
AutoFarm GPS AutoSteer Hardware Installation Guide



Supported Models: Cat Challenger 35, 45, 55



Special Requirements

Tools

This list consists of special tools that are not normally needed. A complete set of common installation tools is assumed. If you find that you are using special tools, please notify Documentation@Novariant.com.

- Metric open wrenches
- Metric socket wrenches up to 24mm
- Soft brush

Attention

Tighten all screws, bolts, nuts, and cable connections after the final assembly of the AutoFarm Steering System on the vehicle.

Technician Feedback

Please contact Novariant via email to [**Documentation@Novariant.com**](mailto:Documentation@Novariant.com) with:

- outdated pictures or instructions
- tips for other installers
- general comments or suggestions

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1. Install Roof Module

1.1 Safety Notes

The AutoFarm system must be powered OFF when installing or removing the roof module.

The supplied locking pin or a padlock must be in place whenever the vehicle is in operation.

The roof module must be removed when transporting the vehicle at speeds above 30 mph.

Make sure that you are in a stable position on the tractor platform when removing the roof module, so that you do not fall or drop the roof module.

1.2 Install the Mounting Rail

Remove the cab roof bolts.



Align the mounting rail to mounting holes and fasten the mounting rail to the roof. The lettered holes should be on the left side of the tractor.



1.3 Mount the Roof Module

Slide the roof module into locked position. The cable connection must be on the left side of the tractor, facing the rear.



cable connector

Make sure that the spring lock is in place.



locked position

Insert and close the locking pin through the holes in the roof module and the mounting rail. Note that a padlock can replace the locking pin.

locking pin



Attach the radio modem antenna. Note: The antenna should be attached “hand tight” - do not use any tools to tighten the antenna.



2. Install the User Terminal

2.1 Assemble and Mount the User Terminal Bracket

Mount the bracket assembly.



2.2 Mount and Adjust the User Terminal

Attach the adjustable arm to the user terminal.

mounting plate



Remove the travel stop on the bracket assembly.



Install user terminal arm onto the cab bracket.



Replace the travel stop.



Tighten the arm onto the bracket.



Adjust arm tightness.



Adjust user terminal viewing angle.



3. Mount the Hydraulic Valve

3.1 Install the Hydraulic Valve

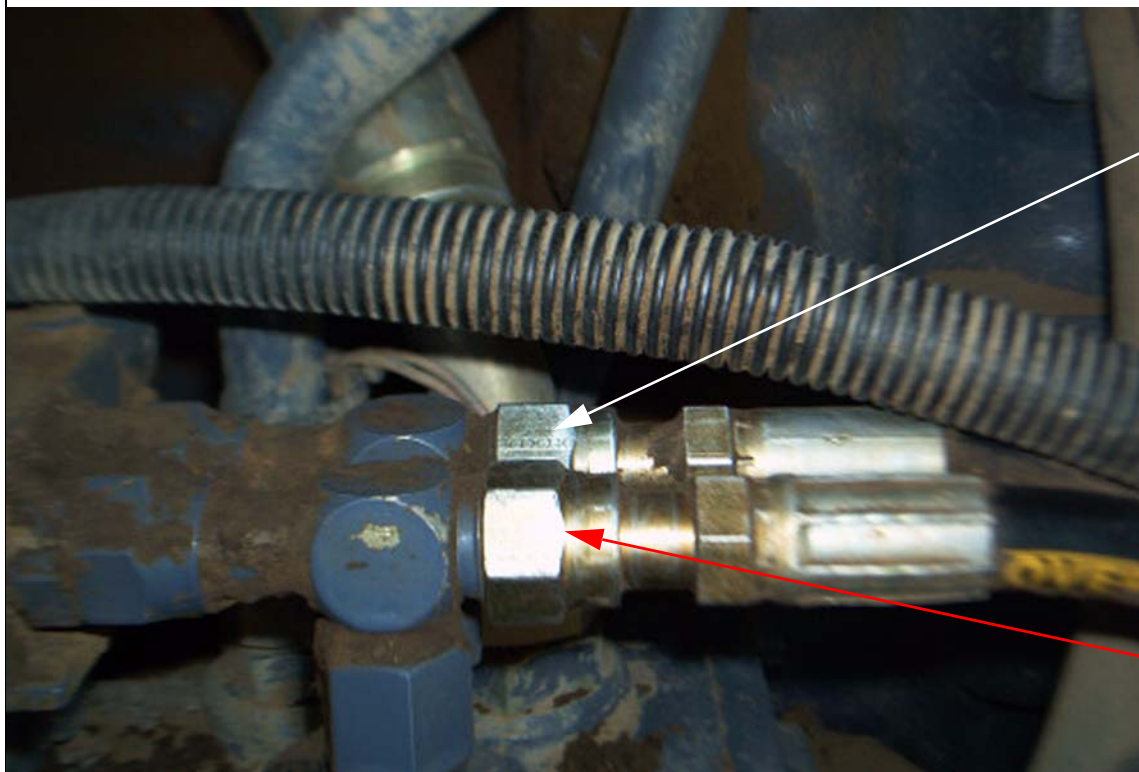
Mount the AutoSteer valve directly to the inside of the tractor frame on the front right side as shown.



4. Install the Hydraulic Hoses

4.1 Connect the Hydraulic Hoses

Attach the right and left “Steer Out” hoses to the existing fittings. Attach the “Steer In” hoses to the existing tractor hoses.



right “Steer Out”
hose

left “Steer Out” hose

Install the “T” connector and attach the pressure hose.



