USER GUIDE

# MATRIX® 908


TeeJet® TECHNOLOGIES

98-01578 R3

A Subsidiary of Spraying Systems Co.®

# Table of Contents

# IMPORTANT SAFETY INFORMATION

All safety related and operating instructions should be read before the system is operated. Safe operation of machinery is the operators responsibility. Safety procedures must be posted close to the equipment and clearly visible to and legible by the operator. Safety procedures should meet all company and local regulations, as well as MSDS-requirements. For assistance, contact a local dealer.

### Safety Alert Symbol Definitions:

**DANGER!** This symbol is reserved for the most extreme situations where serious personal injury or death is imminent.

**WARNING!** This symbol indicates a hazardous situation that could result in serious personal injury or death.

**CAUTION!** This symbol indicates a hazardous situation that could result in minor or moderate personal injury.

**NOTE:** This symbol addresses practices in which the operator should be aware.

## GENERAL WARNINGS AND PRECAUTIONS

### DANGER!

- Read and follow instructions. If instructions are unclear after reading the manual, please contact a local dealer.
- Keep children away from equipment.
- Do not operate machinery under the influence of alcohol or any illegal substance.
- Some systems include a fan heater. Never cover the heater otherwise there will be a serious danger of fire!

### WARNING! ELECTRICAL / SHOCK HAZARDS

- Before working on any particular component, make sure that all power supplies have been switched off and cannot be accidentally switched on.
- Disconnect power leads before using an arc welder on equipment or anything connected to the equpment.
- Systems including frequency drives have a risk of electric shock due to residual voltage. It is not permissible to open the equipment neither to disconnect the system or any quick connection until 5 minutes after the power has been removed.
- Only operate the system from the power source indicated in the manual. If you are not sure of the power source, consult qualified service personnel.
- Do not use a high pressure cleaner to clean electrical components. This could damage electrical components and subject the operator to risk of electrical shock.
- The electrical supply to the equipment must be properly routed and connected to the equipment. All connections must meet the specified requirements.

## WARNING! PRESSURISED HYDRAULIC SYSTEMS

- Always wear personal protective equipment (PPE) when performing work on hydraulic systems.
- Adhere to the machine manufacture's approved maintenance instructions when working on the hydraulic system.
- Always turn equipment off when working on the hydraulic system. Take appropriate precautions when opening systems that have been previously pressurised.
- Be aware that hydraulic oil may be extremely hot and under high pressure.

## WARNING! CHEMICAL HANDLING

- Always wear PPE when handling any chemical substance.
- Always follow safety labels and instructions provided by the chemical manufacturer or supplier.
- The operator should have full information on the nature and the quantity of the material to be distributed.
- **ADHERE TO FEDERAL, STATE AND LOCAL REGULATIONS REGARDING THE HANDLING, USE OR DISPOSAL OF AGRICULTURAL CHEMICALS.**

## WARNING! PRESSURISED SPRAY SYSTEM

- It is important to recognise proper safety precautions when using a pressurised spray system. Fluids under pressure can penetrate skin and cause serious personal injury.
- The system pressure should never exceed the lowest rated component. Always know your system and all component capabilities, maximum pressures and flow rates.
- Filters can only be opened when the manual valves in front of and behind the filter are in closed position. If any appliance has to be taken out of the piping, manual valves in front of and behind this appliance have to be in closed position. If they are reinstalled, make sure that this happens correctly, that this apparatus is well aligned, and that all connections are tight.
- The plumbing supply to the equipment should meet all company and local regulations and must be properly routed and connected to the equipment. All connections must meet the specified requirements.
- It is advised to drain and purge the liquid train when the equipment shall not be used for a longer period of time.

## WARNING! AUTO STEERING SAFETY

- To prevent serious personal injury or death from being run over by the vehicle or automated motion of the steering system, never leave the vehicles operator seat with the system engaged.
- To prevent serious personal injury or death from being run over by the vehicle or automated motion of the steering system, verify the area around the vehicle is clear of people or obstacles before startup, calibration, tuning or engaging the system.
- Make sure equipment is tightly secured to the proper components.
- Never drive on public roads with system engaged.

## CAUTION! EQUIPMENT SAFETY, MAINTENANCE, AND SERVICE

- The equipment should be operated only by properly trained, qualified personnel. They must have proven their skills in the operation of the equipment.
- Before using the equipment, the operator has to check if the equipment is in good condition and can be used safely. If not, the equipment cannot be used.
- All necessary PPE must be readily available to the operator at all times.
- Routinely check the system and components for wear and damage. Replace or repair when necessary.
- Only qualified authorised experts are allowed to repair or maintain the installation. The maintenance and operating instructions shall be rigidly observed and followed.
- A complete manual for the equipment must be available to the operator or maintenance technician at all times.

## CAUTION! HARNESS CABLE AND HOSE SAFETY

- Routinely check all harness cables and hoses for damage or wear. Replace or repair when necessary.
- Do not route harness cables and hoses with sharp bends.
- Do not strap harness cables and hoses to lines with high vibration or spikes in pressure.
- Do not strap harness cables and hoses to lines transporting hot fluids.
- Protect harness cables and hoses from sharp objects, equipment debris, and material buildup.
- Allow sufficient length for harness cables and hoses to have free movement on sections that move during operation, and be sure that harness cables or hoses do not hang below the equipment.
- Allow sufficient clearance for harness cables and hoses from implement and machine operational zones.
- When cleaning equipment, protect harness cables from high pressure wash.

## NOTE: TOUCH SCREEN CARE

- Keep sharp objects away from the touch screen device. Touching the screen with a sharp object could result in damage to the display.
- Do not use harsh chemicals to clean the console/display. The correct way to clean a console/display is to use a soft damp cloth or anti-static wipe, similar to cleaning a monitor on a computer.

## NOTE: RECOMMENDED REPLACEMENT PARTS

- The system has been designed with components that work together to provide the best system performance. When the system requires replacement parts, only TeeJet recommended components should be used to maintain proper system operation and safety.

## END USER LICENSE AGREEMENT

- ALWAYS READ AND FOLLOW THE CHEMICAL LABEL'S DIRECTIONS. Droplet size classification is in accordance with ISO 25358 at the date of publication. Classifications are subject to change. The chemical being sprayed, tank mixes, temperature, humidity, wind speed, vehicle speed, etc. can influence the actual drop size.

# MEASUREMENTS TO HAVE ON HAND BEFORE YOU GET STARTED

The following pages are to assist in defining vehicle measurements in the Vehicle Wizard, device measurements in the Device Wizard, and mapping location measurements in the Mapping Location options.

Illustrations are for general reference only. See tractor manufacture's documentation for precise measurement locations.

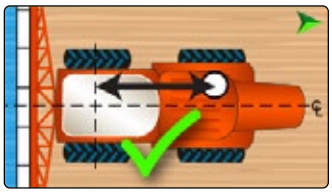
*NOTE: Some of the listed settings may not be required for your vehicle or device. The Vehicle Wizard and Device Wizard will guide you through each required settings based on your selections.*



*NOTE: Some spreader features are limited until an Advanced Spreader unlock code is entered. See "No.3 Enter Available Unlocks" on page 15 for unlock code instructions.*

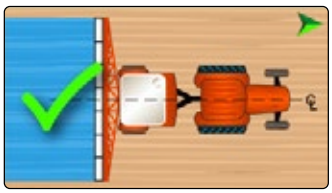
## Measurement Best Practises

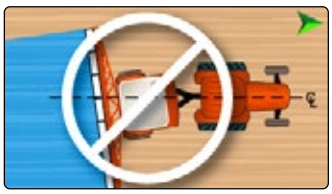
- Measure as if vehicle and device are in a straight-line and in the operating position.
  - Device dimensions may shift when in operation. Measure implement when engaged with the ground to achieve the best accuracy.
- Hold tape measure plumb or level in vertical or horizontal directions.
- Measure to the centre of the antenna.
- Sections are numbered from left to right while facing in the machine's forward direction.
- Lateral left/right direction is determined while facing in the machine's forward direction.



## Terminology Notes

- Vehicle Pivot Point ① – the centre of the vehicle's non-steering axle
  - Example: the centre of the rear axle for a front steering vehicle
- Hitch Point / Hitch/Connection Point ② – the point where the implement connects to the machine or the pivot point between implement and machine depending on Hitch Type
  - Not all vehicles have hitch points. On these vehicles, the Hitch Point and the Vehicle Pivot Point will be the same point and the value should be entered as 0 cm.
- Guidance Width – the width between guidelines
  - May be different than the Application Width or Working Width (total width of all sections).

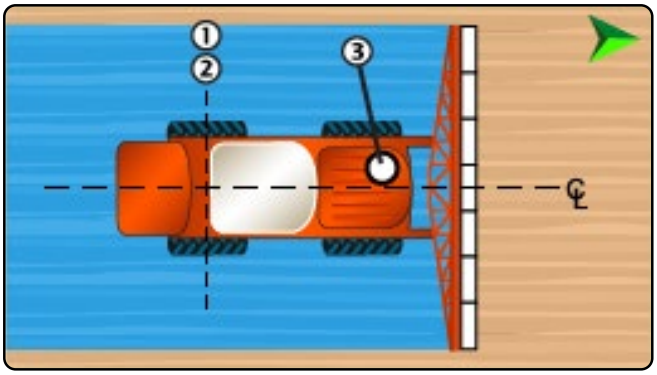




## SPRAYERS

### Self-Propelled Front Mount Sprayer

Vehicle Name:_____




Device Name:_____

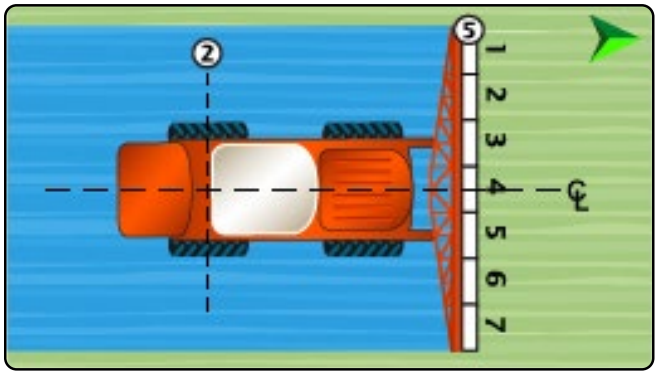



*Table 1-1: Vehicle Wizard Measurements*

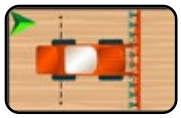
| Description | Measurement/Option |
|---|---|
| Vehicle In-Line Direction to Hitch Point |  Forward of Vehicle Pivot Point |
| Vehicle In-Line Distance from the Vehicle Pivot Point ① to Hitch Point ② | 0 cm<br>*Vehicle Pivot Point ① and Hitch Point ② are the same point* |
| Vehicle Lateral Direction to Hitch Point |  On Centre |
| Antenna In-Line Direction and Distance from Vehicle Pivot Point ① to the Antenna ③ | |
| Antenna Lateral Direction[1] and Distance from vehicle centreline ℄ to the Antenna ③ | |

*Table 1-2: Guidance and Mapping Distances*

| Description | Measurement |
|---|---|
| Guidance Width | |
| Mapping Location In-Line Distance from the Vehicle Pivot Point ① to the Mapping Location | |
| Mapping Location Lateral Distance from the Vehicle Centreline ℄ to the Mapping Location | |

1 When an Assisted/Automatic Steering Device is available, Antenna Lateral Distance and Direction will be established under the Assisted/Automatic Steering "Manage Vehicles" settings.

*Table 1-3: Device Wizard Measurements*

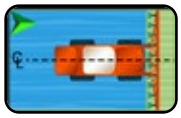
| Description | Measurement/Option |
|---|---|
| Hitch Type |  Fixed Mount |
| Boom and Section Layout |  Front Centred |
| Distance to Boom: In-Line Distance Hitch/Connection Point ② to Product Delivery Point ⑤ | |

*Table 1-4: Section Information*

| Description | Option |
|---|---|
| Section Symmetry | |
| **Description** | **Width Measurement** |
| Section 1 | |
| Section 2 | |
| Section 3 | |
| Section 4 | |
| Section 5 | |
| Section 6 | |
| Section 7 | |
| Section 8 | |
| Section 9 | |
| Section 10 | |
| Total Application Width | |

## Self-Propelled Rear Mount Sprayer

Vehicle Name:_____

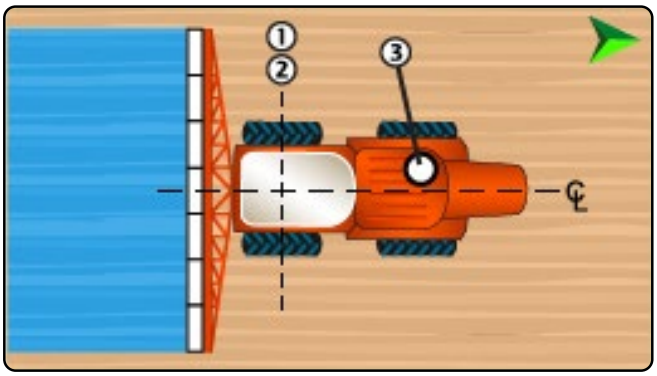



*Table 1-5: Vehicle Wizard Measurements*

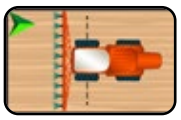
| Description | Measurement/Option |
|---|---|
| Vehicle In-Line Direction to Hitch Point |  Aft of Vehicle Pivot Point |
| Vehicle In-Line Distance from the Vehicle Pivot Point ① to Hitch Point ② | 0 cm<br>*Vehicle Pivot Point ① and Hitch Point ② are the same point* |
| Vehicle Lateral Direction to Hitch Point |  : On Centre |
| Antenna In-Line Direction and Distance from Vehicle Pivot Point ① to the Antenna ③ | |
| Antenna Lateral Direction[2] and Distance from vehicle centreline ℄ to the Antenna ③ | |

*Table 1-6: Guidance and Mapping Distances*

| Description | Measurement |
|---|---|
| Guidance Width | |
| Mapping Location In-Line Distance from the Vehicle Pivot Point ① to the Mapping Location | |
| Mapping Location Lateral Distance from the Vehicle Centreline ℄ to the Mapping Location | |

Device Name:_____

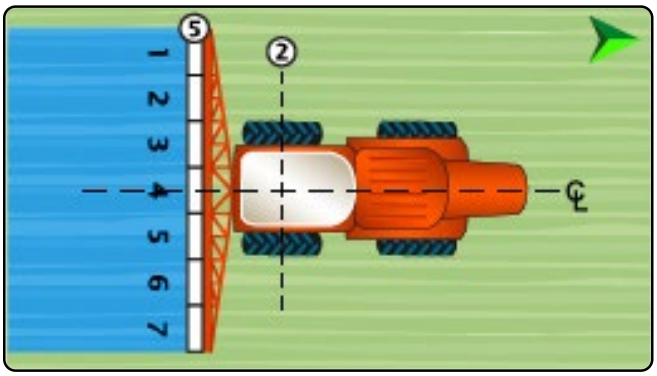



*Table 1-7: Device Wizard Measurements*

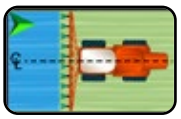
| Description | Measurement/Option |
|---|---|
| Hitch Type |  Fixed Mount |
| Boom and Section Layout |  Aft Centred |
| Distance to Boom: In-Line Distance Hitch/Connection Point ② to Product Delivery Point ⑤ | |

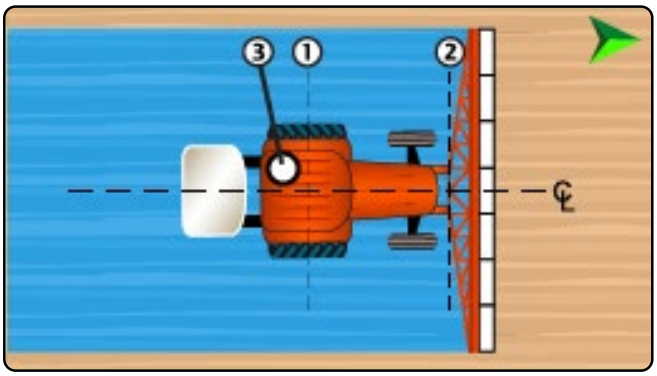
*Table 1-8: Section Information*

| Description | Option |
|---|---|
| Section Symmetry | |
| **Description** | **Width Measurement** |
| Section 1 | |
| Section 2 | |
| Section 3 | |
| Section 4 | |
| Section 5 | |
| Section 6 | |
| Section 7 | |
| Section 8 | |
| Section 9 | |
| Section 10 | |
| Total Application Width | |

2 When an Assisted/Automatic Steering Device is available, Antenna Lateral Distance and Direction will be established under the Assisted/Automatic Steering "Manage Vehicles" settings.

## Tractor with Fixed Front Mount Sprayer

Vehicle Name:_____




Device Name:_____

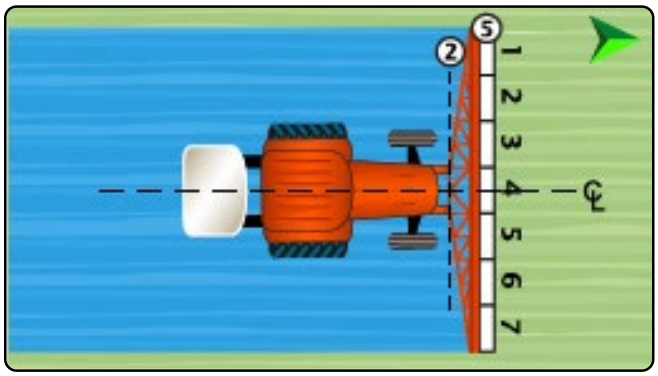



*Table 1-9: Vehicle Wizard Measurements*

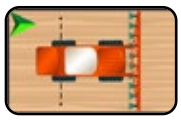
| Description | Measurement/Option |
|---|---|
| Vehicle In-Line Direction to Hitch Point |  Forward of Vehicle Pivot Point |
| Vehicle In-Line Distance from the Vehicle Pivot Point ① to Hitch Point ② | |
| Vehicle Lateral Direction to Hitch Point |  On Centre |
| Antenna In-Line Direction and Distance from Vehicle Pivot Point ① to the Antenna ③ | |
| Antenna Lateral Direction[3] and Distance from vehicle centreline ℄ to the Antenna ③ | |

*Table 1-10: Guidance and Mapping Distances*

| Description | Measurement |
|---|---|
| Guidance Width | |
| Mapping Location In-Line Distance from the Vehicle Pivot Point ① to the Mapping Location | |
| Mapping Location Lateral Distance from the Vehicle Centreline ℄ to the Mapping Location | |

*Table 1-11: Device Wizard Measurements*

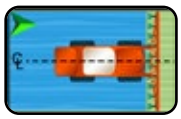
| Description | Measurement/Option |
|---|---|
| Hitch Type |  Fixed Mount |
| Boom and Section Layout |  Front Centred |
| Distance to Boom: In-Line Distance Hitch/Connection Point ② to Product Delivery Point ⑤ | |

*Table 1-12: Section Information*

| Description | Option |
|---|---|
| Section Symmetry | |
| **Description** | **Width Measurement** |
| Section 1 | |
| Section 2 | |
| Section 3 | |
| Section 4 | |
| Section 5 | |
| Section 6 | |
| Section 7 | |
| Section 8 | |
| Section 9 | |
| Section 10 | |
| Total Application Width | |

3 When an Assisted/Automatic Steering Device is available, Antenna Lateral Distance and Direction will be established under the Assisted/Automatic Steering "Manage Vehicles" settings.

