 16™	Trademark of TE Connectivity Solutions
DEUTSCH®	Trademark of TE Connectivity Solutions
GreenStar™	Trademark of Deere & Company
StarFire™	Trademark of Deere & Company

CH177NN,1774254483809-19-27MAR26

John Deere Is at Your Service



TS201—UN—15APR13

Customer satisfaction is important to John Deere.

Our dealers strive to provide you with prompt, efficient parts, and service:

- Maintenance and service parts to support your equipment.
- Trained service technicians and the necessary diagnostic and repair tools to service your equipment.
- **John Deere replacement parts, repair services, and information for maintenance or repair are available. For more information, please visit deere.com or deere.ca.**

DX,IFC,JDS-19-30SEP25

John Deere Technical Information Bookstore

Product functionality may not be fully represented in this document due to product changes occurring after time of printing. Read the latest Operator's Manual prior to

operation. To obtain a copy, see dealer or visit techpubs.deere.com.

CZ76372,000071F-19-04AUG25

www.AirmarTechnology.com

For additional information on the weather sensor, visit www.AirmarTechnology.com

BA31779,000029A-19-06OCT11

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Original Instructions. All information, illustrations and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

Safety

Recognize Safety Information



T81389—UN—28JUN13

This is a safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.

DX,ALERT-19-03OCT22

Understand Signal Words



▲ WARNING

▲ CAUTION

TS187—19—30SEP88

DANGER; The signal word DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

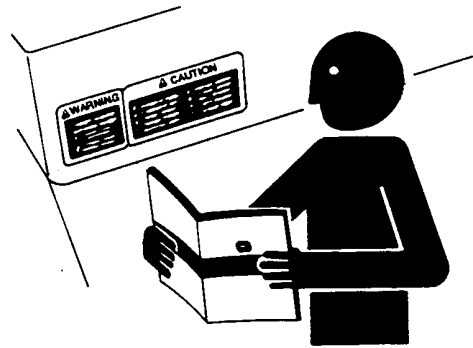
WARNING; The signal word WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION; The signal word CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. CAUTION may also be used to alert against unsafe practices associated with events which could lead to personal injury.

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards. DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

DX,SIGNAL-19-05OCT16

Follow Safety Instructions



TS201—UN—15APR13

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition, clean, and visible. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from a John Deere dealer.

There can be additional safety information contained on parts and components sourced from suppliers that is not reproduced in this Operator's Manual.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact a John Deere dealer.

DX,READ-19-16MAR26

Practice Safe Maintenance



TS218—UN—23AUG88

Understand service procedure before doing work. Keep area clean and dry.

Never lubricate, service, or adjust machine while it is moving. Keep hands, feet, and clothing away from power-driven parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground. Stop the engine and secure the machine. If equipped, remove the key, disconnect the battery, and allow machine to cool.

Securely support any machine elements that must be raised for service work.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.

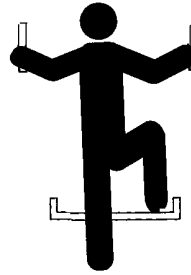
On self-propelled equipment, disconnect battery ground cable (-) before making adjustments on electrical systems or welding on machine.

On towed implements, disconnect wiring harnesses from tractor before servicing electrical system components or welding on machine.

Falling while cleaning or working at height can cause serious injury. Use a ladder or platform to easily reach each location. Use sturdy and secure footholds and handholds.

DX,SERV-19-20JAN26

Use Steps and Handholds Correctly



T133468—UN—15APR13

Prevent falls by facing the machine when getting on and off. Maintain 3-point contact with steps, handholds, and handrails.

Use extra care when mud, snow, or moisture present slippery conditions. Keep steps clean and free of grease or oil. Never jump when exiting machine. Never mount or dismount a moving machine.

DX,WW,MOUNT-19-12OCT11

Handle Electronic Components and Brackets Safely



TS249—UN—23AUG88

Falling while installing or removing electronic components mounted on equipment can cause serious injury. Use a ladder or platform to easily reach each mounting location. Use sturdy and secure footholds and handholds. Do not install or remove components in wet or icy conditions.

If installing or servicing a RTK base station on a tower or other tall structure, use a certified climber.

If installing or servicing a global positioning receiver mast used on an implement, use proper lifting techniques and wear proper protective equipment. The mast is heavy and can be awkward to handle. Two people are required when mounting locations are not accessible from the ground or from a service platform.

DX,WW,RECEIVER-19-24AUG10

Use Electronic Display Properly

Electronic displays are secondary devices intended to

aid the operator in performing field operations, increase comfort and provide entertainment. Displays offer a wide range of functionality, are used in many different machine system applications and can be used with other secondary devices such as handheld electronic devices.

A secondary device is any device that is not required to operate your machine for its primary use. The operator is always responsible for safe operation and control of the machine.

To prevent injury while operating the machine:

- Position the display according to the installation instructions. Ensure that the device is secured and does not obstruct the driver's view or interfere with the machine operating controls.
- Do not become distracted by the display. Stay alert. Pay attention to the machine and surrounding environment.
- Do not change settings or access any functions that require prolonged use of the display controls while machine is moving. Stop the machine in a safe location and place in park position before attempting such operations.
- Never set the volume so high that you cannot hear outside traffic and emergency vehicles.

To promote safe operation, certain functions of displays may be disabled unless the machine movement is restricted and/or has been placed in the park position. Overriding this safety feature may violate applicable law and can result in damage, serious injury, or death.

