Refer to this manual before installing the AutoSteer system

**Challenger and Fendt Vehicles**

**Supported Models**

<table>
<thead>
<tr>
<th>Challenger</th>
<th>Fendt</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT738</td>
<td>938 MT</td>
</tr>
<tr>
<td>MT740</td>
<td>940 MT</td>
</tr>
<tr>
<td>MT743</td>
<td>943 MT</td>
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</table>
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Introduction

This manual provides an overview of and basic information on the installation of an AutoSteer system (‘AutoSteer’) on Challenger MT700 and Fendt 900 Vario MT series vehicles. Read this manual before beginning the installation as it provides the warnings and cautions that you need to recognize and understand before installing or operating AutoSteer.

The manual provides parts details and step-by-step installation instructions for the vehicle-specific kit and references to related sub-kits.

Before installing and operating AutoSteer, read and understand the AutoSteer Operator’s Manual that comes with AutoSteer. That manual provides AutoSteer operating instructions and safety information.

Legal Disclaimer

Notes:

(i) Read and follow ALL instructions in this manual carefully before installing or operating the AutoSteer system.

(ii) Heed all the safety information in ‘Safety Information – Warnings and Cautions’ (starting on the next page) and the additional safety messages provided throughout this manual and any other supplemental material provided.

The manufacturer disclaims any liability for damage or injury that results from the failure to follow the instructions, cautions, and warnings set forth herein.

About Autosteering:

1. There is NO obstacle avoidance system included with the manufacturer’s product. There must always be a human in the operator’s seat of the vehicle when AutoSteer is in use to look for obstacles including people, animals, trees, ditches, buildings, and to take manual control of the vehicle to avoid them if necessary.

2. AutoSteer does NOT control the speed of the vehicle. The operator must always adjust the speed of the vehicle manually so that it is operated at a safe speed that will not cause the vehicle to roll over or go out of control.

3. AutoSteer will take control of the vehicle’s steering system when it is activated during testing, calibration, tuning, and automatic steering operations. The vehicle’s steering axles, tracks, articulation point, or wheels may move unpredictably when activated. Before starting the vehicle and/or activating AutoSteer, ensure that people and obstacles are clear of the vehicle to prevent death, injury, or damage to property.

4. Use of AutoSteer is NOT permitted while the vehicle is on public roads or in public areas (‘roading’). Ensure that the system is powered OFF before driving on roads or in public areas.
The AutoSteer installer and manufacturer disclaim any responsibility for damage or physical harm caused by failure to adhere to the following safety requirements:

- As the operator of the vehicle, you are responsible for its safe operation.
- The steering system is *not* designed to replace the vehicle’s operator.

*Note:* After installing AutoSteer, ensure all the screws, bolts, nuts, and cable connections are tight. If any hydraulic lines or fittings were disconnected or loosened during installation, ensure they have been reattached and tightened to prevent oil leaks. Ensure all cables and hoses have been secured to prevent them from being damaged.

### WARNING

<p>| ![Book Icon] | To understand the potential hazards associated with the operation of an AutoSteer equipped vehicle, read the provided documentation before installing or operating the AutoSteer system. |
| ![Car Icon] | To prevent accidental death or injury from being run over by the vehicle or automated motion of the steering system, never leave the vehicle’s operator seat with AutoSteer engaged. |
| ![Car Icon] | To prevent accidental death or injury from being run over by the vehicle verify that area around the vehicle is clear of people and obstacles before startup, calibration, tuning, or use of AutoSteer. |
| ![Exclamation Mark Icon] | To prevent the accidental engagement of AutoSteer and loss of vehicle control while driving on roads, shut down AutoSteer. Never drive on roads or in public areas with AutoSteer powered up. |
| ![Stair Icon] | To prevent accidental falls, maintain a stable position on the vehicle’s platform or stairs when installing or removing the GPS antenna. If the vehicle does not provide a safe platform, use a ladder to safely access the vehicle’s roof. |
| ![Electrical Hazard Icon] | To avoid electrical shock hazards, remove the GPS antenna and/or other antennas from the vehicle before driving under low structures or low electrical power lines. |
| ![Gears Icon] | If the installation requires work on the vehicle’s hydraulic system, read and understand the hydraulic sections of the vehicle manufacturer’s operator manual before starting the installation. Wear hand and eye protection while performing hydraulic system maintenance. Relieve hydraulic system pressure before servicing the hydraulic system. |
| ![Warning Triangle Icon] | If the vehicle has a wheel angle sensor as part of the installation, because the steering mechanism could move suddenly and cause severe injury or death, always shut off the vehicle when working around the steering axle while installing, checking, and adjusting the wheel angle sensor and rod lengths. |</p>
<table>
<thead>
<tr>
<th><strong>CAUTION</strong></th>
</tr>
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<tbody>
<tr>
<td>![Warning Icon]</td>
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<tr>
<td>![Warning Icon]</td>
</tr>
<tr>
<td>![Warning Icon]</td>
</tr>
<tr>
<td>![Warning Icon]</td>
</tr>
<tr>
<td>![Warning Icon]</td>
</tr>
</tbody>
</table>
Installation Requirements

