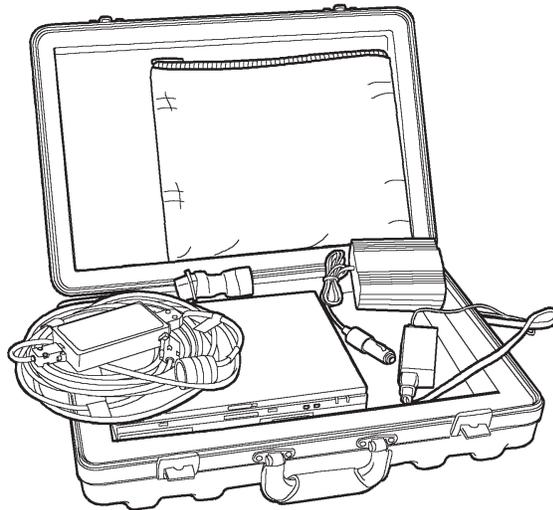


Product: New Holland Electronic Service Tool Manual
Full Download: <https://www.arepairmanual.com/downloads/new-holland-electronic-service-tool-manual/>

Electronic Service Tool



Autoguidance Tool User's Guide

87050460



Sample of manual. Download All 86 pages at:
<https://www.arepairmanual.com/downloads/new-holland-electronic-service-tool-manual/>

AutoGuidance Tool

Electronic Service Tool - AutoGuidance Tool

Introduction - AutoGuidance and Base Station Tools

General Information	2
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Highlights for the Experienced Electronic Service Tool User

Tool Bar Functions	3
Equipment Selection - Additional Equipment.	3
Cable and Adapter Help.	4
AutoGuidance Calibration	4
Connecting the Electronic Service Tool to the AutoGuidance System	5
AutoGuidance Communication Adapters.	5

Selecting Electronic Service Tool > AutoGuidance

AutoGuidance Tool

AutoGuidance Tool Connections	7
AutoGuidance Toolbox	9
Update Firmware	9
Diagnostics Button.	9
Save/Restore Setup Button	9
AutoGuidance Toolbox — Update Firmware	10
AutoGuidance Toolbox — Diagnostics	16
Diagnostics Tab - Monitor Function	17
Steering Angle — Ops Switch (Operator Presence Switch)	18
Gear Lever Indication — Wheel/Transmission Speed.	18
Faults Tab	19
Information Tab - Controller.	19
AutoGuidance Toolbox — Save/Restore Setup.	21
Save Setup to File	21
Restore Setup From File	22

GPSRemote Tool

GPSRemoteTool Connections.	25
Start the GPSRemote Tool	26
Connect GPSRemote	27
Disconnect GPSRemote	28
Exit GPSRemote	28

GPS FlashLoader 200 Tool

GPS FlashLoader 200 Tool Connections	29
Start the GPSRemote Tool	30
Factory Configuration	31
Manage Configuration	31
On Screen — Read into File	32

Base Station CommSet Tool

Base Station CommSet Tool Connections	45
CommSet: Trimble Communications Setup Program	46
Properties Screen — General Information.	47
Network Settings	48
Serial Port Settings	50
Cancel Button	51
Base Station Radio Information	52
Base Station Radio Firmware Update	53
Advanced CMR Options	55

Base Station GPS PanFlash Tool

Base Station GPS PanFlash Tool Connections.	57
Start the GPS PanFlash Tool	58

Remote Data Logger (RDL) FlashLoader 100

RDL FlashLoader 100 Connections.	60
Start the RDL FlashLoader100 Tool	61
Update Device With Password	62
Download Configuration	66
Read Configuration Into a File	66
Review Configuration On-screen.	68
Info — Port A	69
Port B — Advanced	70
Advanced (cont'd) — Extended	70
Upload New Firmware	72