Only use available display functionality when conditions permit you to do so safely and in accordance with instructions provided. Always observe safe driving rules, state, or local laws and traffic regulations when using any secondary device.

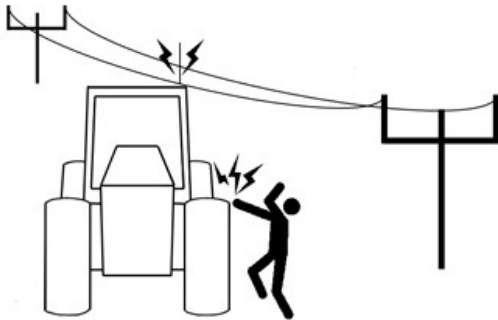
DX,ELEC,DISPLAY-19-13JAN15

enough to come in contact with low-hanging electrical cables. Avoid severe electrical shock injury:

- Keep away from all low-hanging electrical cables while operating or transporting machine.
- Always fold Mobile Weather sensor down into transport position before driving on public roads.

BA31779,0000729-19-10JAN14

Avoid Electrical Power Lines



PC13658—UN—08NOV11

Mobile Weather sensor in upright position may be high

Regulatory and Compliance Information

Federal Communications Commission (FCC) Notifications to User

FCC Notification

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

These devices must be operated as supplied by John Deere Ag Management Solutions. Any changes or modifications made to these devices without the express written approval of John Deere Ag Management Solutions may void the user's authority to operate these devices.

AIRMAR® Weather Sensor

For Class A Devices:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

BA31779,0000734-19-02APR26

System Overview

Theory of Operation

Mobile Weather is a machine-mounted weather monitoring system that works with G5 Displays. Mobile Weather monitors and documents weather conditions without needing to stop to check with a handheld device. Mobile Weather monitors and documents air temperature, Delta T, humidity, wind speed, and wind direction.

Delta T is an indicator for acceptable conditions to apply product. It indicates evaporation rate and droplet lifetime. Delta T is calculated by subtracting the wet bulb temperature from the dry bulb temperature. When applying, Delta T should be between 2°C (3.6°F) and 8°C (14.4°F), and it should be not greater than 10°C (18°F). A higher Delta T value results in a faster evaporation rate and shorter droplet lifetime.

Mobile Weather sensor uses ultrasonic sensors to measure wind speed and direction. Even though wind is turbulent and not static, sensors are capable of measuring a range of wind speeds with a high level of accuracy. Changes in wind speed are detected faster with ultrasonic sensors than propeller-type anemometers. Therefore, wind speed values can change frequently.

Mobile Weather uses global navigation satellite system (GNSS) signals to measure machine speed and heading, and the ultrasonic sensor to measure wind speed and direction. These measurements are important in the calculation of wind speed and direction. If any one of these factors is misread or affected, wind speed and direction can be inaccurate.

For best results with Mobile Weather, use a StarFire receiver. It provides accurate heading and speed information even at slow speeds or when stopped. This allows the most accurate calculations throughout all speed ranges.

If a Starfire receiver is not present, Mobile Weather defaults to weather sensor positioning signal. When weather sensor positioning signal is used, wind speed and heading are less accurate at slow speeds or when stopped. This is because heading is not calculated until the machine is traveling faster than 6 km/h (3.5 mph).

With either GNSS source, values are most accurate when traveling at a constant speed. When the machine is accelerating, wind speed and heading values have some error until speed becomes steady and constant.

Application controller gathers the information from weather sensors and the Starfire receiver (if connected) to make calculations. Data is then sent to the display for monitoring and documentation.

and equipment configuration. Additional information can be referenced in the Compatibility Guide on the Value Selling Navigator.

NOTE: Before installing an Application Controller on a MY27 sprayer, the Application Controller must be updated to software version 26.2 or newer.

Application Controllers running on software versions 26.1 or older cannot be updated on a MY27 sprayer due to the 500k baud rate of the implement CAN bus. It is recommended to use one of the following methods to update the Application Controller software for such cases:

- A bench-top programming setup, or
- A machine equipped with a 250k implement CAN bus (MY26 or older)

NOTE: For more information about availability of components, system functionality, and compatibility, contact your John Deere dealer.

- GreenStar 3, Generation 4 Universal, or G5 Universal Display
- Application controller
- Latest software installed on display and application controller
- Mobile Weather activation on the application controller
- Weather sensor mounted in proper location and orientation
- Various harnesses associated with power supply, control unit integration, and sensor communication

CH177NN,1773724408342-19-07APR26

CH177NN,1773724410116-19-17MAR26

System Requirements

Compatibility and system functionality vary by location

Component Overview

John Deere G5 Display



G5 Display

PC28491—UN—12AUG22

G5 Displays are designed for maximum ease of use and productivity. G5 Displays have a user-friendly interface that offers easy setup and startup of operations.

G5 Display is used by an operator to:

- Configure and calibrate system components.
- Monitor system performance.
- Make system adjustments.
- Program software.
- View diagnostic tests.

CH177NN,177372722531-19-17MAR26

Yield Documentation, Specialty Crop utilizes an application controller that is mounted in a protected and secured location.

