System 150 Does Not Steer

Is there power to the console?

Yes → Is there power to the AGI-3? Check for LED lights on AGI-3.

No → Press power button on GX-45. Now do you have power?

Yes → Check Auto-Steering Valve Switch. Is the valve on?

No → Check power Connections and fuses. Does GX-45 have power?

Is there power to the AGI-3? Check for LED lights on AGI-3.
- **Yes** → Go to GNSS screen on GX-45 to check GNSS status.
- **No** → Check Auto-Steering Valve Switch. Is the valve on?

Go to GNSS screen on GX-45 to check GNSS status.
- **Yes** → Have GNSS signal?
- **No** → No GNSS Status

No GNSS Status
- **No** → Refer to Op Manual for system reboot process. GNSS Signal?

Check Auto-Steering Valve Switch. Is the valve on?
- **Yes** → Go to GNSS screen on GX-45 to check GNSS status.
- **No** → Turn on valve. Toggle switch so that steering wheel symbol on switch is lit. Does the system engage?
- **Yes** → Refer to Op Manual for system reboot process.

Have GNSS signal?
- **Yes** → Check for GNSS correction status. For information on how to check for GNSS status refer to page 3.

Refer to Op Manual for system reboot process. GNSS Signal?
- **Yes** → (to reboot)
- **No** → Refer to page 8

Turn on valve. Toggle switch so that steering wheel symbol on switch is lit. Does the system engage?
- **No** → Check wiring on system and power source
- **No** → Refer to page 8

Check power Connections and fuses. Does GX-45 have power?
- **No** → Refer to page 8

Check for GNSS correction status. For information on how to check for GNSS status refer to page 3.
- **Yes** → Have acquired desired GNSS correction, but still no steering solution.

Have acquired desired GNSS correction, but still no steering solution.
→ For further trouble shooting guidelines, refer to page 4
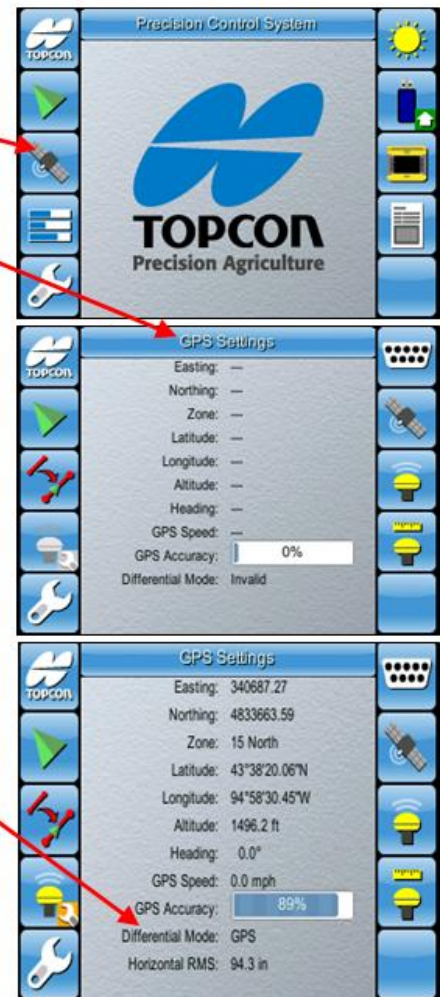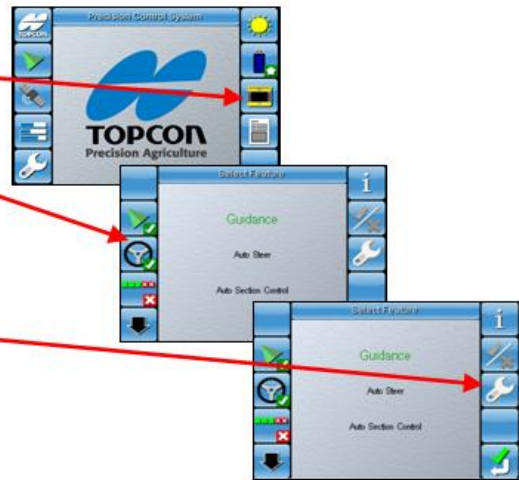
AG WORLD EQUIPMENT

How to check the System 150 for GNSS correction status.