AutoSteer pressure
hose

original tractor
pressure hose

Install a “T” connector and attach the return hose.



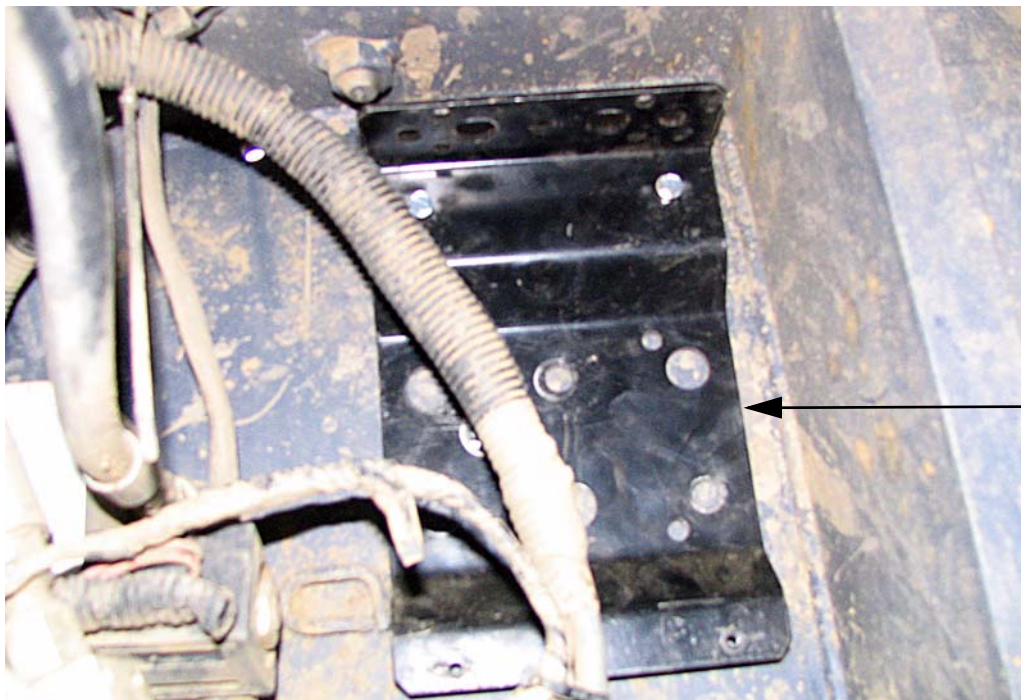
original tractor
return hose

AutoSteer return
hose

5. Install the SA Module

5.1 Mount the SA Module Bracket

Attach the SA module bracket inside the tractor frame next to the AutoSteer valve.



SA module
bracket

5.2 Mount the SA Module to the Bracket

*Note: It is important that the SA Module is *not* mounted so that the cable comes out top.



6. Install the Main Cable Harness

6.1 Attach the Main Cable Harness to the User Terminal.



6.2 Attach the Cable to the Power Supply



6.3 Attach the Main Cable Harness to the Roof Module

Route the cable out of the cab under the left side of rear window.



Route the cable up the back of the cab, and attach the cable to the roof module.



7. Install the SA Module Cable Harness

7.1 Attach the Cable to the SA Module

Connect the cable to the SA Module. (Different vehicle shown.)

bottom of SA module

cable connector

locking mechanism in open position



Close the cable connector locking mechanism.

locked position



Note: To disconnect the cable from the SA module: unlock the connector as shown below and then remove the cable.

pinch here



pull upwards



7.2 Connect the SA Module Harness to the Hydraulic Valve

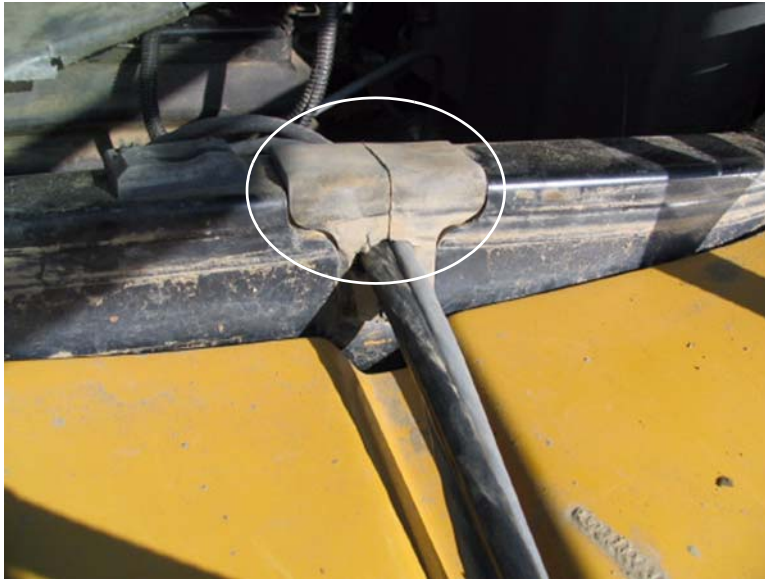
Route and attach the cable from the SA Module to the hydraulic valve.

two connectors



7.3 Attach SA Module Cable Harness to Main Cable Harness

Route the SA Module cable into the cab through the rubber plug under the right side of rear window.



Attach the harnesses with the large connector. Note: The smaller connector shown below does not apply to this vehicle.



8. Final Checklist

Check all cable connections.
Check manual steering.
Power up the AutoSteer system and begin the calibration and tuning process.