CH177NN,1773727218147-19-17MAR26

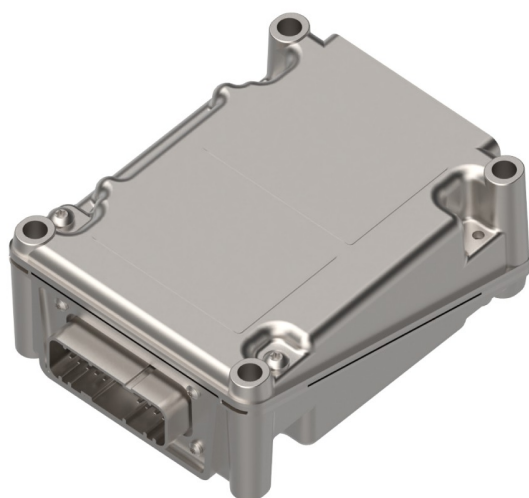
Weather Sensor



Weather Sensor

PC21744—UN—15OCT15

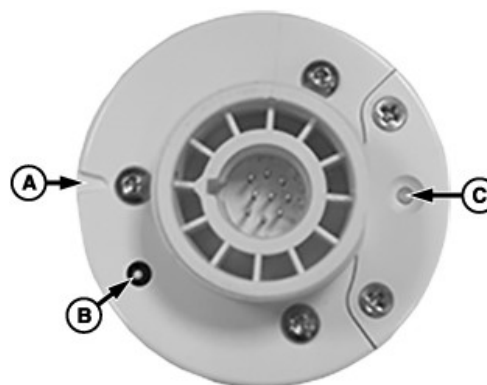
Application Controller



Application Controller

PC707752—UN—13MAR26

NOTE: Application Controller location and alignment may vary for each machine model. Refer to the relevant machine Installation Instructions for the specific mounting location.



Weather Sensor Notch

PC22624—UN—19MAY16

- A—Weather Sensor Notch
- B—Air Temperature Sensor
- C—Relative Humidity Sensor

NOTE: Notch (A) on weather sensor must face front of machine for accurate readings.

Weather sensor measures:

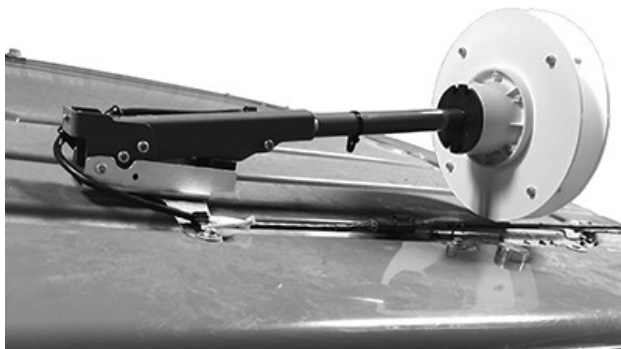
- Wind speed
- Wind direction
- Air temperature (B)
- Humidity (C)

Delta T is calculated using measured values.



Weather Sensor Bracket

PC21847—UN—24NOV15



Folding Weather Sensor Bracket

PC21848—UN—24NOV15

Weather Sensor Bracket

CAUTION: Mobile Weather sensor in upright position may be high enough to come in contact with low-hanging electrical cables. Avoid severe electrical shock injury:

- Keep away from all low-hanging electrical cables while operating or transporting the machine.
- Always fold Mobile Weather Sensor down into transport position before driving on public roads.

Avoid crushing or pinching injury while folding down Mobile Weather sensor by holding mast closer to sensor.

Weather sensor is mounted on top of cab roof using a foldable bracket. Put weather sensor bracket in down position when operating machine on roadways. Weather sensor bracket must be in upright position to collect weather data.

CH177NN,1773724453375-19-27MAR26

Specifications

Weather Sensor System Specifications

John Deere Mobile Weather has a system accuracy of ± 6.4 km/h (± 4 mph) up to a 64.3 km/h (40 mph) for apparent wind. Apparent wind is the total wind speed measured without compensation for machine speed and direction. Operating with a headwind or tailwind increases machine turbulence, and negatively impacts wind speed accuracy. For optimal performance, utilize Mobile Weather at machine operation speeds less than 32 km/h (20 mph). John Deere Mobile Weather is not recommended for use in dry-box applications.

Weather Sensor Specifications

NOTE: When the wind speed is less than 7.4 km/h (4.6 mph) and (or) air temperature is below 0 °C (32 °F), wind, temperature, and relative humidity readings are less accurate.

Specifications are for a new sensor. System performance may vary based on application.

Measurements

- Measurement Time: 10 ms
- Power: 2.5 VDC at 2 mA, to 5 VDC at 7 mA
- Output: 320–1000 mV at 3 V excitation
- Operating Temperature Range: -40–55 °C (-40–131 °F)
- Air Temperature Range: -40–55 °C (-40–131 °F)
- Air Temperature Resolution: 0.1 °C (-0.1 °F)
- Air Temperature Accuracy: ± 1 °C (± 1.8 °F), wind greater than 7.4 km/h (4.6 mph)
- Relative Humidity Range: 10–95% relative humidity (RH)
- Relative Humidity Accuracy: $\pm 4\%$ RH
- Wind Speed Range: 0–144 km/h (0–92 mph)
- Wind Speed Accuracy, Low Wind Speed: 0–18.5 km/h (0–11.5 mph), root-mean-square (RMS) of 1.8 km/h (1.1 mph) + 10% of reading
- Wind Speed Accuracy, High Wind Speed: 18.5–144.5 km/h (11.5–90 mph), RMS error of 3.7 km/h (2.3 mph) or 5% RMS, whichever is greater
- Wind Direction Range: 0°–360°
- Wind Direction Resolution: $\pm 0.1^\circ$
- Wind Direction Accuracy, Low Wind Speed: 7.4–18.5 km/h (4.6–11.5 mph), 5° RMS, typical

- Wind Direction Accuracy, High Wind Speed: Greater than 18.5 km/h (greater than 11.5 mph), 2° RMS, typical

NOTE: RMS error is a measure of the differences between values predicted by a model and the values actually observed.