## Tractor with Fixed Mount Off-Centre Sprayer

Vehicle Name:_____

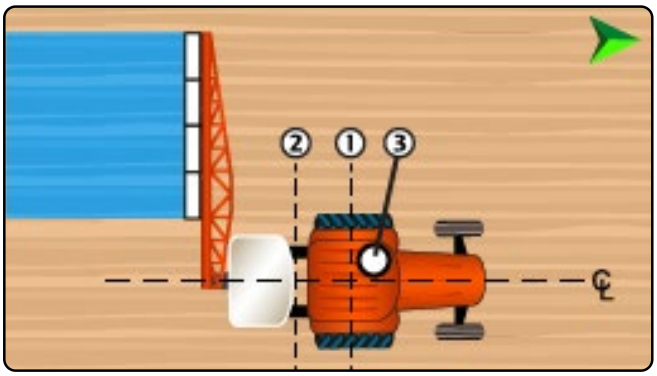



*Table 1-13: Vehicle Wizard Measurements*

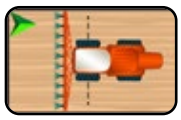
| Description | Measurement/Option |
|---|---|
| Vehicle In-Line Direction to Hitch Point |  Aft of Vehicle Pivot Point |
| Vehicle In-Line Distance from the Vehicle Pivot Point ① to Hitch Point ② | |
| Vehicle Lateral Direction to Hitch Point |  On Centre |
| Antenna In-Line Direction and Distance from Vehicle Pivot Point ① to the Antenna ③ | |
| Antenna Lateral Direction[4] and Distance from vehicle centreline ℄ to the Antenna ③ | |

*Table 1-14: Guidance and Mapping Distances*

| Description | Measurement |
|---|---|
| Guidance Width | |
| Mapping Location In-Line Distance from the Vehicle Pivot Point ① to the Mapping Location | |
| Mapping Location Lateral Distance from the Vehicle Centreline ℄ to the Mapping Location | |

Device Name:_____

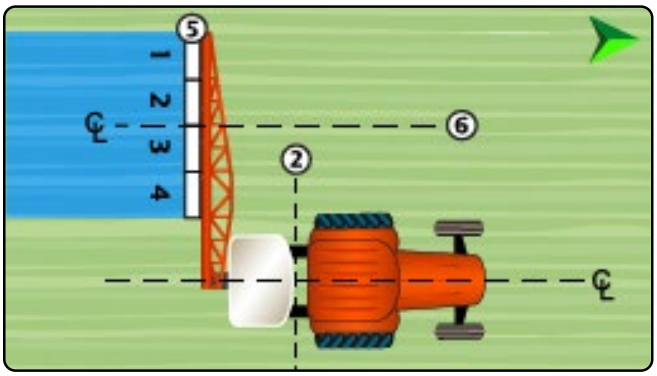



*Table 1-15: Device Wizard Measurements*

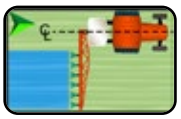
| Description | Measurement/Option |
|---|---|
| Hitch Type |  Fixed Mount |
| Boom and Section Layout |  Aft Off-Centred |
| Boom Lateral Offset Direction | |
| Boom Lateral Offset Distance from the Centreline of the Vehicle ℄ to the Centre of the Boom ⑥ | |
| Distance to Boom: In-Line Distance Hitch/Connection Point ② to Product Delivery Point ⑤ | |

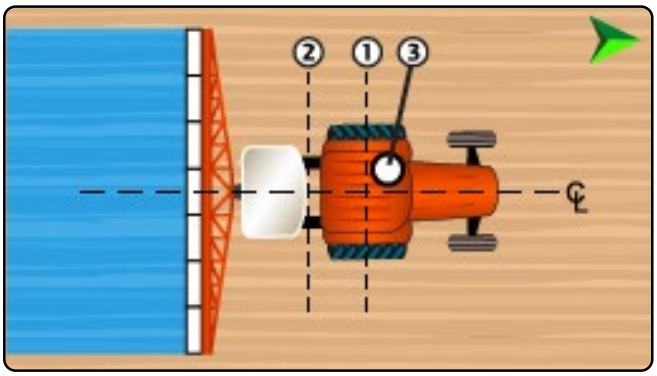
*Table 1-16: Section Information*

| Description | Option |
|---|---|
| Section Symmetry | |
| **Description** | **Width Measurement** |
| Section 1 | |
| Section 2 | |
| Section 3 | |
| Section 4 | |
| Section 5 | |
| Section 6 | |
| Section 7 | |
| Section 8 | |
| Total Application Width | |

4 When an Assisted/Automatic Steering Device is available, Antenna Lateral Distance and Direction will be established under the Assisted/Automatic Steering "Manage Vehicles" settings.

## Tractor with Fixed Mount Aft Sprayer

Vehicle Name:_____




Device Name:_____

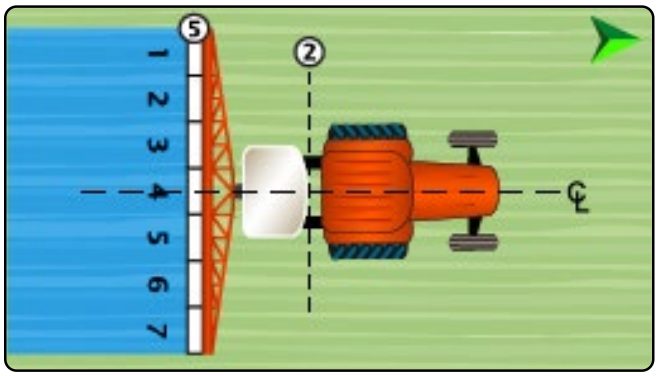



*Table 1-17: Vehicle Wizard Measurements*

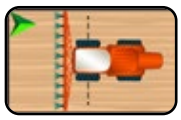
| Description | Measurement/Option |
|---|---|
| Vehicle In-Line Direction to Hitch Point |  Aft of Vehicle Pivot Point |
| Vehicle In-Line Distance from the Vehicle Pivot Point ① to Hitch Point ② | |
| Vehicle Lateral Direction to Hitch Point |  On Centre |
| Antenna In-Line Direction and Distance from Vehicle Pivot Point ① to the Antenna ③ | |
| Antenna Lateral Direction[5] and Distance from vehicle centreline ℄ to the Antenna ③ | |

*Table 1-18: Guidance and Mapping Distances*

| Description | Measurement |
|---|---|
| Guidance Width | |
| Mapping Location In-Line Distance from the Vehicle Pivot Point ① to the Mapping Location | |
| Mapping Location Lateral Distance from the Vehicle Centreline ℄ to the Mapping Location | |

*Table 1-19: Device Wizard Measurements*

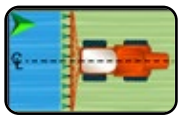
| Description | Measurement/Option |
|---|---|
| Hitch Type |  Fixed Mount |
| Boom and Section Layout |  Aft Centred |
| Distance to Boom: In-Line Distance Hitch/Connection Point ② to Product Delivery Point ⑤ | |

*Table 1-20: Section Information*

| Description | Option |
|---|---|
| Section Symmetry | |
| **Description** | **Width Measurement** |
| Section 1 | |
| Section 2 | |
| Section 3 | |
| Section 4 | |
| Section 5 | |
| Section 6 | |
| Section 7 | |
| Section 8 | |
| Section 9 | |
| Section 10 | |
| Total Application Width | |

5 When an Assisted/Automatic Steering Device is available, Antenna Lateral Distance and Direction will be established under the Assisted/Automatic Steering "Manage Vehicles" settings.

## Tractor with Pivot Mount Sprayer

Vehicle Name:_____

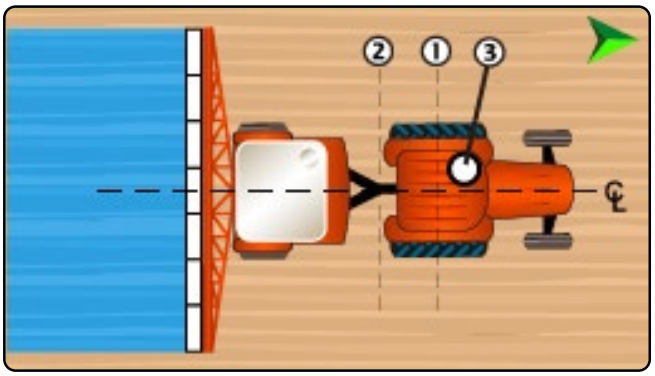



*Table 1-21: Vehicle Wizard Measurements*

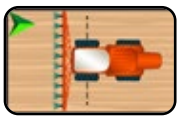
| Description | Measurement/Option |
|---|---|
| Vehicle In-Line Direction to Hitch Point |  Aft of Vehicle Pivot Point |
| Vehicle In-Line Distance from the Vehicle Pivot Point ① to Hitch Point ② | |
| Vehicle Lateral Direction to Hitch Point |  On Centre |
| Antenna In-Line Direction and Distance from Vehicle Pivot Point ① to the Antenna ③ | |
| Antenna Lateral Direction[6] and Distance from vehicle centreline ℄ to the Antenna ③ | |

*Table 1-22: Guidance and Mapping Distances*

| Description | Measurement |
|---|---|
| Guidance Width | |
| Mapping Location In-Line Distance from the Vehicle Pivot Point ① to the Mapping Location | |
| Mapping Location Lateral Distance from the Vehicle Centreline ℄ to the Mapping Location | |

Device Name:_____

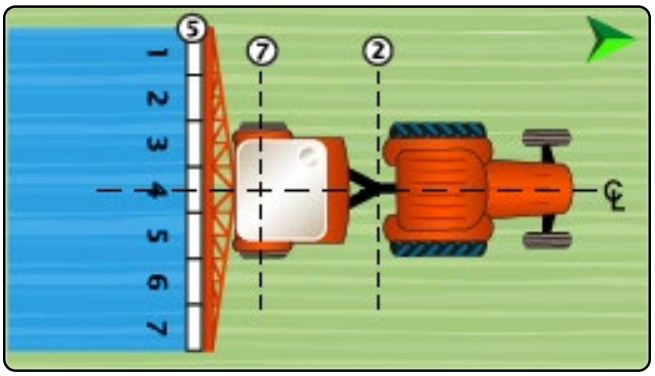



*Table 1-23: Device Wizard Measurements*

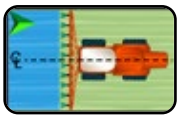
| Description | Measurement/Option |
|---|---|
| Hitch Type |  Pivot Mount |
| In-Line Distance from Hitch/ Connection ② to Trailer Axle ⑦ | |
| Boom and Section Layout |  Aft Centred |
| Distance to Boom: In-Line Distance Hitch/Connection Point ② to Product Delivery Point ⑤ | |

*Table 1-24: Section Information*

| Description | Option |
|---|---|
| Section Symmetry | |
| **Description** | **Width Measurement** |
| Section 1 | |
| Section 2 | |
| Section 3 | |
| Section 4 | |
| Section 5 | |
| Section 6 | |
| Section 7 | |
| Section 8 | |
| Section 9 | |
| Section 10 | |
| Total Application Width | |

6 When an Assisted/Automatic Steering Device is available, Antenna Lateral Distance and Direction will be established under the Assisted/Automatic Steering "Manage Vehicles" settings.

# SPREADERS

## Self-propelled Spreader

Vehicle Name:_____

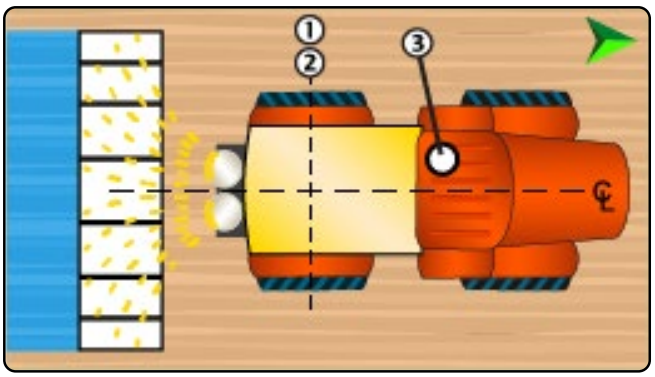



*Table 1-25: Vehicle Wizard Measurements*

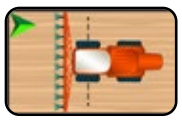
| Description | Measurement/Option |
|---|---|
| Vehicle In-Line Direction to Hitch Point |  Aft of Vehicle Pivot Point |
| Vehicle In-Line Distance from the Vehicle Pivot Point ① to Hitch Point ② | 0 cm<br>*Vehicle Pivot Point ① and Hitch Point ② are the same point* |
| Vehicle Lateral Direction to Hitch Point |  On Centre |
| Antenna In-Line Direction and Distance from Vehicle Pivot Point ① to the Antenna ③ | |
| Antenna Lateral Direction[7] and Distance from vehicle centreline ℄ to the Antenna ③ | |

*Table 1-26: Guidance and Mapping Distances*

| Description | Measurement |
|---|---|
| Guidance Width | |
| Mapping Location In-Line Distance from the Vehicle Pivot Point ① to the Mapping Location | |
| Mapping Location Lateral Distance from the Vehicle Centreline ℄ to the Mapping Location | |

7 When an Assisted/Automatic Steering Device is available, Antenna Lateral Distance and Direction will be established under the Assisted/Automatic Steering "Manage Vehicles" settings.

Device Name:_____

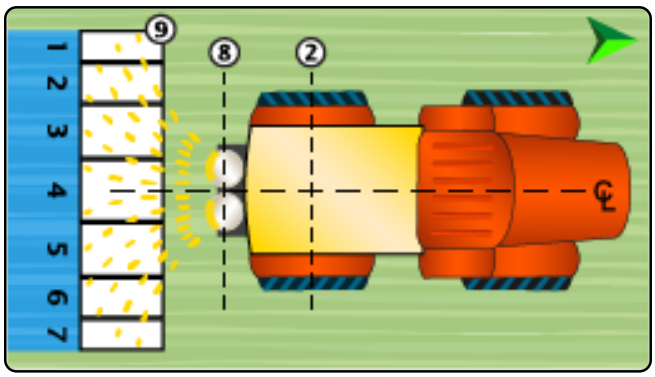



*Table 1-27: Device Wizard Measurements*

| Description | Measurement/Option |
|---|---|
| Hitch Type |  Fixed Mount |
| In-Line Distance from Hitch/ Connection ② to Disc ⑧ | |
| In-Line Distance from Disc ⑧ to Leading Edge ⑨ | |

*Table 1-28: Section Information[8]*

| Description | Option |
|---|---|
| Section Symmetry | |

| Description | Measurement | | |
|---|---|---|---|
| | Width | Length | In-Line Offset |
| Section 1 | | | 0 cm |
| Section 2 | | | |
| Section 3 | | | |
| Section 4 | | | |
| Section 5 | | | |
| Section 6 | | | |
| Section 7 | | | |
| Section 8 | | | |
| Section 9 | | | |
| Section 10 | | | |
| Total Working Width | | | |

8 Some spreader features are limited until an Advanced Spreader unlock code is entered.

## Tractor with Fixed Mount Spreader

Vehicle Name:_____

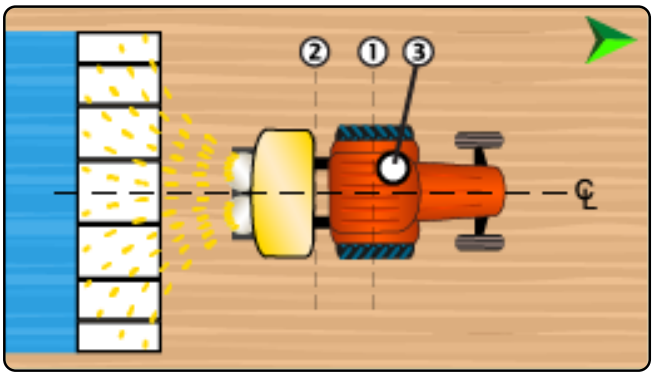



*Table 1-29: Vehicle Wizard Measurements*

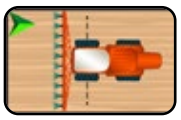
| Description | Measurement/Option |
|---|---|
| Vehicle In-Line Direction to Hitch Point |  Aft of Vehicle Pivot Point |
| Vehicle In-Line Distance from the Vehicle Pivot Point ① to Hitch Point ② | |
| Vehicle Lateral Direction to Hitch Point |  On Centre |
| Antenna In-Line Direction and Distance from Vehicle Pivot Point ① to the Antenna ③ | |
| Antenna Lateral Direction[9] and Distance from vehicle centreline ℄ to the Antenna ③ | |

*Table 1-30: Guidance and Mapping Distances*

| Description | Measurement |
|---|---|
| Guidance Width | |
| Mapping Location In-Line Distance from the Vehicle Pivot Point ① to the Mapping Location | |
| Mapping Location Lateral Distance from the Vehicle Centreline ℄ to the Mapping Location | |

Device Name:_____

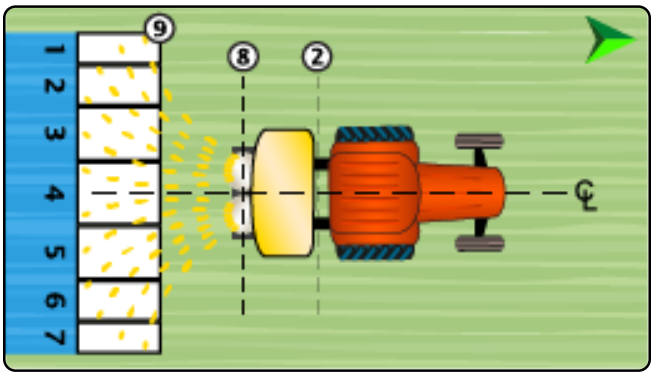



*Table 1-31: Device Wizard Measurements*

| Description | Measurement/Option |
|---|---|
| Hitch Type |  Fixed Mount |
| In-Line Distance from Hitch/ Connection ② to Disc ⑧ | |
| In-Line Distance from Disc ⑧ to Leading Edge ⑨ | |

*Table 1-32: Section Information[10]*

| Description | Option |
|---|---|
| Section Symmetry | |

| Description | Measurement | | |
|---|---|---|---|
| | Width | Length | In-Line Offset |
| Section 1 | | | 0 cm |
| Section 2 | | | |
| Section 3 | | | |
| Section 4 | | | |
| Section 5 | | | |
| Section 6 | | | |
| Section 7 | | | |
| Section 8 | | | |
| Section 9 | | | |
| Section 10 | | | |
| Total Working Width | | | |

9 When an Assisted/Automatic Steering Device is available, Antenna Lateral Distance and Direction will be established under the Assisted/Automatic Steering "Manage Vehicles" settings.

10 Some spreader features are limited until an Advanced Spreader unlock code is entered.

## Tractor with Pivot Mount Spreader

Vehicle Name:_____

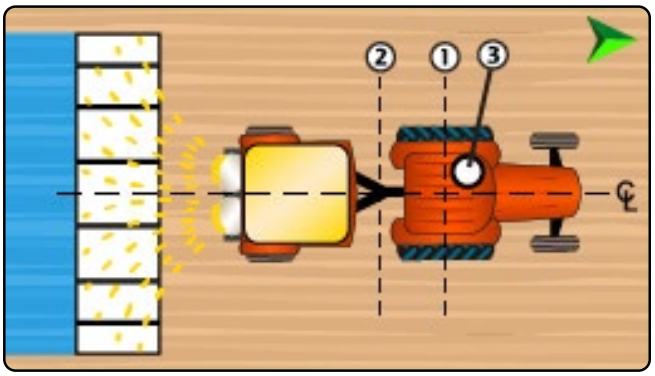



*Table 1-33: Vehicle Wizard Measurements*

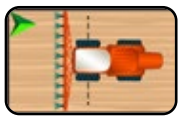
| Description | Measurement/Option |
|---|---|
| Vehicle In-Line Direction to Hitch Point |  Aft of Vehicle Pivot Point |
| Vehicle In-Line Distance from the Vehicle Pivot Point ① to Hitch Point ② | |
| Vehicle Lateral Direction to Hitch Point |  On Centre |
| Antenna In-Line Direction and Distance from Vehicle Pivot Point ① to the Antenna ③ | |
| Antenna Lateral Direction[11] and Distance from vehicle centreline ℄ to the Antenna ③ | |

*Table 1-34: Guidance and Mapping Distances*

| Description | Measurement |
|---|---|
| Guidance Width | |
| Mapping Location In-Line Distance from the Vehicle Pivot Point ① to the Mapping Location | |
| Mapping Location Lateral Distance from the Vehicle Centreline ℄ to the Mapping Location | |

11 When an Assisted/Automatic Steering Device is available, Antenna Lateral Distance and Direction will be established under the Assisted/Automatic Steering "Manage Vehicles" settings.

Device Name:_____

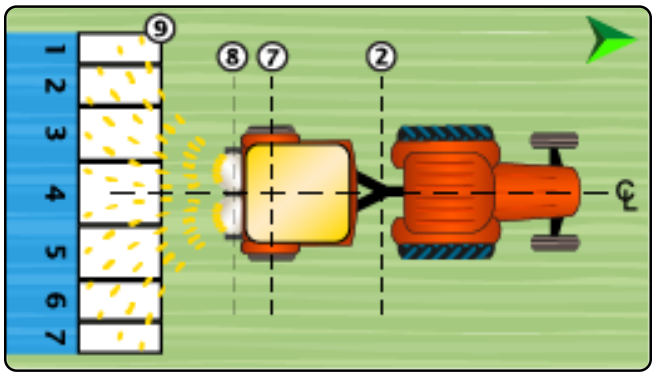



*Table 1-35: Device Wizard Measurements*

| Description | Measurement/Option |
|---|---|
| Hitch Type |  Pivot Mount |
| In-Line Distance from Hitch/ Connection ② to Trailer Axle ⑦ | |
| In-Line Distance from Hitch/ Connection ② to Disc ⑧ | |
| In-Line Distance from Disc ⑧ to Leading Edge ⑨ | |

*Table 1-36: Section Information[12]*

| Description | Option |
|---|---|
| Section Symmetry | |

| Description | Measurement | | |
|---|---|---|---|
| | Width | Length | In-Line Offset |
| Section 1 | | | 0 cm |
| Section 2 | | | |
| Section 3 | | | |
| Section 4 | | | |
| Section 5 | | | |
| Section 6 | | | |
| Section 7 | | | |
| Section 8 | | | |
| Section 9 | | | |
| Section 10 | | | |
| Total Working Width | | | |

12 Some spreader features are limited until an Advanced Spreader unlock code is entered.

## CONSOLE CONNECTIONS AND FEATURES


**Connection Activity is dependent on software version.*

### Power On/Off Button

Before powering on the console, attach all devices to the harness.