Electronic Service Tool

1

AutoGuidance Tool

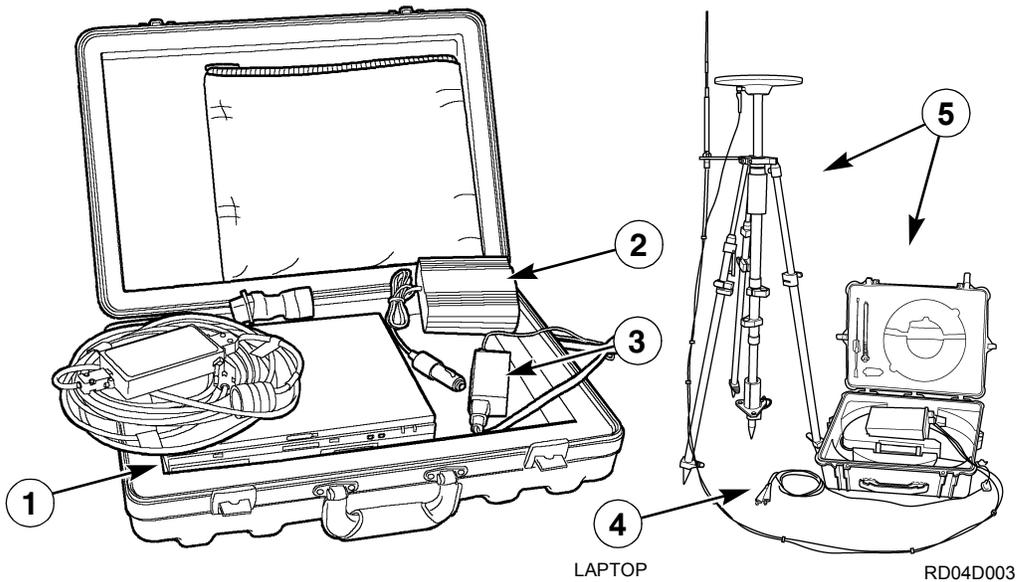
Electronic Service Tool - AutoGuidance Tool

Section 1: Introduction - AutoGuidance and Base Station Tools

General Information

The Electronic Service Tool is a laptop computer based service and diagnostic tool that communicates with the vehicle (tractor, combine, implement, etc.) data bus. The Electronic Service Tool provides support to the AutoGuidance vehicle systems and the AutoGuidance Base Station:

- Update AutoGuidance controller firmware.
- View AutoGuidance controller diagnostic information.
- View AutoGuidance controller fault information.
- Save and restore AutoGuidance vehicle setup information.
- Provides a user interface to configure the GPS receiver and Remote Data Logger.
- Update GPS receiver and Remote Data Logger firmware.
- View GPS receiver error log information.
- Upgrade GPS receiver and Remote Data Logger features.
- View/change Base Station settings.
- Update Base Station firmware.



Item	Description
Identification Guide - Locations and appearance of some components may vary.	
1	Electronic Service Tool Laptop Computer
2	DC to AC Power Inverter
3	Laptop Computer AC Power Cord
4	Base Station Power Supply Connection Terminals
5	Base Station

Section 2: Highlights for the Experienced Electronic Service Tool User

Tool Bar Functions



Equipment Selection - Additional Equipment

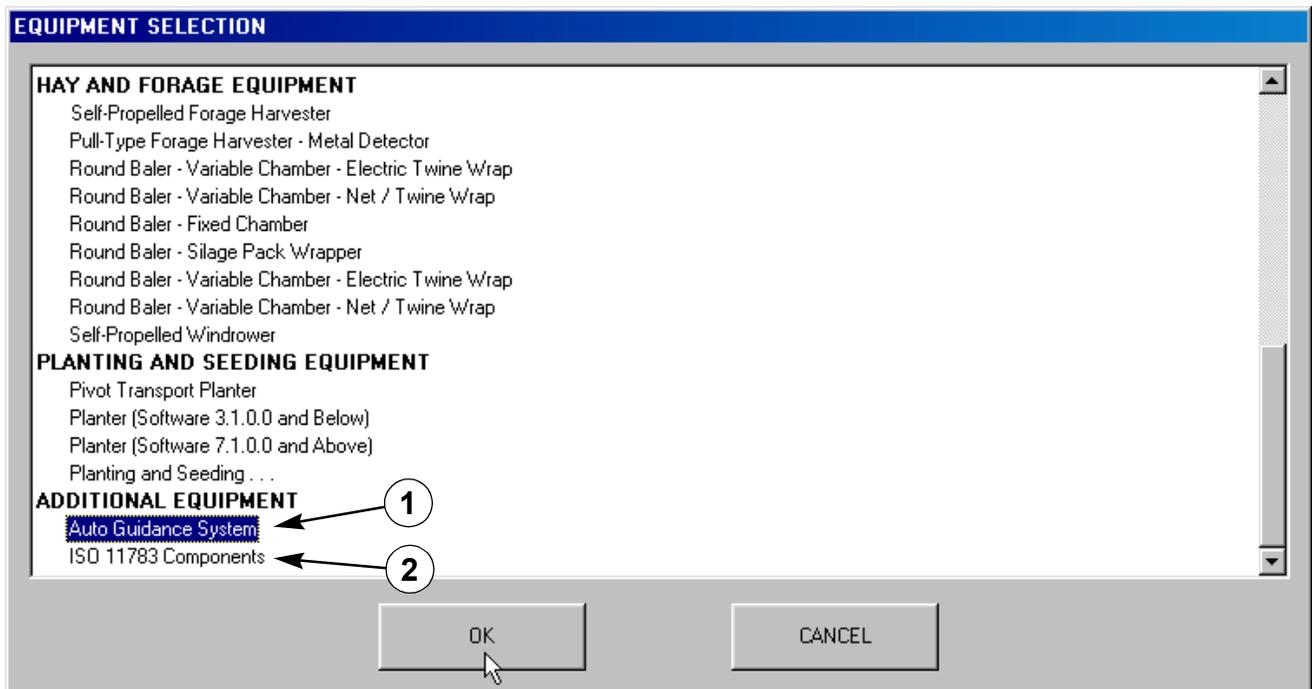
Note: *The Electronic Service Tool does not automatically connect to the desired machine, controller or application. The Electronic Service Tool starts, using the most recent vehicle application. The Equipment Selection screen is used to select the desired vehicle application.*