Dimensions, Sensor Body

- Diameter, Top: 72 mm (2.83 in)
- Diameter, Nut Assembly, Connection With Sensor Body: 45 mm (1.77 in)
- Length, Total: 131 mm (5.16 in)
- Length, Sensor Body: 90 mm (3.54 in)

CH177NN,1773724455129-19-17MAR26

Setting Up

Enter Activation Code

The application controller requires a 26-digit activation code to operate applications.

NOTE: Contact your John Deere dealer and provide the application controller serial number to obtain the activation code.

With the 22-1 software update, multiple applications can be activated on the application controller. Repeat this procedure for each application using the 26-digit activation code.

Available applications:

- Harvest Identification, Cotton
- Mobile Weather
- Yield Documentation, Specialty Crop
- Active Implement Guidance
- iGrade

1. Select Menu.



Menu

PC28688—UN—25AUG22

2. Select Applications tab.



Applications Tab

PC707736—UN—11MAR26

3. Select ISOBUS VT application.



ISOBUS VT Application

PC28796—UN—29AUG22

4. Navigate to the Application Controller page.

5. Select Controller Setup.



Controller Setup

PC707726—UN—11MAR26

6. Select the Activations tab.

Activations

PC707727—UN—11MAR26

Activations Tab

7. Select Add Activation.

Add Activation

PC707729—UN—11MAR26

Add Activation

8. Enter the activation code into the input box (A).

PC707735—UN—16MAR26

Add Activation Window

A—Activation Code Input Box

B—Accept

9. Select Accept (B).

10. To activate another application, repeat steps 4—6.

11. Turn OFF the machine, wait for the display to power down, and then restart the machine.

CH177NN,1773727426055-19-17MAR26

Controller Setup

The controller setup wizard guides the operator through a series of steps based on the options selected. Select the previous page (A) and next page (B) icons to navigate through the controller setup wizard.



PC707725—UN—11MAR26

Navigation Icons

A—Previous Page

B—Next Page

In addition to this Operator's Manual, the operator can select Help for more information about a feature or a setting.



Help

PC707724—UN—11MAR26

NOTE: Turn OFF the machine and allow the display to completely power down before connecting or disconnecting ISOBUS implements or sensors.

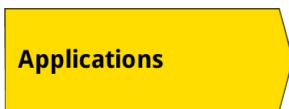
1. Select Menu.



Menu

PC28688—UN—25AUG22

2. Select Applications tab.



Applications Tab

PC707736—UN—11MAR26

3. Select ISOBUS VT application.



ISOBUS VT Application

PC28796—UN—29AUG22

4. Select Mobile Weather.



Mobile Weather

PC707753—UN—20MAR26

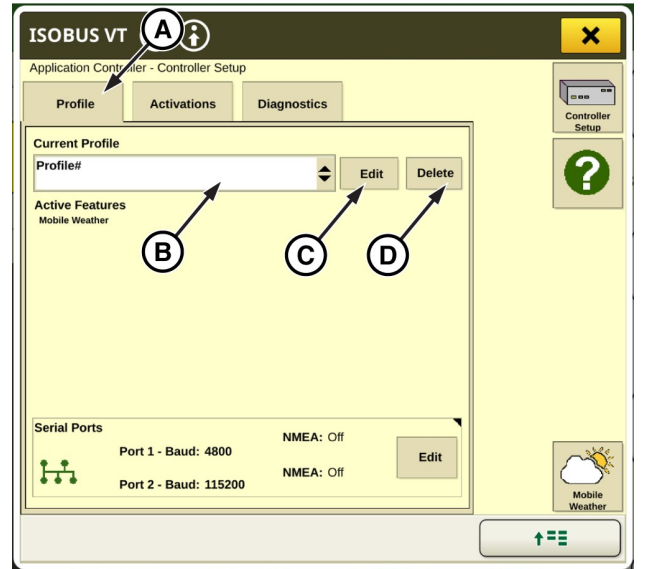
5. Select Controller Setup.



Controller Setup

PC707726—UN—11MAR26

6. Select Profile tab (A).



Profile Tab

PC710246—UN—30MAR26

- A—Profile Tab
- B—Current Profile
- C—Edit
- D—Delete

7. Select a profile from the Current Profile (B) dropdown.

- Select Add New Profile to create a profile.
or
- Select an existing profile to edit.

NOTE: After a profile is set up, more items populate in the Profile tab. Each item allows individual settings to be changed without stepping through the setup wizard.

8. Select Edit (C) to modify the selected profile.

NOTE: Delete (D) option is available only when an existing profile is selected.