- ▶ On – press the POWER button ⏻
- ▶ Off – press and briefly hold the POWER button ⏻

*WARNING! Wait 30 seconds before restarting the console.*

### Serial Number

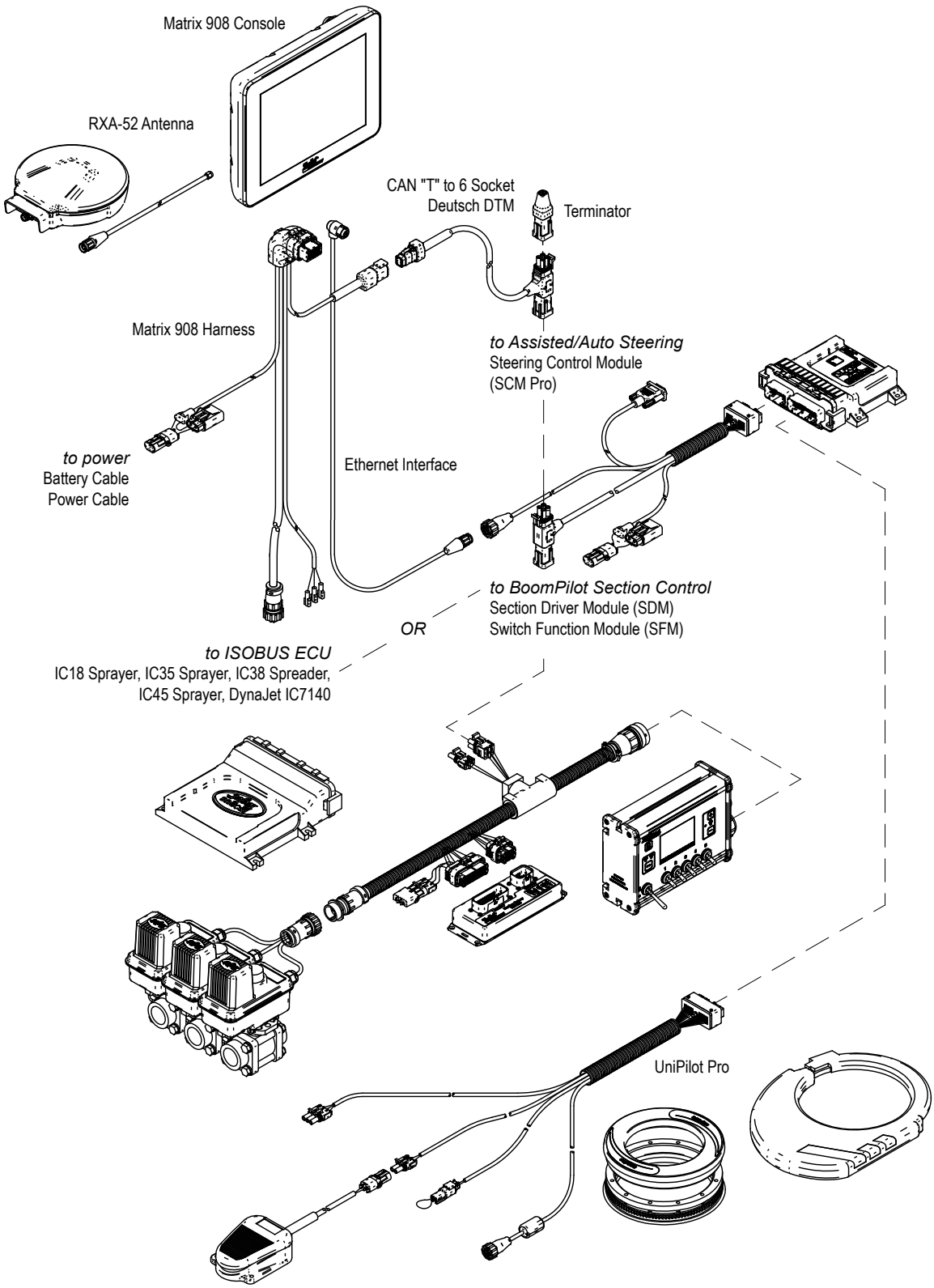
Take note of your serial number. It is required for product registration.

*Product Registration*

## SYSTEM DIAGRAM

The following is to be used for general reference. Specific configurations will vary depending on available devices. Contact TeeJet Customer Service or your local dealer for information on your specific configuration.

*NOTE: Connectivity to different devices may be released with future software releases. Always refer to software release notes for software/system connectivity at www.teejet.com/support/software.aspx.*



# SETUP THE CONSOLE

Before powering on the console, verify that all devices are attached to the harness.

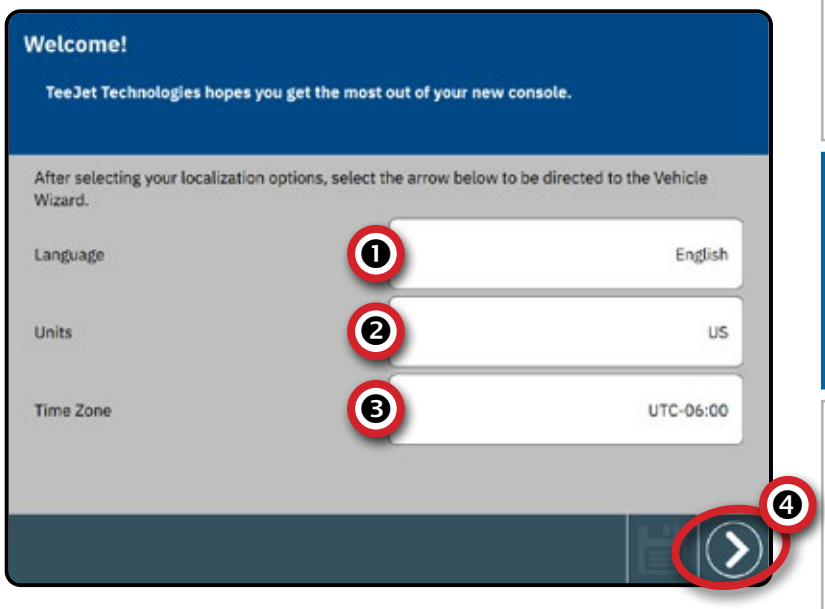
## NO.1 WELCOME SCREEN

Once the power up sequence has completed, the Welcome screen will appear.

Select a different language ❶, switch console units ❷ and change the local time zone ❸.

*NOTE: When changing languages, reboot the console as suggested. Upon restart, the console will return to the Welcome Screen.*

Press the NEXT button ❹ to advance to the Vehicle Wizard.




*NOTE: To access the Cultural Settings after initial startup:*

## NO.2 WALK THROUGH THE VEHICLE WIZARD

Establishing an accurate vehicle is required for mapping or guidance.

Follow the prompts on the Vehicle Wizard, making adjustments to the vehicle settings as needed.

To navigate through the wizard options:

- Next Wizard Option – use to select the highlighted option or value and go to the next wizard option
- Previous Wizard Option – use to revisit the previous wizard option
- **RED ENTRIES** – indicates an entry that requires a new value

To complete the vehicle setup:

- Finish ❶ – shown when the end of the wizard options has been reached; use to save and close the wizard

Select "Yes" ❷ to activate the current settings.

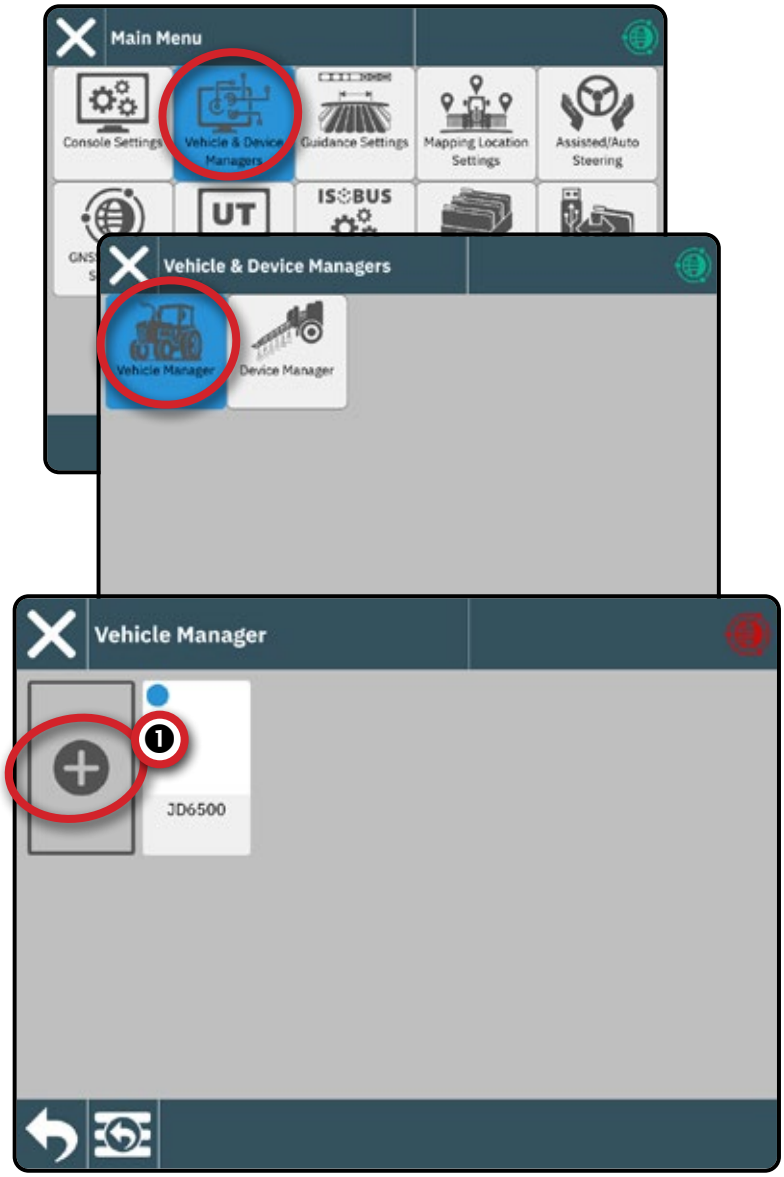
Continue setting up the other console options on the Main Menu

## To Access the Vehicle Manager After Initial Startup

### Vehicles & Devices Manager

To navigate in the Vehicle Manager:

- Close Settings – use to exit the Settings options and return to the Guidance screen
- New Vehicle ❶ – use to enter the Vehicle Wizard
- Back One Menu – use to go to the Vehicle & Device Manager menu
- To Main Menu – use to go to the Main Settings menu




### Create New Vehicle

At least (1) one vehicle is required on the stystem at all times. Only (1) one vehicle can be active at a time.

1. On the **Vehicle Manager**, select the NEW VEHICLE icon ❶.
2. Follow the prompts on the Vehicle Wizard.

To navigate in the Vehicle Wizard:

- Exit Wizard – use to exit the wizard without saving any changes
- Next Wizard Option – use to select the highlighted option or value and go to the next wizard option
- Previous Wizard Option – use to revisit the previous wizard option
- **RED ENTRIES** – indicates an entry that requires a new value
- Save & Close – use to save all current selections and close the wizard
- Finish – shown when the end of the wizard options has been reached; use to save and close the wizard

For details on the Vehicle Wizards options, see the User Manual (QR Code is available on the back cover of this document)

## Edit a Vehicle

A vehicle cannot be edited while a job is open.

1. Under **Vehicle Manager**, select the vehicle card to be edited ❶.
2. On the Vehicle Details screen, select the EDIT SETTINGS icon. ❷
3. Advance through the Vehicle Wizard, making any necessary changes.
4. Select the SAVE AND CLOSE button at any point in the wizard.

## Activate a Different Vehicle

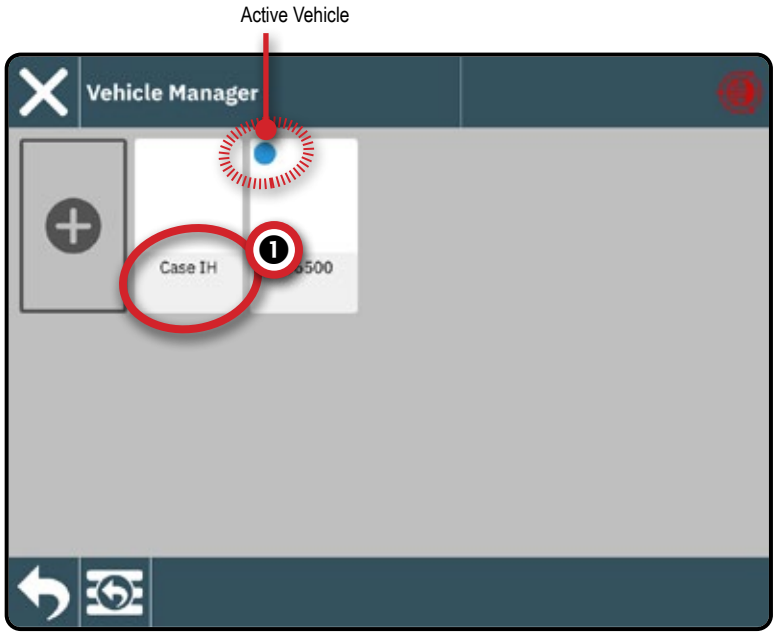
An active vehicle is designated by a dot in the top left-hand corner of the vehicle card. A vehicle cannot be activated while a job is open. A console restart is required to complete vehicle activation.

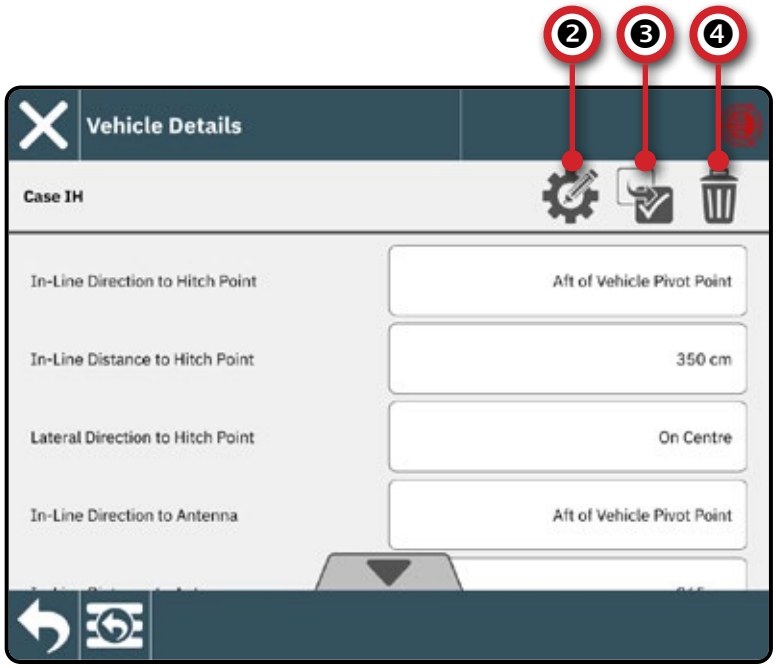
1. On the **Vehicle Manager**, select the vehicle card to be activated ❶.
2. On the Vehcile Details screen, select the MAKE ACTIVE icon ❸.
3. Select **Accept** when asked if you would like to make this vehicle the 'active' vehicle.
4. Restart the console.

## Delete a Vehicle

A vehicle cannot be deleted while it is active or when a job is open. One vehicle is required; therefore, not all vehicles can be deleted.

1. Under **Vehicle Manager**, select the vfehicle card to be deleted ❶.
2. On the Vehcile Details screen, select the DELETE icon ❹.



## NO.3 ENTER AVAILABLE UNLOCKS

Before using some features or options (listed below), it is necessary to activate the function with an unlock code. The unlock code is a unique code for each feature and console.

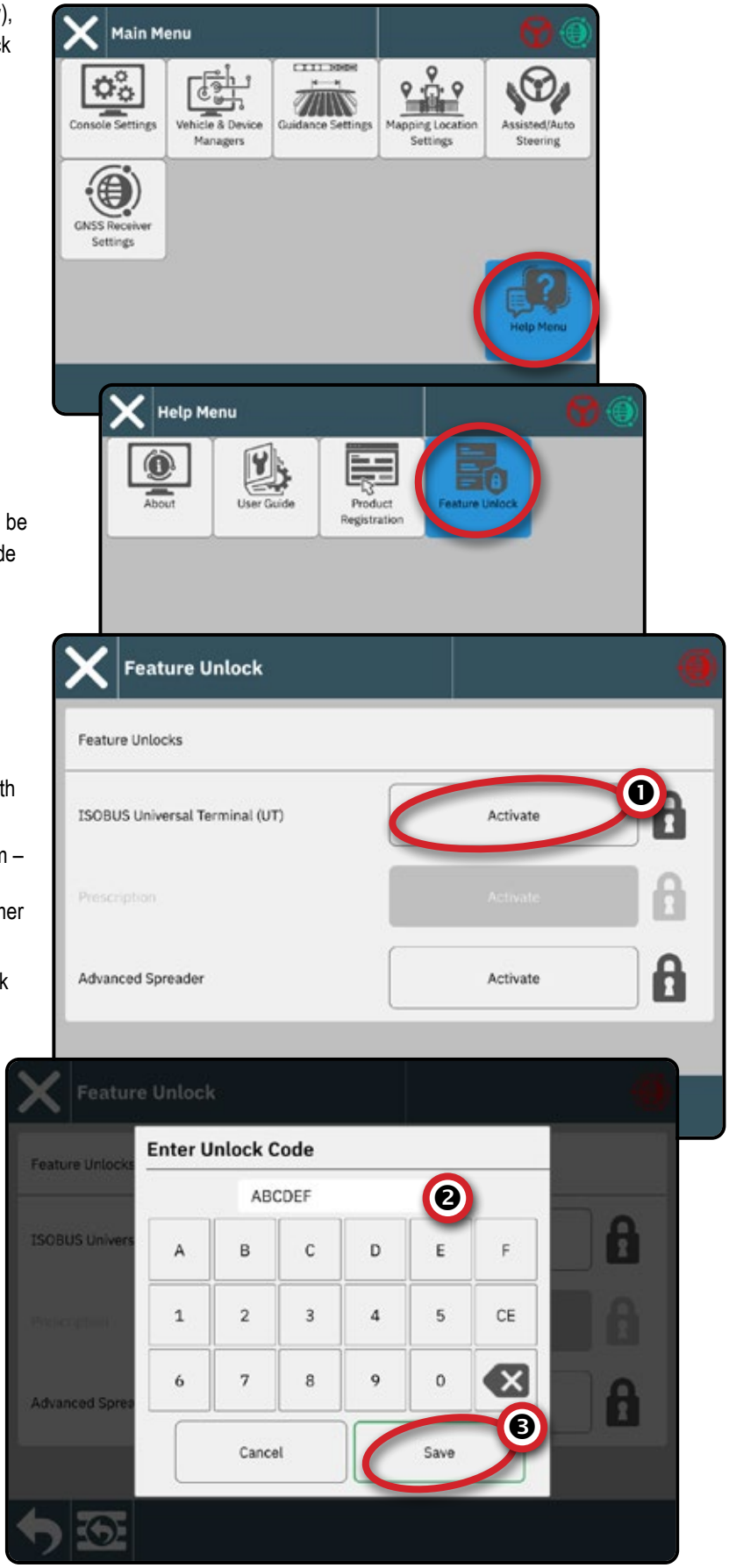
The following features are locked and require an unlock code to access:

- ISOBUS Universal Terminal – unlocks basic ISOBUS capabilities and access to the Universal Terminal (UT)
  - Universal Terminal (UT) is available from the Main Menu and Guidance Screen. See "Access the Universal Terminal" on page 42 for details.
- Prescription – unlocks prescription mapping capabilities
  - ISOBUS Universal Terminal is required to be unlocked before a Prescription unlock code can be entered
- Advanced Spreader – unlocks the ability to program more than two sections when establishing a Spreader device

Unlock Codes can be obtained two ways:

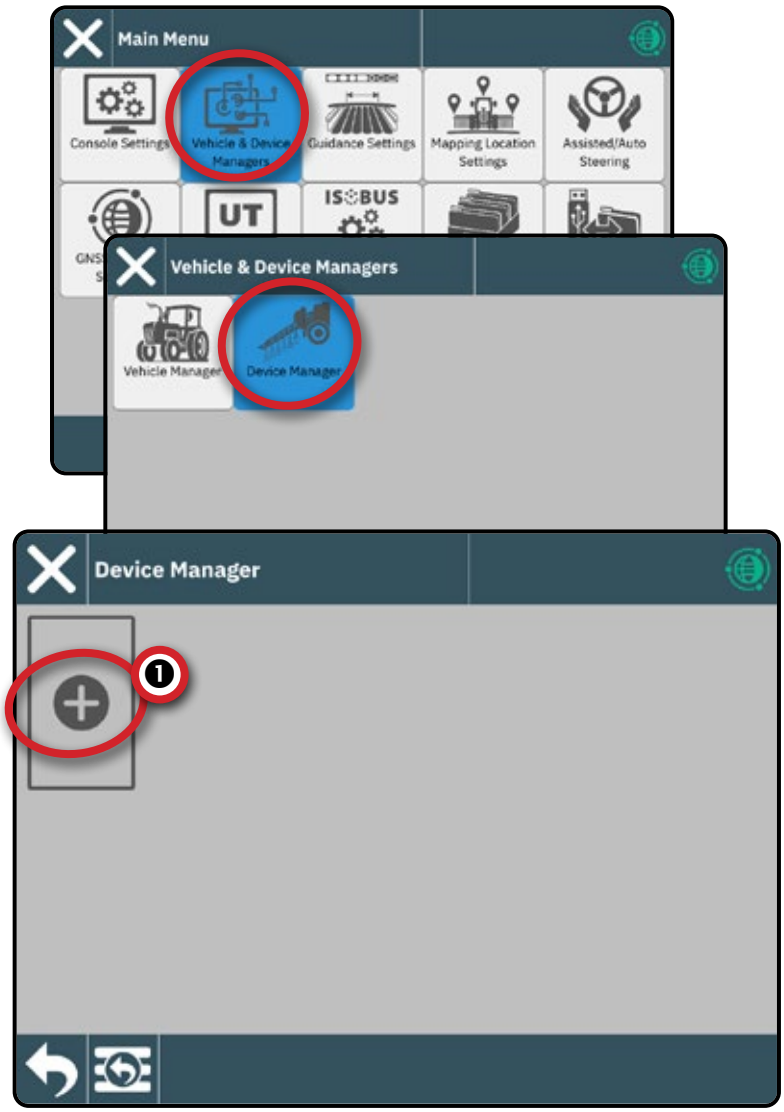
- System Order included unlocked features – refer to the PDF instruction sheet included with your order
- Unlock purchased post-receipt of your system – PDF instruction sheet with console specific code will be provided. Contact TeeJet Costumer Service or your local dealer for details.