Standard tool requirements

The installer needs to have a complete set of common installation tools that includes:

- Imperial and metric open-end wrenches (both standard size and stubby lengths for tight fits)
- Imperial and metric sockets, extensions, and ratchet
- Imperial and metric Allen wrenches
- Flat and Philips screwdrivers
- Torx drivers
- 1/4" nut driver
- 2 mm Allen wrench
- Metal hacksaw
- Sidecutters
- Step ladder, 10 ft (3 m)
- Tape measure, 13 ft (4 m) minimum
- Wire puller

The installer will also need the following supplies and additional tools to complete the installation:

- Cleaning rags, abrasive cleaning pads and brushes
- Alcohol pads or other cleaning solution to ensure oil and dirt are removed from surfaces before gluing them
- Oil pan or bucket when working with hydraulic lines
- Spill absorbent to contain any spills
Vehicle requirements

Before installing AutoSteer, ensure the following:

- If the vehicle is equipped with a factory-installed steering system (ex. AutoTrac Ready\(^1\), AccuGuide Ready\(^2\), IntelliSteer Ready\(^3\), AutoGuide\(^2\) Ready\(^4\), VarioGuide Ready\(^5\), Agrosky Ready\(^6\)), verify with the vehicle manufacturer’s service representative that the factory-installed components (for example, steering valve, steering wheel encoder, wheel angle sensor) have been installed on the vehicle.

(i) Verify that the factory-supplied components have been calibrated and set up by the vehicle manufacturer’s service provider before installing AutoSteer.

(ii) A poor calibration will result in poor AutoSteer performance. The steering valve and wheel angle sensor, in particular, must be fully calibrated either at the factory or by the Challenger dealer (calibration can be completed using the A-post user interface in the cab). Consult your vehicle dealer on any issues relating to the servicing and calibration of factory steering components. If you have any doubts or performance issues, following the procedure recommended by your vehicle manufacturer, complete your own full steering component calibration.

- The vehicle’s steering system is in good working order. Drive the vehicle to verify that there is no play in the steering and that the vehicle turns proportionally the same to the left and right.

- The vehicle’s electrical system and battery are in good working order.

- The vehicle has been fully cleaned. A clean vehicle will improve the overall installation and cable routing and reduce the chance for oil contamination if hydraulic connections are opened. If installing hydraulic components, it is essential to clean the area around the steering unit (Orbitrol), under the cab, behind the rear cab cover, and at all the hydraulic connections.

Any defects with the vehicle must be repaired by a qualified service person before the AutoSteer installation is begun.

Notes:

(i) This installation manual, vehicle-specific installation manuals, and sub-kit manuals contain valuable information for servicing the AutoSteer system. After the installation is complete, store all these manuals in a safe place for future reference.

(ii) When the installation is completed, complete the Final Hardware Installation Checklist on page 22 and save the checklist with the installation manuals for future reference.

Technical Support and Contact Information

For technical support and contact information, refer to your display’s operator manual.

---

\(^1\)AutoTrac is a registered trademark of John Deere

\(^2\)AccuGuide is a registered trademark of Case IH

\(^3\)IntelliSteer is a registered trademark of New Holland

\(^4\)AutoGuide\(^2\) is a registered trademark of AGCO

\(^5\)VarioGuide is a registered trademark of Fendt

\(^6\)Agrosky is a registered trademark of Same DeutzFahr
**Vehicle Inspection**

Before installing AutoSteer, confirm that the vehicle and its steering system are in good working order by driving it. In addition:

- Verify that you can turn the steered wheels from lock to lock.
- Record the time it takes to manually turn the vehicle’s steering mechanism (for example, steering axle, articulation point) from lock to lock (both directions) as fast as you can. This will be used later to ensure steering performance is satisfactory.
- Verify the vehicle steers straight and does not pull to one side when driving in a straight line.
- Check that there are no oil leaks.
- Check for loose or worn steering components.