9. Select the features needed for the task.

CH177NN,1773727534236-19-30MAR26

Setup

Equipment

1. On the application controller page, select Setup tab.
2. Select Edit (A) on the Equipment tab.



Edit Equipment Settings

PC707754—UN—20MAR26

A—Edit

3. Select a serial port from the Serial Port Assignment (A).

The screenshot shows the 'Equipment' page. At the top, there's a 'Serial Port' section with a dropdown menu labeled 'Serial Port Assignment' showing 'Serial Port 1' (marked with a circled A). To its right is a 'Serial Port Setup' button (marked with a circled E). Below this, the status is 'Receiving Data'. The main section is 'Mast Position' with 'Up' and 'GPS Signal Good'. Under 'Mast Position Alarms', there are three checkboxes: 'Mast In Folded Position While Applying' (marked with a circled B), 'Mast Up While Transporting' (marked with a circled C), and 'Speed Threshold' (marked with a circled D) set to '12 (mi/h)'. A 'Return' button is at the bottom right.

PC707758—UN—20MAR26

Equipment Page

- A—Serial Port Assignment
 B—Mast In Folded Position While Applying
 C—Mast Up While Transporting
 D—Speed Threshold
 E—Serial Port Setup

4. Set up mast position alarms to notify the operator when the mast is in the following positions:
 - Mast In Folded Position While Applying (B)—The operator would be notified when the mast is in folded position during application.
 - Mast Up While Transporting (C)—The operator would be notified when the mast is up and the machine is transporting at/above the speed threshold (D).
5. Select Serial Port Setup (E) to add a serial port or modify an existing port.
 - a. To edit a serial port, select Edit (A) on the serial port tab.

The screenshot shows the 'Serial Ports' page. It has a title bar 'ISOBUS VT' with a help icon. Below is a table with two columns: 'Serial Port' and 'Used By'. The first row is 'Serial Port 1' with 'Yield Doc Specialty Crop' (marked with a circled A). The second row is 'Serial Port 2' with 'Unassigned'. Each row has an 'Edit' button. At the bottom right is a 'Return' button. A green question mark icon is on the right side.

PC707707—UN—11MAR26

Serial Ports

A—Edit

- b. On the Serial Port page, select Baud Rate (A) from the drop-down.

The screenshot shows the 'Serial Port 1' configuration page. It has a title bar 'Serial Port 1'. The first section has 'Baud Rate' (marked with a circled A) set to '115200' and 'Used By' (marked with a circled B) set to 'Yield Doc Specialty Crop'. The second section has 'Enable NMEA' (marked with a circled C) checked. Below that are 'NMEA Message Type' (marked with a circled D) set to 'GGA' and 'NMEA Rate' (marked with a circled E) set to '1 Hz'. The third section is 'Diagnostics' with 'Tx - Pin F2', 'Rx - Pin F3', 'Line Count' (813865), and 'Last Rx Line: ---'. There is a 'Reset Line Count' button. A 'Return' button is at the bottom right.

PC707751—UN—13MAR26

Edit Serial Port Page

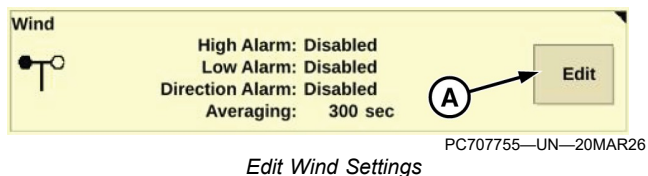
- A—Baud Rate
 B—Used By
 C—Enable NMEA
 D—NMEA Message Type
 E—NMEA Rate

- c. Select the device that uses the serial port from the Used By (B) drop-down.
- d. To enable National Marine Electronics Association (NMEA) messaging, select Enable NMEA (C).

- e. Select the NMEA Message Type (D) from the drop-down.
- f. Select the NMEA Rate (E) from the drop-down.

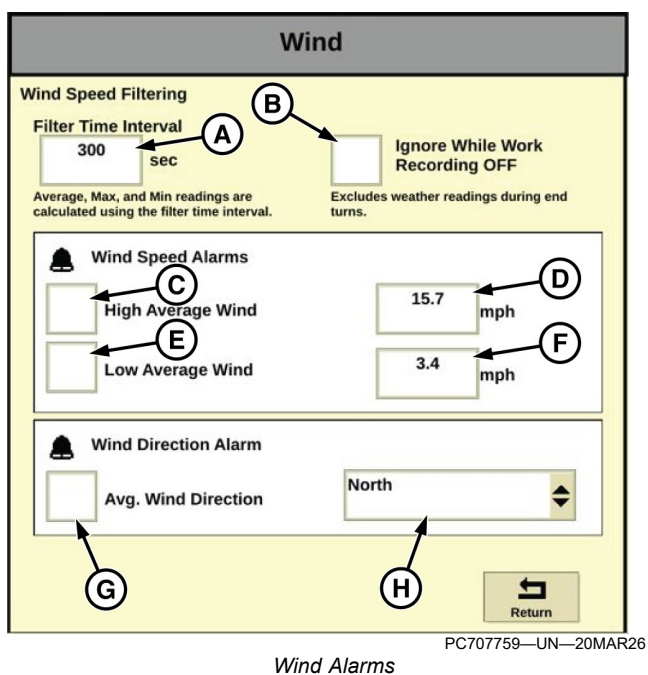
Wind

1. On the application controller page, select Setup tab.
2. Select Edit (A) on the Wind tab.



A—Edit

3. Set up alarms to notify the operator when wind measurements exceed certain values:



- A—Filter Time Interval
 B—Ignore While Work Recording OFF
 C—High Average Wind
 D—High Average Wind Value
 E—Low Average Wind
 F—Low Average Wind Value
 G—Average Wind Direction
 H—Wind Direction

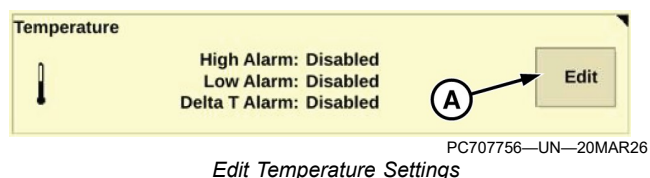
- a. Input the Filter Time Interval (A). Average, maximum, and minimum readings are calculated using the filter time interval.
- b. To exclude weather readings during end turns, select the Ignore While Work Recording OFF (B).
- c. Select High Average Wind (C) and input the high

average wind value (D) above which the alarm needs to be triggered.