A console reboot is required after entering an unlock code.



## NO.4 ESTABLISH AN IMPLEMENT THROUGH THE DEVICE WIZARD

Before entering the Device Wizard, verify that all implements and/or devices are attached to the harness.




### Vehicles & Devices Manager

To navigate in the Device Manager:

- Close Settings – use to exit the Settings options and return to the Guidance screen
- New Device ❶ – use to enter the Device Wizard
- Back One Menu – use to go to the Vehicle & Device Manager menu
- To Main Menu – use to go to the Main Settings menu

### Create New Device

There are multiple device options dependent on what may or may not be on the system. Before creating a device, determine:

- Is there **no device** but Application Mapping is needed?
  - See "Application Mapping" for instructions
- Is there **a TeeJet CAN device** such as a Section Driver Module (SDM) for BoomPilot section control?
  - See "TeeJet CAN Device" for instructions
- Is there **an ISOBUS device** such as a IC35 or IC45 Sprayer, DynaJet IC7140, or IC38 Spreader?
  - See "ISOBUS Device" for instructions.

*NOTE: Only one (1) device of any kind can be active at a time. If an ISOBUS device is on the system, it will be the active device. TeeJet CAN devices and ISOBUS devices cannot be used at the same time. Only one (1) ISOBUS device is supported at a time.*

To navigate in the Device Wizard:

- Exit Wizard – use to exit the wizard without saving any changes
- Next Wizard Option – use to select the highlighted option or value and go to the next wizard option
- Previous Wizard Option – use to revisit the previous wizard option
- **RED ENTRIES** – indicates an entry that requires a new value
- Save & Close – use to save all current selections and close the wizard
- Finish – shown when the end of the wizard options has been reached; use to save and close the wizard

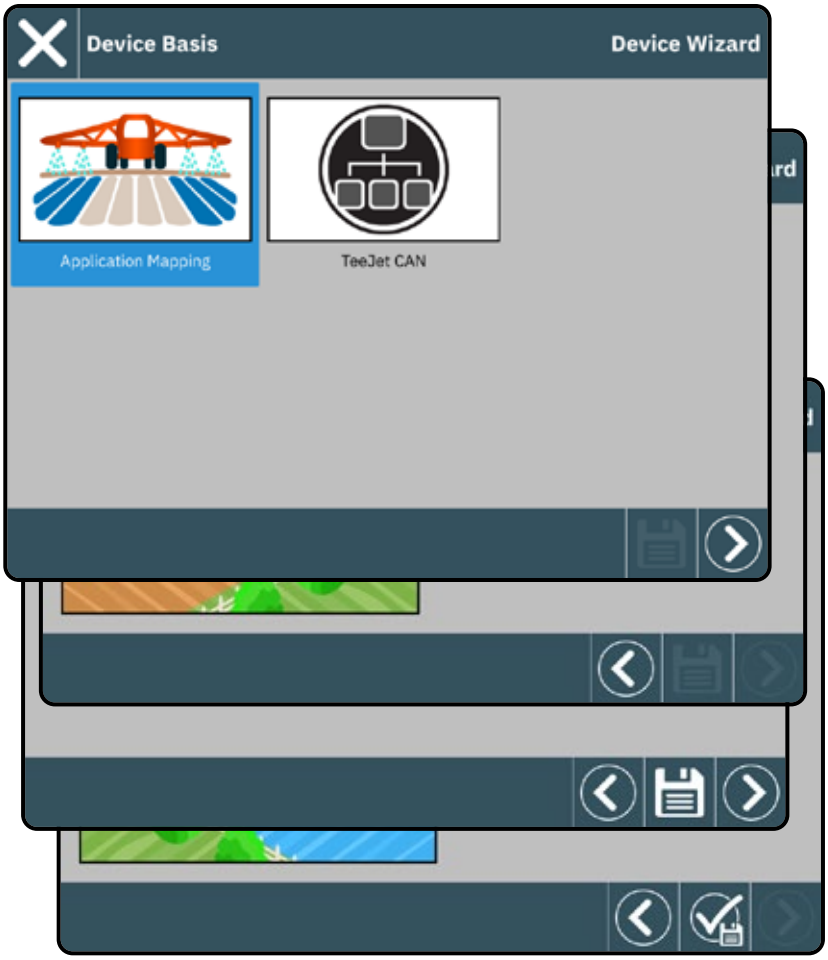
For details on the Device Wizards options, see the User Manual (QR Code is available on the back cover of this document)

## Application Mapping

1. On the **Device Manager**, select the NEW DEVICE icon ⊕ ❶.
2. In the Device Wizard on the Device Basis screen, select **Application Mapping**.

3. Follow the prompts on the Device Wizard.

*NOTE: Some spreader features are limited until an Advanced Spreader unlock code is entered. See "No.3 Enter Available Unlocks" on page 17 for unlock code instructions.*




## TeeJet CAN Device

1. On the **Device Manager**, select the NEW DEVICE icon ⊕ ❶.
2. In the Device Wizard on the Device Basis screen, select **TeeJet CAN**.

3. Follow the prompts on the Device Wizard.

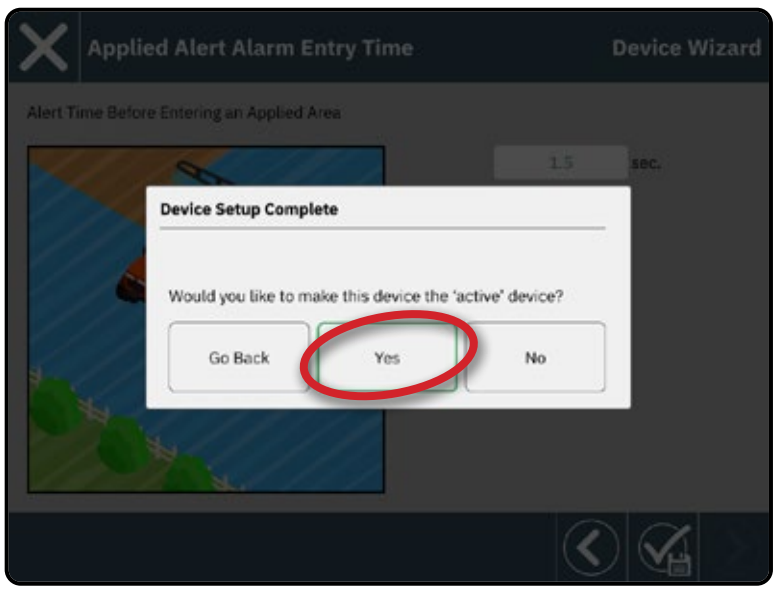
## ISOBUS Device

ISOBUS devices include TeeJet products such as the IC35 Sprayer, IC45 Sprayer, IC38 Spreader or DynaJet IC7140.

*NOTE: An ISOBUS device requires the Universal Terminal which requires an unlock code.*

*See "No.3 Enter Available Unlocks" on page 17 for unlock code instructions.*

1. Once the object pool loads, the Device Wizard will launch automatically prompting the user to enter any missing information required by the system.
2. Follow the prompts on the Device Wizard.
3. Once saved, a new device will be automatically added to the Device Manager.



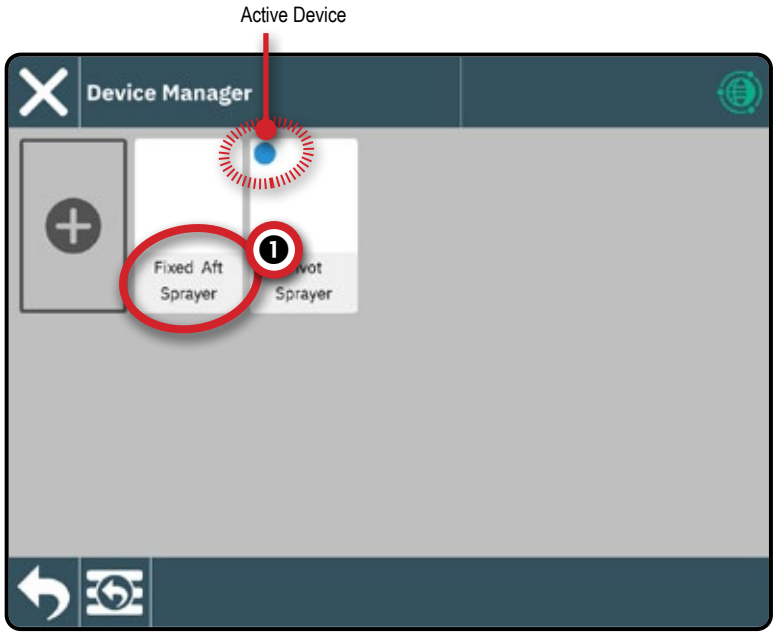

*NOTE: Some settings not available in the Device Wizard may be handled through the device's UT interface.*

*Only one (1) device of any kind can be active at a time. If an ISOBUS device is on the system, it will be the active device. TeeJet CAN devices and ISOBUS devices cannot be used at the same time. Only one (1) ISOBUS device is supported at a time.*

## Edit a Device

A device cannot be edited while a job is open.

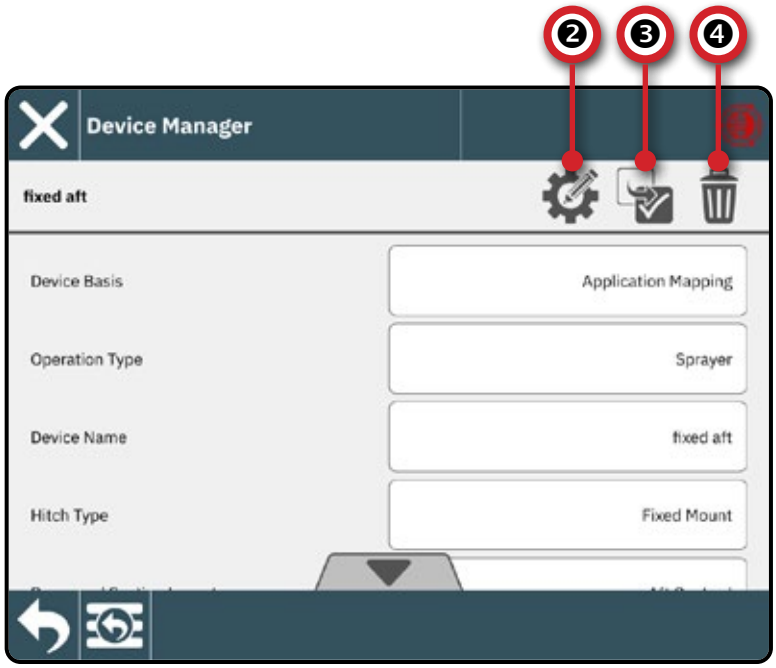
1. Under **Device Manager**, select the device card to be edited ❶.
2. On the Device Details screen, select the EDIT SETTINGS icon ❷.
3. Advance through the Device Wizard, making any necessary changes.
4. Select the SAVE AND CLOSE button at any point in the wizard.




## Activate a Different Device

An active device is designated by a dot in the top left-hand corner of the device card. A device cannot be activated while a job is open.

1. On the **Device Manager**, select the device card to be activated ❶.
2. On the Device Details screen, select the MAKE ACTIVE icon ❸.
3. Select **Accept** when asked if you would like to make this device the 'active' device.



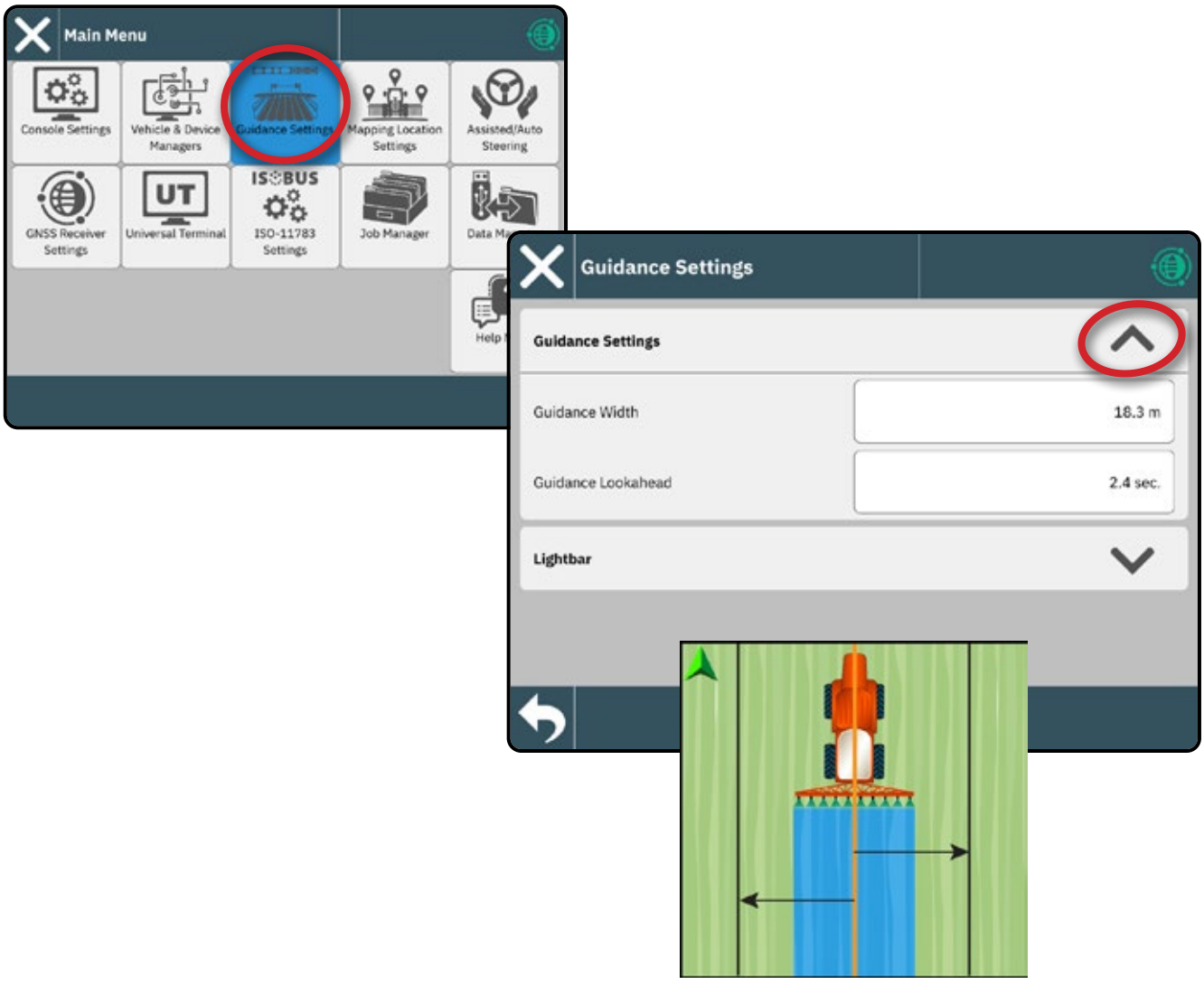

## Delete a Device

A device cannot be deleted while a job is open.

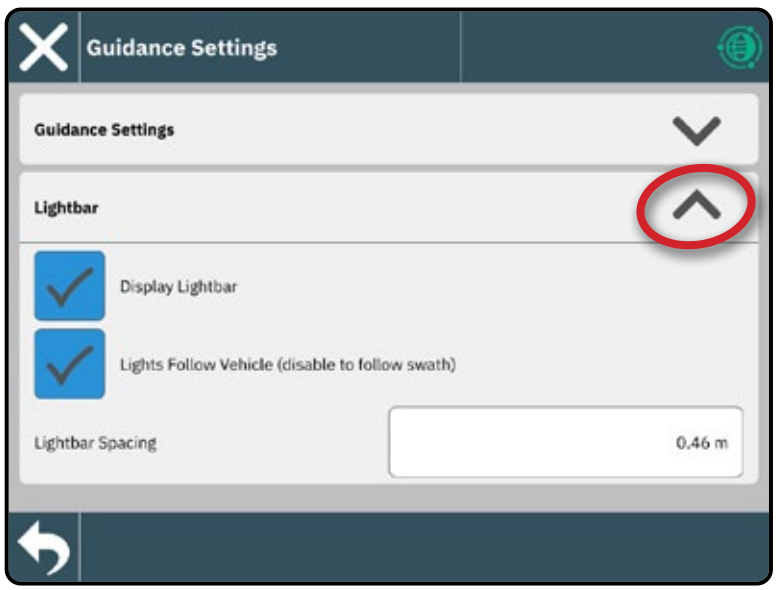
1. Under **Device Manager**, select the device card to be deleted ❶.
2. On the Device Details screen, select the DELETE icon ❹.

*NOTE: An ISOBUS device cannot be deleted.*

## NO.5 SET UP GUIDANCE SETTINGS




Guidance Width – the distance between guidelines



## NO.6 SET UP MAPPING LOCATION

Mapping location establishes the location from which the boundary will be mapped.

- Default location –
  - ▶ Without a Device Defined – the Mapping Location will be the Vehicle Pivot Point
  - ▶ With a Device Defined – while creating an exterior boundary or polygon, the line will be to the exterior of the outermost active section. While creating an interior boundary, the line will be to the interior of the innermost active section. If no sections are active, the boundary will be marked to the end of the outermost section.
- User entry – in-line and lateral offset from the vehicle pivot point directions and distances can be specified by the user. Up to five (5) user entries can be created.

To navigate in the Mapping Location Settings:

New Mapping Location – use to create a new mapping location

Delete Current Mapping Location – use to delete the current Active Mapping Location

### Change Active Mapping Location

1. Select the **Active Mapping Location** ❶.
2. Select the desired Mapping Location ❷.

### Edit a Mapping Location

1. Select the Mapping Location ❷ to be edited.
2. Make adjustments to settings as needed. Changes are automatically applied to the current mapping location.