Any defects with the vehicle must be repaired by a qualified service person before the AutoSteer installation is begun.
Installation Overview

Supported Models
The AutoSteer installation kit (part number 811-0009-01) provides instructions on installing AutoSteer—on the vehicles specified on the front cover—for the easiest installation and best performance.

Note: The installer can install AutoSteer differently than how the manufacturer suggests; however, the components that are called out in this manual may not fit properly or cables and hoses may not be long enough with alternative mounting solutions. If the installer modifies the installation procedure, it is the responsibility of the installer to ensure that specific orientation and mounting requirements of all components are met.

Kits Overview
The kits/components required to complete the AutoSteer installation are described below. Use this section to check that you have all the kits/components required.

Note: Part numbers provided in this manual are subject to change without notice. They are provided as a reference at the time of writing. If spare parts are needed, check with your AutoSteer dealer that part numbers are still valid.

The following items are assumed to be available for the installation from an AutoSteer kit that has been purchased separately and are not part of the AutoSteer vehicle-specific kit. This information is provided here for reference only.

**GPS receiver with antenna**
A GPS receiver and a matching antenna provide the longitude and latitude position of the vehicle.

**Steering electronic control unit (ECU)**
The steering controller, using the position information from the GPS receiver, steers the vehicle on the desired path, using terrain compensation and other sensors for higher steering accuracy. This manual includes the installation of the ECU mounting bracket, the installation of the ECU on its bracket and sections on cabling connections.

**Display kit**
AutoSteer is compatible with multiple models of displays. The display power and communication cables are supplied with the display’s installation kit—AutoSteer receives its power and activation signal from these cables. It is assumed these parts are available for the installation.

Note: If the display kit components have been installed on another vehicle and this kit is being installed as a switch kit, a display harness and display power harness, additional to those in the vehicle-specific kit, should be ordered so they can be left on the vehicle to allow easier switching of components from vehicle to vehicle.

**Vehicle installation kit**
The AutoSteer vehicle installation kit (part number 811-0009-01) provides all the components required to install AutoSteer on the specified vehicles. The kit provides parts details and step-by-step installation instructions for the vehicle-specific kit and references to any related sub-kits.
AutoSteer Vehicle-specific Kit 811-0009-01

Figure 1-1 AutoSteer vehicle-specific kit components – schematic

Table 1-1 AutoSteer vehicle-specific kit components

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Part Number</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Installation manual (this document *)</td>
<td>875-0411-01</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>ECU bracket (from kit 200-0675-01 *)</td>
<td>202-0484-01</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Bolts, M10x1.5x25, Gr8.8, ZP (from kit 200-0675-01)</td>
<td>513-0055-01</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Washers, flat (from kit 200-0675-01 – use 4 of 12)</td>
<td>517-0001-01</td>
<td>4 (12)</td>
</tr>
<tr>
<td>5</td>
<td>Screws, washerhead (from kit 200-0675-01)</td>
<td>514-0151-01</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Assembly, dummy connector, 30-pin</td>
<td>201-0566-01</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Cable, CAN ISO BUS 3 m</td>
<td>201-0504-03</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Cabling ties and clips, set</td>
<td>200-0076-01</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Label, ‘Attention’ switch off, set (of four)</td>
<td>603-0074-01</td>
<td>1</td>
</tr>
</tbody>
</table>

* Kit 200-0675-01 is suitable for multiple vehicles and has its own installation manual. For this installation, follow the instructions on pages 11 and 12 of this installation manual (875-0411-01).
Installation Procedure Overview

The AutoSteer installation comprises the activities listed below; for more detailed instructions of each step, follow the procedures detailed in the related section of this manual or the instructions provided with the relevant component.

1. **Kit verification** – check the contents of all kits, ensure they are right of your installation.

2. **Display** – follow the instructions in the display kit’s installation manual and user manual.
   