- Go to GNSS screen on the GX-45.

- If there are no readings in the GNSS (GPS) Settings screen, no GNSS signal is being received.

- If you still do not have GNSS correction, see page 8.

- If there are readings in the GNSS (GPS) Settings screen, then wait for Differential Mode to show the correction type.
  - This display will show:
    - Invalid
    - GPS Fix
    - DGPS Fix
    - PPS Fix
    - RTK
    - Float RTK
    - Estimated
    - Manual Input
    - SBAS
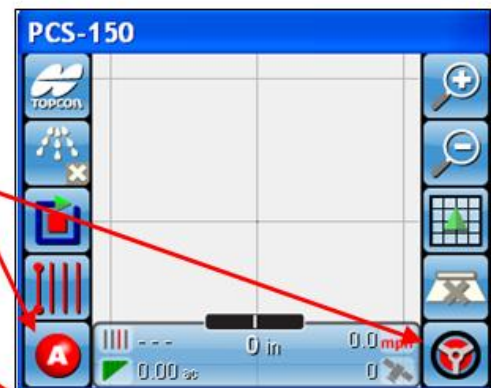- If readings are showing, but still do not have a steering solution, refer to page 4.

THIS BULLETIN PROVIDES INFORMATION THAT SHOULD BE REFERRED TO WHEN PERFORMING SERVICE OR REPAIR PROCEDURES ON THE MACHINES LISTED.

AG WORLD EQUIPMENT

The steering system has acquired differential correction, but still has no steering solution.

- Go to the Console Features screen on the GX-45.

- Press the Auto Steer button. Ensure that the words Auto Steer are bold and that there is a check mark on the steering wheel icon
  - More on enabling the Auto-Steering functionality, please refer to the Op Manual.

- Press the wrench icon to enter the terminal maintenance screen.

- For any screen that requires an access code, the access code is 1234.

- Check for steering profile. If no profile is listed, refer to Op Manual > Setting Steering Profile
  - If the correct steering profile is displayed and the calibration status shows that it is calibrated, refer to page 5.

- Check display for the proper valve on the unit.
  - If Detecting Controller is shown in the display, refer to page 8.

- Check Calibration Status. If any one of the three calibration status displays "Not Calibrated," refer to Op Manual for calibration procedures.