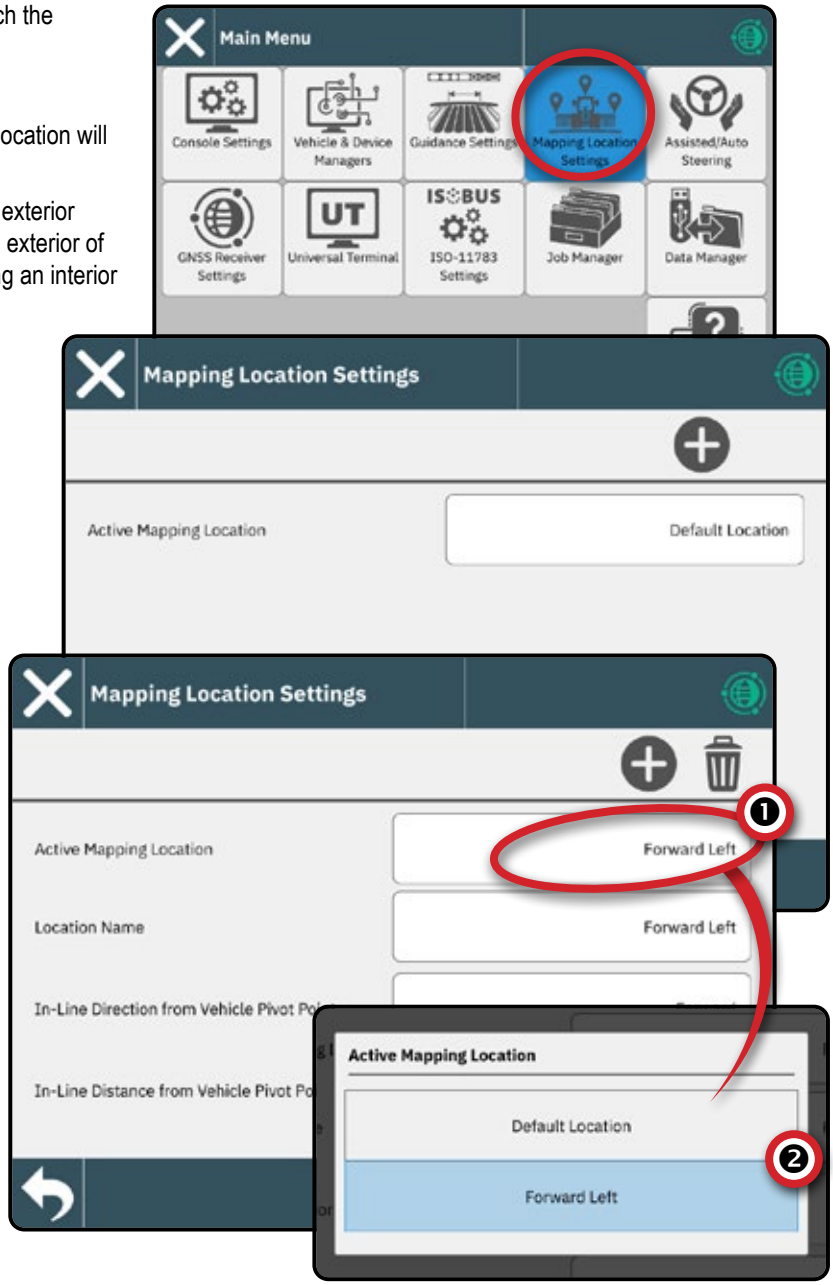



*Figure 1: Mapping Location In-Line Distance from the Vehicle Pivot Point ① to the Mapping Location ②*

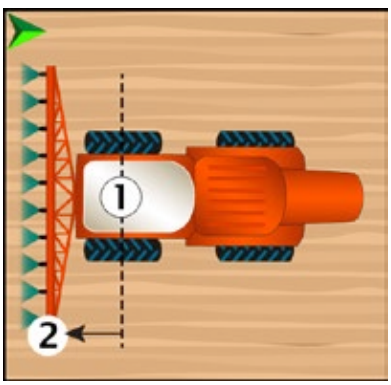
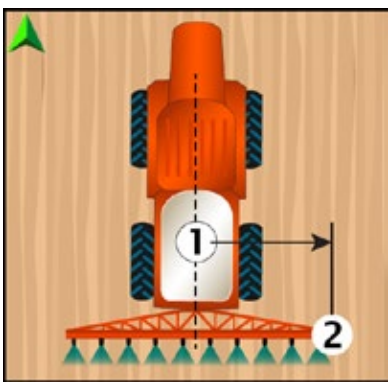



*Figure 2: Mapping Location Lateral Distance from the Vehicle Centreline ① to the Mapping Location ②*



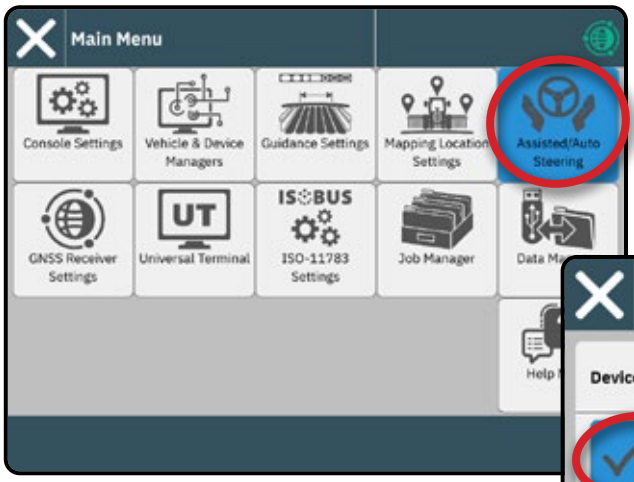
## NO.7 SET UP THE GNSS

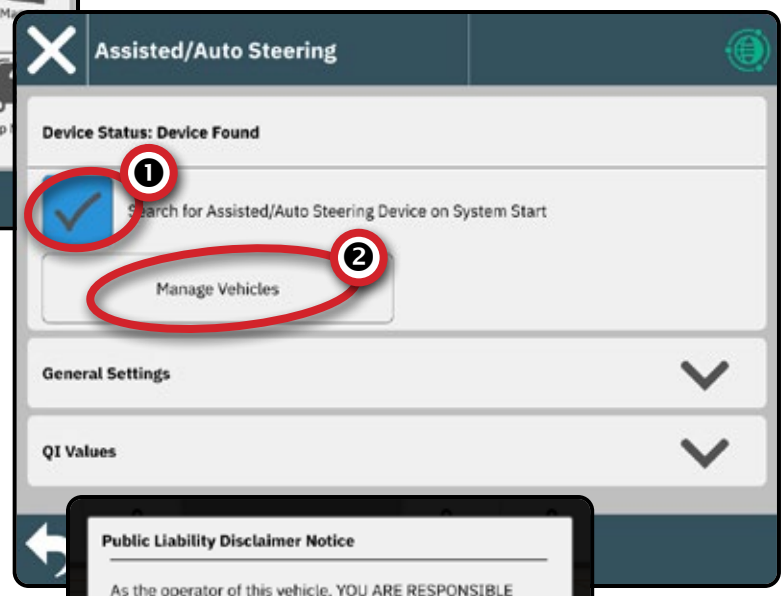

For proper use of the system, the GNSS settings are required to be appropriately configured for your location.

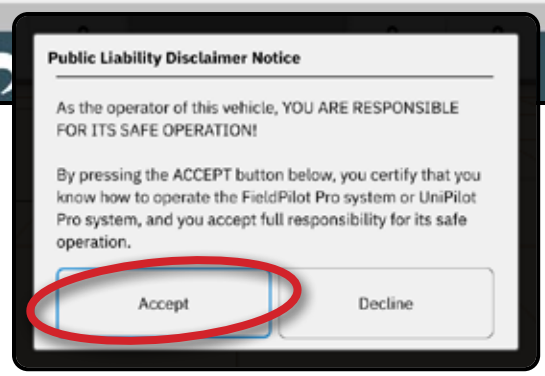
Exit this screen ❶ to begin initializing the GNSS receiver. A pop-up message will appear during the initialization. This takes about a minute.

See the User Manual (QR Code is available on the back cover of this document) for GNSS Receiver Settings details.

## NO.8 SET UP ASSISTED/AUTO STEERING



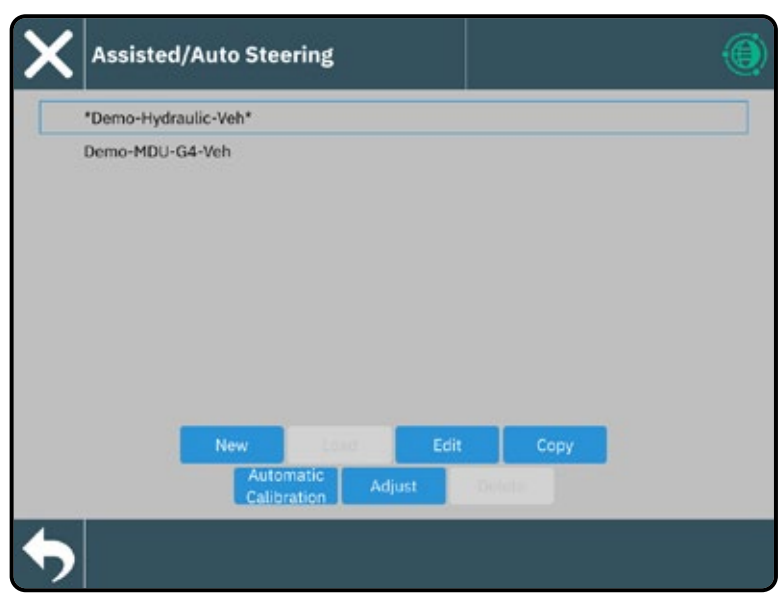



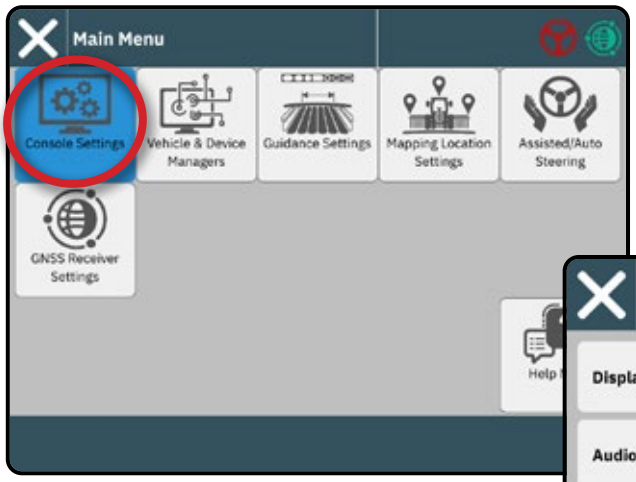

1. Activate **Search for Assisted/Auto Steering Device on System Start** ❶.
2. Restart the console.
3. Acknowledge the Public Liability Disclaimer Notice. This takes about a minute to pop-up after restart.
4. Return to the Assisted/Automatic Steering Settings menu.
5. Make adjustments to settings as needed. Changes are automatically applied.

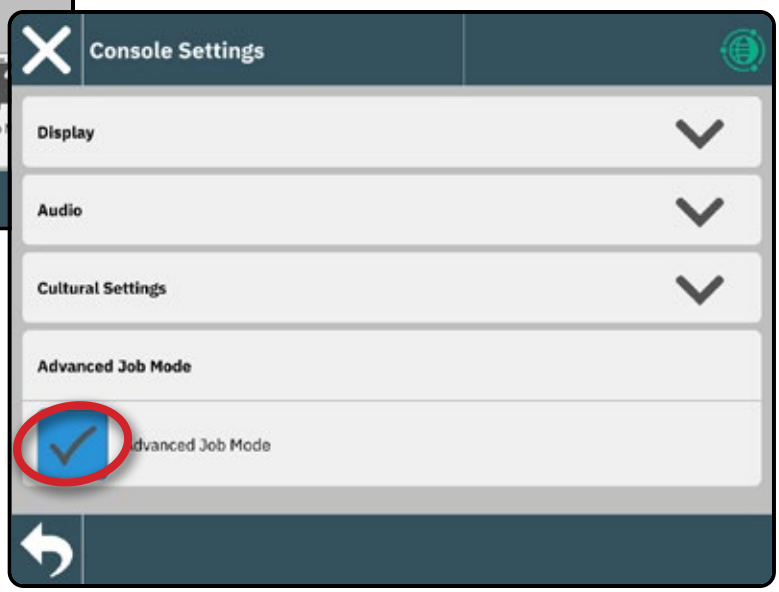
*NOTE: For details Assisted/Auto Steering device settings, reference the user manual included with the SCM Pro.*

To manage Assisted/Auto Steering vehicles (add a new vehicle, re-calibrate the current Assisted/Auto Steering system, or to adjust steering aggressiveness), press the **Manage Vehicles** button ❷.



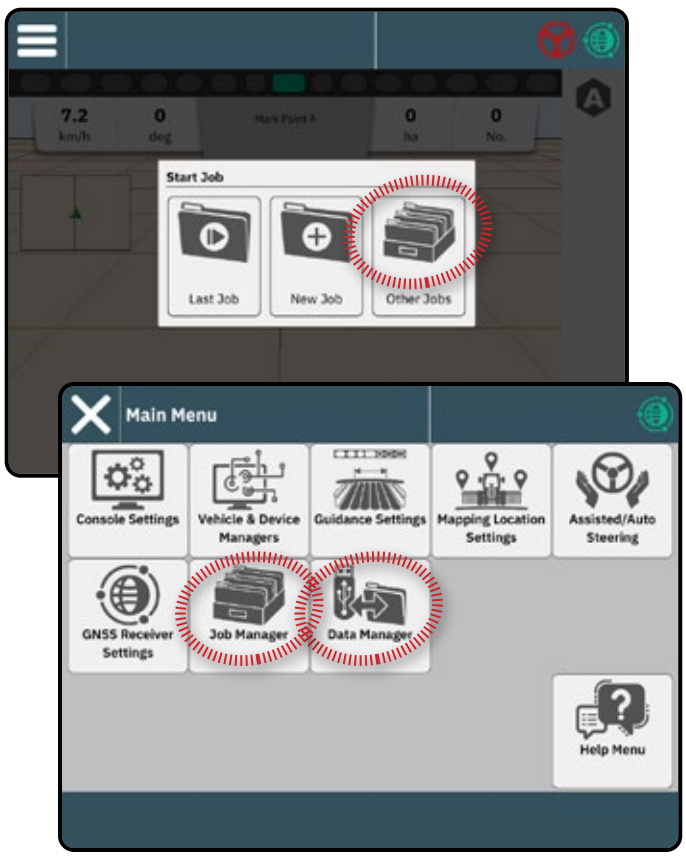
## NO.9 SELECT JOB MODE




- Simple Mode – only one (1) job will be available at a time
  - Start Job menu on the Guidance screen includes options to create a new job or continue the last job
- Advanced Mode – more than one job may be available at any time
  - Start Job menu on the Guidance screen includes options to create a new job, continue the last job, or select from other jobs using the Job Manager
  - Job Manager is available from the Main Menu or from the Start Job menu on the Guidance screen
  - Data Manager is available from the Main Menu

Advanced Job Mode Options



## Job Manager

Use the Job Manager to create, delete, duplicate, start, and add information to a selected job or jobs.

Create New Job – options to change the automatically generated name and add a field reference will be offered

*Hint: Names are limited to 32 characters. When creating long names, include spaces to assist in readability on the Guidance Screen.*

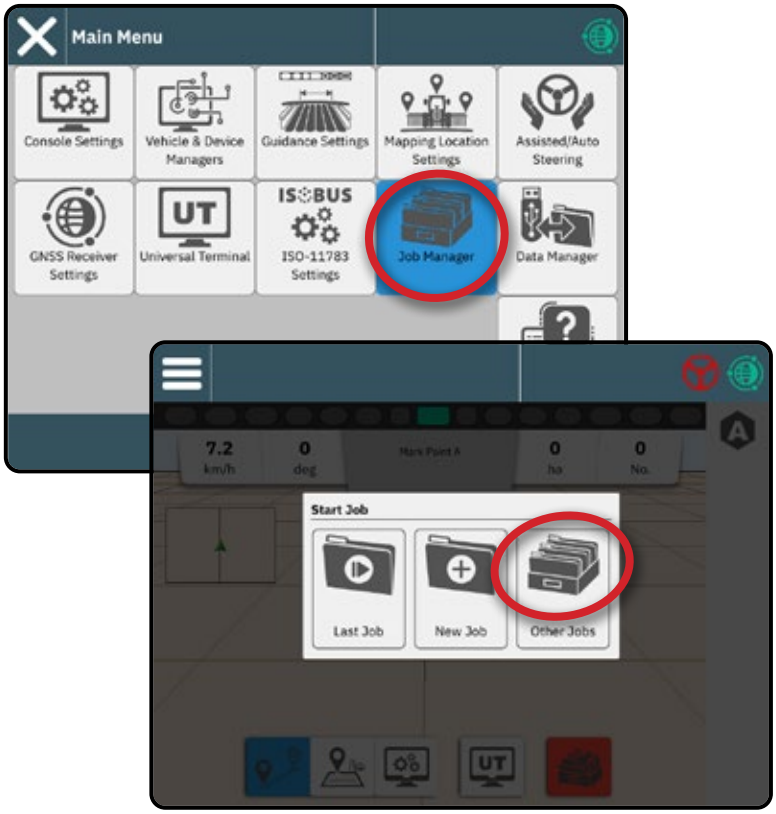
Delete the Selected Job or Jobs

Duplicate the Selected Job – use to duplicate boundaries and guidelines from the selected job

Information on Selected Job – use to see and/or add details to the selected job. The job name cannot be changed.

Start Selected Job – GNSS position criteria must be met before this will be available

Save – use to save changes made to the Field Name when looking at a planned job's details




## Data Manager

Use the Data Manager to import or export all job data.

Insert USB drive prior to attempting a transfer of Job Data.

**Import** – used to move job data from USB storage to internal storage

*WARNING! Importing data will delete and replace any existing data on the console.*

**Export** – used to move job data from internal storage to USB storage

Job Data includes

- Job Name
- Field Name
- Guidelines
- Boundaries (exterior, interior)
- Coverage Area
- Maps (coverage, application)


### Prescription Maps

When Prescription is unlocked, a prescription map can be imported then used with a compatible device such as an IC35 Sprayer or IC45 Sprayer.

See "No.3 Enter Available Unlocks" on page 17 for unlock code instructions.

See the User Manual (QR Code is available on the back cover of this document) for details on importing and using a prescription map.

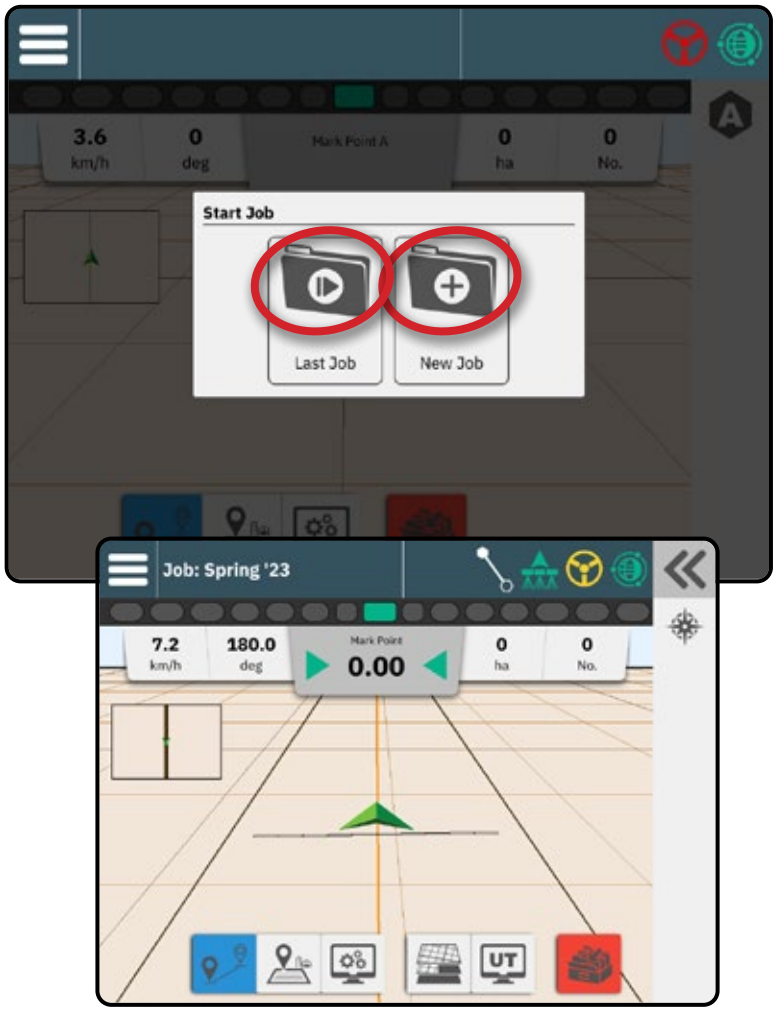
## START A JOB

Once the power up sequence has completed, the Start Job Menu will appear with the options to start a new job, continue the last job, or open the job manager to select a different job (options depend on job mode and job availability). Once a job is active, some setup options can no longer be changed. Close the Job to change these settings.

*REQUIREMENTS:*

> *Setup for the specific vehicle and its devices must be completed before starting a job. See "No.2 Walk through the Vehicle Wizard" on page 14 and "No.4 Establish an Implement through the Device Wizard" on page 18 for details.*
>
> *Before starting a job, GNSS must establish a heading. With the console on and GNSS good, drive the vehicle to obtain a valid heading.*

To change between Simple Job mode and Advanced Job mode, go to Main Menu -> Console Settings -> Advanced Job Mode. See "No.9 Select Job Mode" on page 25 for details on selecting a job mode.




### Simple Job Mode

Use the Start Job menu to start a new job or continue the last job. Only one job is available at a time. Selecting a new job will delete any previous job.

To navigate in the Start Job screen:

- Start a New Job
- Continue the Last Job
- Main Menu Button – access to the Settings including wizards, Help options and Universal Terminal (UT)

If the current GNSS Position is in a UTM zone other than the current or adjacent UTM zone **Last Job** will be disabled.

## Advanced Job Mode

Use the Start Job menu to start a new job, continue the last job, or open the job manager to select a different job.