   *Note: AutoSteer can be matched with multiple displays. Follow the instructions that come with your display when installing it and connecting its harnesses to the vehicle for AutoSteer and power.*
   
   a. Install the display using the RAM mount (if necessary)
   
   b. Install the display harness
   
   c. Install the power harness for the display
   
   *Note: Refer to the “Installing and Connecting the AutoSteer Harnesses” chapter in this manual for information about locating and accessing the battery or other power source.*

3. **ECU installation and harness connections** – refer to the “Installing and Connecting the AutoSteer Harnesses” chapter in this manual. Route the harness connections from the AutoSteer ECU’s left connector to each of the following and connect (see the display’s operator manual for instructions):
   
   a. The display and/or display harnesses
   
   b. The power activation connection
   
   c. A power supply

4. **Final hardware verification** – verify that all the bolts have been tightened, electrical and hydraulic connections are securely connected, and that all hoses and cables have been routed safely and secured to the frame of the vehicle away from moving parts with cable ties.
   
   a. Fill out the Vehicle Profile Worksheet on page 19
   
   b. Power ON AutoSteer
   
   c. Create a new vehicle profile

5. **Final vehicle setup** – see the “Post-Installation Procedures and Information” chapter.
   
   a. Calibrate the vehicle
   
   b. If necessary, tune the vehicle to improve performance
   
   c. Ensure all components have been correctly installed and all connections correctly made; ensure AutoSteer operates as it should

6. **Final information record and checklists** – add required information and complete the two checklists at the end of this manual.
Installing and Connecting the AutoSteer Harnesses

When routing harnesses, route them clear of moving parts and sharp objects. Secure the harnesses with cable ties or clips to ensure they are not damaged.

Once the ECU is installed (at the next step), for connection details, see:

- “Connections at the ECU”, page 12
- “AutoSteer Cabling Connections”, page 13
- “Connecting to the Vehicle’s CAN”, page 14
- “Supplying Power to AutoSteer”, page 16
- Your display’s connection documentation as required

Installing the ECU mounting bracket and the ECU

The ECU must be mounted in a place that is solid to the frame or cab of the vehicle. It must not move independently of the vehicle (so, for example, cannot be sitting loose on the cab floor). The mounting point must be vibration free.

1. Locate the two bolts securing the operator’s seat on the right side (lift the convoluted rubber) and remove them.

2. Using bolts (item 3), with a washer (item 4) above and below ECU mounting bracket (item 2), install the bracket, angled edge rearward.
3. Using the supplied washerhead screws (item 5), install the ECU on top of the bracket with its sockets to the rear (shown connected at right).

Connections at the ECU

The AutoSteer ECU has two connection ports—for the main harness and the dummy connector (Figure 2-1). The ports are keyed to ensure against incorrect connections.

Because this installation connects to the CAN bus of the vehicle, the vehicle-specific ECU harness is not used. Installation of dummy connector PN 201-0566-01 (item 6 on page 8) protects the unused terminals on the ECU.

Note: The optional remote engage harness (PN 201-0563-01) can be connected instead of the dummy connector if the optional foot switch (PN 201-0376-01) or some other remote engage switch is to be connected.

Never force the connectors; the connectors should easily slide into place. Forcing a connector may cause damage.

Connect the main harness to the left port (as viewed in Figure 2-1) and the dummy connector to the right port. Secure with the center screws.
AutoSteer Cabling Connections

Component definitions:

- **Display** – the display that is connected to AutoSteer (not shown)
  
  *Note: AutoSteer can be connected to multiple models of displays. Refer to the display’s user manual for more detailed instructions on how to connect AutoSteer to the display data and power ports.*

- **Battery** – the battery terminals for the power source for AutoSteer and the display (see Figure 2-4, page 16)

- **AutoSteer control unit** – the AutoSteer ECU

- **GPS antenna** – the GPS antenna and optional radio modem kits mounted on the roof (not shown)

- **Foot switch * – the optional foot switch that can be used for remote engage (not necessary for installation)

- **CAN bus cable** – connects to the vehicle’s factory CAN 1 circuit.

**Figure 2-2  ECU cabling connections**
Connecting Other AutoSteer Harnesses

Refer to the manuals and documentation provided with the other components of your AutoSteer system to complete all necessary cable connections. Typically, a display and a steering controller are required to complete the installation, and they each have their own specific cables and installation instructions (see ‘Connecting to the Vehicle’s CAN’ below).