- d. Select Low Average Wind (E) and input the low average wind value (F) below which the alarm needs to be triggered.
- e. Average Wind Direction (G) alarm alerts the operator when the average wind direction is within 22° of the set heading.
- f. Wind Direction (H) alarm alerts the operator when the wind direction changes to the selected option from the drop-down.

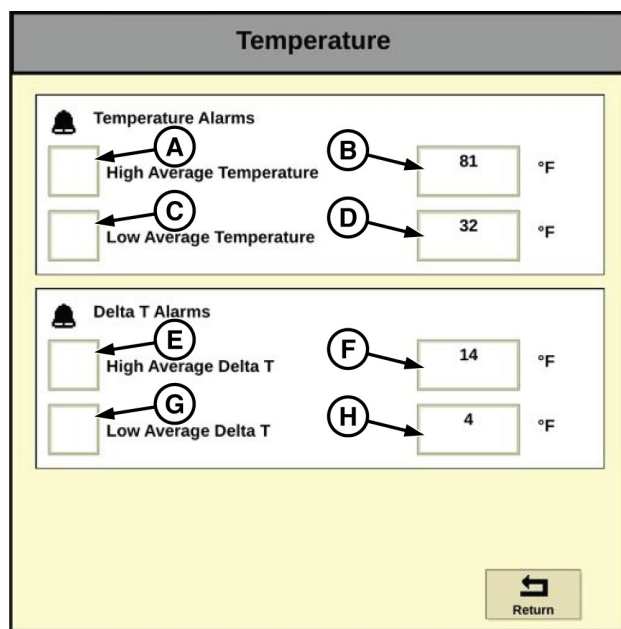
Temperature

1. On the application controller page, select Setup tab.
2. Select Edit (A) on the Temperature tab.



A—Edit

3. Set up alarms to notify the operator when temperature measurements exceed certain values:

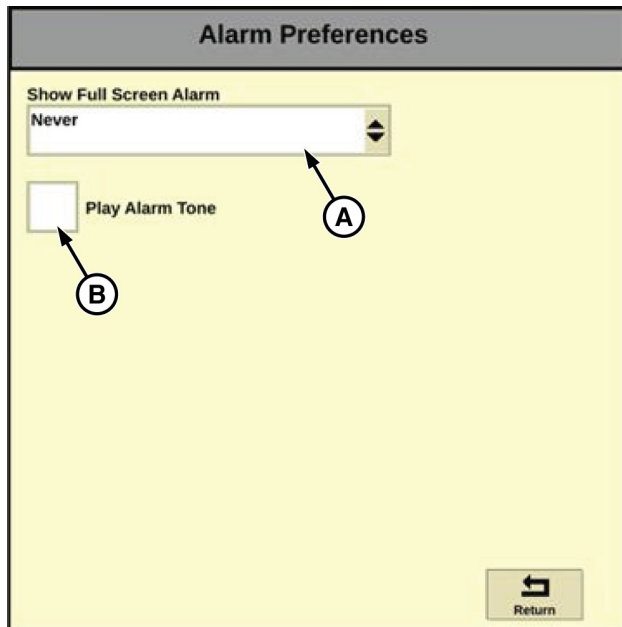


- A—High Average Temperature
 B—High Average Temperature Value
 C—Low Average Temperature
 D—Low Average Temperature Value
 E—High Average Delta T
 F—High Average Delta T Value
 G—Low Average Delta T
 H—Low Average Delta T Value

- Select High Average Temperature (A) alarm to alert the operator when the average temperature value exceeds the set high average temperature value (B).
- Select Low Average Temperature (C) alarm to alert the operator when the average temperature value goes below the set low average temperature value (D).
- Select High Average Delta T (E) alarm to alert the operator when the average Delta T value exceeds the set high average delta T value (F).
- Select Low Average Delta T (G) alarm to alert the operator when the average Delta T value goes below the set low average delta T value (H).

Alarm Preferences

- Select when to show a full screen alarm from the drop-down menu (A).



PC707761—UN—20MAR26

Alarm Preferences

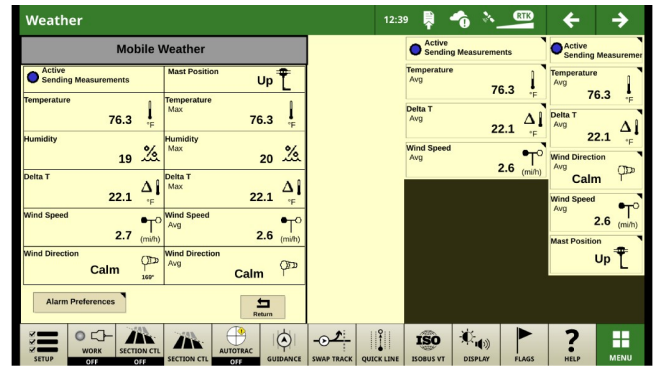
- A—Show Full Screen Alarm
B—Play Alarm Tone

- Always
- Never
- When Reading Not Visible

- To have alarms accompanied with sound, select the Play Alarm Tone (B).