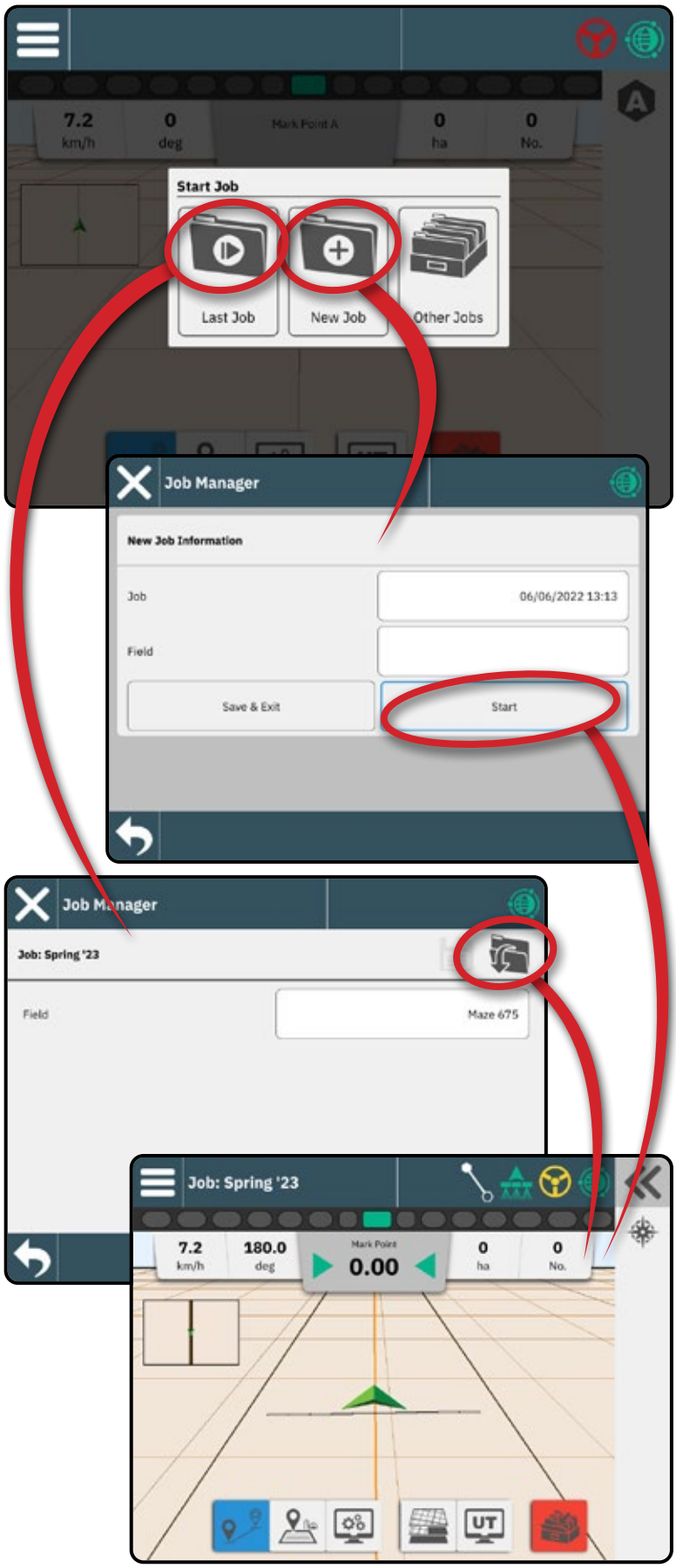
To navigate in the Start Job screen:

- Start a New Job – options to change the automatically generated name and add a field reference will be displayed.
- Continue the Last Job – option to review and/or edit job information will be displayed
- Open the Other Jobs using the Job Manager
- Main Menu Button – access to the Settings including wizards, Help options and Universal Terminal (UT)

To navigate in the Job Manager:

- Close Settings – use to exit the Job Information screen and return to the Start Job menu without creating a new job or starting the previous job
- Start Selected Job – select to start the last job
- **Save & Exit** – select to save the new job and return to the Start Job Menu
- **Start** – select to start the new job
- Back One Menu – use to go to the Job Manager

If the current GNSS Position is in a UTM zone other than the current or adjacent UTM zone **Last Job** will be disabled.



## Guidance Screen Features


### *Information & Status Bar*

Current job name and information on GNSS status, guidance mode, arable land area, and assisted/ automatic steering engagement. See "Information & Status Bar" on page 38 for details.

### *Slide-Out Tray Button*

Access options for the Feature Bar selection

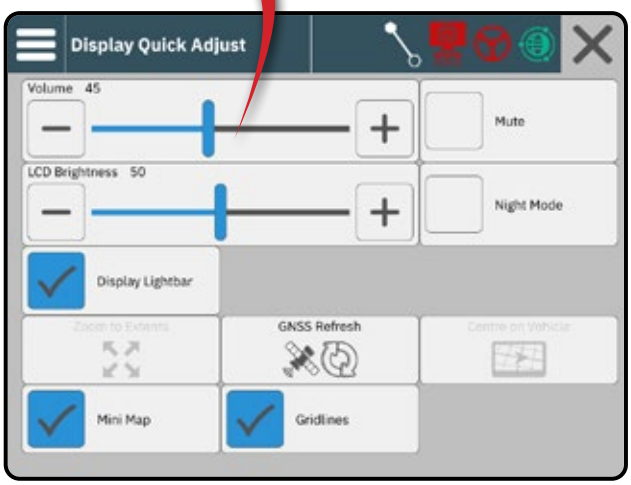
### *Feature Bar*

Current selected options will be highlighted.

- Guidance Mode – select to access guidance options including selecting a guidance mode and creating, deleting and switching guidelines
- Boundary Mode – select to access boundary options
- Display Quick Adjust – select to access frequently adjusted console and screen options
- Mapping Layers – select to turn on or off map layers
- Universal Terminal (UT) – select to access the UT
- Close Job – select to close the current job and save any job progress

### *Action Bar*

Options are dynamic based on the selected Feature Bar option and associated Slide-Out Tray option. See individual features for details.




## Display Quick Adjust Options

- Volume – adjusts the volume level of the audio speaker
- Mute – turns off the audio speaker
- LCD Brightness – adjusts the brightness of the console display
- Night Mode – used to darken menu colours to reduce light glare during night usage
- Display Lightbar – used to display or hide the lightbar on the guidance screen
- Zoom to Extents – when in Field View, extends the screen view to the widest area available
- GNSS Refresh – resets the ClearPath filter in the OEMStar receiver in cases where the user has had the receiver running in close proximity to heavy tree cover and/or buildings

  *NOTE: Activating the refresh while in a job will cause a momentary interruption in the relay of GNSS data. This will most likely result in sections already on in automatic BoomPilot mode to go off for a short period of time.*

  *The refresh should not be done during active application.*
- Centre on Vehicle – when in Field View, centres the vehicle on the map
- Mini Map – used to display or hide the miniature version of the map view currently not on screen. Select to switch between Vehicle View and Field View maps.
- Gridlines – used to display or hide the gridlines on the map

## NO.1 CHOOSE A GUIDANCE MODE

1. With the Guidance button on the Feature Bar active, press the Slide-Out Tray button ❶.
2. Select a guidance mode ❷:


No Guidance

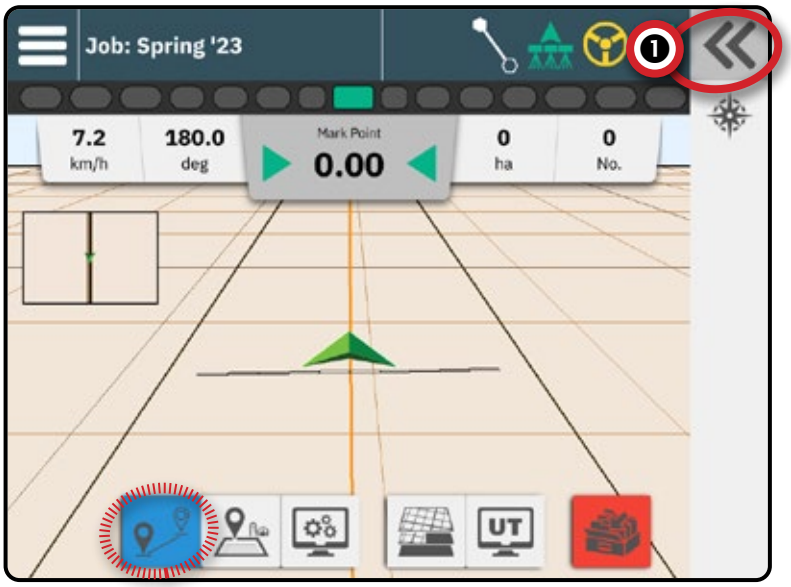

Straight AB Guidance

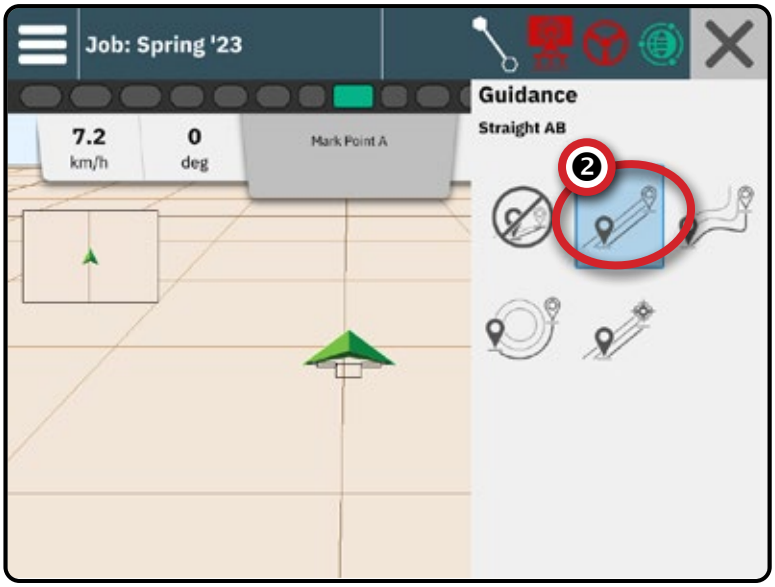

Dynamic Adaptive AB Guidance


Circle Pivot Guidance


Azimuth Guidance

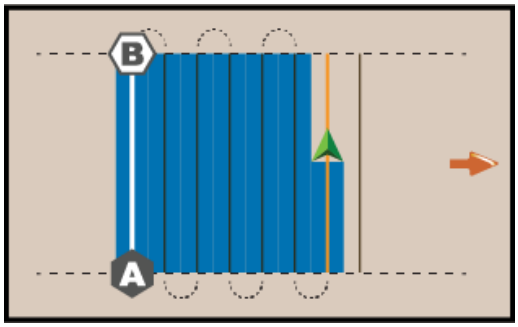
See the table on the next page for details on each guidance mode.



## Straight AB Guidance

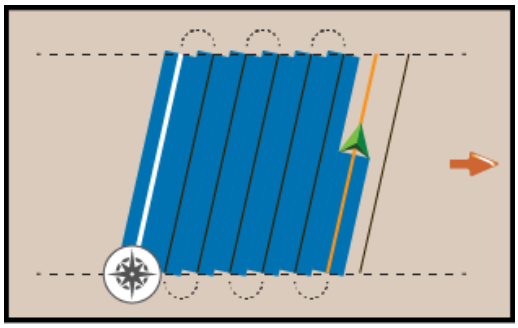
Straight AB guidance provides straight-line guidance based on A and B reference points. The original A and B points are used to calculate all other parallel guidelines.




## Azimuth Guidance

Azimuth guidance provides straight-line guidance based on a horizontal angle measured clockwise from a true north baseline. When using an azimuth, the point from which the azimuth originates is the centre of an imaginary circle. North = 0°, East = 90°, South = 180°, West = 270°.

Azimuth Degree guidance projects a guideline between the current vehicle position (the A point) and a B point set 100 metres away along the entered azimuth heading.

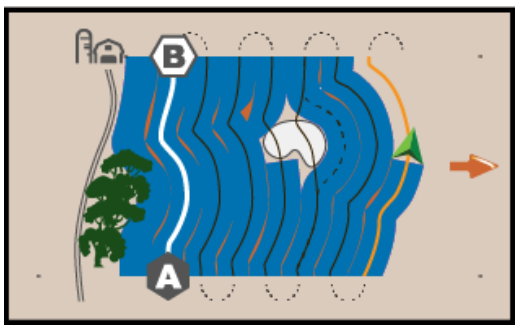


## Dynamic Adaptive AB Guidance

Dynamic Adaptive AB guidance provides guidance along a curved line based on an initial AB reference line where each adjacent guideline is drawn from the projected guidance width and heading.

Dynamic Adaptive AB Guidance includes a detour option which allows a variation of the guideline to be created then either connected back to the original guideline or finished, creating a new B point of the original guideline. A minimum distance of 2 metres must be travelled before a detour can be started. A minimum of 50 metres must be travelled before a detour can be finished.

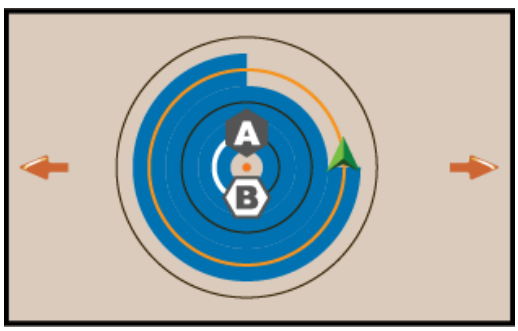
Add information on what not to do when creating a path - U vs. C initial path creation.




## Circle Pivot Guidance

Circle Pivot guidance provides guidance around a central location that radiates inward or outward based on an initial AB reference line. This initial baseline is used to calculate all other guidelines.

It is used for product application in a centre pivot field while being guided along a circular guideline that matches a centre pivot irrigation system radius.




## No Guidance

No guidance* turns off guidance.

*NOTE: No guidance mode does not delete established guide lines or points from the console. To delete established/saved data from the console, see "Data management" in the System setup chapter.*

*NOTE: Offset to adjacent guidelines will be calculated using the guidance width, see "Settings-> Guidance and Mapping" for established distance.*

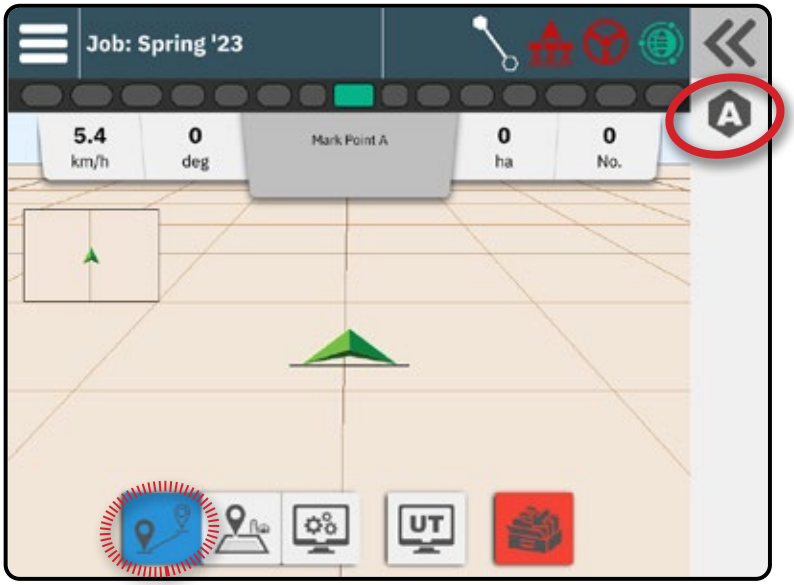
## NO.2 ESTABLISH AN AB GUIDELINE

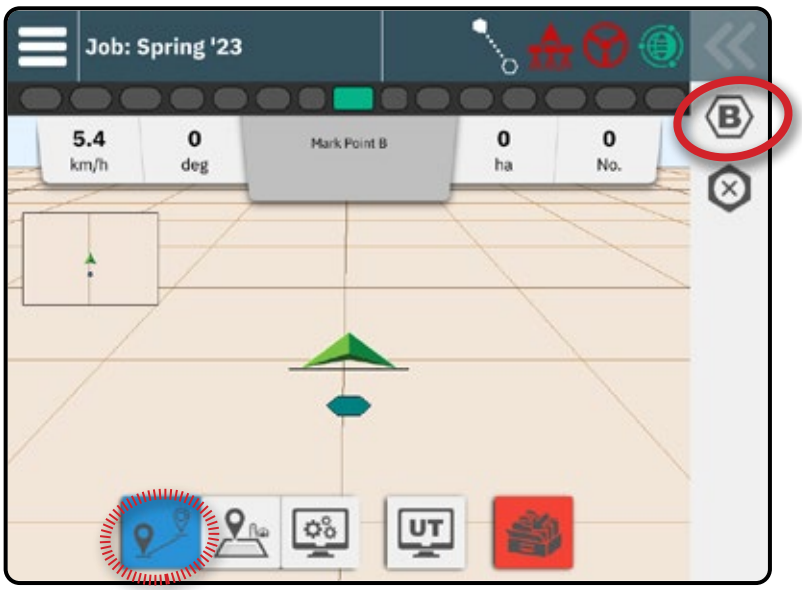
1. Drive to the desired location of Point A.
2. With the Guidance button on the Feature Bar active, press MARK A icon.
3. Drive to the desired location of Point B.
4. Press MARK B icon to establish the AB line.

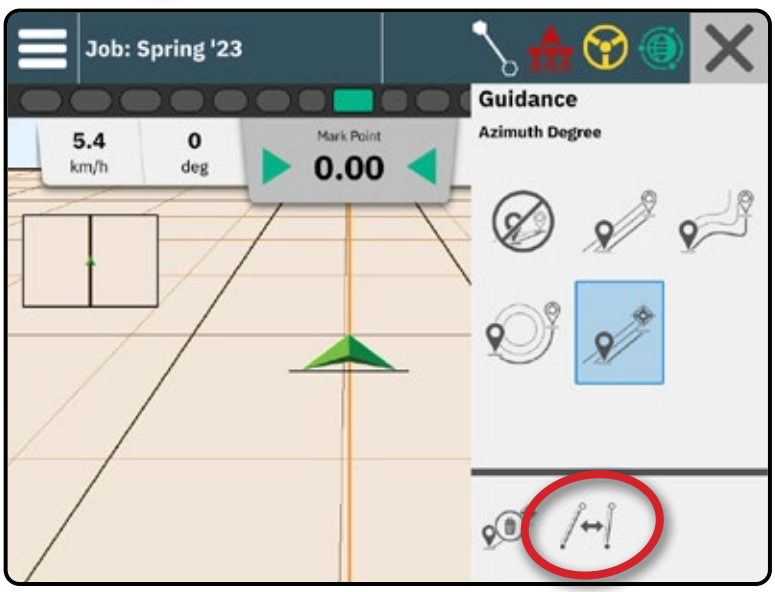
   *Recommendation: If Heading Smoothing is disabled, mark point B while vehicle is moving.*

5. Name the guideline.
   - ◀ Select **Cancel** to save the guideline using the automatically generated name.
   - ◀ Use the keyboard to select a custom name then select **Save**.

The console will begin providing navigation information.




### *Action Bar Options*

Mark A Point – use to mark the first point on the guideline

Mark B Point – use to mark the last point on the guideline and establish the AB line

*NOTE: The MARK B Icon is not available for selection (greyed out) until the minimum distance is travelled.*

- *Straight or Curved Guidance: 3.0 metres*
- *Circle Pivot guidance: 50.0 metres. If driving the wheel tracks, it is recommended to complete at least half of the circle. It is not necessary to drive the entire circumference.*

Cancel Mark – use to cancel the Mark A Point command and revert to the previous guideline (when established)

## Switch Guideline

If more than one guideline is saved, the Switch Guideline option will become available.

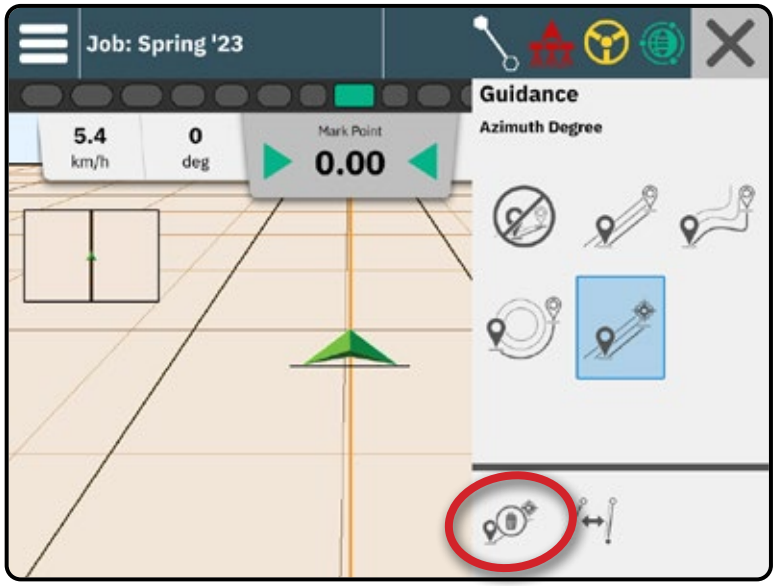
To change to other available guidelines:

1. Select the Slide-Out Tray button.
2. Press SWITCH GUIDELINE icon.
3. Select the guideline to be active.
4. Press the **Switch** button.