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The Steering Profile is correct, the system has Differential GNSS and the system shows that it is calibrated, but still have no steering solution.
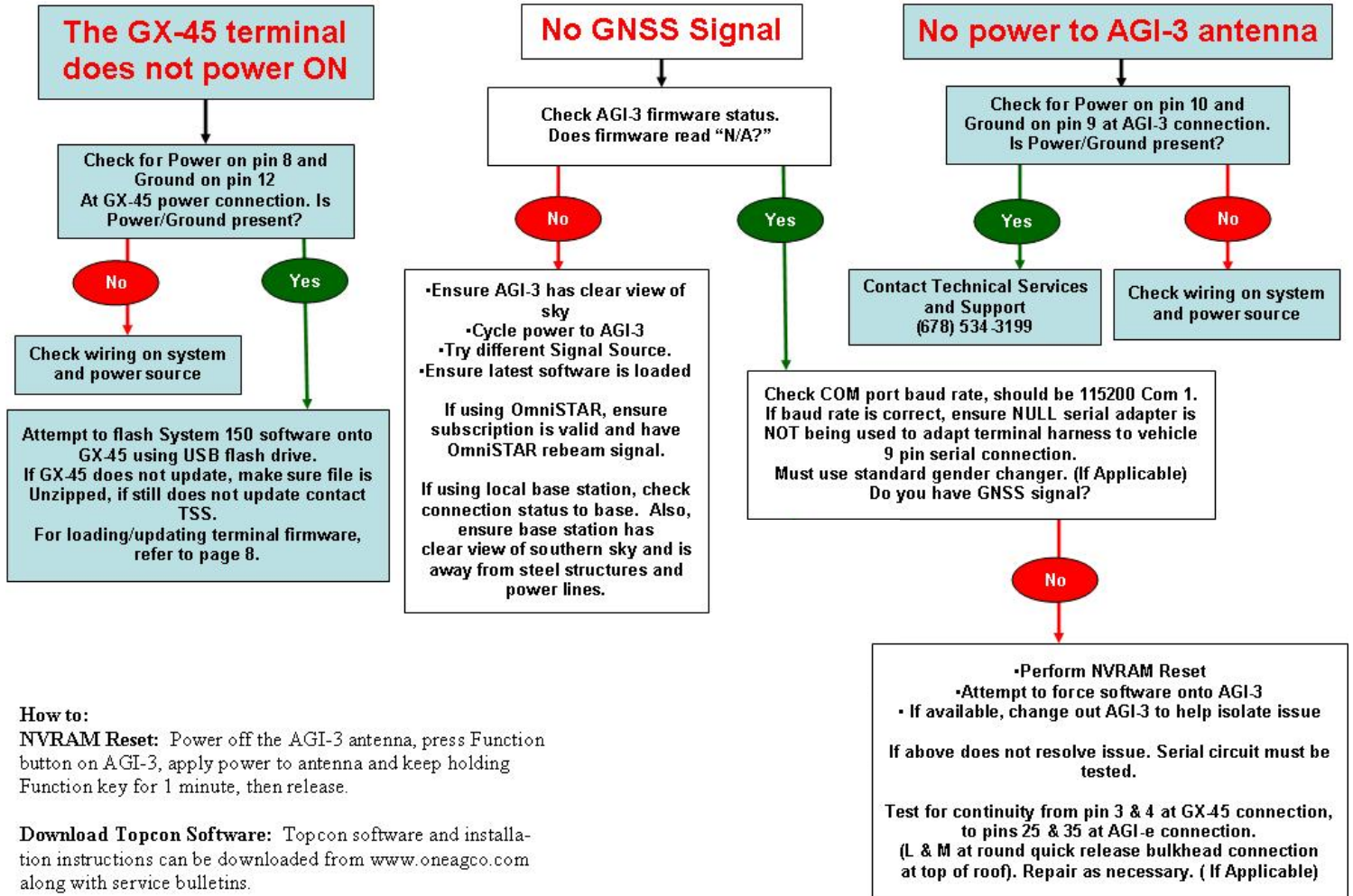
- Go to the Main Steering screen.

- Set up a Straight A-B Line
  - The system will allow the setting an A point and B point with potential errors in the system. However, it will not enable the system to engage in automatic steering.

- Once the wayline has been established, look at the Steering Engagement button to look at its color. The color of this icon will indicate the system's readiness for engagement.

- If the Steering Engagement icon is red when the engagement button is pushed, the Steering Status screen will appear.

- The Steering Status screen will show a green bar for all portions of the system that are ready for operation.

- The Steering Status screen will show a red bar for any portion of the system that is not ready for operation.

- This screen is a key point of reference if the system will not engage.

- For a detailed listing of errors, refer to page 6.

THIS BULLETIN PROVIDES INFORMATION THAT SHOULD BE REFERRED TO WHEN PERFORMING SERVICE OR REPAIR PROCEDURES ON THE MACHINES LISTED.

Steering Status Screen
If any one of these status bars is red, the System 150 will not engage.

- If the steering engagement button is red and the operator presses that button, the Steering Status screen will appear. The following messages will indicate any issues with the system.

  - Receiver Hardware—Check power supply

  - Steering Controller—Check power supply to AGI-3

  - Vehicle Setup—Check for vehicle profile

  - Steering Profile—Check for vehicle profile

  - Steering Calibrated—Check for system calibration

  - Steering Wheel—Turn steering wheel side to side 1/4 turn.

  - Position Accuracy—Check for Differential GNSS signal convergence on the GPS screen.

  - Differential Correction—Check for Differential GNSS signal.

  - Wayline Available—No wayline has been created.

  - Speed—Minimum speed requirement has not been met (0.67 mph) or the maximum speed has been exceeded (16 mph due to the Speed Steer valve).

  - Crosstrack Error—Not close enough to the next line for acquisition.

  - Heading Error—Angle to line is too sharp.

- If all system bars are green, system should engage. If the system does not engage, call Dealer Technical Services and Support (678) 534-3199.

THIS BULLETIN PROVIDES INFORMATION THAT SHOULD BE REFERRED TO WHEN PERFORMING SERVICE OR REPAIR PROCEDURES ON THE MACHINES LISTED.