Connecting to the Vehicle’s CAN

For this installation AutoSteer is connected to the vehicle's CAN bus system and sends steering commands directly to the vehicle. The vehicle then takes this information to control the steering of the vehicle. AutoSteer does not communicate directly with the vehicle's steering valve or wheel angle sensor in this installation.

Figure 2-3  CAN bus cable – ECU to vehicle (see also Figure 2-2, page 13)

Connect CAN bus cable 201-0504-03 (item 7 on page 8) between the 4-pin CAN B connector on the main ECU harness and the vehicle’s 9-pin CAN bus connector.
Installing the CAN Cable

Install the CAN cable (item 7) as indicated in Figure 2-3 on the previous page, that is, between the ECU harness’s CAN B connector and the vehicle’s CAN1 connector.

1. Locate the capped 9-pin socket connector in the connections panel in the cab roof (at either front right or rear right – rear shown; capped and uncapped).

2. Connect CAN cable (item 7) to the 9-pin socket (at right the left image is the rear connection; the right image, the front connection).

   Note: You can achieve good cable-tied routing from the front connection. Step 3 describes routing from the front connection.

3. Route the CAN cable down the pillar and tuck it rearward under/along the floor mat bringing it out near the ECU’s main cable. Connect the cable to the ECU main cable’s CAN B connector.
Supplying Power to AutoSteer

The AutoSteer ECU must be connected to a 12 V uninterrupted power supply. In most situations, a display kit will include a harness for connecting to the battery directly (or to a battery harness). The AutoSteer ECU must also be connected to a power activation signal from the display so that when the display is powered up, a signal commands the ECU to power up. Refer to your display’s documentation for information on connecting the display and AutoSteer to a power source and a power activation signal. Figure 2-4 shows an example of a typical power connection scenario to the battery.

Accessing Vehicle Battery Power

The AutoSteer system and display need to be powered from the vehicle’s battery—the display either directly or indirectly, see note following.

Note: Unless your display documentation specifically recommends or instructs otherwise, AgJunction strongly recommends connecting the display, with the ECU, directly to the vehicle’s battery. This eliminates any possible grounding or low power issues.

Locate the battery in its compartment under the hood behind the front counterweights. Connect the battery harness, connecting the display and the ECU to the battery—but see note above.

Route the cable down the right side of the vehicle (starting at the bottom right image at right).

Note: You can route cables into/out from the cab through one of the plugged channels at the right rear of the cab.
Post-Installation Procedures and Information

When the AutoSteer installation is complete (as detailed in this guide and the sub-kit guides), follow the procedures and notes in this section to prepare the vehicle for full AutoSteer capabilities.

**Installing Warning Label(s)**

In an easy-to-read position on the cab window that does not obscure the operator’s view, install the warning label. Install the warning in the language in or that best matches the operators’ language. Install the warning in multiple languages (of four) if necessary.

*Figure 3-1  AutoSteer Warning Label*
Creating a New Vehicle Profile

The operator must first create a new vehicle profile. This configures the steering system hardware so the display can properly communicate with the various sensors and components on the vehicle. Enter all the appropriate information for setting up the vehicle.

1. Ensure the vehicle is in park and/or the park brake is set to prevent the vehicle from moving.
2. Ensure the engine is not running; do not start the vehicle yet.
3. Power up AutoSteer (turn the key to the ‘run’ position but do not start the engine).
4. Follow the instructions in the display’s operator manual to create a new vehicle using the Setup Wizard.
   
   Note: Select AccuGuide or IntelliSteer as the controller for the specific vehicle model when setting up your vehicle on the AutoSteer display.

5. When the system reaches the Auto Calibrate screen, press the Exit Screen Arrow to exit the procedure and save the vehicle information.

Calibration and Tuning – Guidelines

Notes:

(i) For optimal steering performance, AutoSteer must be fully calibrated and then tuned (see also critical notes (i) and (ii) nearer the top of page 6).

(ii) The vehicle must be in gear and moving for AutoSteer to engage. If the vehicle is stationary, you will get a ‘user turning wheel’ error message.

(iii) You can engage AutoSteer using the engage button on the display or by using the factory remote engage switch.