## Delete Last Guideline

Delete Last Marked Guideline deletes the last marked guideline from the current job.

1. With the Guidance button on the Feature Bar active, press the Slide-Out Tray button .
2. Press the DELETE GUIDELINE icon .
3. Press the DELETE GUIDELINE icon again to remove additional guidelines in order from last to first created.




## Adjust Guideline

The Adjust Guideline option allows the current guideline to be shifted to the vehicle's current location.

*NOTE: Available only when in Straight AB, Azimuth or Dynamic AB guidance.*

Vehicle must be stopped to adjust a guideline.


## Assisted/Auto Steering Nudge

The Assisted/Auto Steering Nudge option allows the vehicle's current location and guideline to be temporarily shifted to the left or right by the preset Nudge distance. Left/right direction is determined while facing in the machine's forward direction.

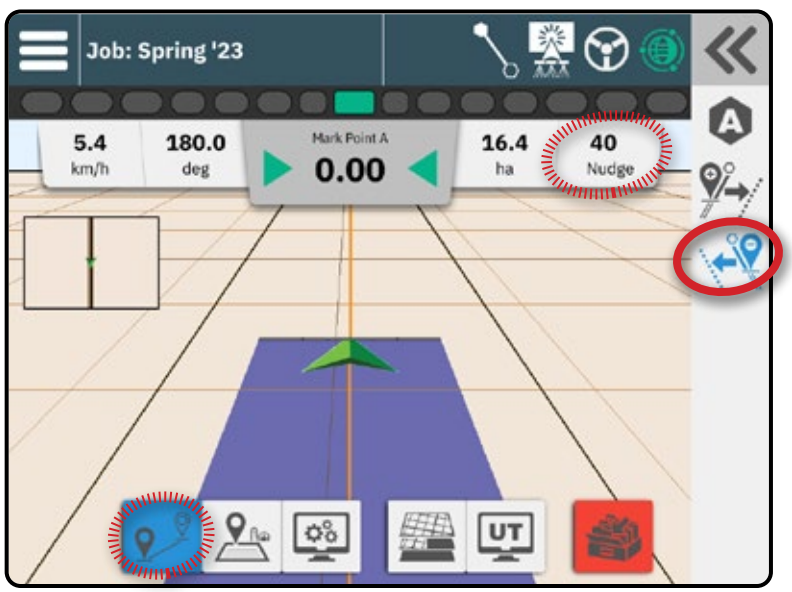
Nudge Left

Nudge Right

Assisted/Auto Steering must be active, and Assisted/Auto Steering Nudge must be enabled. Preset Nudge distance is established in the Assisted/Auto Steering settings under General Settings. See "No.8 Set Up Assisted/Auto Steering" on page 24 for information on accessing these options.

Each press of an Assisted/Auto Steering Nudge button adds or subtracts from a previous press. Total accumulated nudge offset distance can be displayed on the Guidance Bar. See "Selectable Job Information" on page 41 for details.

- ◀ No change in actual marked guideline will occur. Switching guidelines, marking a new guideline, creating a detour, or closing the job will zero out any accumulated nudge distance.
- ◀ Cross-track error will be based on the new "Nudged" guideline.



## Dynamic Adaptive AB Guideline Action Bar Options

When in Dynamic Adaptive AB Guidance, the following options are available:

- Pause Guideline Mapping – use to pause dynamic mapping. A straight line will be drawn between the pause point and the resume point.
- Resume Guideline Mapping – use to resume dynamic mapping. A straight line will be drawn between the pause point and the resume point.
- Start Detour – use to start a variant guideline off of the current guideline. If connected or finished, this will change the existing guideline.
- Pause Detour – use to pause dynamic detour mapping. A straight line will be drawn between the pause point and the resume point.
- Resume Detour – use to resume dynamic detour mapping. A straight line will be drawn between the pause point and the resume point.
- Cancel Detour – use to cancel detour mapping, discarding the detour guideline
- Connect Detour – use to connect the detour guideline to the existing guideline. The detour will become part of the current guideline.
- Finish Detour – use to create a new guideline end location. The detour will become part of the current guideline.

*Figure 3: Detour with Connect Detour*

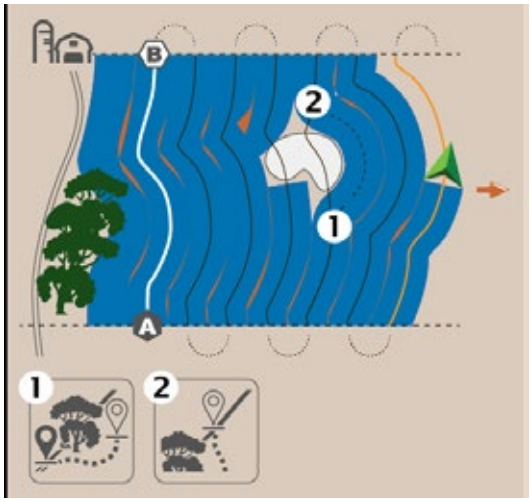
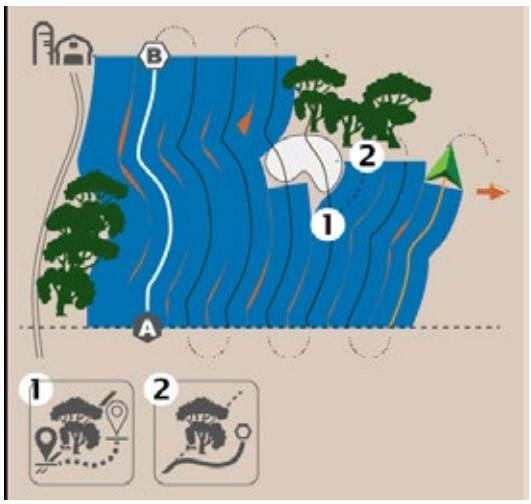



*Figure 4: Detour with Finish Detour*



## NO.3 CREATE AN APPLICATION BOUNDARY

Application boundaries establish the work areas where product is or is not applied while using Automatic Section Control (ASC) or BoomPilot.

Application is not required to map a boundary. Boundary will be mapped to the outer edge of all the programmed sections (not necessarily those turned on at any given time during the boundary pass) or a user selected mapping location (see "No.6 Set Up Mapping Location" on page 22 for details). External boundaries map to the outer edge of the programmed sections. Internal boundaries map to the inner edge of the programmed sections.

### Establishing an Exterior or Interior Boundary

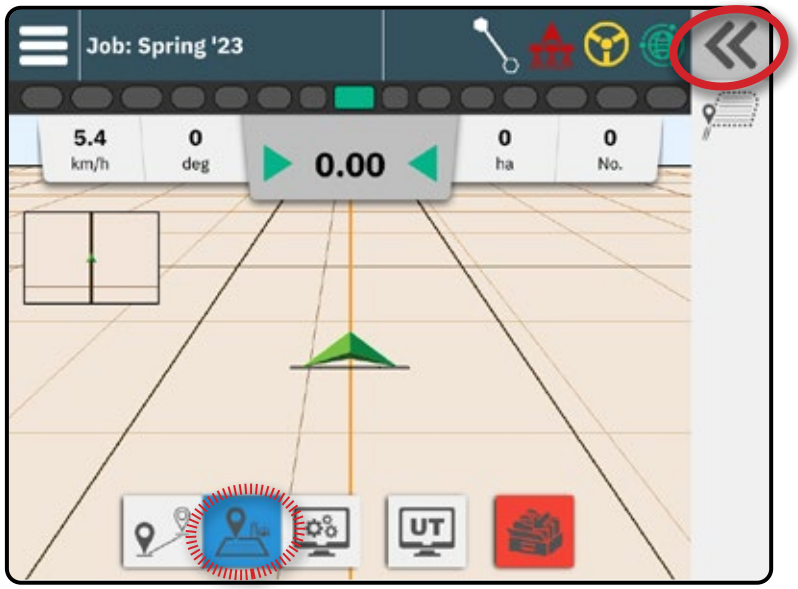
1. Drive to a desired location at the perimeter of the application area and orientate the vehicle in association to the established mapping location.
2. With the Boundary button on the Feature Bar active, press the Slide-Out Tray button.
3. Select the type of boundary to be mapped.

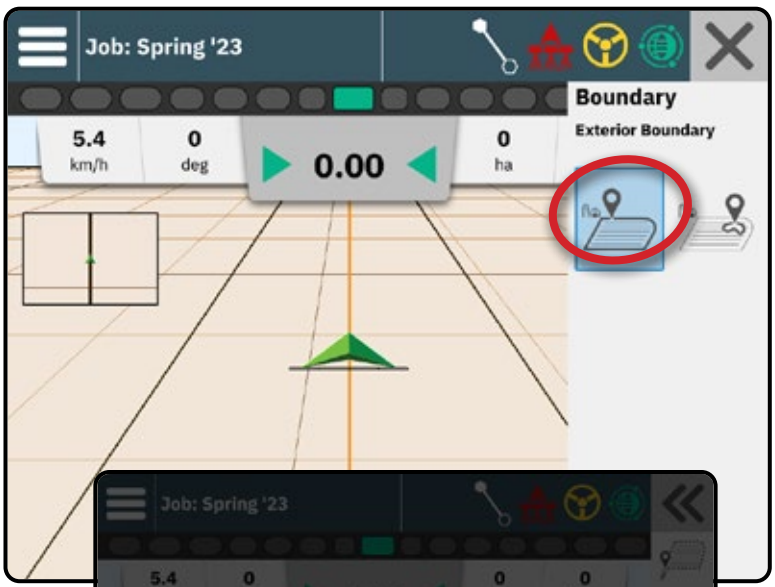
   Exterior Boundary – establishes a work area where application will be applied while using ASC or BoomPilot

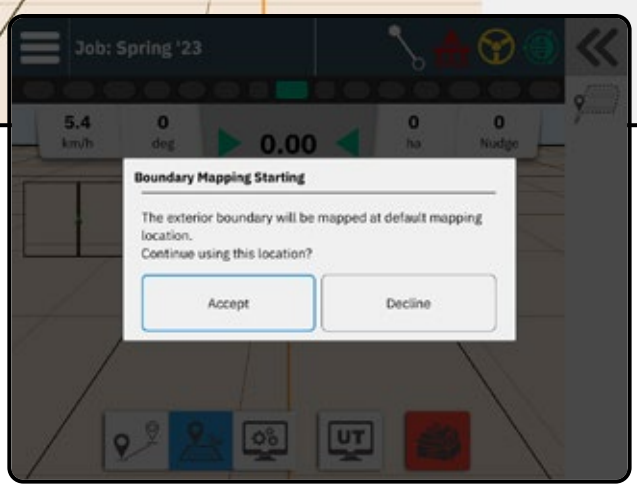
   Interior Boundary – establishes a non-work area where application will NOT be applied while using ASC or BoomPilot
4. Press MARK BOUNDARY icon

   Start Exterior Boundary

   Start Interior Boundary
5. Acknowledge which mapping location will be used.



6. Travel the perimeter of the application area.

   While traveling, use as needed:

   Pause Boundary – pauses the mark boundary process. A straight line will be drawn between the pause point and the resume point.

   Resume Boundary – resumes the mark boundary process. A straight line will be drawn between the pause point and the resume point.

   Cancel Boundary – cancels mark boundary process.

7. Finish the boundary:

   Automatic Close – travel to within 3 metres of the starting point. The boundary will close automatically (the light blue guideline will turn black).

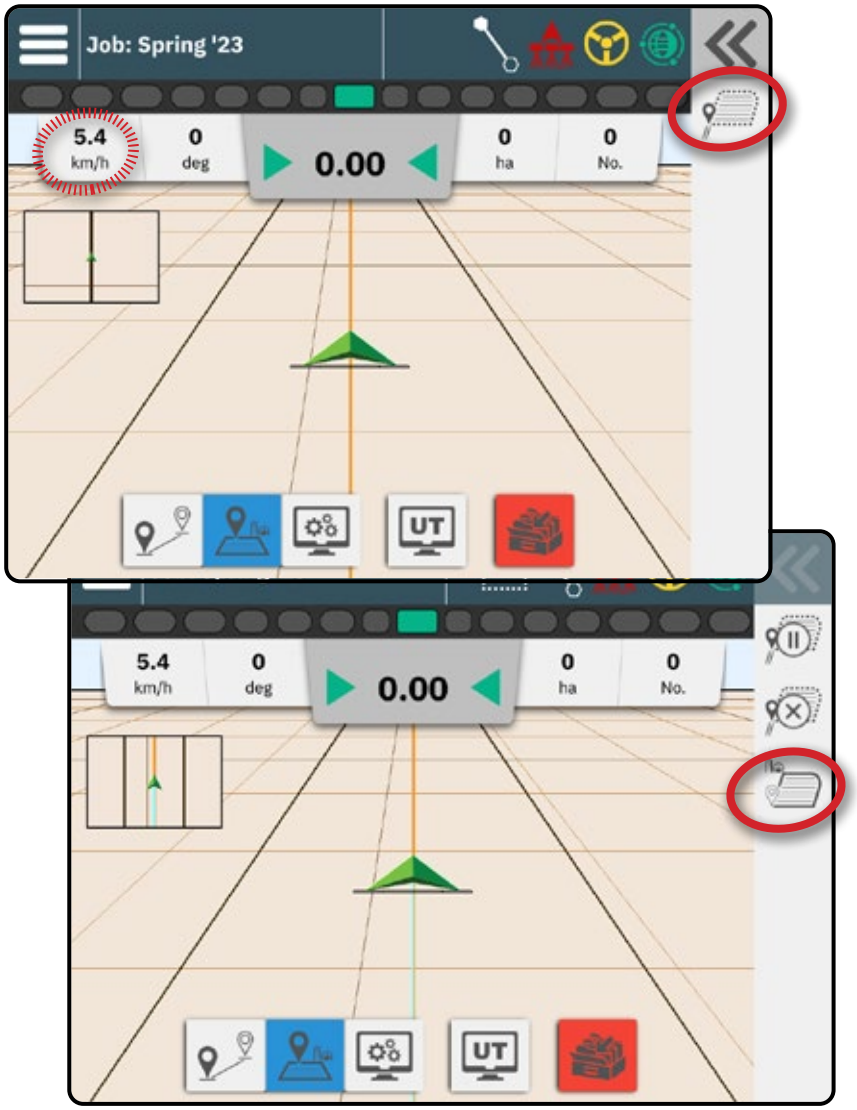
   Manual close – press the FINISH BOUNDARY icon to close the boundary with a straight line between the current location and the starting point.

   *NOTE: If the minimum distance is not travelled (15 metres), an error message will pop-up.*

8. Press:

   ► Accept – to save and manually name the boundary

   ► Decline – to save and automatically name the boundary

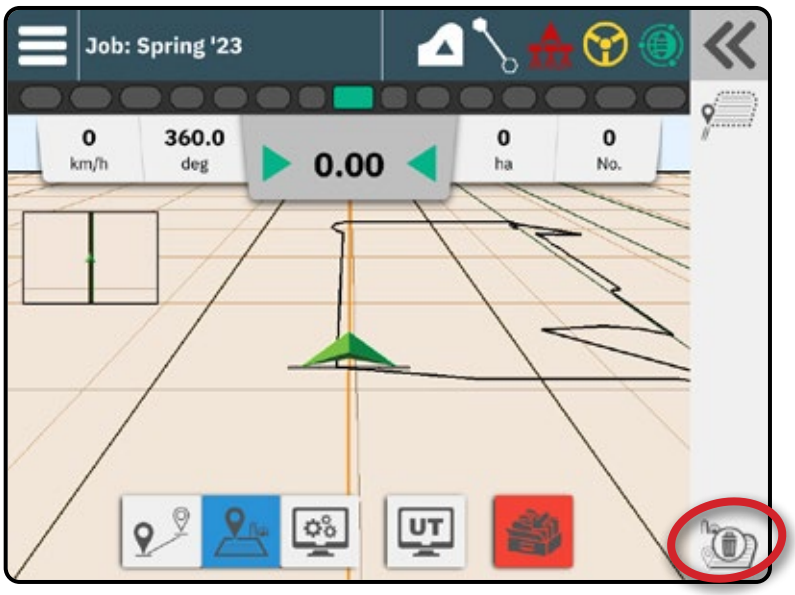



## Delete Last Marked Boundary

Delete Last Marked Boundary (interior or exterior) deletes the last marked boundary from the current job.

Delete Exterior Boundary

Delete Interior Boundary

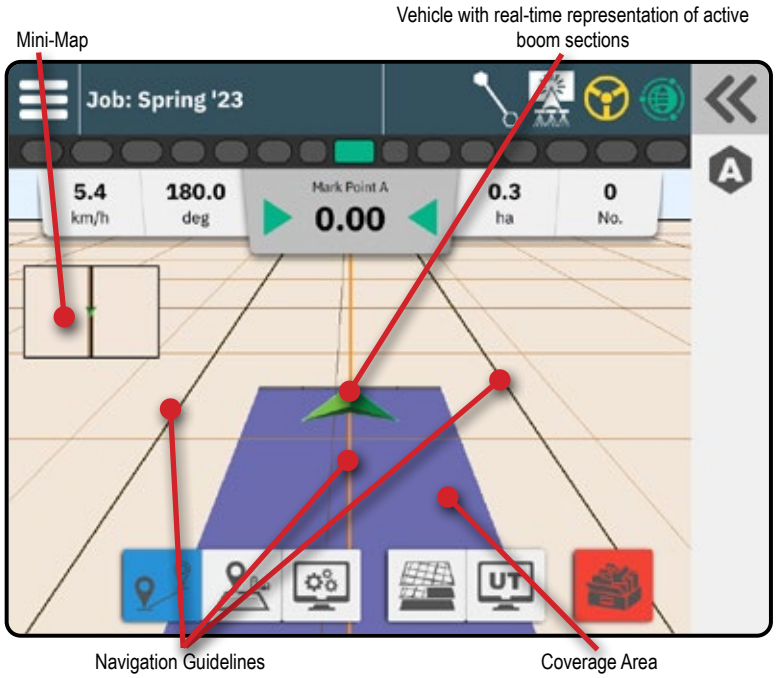


## NO.4 UNDERSTAND MORE ABOUT THE GUIDANCE SCREEN

### Map Options

#### Guideline & Points

- Guidelines
  - ◀Orange – active guidance line
  - ◀Black (multiple) – adjacent guidance lines
  - ◀Black – exterior boundary line
  - ◀Grey – interior boundary line
- Points – markers for established points
  - ◀Blue-Green hexagon – Mark A
- Coverage area – illustrates applied area and overlap:
  - ◀Blue – one application
  - ◀Red – two or more applications




#### Vehicle

Vehicle chevron with real-time representation of active boom sections is touch responsive to start and stop application mapping when an Application Mapping device or a BoomPilot system has been activated.

- Minimum speed – 0.66 m/s / 2.38 km/h
- Sections
  - ◀Empty boxes – inactive sections
  - ◀White boxes – active sections

#### Mini Map

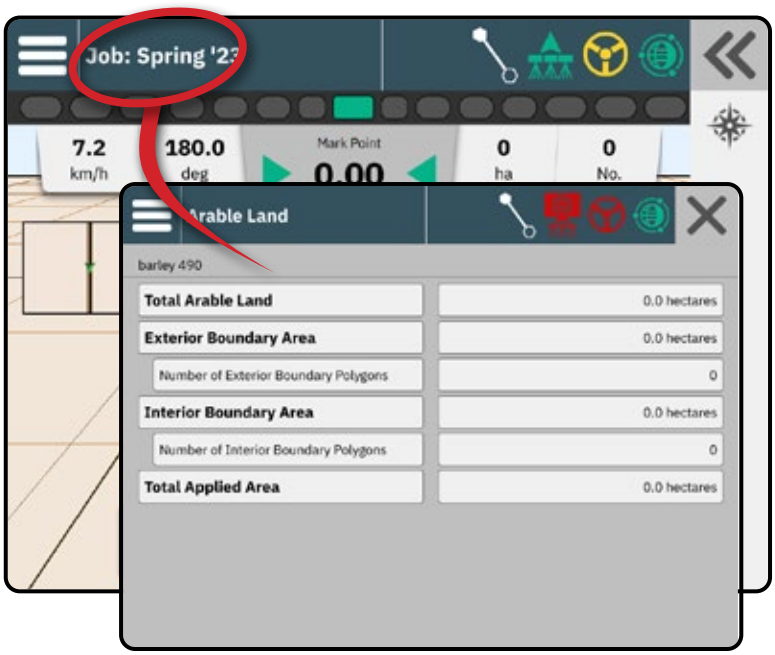
The mini-map provides quick access between Vehicle View and Field View

- ▶ Vehicle View – creates a computer-generated image of the vehicle position displayed in the application area
- ▶ Field View – creates a computer-generated image of the vehicle position and application area from an aerial perspective

### Information & Status Bar

#### Job Boundary & Application Details

Select the job name in the Information Bar to see details on the current job's arable land area.



## Status Bar

The Status Bar provides information on GNSS status, guidance mode, arable land area, assisted/auto steering engagement, and implement control status.