The GX-45 terminal does not power ON

Check for Power on pin 8 and Ground on pin 12 At GX-45 power connection. Is Power/Ground present?

No → Check wiring on system and power source

Yes → Attempt to flash System 150 software onto GX-45 using USB flash drive. If GX-45 does not update, make sure file is Unzipped, if still does not update contact TSS. For loading/updating terminal firmware, refer to page 8.

No GNSS Signal

Check AGI-3 firmware status. Does firmware read "N/A?"

No →
- Ensure AGI-3 has clear view of sky
- Cycle power to AGI-3
- Try different Signal Source.
- Ensure latest software is loaded

If using OmniSTAR, ensure subscription is valid and have OmniSTAR rebeam signal.

If using local base station, check connection status to base. Also, ensure base station has clear view of southern sky and is away from steel structures and power lines.

Yes → Check COM port baud rate, should be 115200 Com 1. If baud rate is correct, ensure NULL serial adapter is NOT being used to adapt terminal harness to vehicle 9 pin serial connection. Must use standard gender changer. (If Applicable) Do you have GNSS signal?

No power to AGI-3 antenna

Check for Power on pin 10 and Ground on pin 9 at AGI-3 connection. Is Power/Ground present?

Yes → Contact Technical Services and Support (678) 534-3199

No → Check wiring on system and power source

(from "Do you have GNSS signal?") **No** →
- Perform NVRAM Reset
- Attempt to force software onto AGI-3
- If available, change out AGI-3 to help isolate issue

If above does not resolve issue. Serial circuit must be tested.

Test for continuity from pin 3 & 4 at GX-45 connection, to pins 25 & 35 at AGI-e connection. (L & M at round quick release bulkhead connection at top of roof). Repair as necessary. (If Applicable)

How to:

NVRAM Reset: Power off the AGI-3 antenna, press Function button on AGI-3, apply power to antenna and keep holding Function key for 1 minute, then release.

Download Topcon Software: Topcon software and installation instructions can be downloaded from www.oneagco.com along with service bulletins.

Force Software Flash to AGI-3: Go to GNSS Settings and select AGI-3 update button (antenna with wrench). Proceed with update. A screen with USB and GX-45 console, showing arrows will appear. At this time, cycle the power to the AGI-3 within 30 seconds. This will attempt to recapture the AGI-3.

Access Code: 1234

THIS BULLETIN PROVIDES INFORMATION THAT SHOULD BE REFERRED TO WHEN PERFORMING SERVICE OR REPAIR PROCEDURES ON THE MACHINES LISTED.

AWE
AG WORLD EQUIPMENT

"Detecting Controller" in Auto-Steering setup screen

RTa / DTa / MF6400 / MF7400 / MF8400 / MTb

Use Wintest to update PVED Steering valve software, set parameters, and perform spool dead-band calibration.

Must have Wintest version 2.18.02 or greater with USB CAN box. Connect to Engine Diagnostic connection.

See Wintest Help files for more detailed instructions.

When setting valve parameter, Wintest will ask "Do you want to set parameters in order to use Auto-Guide 1?" Select: NO

DTb / MF8600 / MT600c / MT900C

Use EDT to update PVED Steering Valve software, set parameters, and perform spool dead-band calibration.

After selecting appropriate vehicle, must use Topcon System 150 diagnostic connection. (Except MT900C, use Cab Connection)

Do not use AGI-3 harness off of MT 7/8 System 150 Kit on DTB/MT6C/8600 as there is no CAN BUS wiring to PVED Valve (j1939)

All MT700 / MT800

For A & B series, ensure latest Translator software is installed and Class 3 Hitch enabled

For C series, ensure latest tractor software is installed using EDT.

All – Ensure roading lockout switch is disengaged

Other vehicle settings that can directly affect performance and functionality of guidance system.

DTB/8600/MT6C

DCC3 Label Code B = 1 With AG Valve
DCC3 Label Code C = 1 With front axle Sensor
NOTE Key ON/Engine OFF while checking Label codes.

DTB/8600/MTC:
VIN Setup - Ensure correct vehicle information is entered.

Above can be performed via EDT