1. Start the vehicle and move it to an open area.
2. Power up AutoSteer.
3. Follow the instructions in the display’s operator manual to navigate to the Vehicle tab from the AutoSteer Setup screen. The current vehicle should have already been set up and selected during the Create New Vehicle section, if not, select the current vehicle profile in the Manage Vehicles screen.
4. From the Vehicle tab of the AutoSteer Setup screen, press the Auto Calibrate button. Follow the on-screen procedure to calibrate the vehicle.
5. If additional performance is required, follow the instructions provided by the display’s operator manual to tune the vehicle after calibration has completed (under normal circumstances this will not be necessary). See note (i) above.
# Vehicle Profile Worksheet

## Units Used

- □ Inches
- □ Feet
- □ Centimeters
- □ Meters

## GPS Antenna Location

<table>
<thead>
<tr>
<th>Location</th>
<th>Fore/Aft</th>
<th>Left/Right</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="GPS Antenna" /></td>
<td><img src="image2.png" alt="Measurement Diagram" /></td>
<td><img src="image3.png" alt="Measurement Diagram" /></td>
<td><img src="image4.png" alt="Height Diagram" /></td>
</tr>
</tbody>
</table>

**Measurements:**
- Fore
- Aft
- Left
- Right

## Electronic Control Unit Location

<table>
<thead>
<tr>
<th>Location</th>
<th>Fore/Aft</th>
<th>Left/Right</th>
<th>Height</th>
</tr>
</thead>
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<tr>
<td><img src="image5.png" alt="ECU Location" /></td>
<td><img src="image6.png" alt="Measurement Diagram" /></td>
<td><img src="image7.png" alt="Measurement Diagram" /></td>
<td><img src="image8.png" alt="Height Diagram" /></td>
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**Measurements:**
- Fore
- Aft
- Left
- Right

## Direction of Arrows

<table>
<thead>
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<th>X Arrow</th>
<th>Y Arrow</th>
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<td><img src="image10.png" alt="X Arrow" /></td>
<td><img src="image11.png" alt="Y Arrow" /></td>
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</table>

## Electronic Control Unit Orientation

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<th>X Axis</th>
<th>Y Axis</th>
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<td><img src="image12.png" alt="Orientation Diagram" /></td>
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<td><img src="image14.png" alt="Orientation Diagram" /></td>
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</table>

## Draw Orientation of Electronic Control Unit for all Three Directions and Angle Measured

<table>
<thead>
<tr>
<th>Orientation</th>
<th><img src="image15.png" alt="Orientation Diagram" /></th>
<th><img src="image16.png" alt="Orientation Diagram" /></th>
<th><img src="image17.png" alt="Orientation Diagram" /></th>
</tr>
</thead>
</table>
Final Installation Checklists – Hardware and Performance

After the completion of the AutoSteer installation, enter the required information below then complete the **Final Hardware Installation Checklist** and the **Final AutoSteer Performance Checklist** on the next page. Use the checklists to confirm that all steps have been completed and create a record of important system information.

Vehicle Model: ______________________________ Year: _________ Serial #: __________________________

Customer Name: _________________________________________________________________________________

Location/Address: ________________________________________________________________________________

AutoSteer Installation Kit Part Number: _______________________________________________________________

Notes:
_______________________________________________________________________________________________
_______________________________________________________________________________________________
_______________________________________________________________________________________________
_______________________________________________________________________________________________
_______________________________________________________________________________________________
_______________________________________________________________________________________________
_______________________________________________________________________________________________
_______________________________________________________________________________________________

Name of Installer:________________________________________   Date: _________________________________
Final Hardware Installation Checklist

1. Display bracket and display installed and all fasteners are tight.
   
2. GPS antenna is installed.
   
3. AutoSteer ECU installed firmly to frame and all fasteners are tight.
   
4. All cable ends and terminations are connected.
   
5. All cables are secured with cable ties.

Final AutoSteer Performance Checklist

1. Manual steering speed from lock to lock is satisfactory.  
   Value _____ sec
   
2. AutoSteer steering speed from lock to lock is satisfactory.  
   Value _____ sec
   
3. Wheel angle sensor counts recorded.  
   Left
   Center
   Right
   
4. Manual kick-out is working when the steering wheel is turned.
   
5. AutoSteer system calibration completed.
   
6. AutoSteer system tuning completed (if necessary).
   
7. Line acquisition steering performance is satisfactory.
   
8. On-line steering performance is satisfactory.

Print per Specification #953-0001-01.