To access related status information, select the Status Bar to displayed available options.

| GNSS Status | |
|---|---|
| | Green = GPS, GLONASS, or SBAS (with or without DGPS Required) |
| | Yellow = GPS only |
| | Red = no GNSS |
| | Orange = Glide/ClearPath |

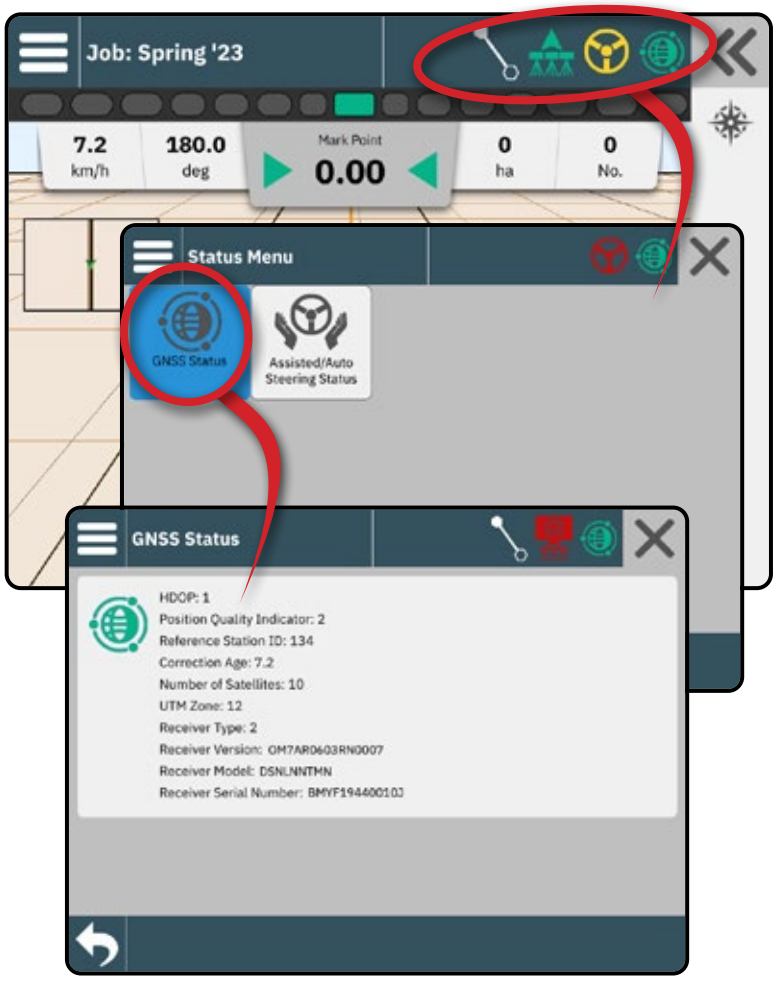
| Guidance Mode | |
|---|---|
| | Straight AB or Azimuth Guidance |
| | Dynamic Adaptive AB Guidance |
| | Circle Pivot Guidance |

| Arable Land Area Status | |
|---|---|
| | Boundary/ Arable Land Area Creation In Progress |
| | Outside Arable Land Area = traveling outside arable land area |
| | Inside Arable Land Area = traveling inside arable land area |

| Application Mapping Status | |
|---|---|
| | White = on |
| | Red = off |

| Assisted/Auto Steering Status | |
|---|---|
| | White = Engaged, actively steering |
| | Yellow = enabled |
| | Red = disabled |

| BoomPilot Status | |
|---|---|
| | Green = Automatic |
| | Red = off/manual |



## Mapping Layers

When a ISOBUS Electronic Control Unit (ECU) sprayer or spreader control is integrated into the implement, rate control options and mapping options are available on the Vehicle View and Field View guidance screens.

Coverage map – shows areas covered by the implement with the sections active. ISOBUS requires product to be applied.

- Coverage area – illustrates applied area and overlap:
  - ◀ Blue – one application
  - ◀ Red – two or more applications

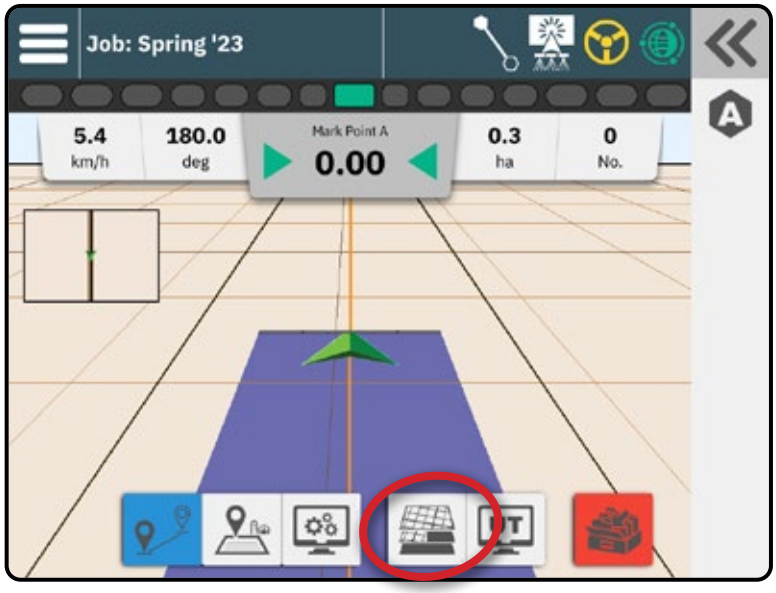
Applied Rates map – shows how much product has been applied and where

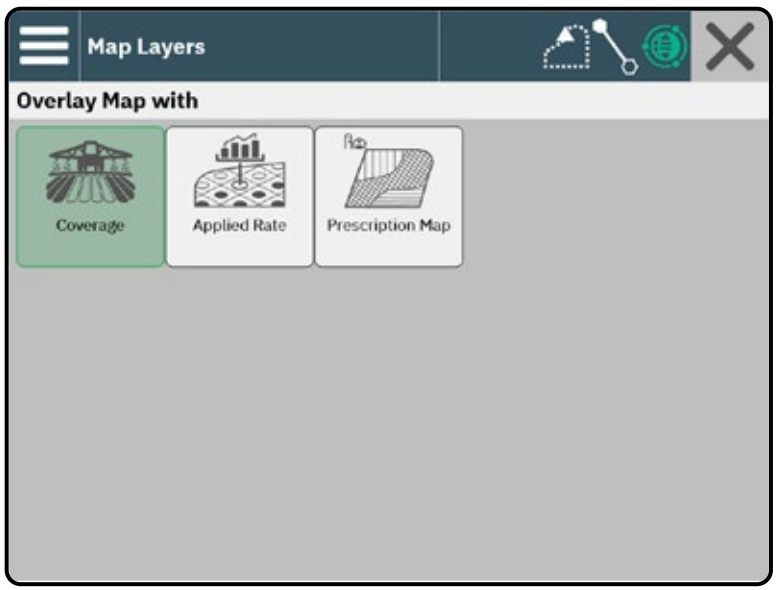
- Coverage area – uses colour to indicate level in proportion to preset or automatically set maximum and minimum levels

Prescription map – shows a pre-loaded map that provides information to the rate controller for use in applying product. Prescription maps contain geo-referenced product rate information.

- Coverage area – uses colour to indicate level in proportion to preset or automatically set maximum and minimum levels

*NOTE: Devices without rate control only create a Coverage map of the application; therefore, the Mapping Layers button on the Feature Bar will not be available with only a Coverage map available.*



## Guidance Bar

### On Screen Lightbar

Used to represent the distance away from the guideline or vehicle.

To configure the lightbar availability, display mode or lightbar spacing, from the Main Menu go to Guidance Settings -> Lightbar.

### Navigation Activity

GNSS Status & Current Activity

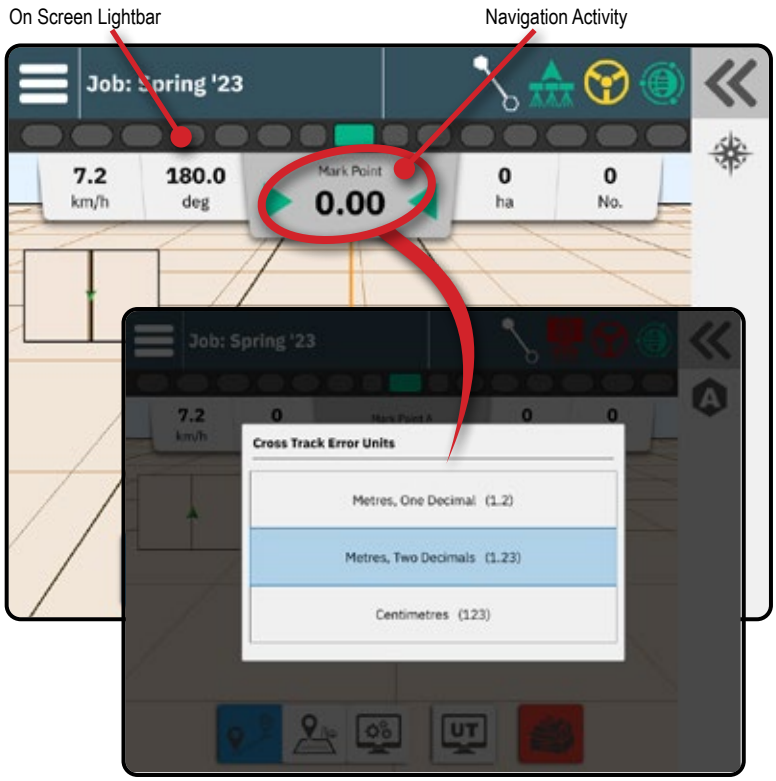
- Displays “No GNSS” when GNSS is unavailable, or “Slow GNSS” when GNSS is receiving GGA data at less than 5Hz.
- Displays activities such as mark an A or B point

*Cross Track Error*

Displays the distance from your desired guideline.

To change the format in which the distance is displayed:

1. Press the Navigation Activity box.
2. Select the measurement format.




### Selectable Job Information

- ▶ Speed – displays the current speed of travel
- ▶ Heading – displays the course of travel based clockwise from a true north baseline. North = 0°, East = 90°, South = 180°, West = 270°.
- ▶ Total Applied Area – displays the total accumulated area that has had product applied, including double-coverage areas
- ▶ Swath Number – displays the current swath number in reference to the initial AB guidance line, facing in the direction from A to B. Number will be positive when the vehicle is to the right of the AB baseline, or negative when the vehicle is to the left of the AB baseline.
- ▶ Nudge Offset – when Assisted/Auto Steering and Assisted/Auto Steering Nudge are both enabled, displays the total accumulated nudge offset distance

## NO.5 APPLICATION MAPPING INSTRUCTIONS

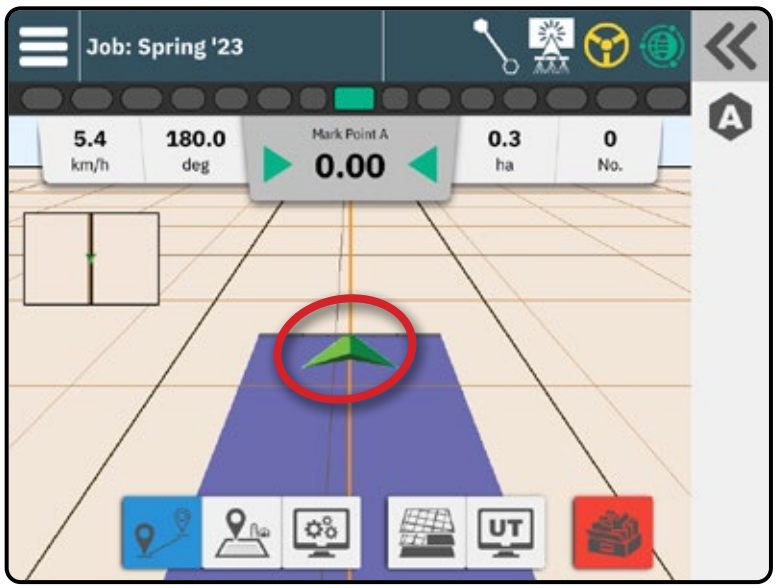
Depending on if there is a section control system present and when present what kind of section control is being used as well as what options are enabled, there are multiple options for application mapping.

This section includes setup options for these configurations:

- Without Section Control Module
- ISOBUS Sprayer
- ISOBUS Spreader
- TeeJet Section Control Module

### Without Section Control Module

If a section control system is not present and an Application Mapping device is active (see "No.4 Establish an Implement through the Device Wizard" on page 18), manual section control with simple application mapping will be available.




The Vehicle Chevron is used to turn application mapping on or off.

- On – application mapping will automatically turn on/off when exiting/entering previously applied areas or boundaries.
  - Applied Alert Status icon is white
- Off – no application mapping.
  - Applied Alert Status icon is red

### ISOBUS Sprayer

If an ISOBUS Electronic Control Unit (ECU) is present, BoomPilot automatic section control and automatic application mapping will be available.

All ISOBUS rate control configurations should be setup before starting a job.

- Sprayer with a Switchbox – Setting to either Automatic or manual regulation mode on the ISOBUS device will not affect functionality of BoomPilot. Switchbox master switch and section switches must be in the “On” positions.
- Sprayer with an ISOBUS Implement Status Module (ISO ISM) – Regulation mode on the ISOBUS device should be set to “Manual”.

The Vehicle Chevron is used to turn BoomPilot Automatic Application Control on or off.

- On – application will automatically turn on/off when exiting/entering previously applied areas or boundaries. Master Switch and section switches must be in the ON position.
  - BoomPilot Status icon is green
- Off – application is controlled manually using the Master Switch or Start/Stop key on the ISOBUS Operation screen.
  - BoomPilot Status icon is red

*NOTE: Application can be manually controlled while in Automatic BoomPilot mode using the master switch or individual section switches.*

*Caution: With some versions of ISOBUS software, while in a previously applied area, manually changing a section switch will change BoomPilot to manual mode. Therefore, if a switch remained in the on position after exiting the applied area, it would remain off.*

## ISOBUS Spreader

If an ISOBUS Electronic Control Unit (ECU) is present, BoomPilot automatic section control and automatic application mapping will be available.

All ISOBUS rate control configurations should be setup before starting a job.

- Spreader, Console Only – Regulation mode on the ISOBUS device should be set to “Manual”.
- Spreader with Optional Spreader On/Off Switch – Automatic or manual regulation mode on the ISOBUS device should not affect the following options.

The Vehicle Chevron is used to turn BoomPilot Automatic Application Control on or off.

- On – application will automatically turn on/off when exiting/entering previously applied areas or boundaries. Spreader On/Off Switch must be in the ON position.
  - BoomPilot Status icon is green
- Off – application is controlled manually using the Spreader On/Off Switch or Start/Stop key on the ISOBUS Operation screen.
  - BoomPilot Status icon is red

*NOTE: Application can be manually controlled while in Automatic BoomPilot mode using the Start/Stop key on the ISOBUS Operation screen or the Optional Spreader On/Off Switch.*

## TeeJet Section Control Module

Before starting a job, all Section Control Module configurations should be setup by creating and activating a TeeJet CAN device (see "No.4 Establish an Implement through the Device Wizard" on page 18).

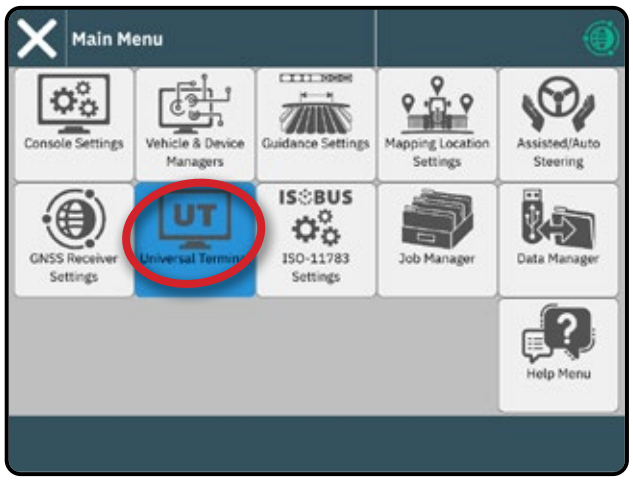
- Section Control Module with a Switchbox or ISM – SmartCable, Section Driver Module (SDM) or Switch Function Module (SFM) and a switchbox or Implement Status Module (ISM) is present. Automatic/manual boom switch must be in the “Auto” position.
- Section Control Module only – SmartCable, Section Driver Module (SDM) or Switch Function Module (SFM) is present.

The Vehicle Chevron is used to turn BoomPilot Automatic Application Control on or off.

- On – application will automatically turn on/off when exiting/entering previously applied areas or boundaries. Master Switch and section switches must be in the ON position.
  - BoomPilot Status icon is green
- Off – application is controlled manually using the Master Switch or section switches.
  - BoomPilot Status icon is red

*NOTE: Application can be manually controlled while in Automatic BoomPilot mode using the master switch or individual section switches.*

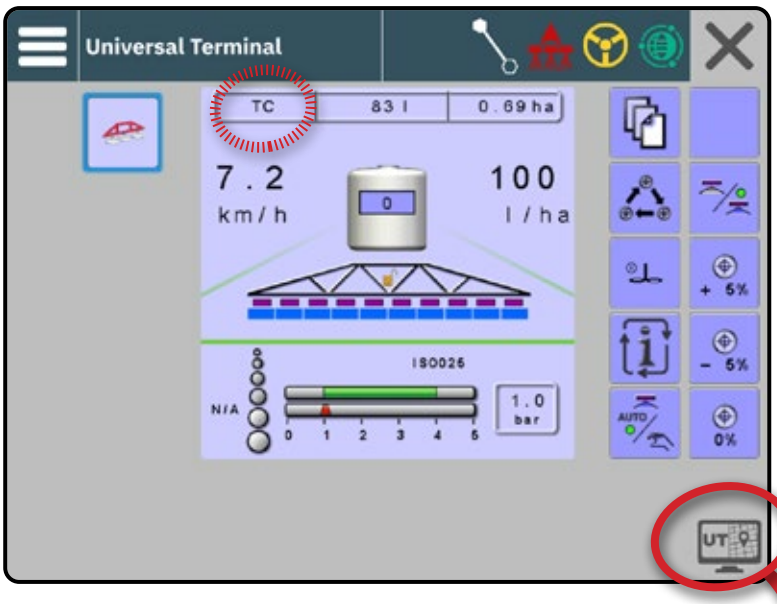
## ACCESS THE UNIVERSAL TERMINAL


When a Universal Terminal unlock has been activated, the Universal Terminal (UT) is accessible from either the Guidance Screen or Main Menu ☰.

*NOTE: An ISOBUS device requires the Universal Terminal which requires an unlock code. See "No.3 Enter Available Unlocks" on page 17 for details.*


TwinView – use to display both UT and guidance information




### *Universal Terminal Alert Acknowledgement*

To acknowledge an alert on the Universal Terminal while in TwinView, first select the UT side of the screen.

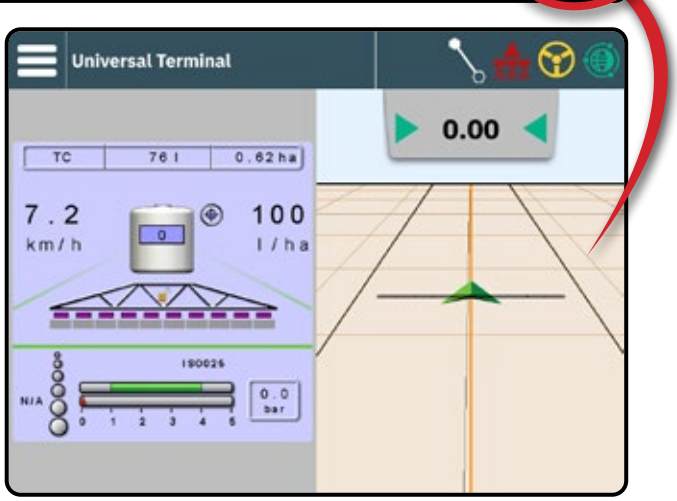
### Ready for Operation

Upon starting up the system, an ISOBUS product may take a few minutes to load all required information or object pools.

Before starting a job, check to be sure the ISOBUS ECU is ready.

- Home Screen is available
- Task Control (TC) is active – Active Trip Count Number should show "TC"

*NOTE: For detailed setup instructions, refer to the specific ISOBUS user manual for the connected ECU.*



## HELP OPTIONS


### About

Displays the console identification numbers, system software version, language update version, software versions of modules connected to the CAN bus, how much disk space is remaining, and GNSS status information.

### User Guide

Provides a QR Code to access this user guide online.

### Product Registration

Provides a QR Code to register your console.

Take note of your serial number on the back of the console. It is required for product registration.

### Feature Unlock

Before using some features or options, it is necessary to activate the function with an unlock code. The unlock code is a unique code for each feature and console.

See "No.3 Enter Available Unlocks" on page 17 for details.

# MATRIX® 908

GETTING STARTED



TeeJet® TECHNOLOGIES

A Subsidiary of Spraying Systems Co.®

www.teejet.com


98-01578-EN-A4/LT R3 English International




## User Manual

This guide is intended to get a user started with a general overview of the console. For more detailed information, please reference the User Manual. Scan below to access the User Manual which is accessible under the Field Computer options.