CH177NN,1773739866168-19-30MAR26

Home Page



PC710249—UN—30MAR26

Home Page

After a Mobile Weather profile has been set up, a home page can be configured to display Mobile Weather information and functions.

To set up a home page, go to the Layout Manager on the display and select a Mobile Weather module.

NOTE: Refer to the display Operator's Manual to set up home pages.

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turns red to indicate that a weather alert is active. Based on the alarm preference, an alarm tone and/or a popup message can be triggered.

After a Mobile Weather profile has been set up, weather information can be viewed on either the Mobile Weather status page or on a home page. To open a full Mobile Weather readings page, select the status and exit code box on any home page module.



The status (A) displays Active and the exit code (B) displays OK when the system is set up and working properly.

The Mobile Weather full page displays:

- Mast Position
- Temperature
- Maximum Temperature
- Humidity
- Maximum Humidity
- Delta T
- Maximum Delta
- Wind Speed
- Average Wind Speed
- Wind Direction
- Average Wind Direction

If a parameter exceeds the set limit, the parameter box



Alarm Popup

To close an alarm popup, select Accept (A).

CH177NN.1773727011634-19-30MAR26

NOTE: The GreenStar 3 2630 Display is able to document weather data.

Mobile Weather data is recorded automatically when documentation data is recorded on the display. Mobile Weather records wind speed, wind direction, air temperature, humidity, and delta T. The data is saved on the display and can be transferred to John Deere Operations Center for analysis. Minimum, maximum, and average readings for each recorded weather value are displayed in John Deere Operations Center.

GreenStar - R/C

Resources **E** Conditions Notes

A Temperature (°F) 0.0 *Weather*

B Wind Speed (mi/h) 0.0

C Wind Direction [dropdown]

Sky Condition [dropdown]

D Humidity (%) 0.0

Field

Crop Growth Stage [dropdown]

Soil Moisture [dropdown]

Soil Temperature (°F) 0.0

PC21810—UN—30OCT15

GreenStar Conditions Page

- A—Temperature
- B—Wind Speed
- C—Wind Direction
- D—Humidity
- E—Conditions Tab

Since Mobile Weather measures and records weather data, certain values (A—D) do not need to be entered on the GreenStar Conditions tab. When Mobile Weather is detected, entry boxes display 0.0 and are grayed out. To view Conditions tab (E), select the Menu button > GreenStar button > Resources softkey.

CH177NN,1773727009670-19-27MAR26

Troubleshooting

Mobile Weather Status and Exit Codes

PC707762—UN—20MAR26

A—Status
B—Last Exit Code

The and status (A) and last exit code (B) are displayed on either a Mobile Weather run page module or the Status tab.

Exit Codes:

- OK—Weather sensor is communicating and has valid global navigation satellite system (GNSS) signal.
- Not Activated—Activate Mobile Weather on the application controller. Refer to Enter Activation Code section in this manual for more information.
- Machine Position Accuracy Not Met—No GNSS signal available or accuracy level is too low.

NOTE: Refer to the StarFire receiver Operator's Manual for more information.

- No Sensor Communication—There is no communication with the weather sensor. Check:
 - Pin assignment in AMPSEAL 16 connector.
 - Pin assignment in DEUTSCH connectors.
 - Baud Rate. Baud rate is normally set to 4800.
 - Serial port. Serial port 1 is normally used.
- Invalid Weather Data—The weather sensor is sending invalid data. Wait for sensor to completely power up or cycle power to attempt recovery.
- Sensor Not In Working Position—The sensor is folded. Unfold the sensor.
- Work State No Comm.—Recording state is not being received from the G5 Display.

- Verify that the G5 Display is on the latest available software version.

- To clear exit code, deselect the Ignore While Work Recording OFF checkbox.

NOTE: Refer to the Wind Setup section in this manual for more information.

Statuses:

- Disabled—Non-functional. Check the activation and verify that the configuration is correct.
- Enabled—Non-functional. Check the sensors and verify that the configuration is correct.
- Active—Functional. The data from the weather sensor and GNSS signal is valid.

CH177NN,1773727045746-19-23MAR26

Mobile Weather Diagnostics

PC707763—UN—20MAR26

A—Diagnostics Tab
B—Status
C—Condition
D—Is Ready

On the application controller page, select Diagnostics tab (A).

Mobile Weather Diagnostics page displays:

- Status (B)—The operational status of Mobile Weather.
- Condition (C)—The requirements to reach each status.
- Is Ready (D)—Indicates whether a condition has been met.

CH177NN,1773727043994-19-23MAR26

Hardware/Software

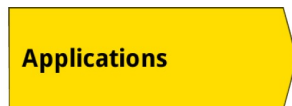
1. Select Menu.



Menu

PC28688—UN—25AUG22

2. Select Applications tab.



Applications Tab

PC707736—UN—11MAR26

3. Select ISOBUS VT application.



ISOBUS VT Application

PC28796—UN—29AUG22

4. Select Mobile Weather.



Mobile Weather

PC707753—UN—20MAR26

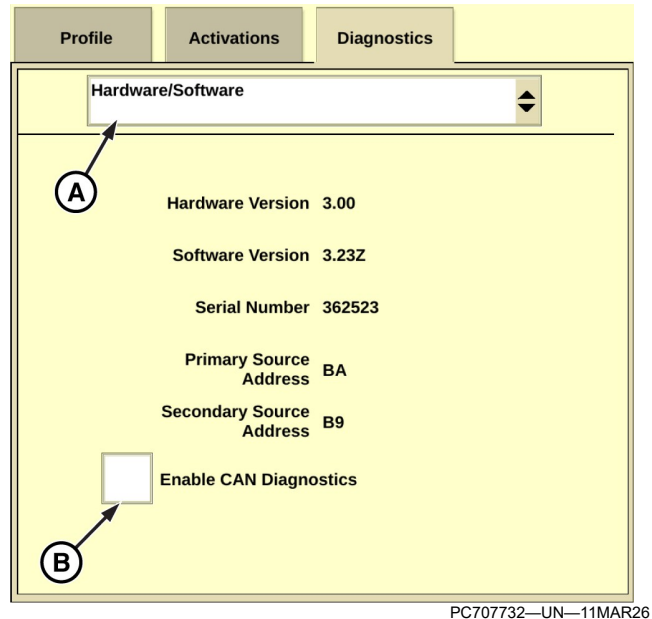
5. Select Controller Setup.



Controller Setup

PC707726—UN—11MAR26

6. Under the Diagnostics tab, select Hardware/Software from the drop-down menu (A).



PC707732—UN—11MAR26

A—Drop-Down Menu

G—Enable CAN Diagnostics

Hardware/Software displays the following information for the application controller:

- Hardware version
- Software version
- Serial number
- Primary source address
- Secondary source address

To enable broadcasting of diagnostic values and statuses for CAN recording, select the Enable CAN Diagnostics (B). CAN recordings are used for advanced troubleshooting.

CH177NN,1773728525290-19-23MAR26

Input/Output Readings

1. Select Menu.



Menu

PC28688—UN—25AUG22

2. Select Applications tab.



Applications Tab

PC707736—UN—11MAR26

3. Select ISOBUS VT application.



ISOBUS VT Application

PC28796—UN—29AUG22

4. Select Mobile Weather.



Mobile Weather

PC707753—UN—20MAR26

5. Select Controller Setup.



Controller Setup

PC707726—UN—11MAR26

6. Under the Diagnostics tab, select Input/Output Readings from the drop-down menu (A).

Profile

Activations

Diagnostics

Input/Output Readings

A

Signal	Pin	Voltage
Analog In 1	G2	0.01
Analog In 2	K2	0.00
Analog In 3	G3	0.00
Analog Out 1	H1	0.03
Analog Out 2	J1	0.02
5 V In	E1	0.02
5 V Out	K3	4.94

Signal	Pin	State	Frequency (Hz)
Dig In 1	G1	1	7
Dig In 2	K1	0	0
Dig In 3	C3	0	0

Signal	Pin	State	Current (mA)
Low Side Driver 1	E3	1	12
Low Side Driver 2	E2	1	4
Low Side Driver 3	D3	1	12

PC707733—UN—11MAR26

A—Drop-Down Menu

Input/Output Readings display the signal type and the pin number used on the application controller connector.

- Analog signals display voltage.
- Digital signals display the state and frequency.

- Low side drivers display the state and current.

CH177NN,1773728523434-19-23MAR26

Hours

1. Select Menu.



Menu

PC28688—UN—25AUG22

2. Select Applications tab.



Applications Tab

PC707736—UN—11MAR26

3. Select ISOBUS VT application.



ISOBUS VT Application

PC28796—UN—29AUG22

4. Select Mobile Weather.



Mobile Weather

PC707753—UN—20MAR26

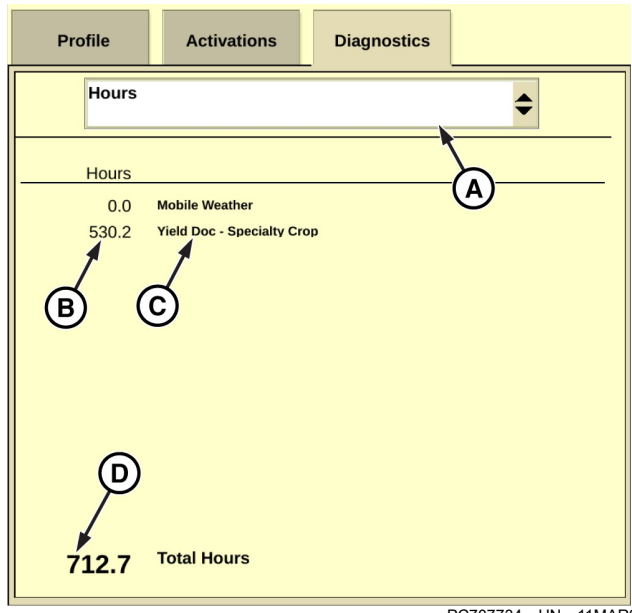
5. Select Controller Setup.



Controller Setup

PC707726—UN—11MAR26

6. Under the Diagnostics tab, select Hours from the drop-down menu (A).



PC707734—UN—11MAR26

- A—Drop-Down Menu
- B—Hours
- C—Application
- D—Total Hours

Hours (B) displayed are the amount of time each application (C) operated with an active status.

Total Hours (D) displayed are the total time the application controller operated with an active status.

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