The Equipment Selection screen allows the user to select the equipment application from product groups. Within each product group is a listing of applications currently supported by the Electronic Service Tool.

Important: *The AutoGuidance System application is listed separately from other products due to the variety of vehicle applications it is able to support. Virtual Terminal firmware installation is accomplished using the ISO 11783 Components application.*

Left Click Mouse On: Equipment Selection  Button > AutoGuidance > OK  Button



RT04D014-1

Item	Description
Note: <i>The screen shown depicts generic equipment and model selections. The screen viewed using the Electronic Service Tool will display specific models and brands.</i>	
1	Auto Guidance System - Provides a user interface to support the AutoGuidance vehicle systems and the AutoGuidance Base Station
2	ISO 11783 Components - Provides a user interface to review/install firmware to the AutoGuidance Virtual Terminal (VT) controller.

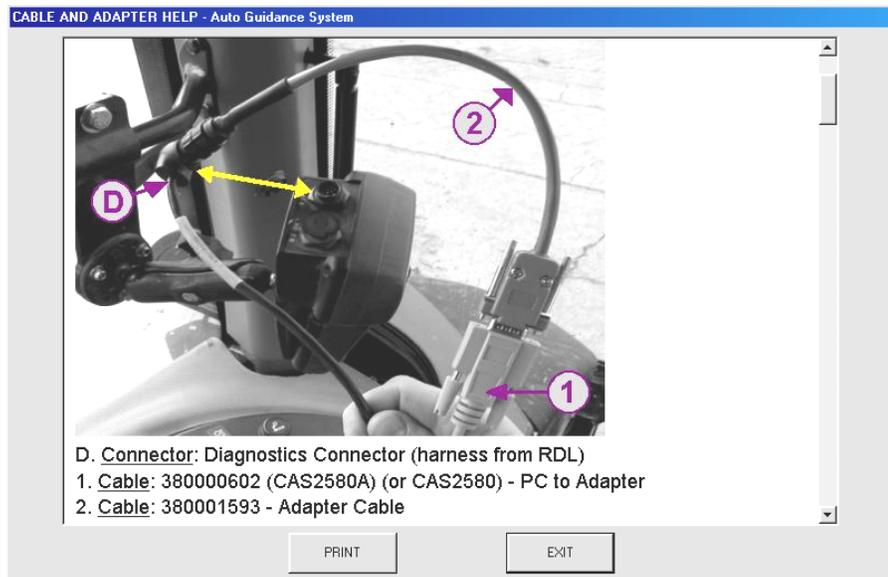
Cable and Adapter Help



The Electronic Service Tool contains cable and adapter help information. If the programming/diagnostic connector(s) cannot be located, or if additional information is required to select the appropriate programming/diagnostic cables and adapters, refer to the cable and adapter help screen.

Note: *The AutoGuidance application provides additional connector and cable support due to the variety of programming/diagnostic cable connections, vehicle applications, and options supported.*

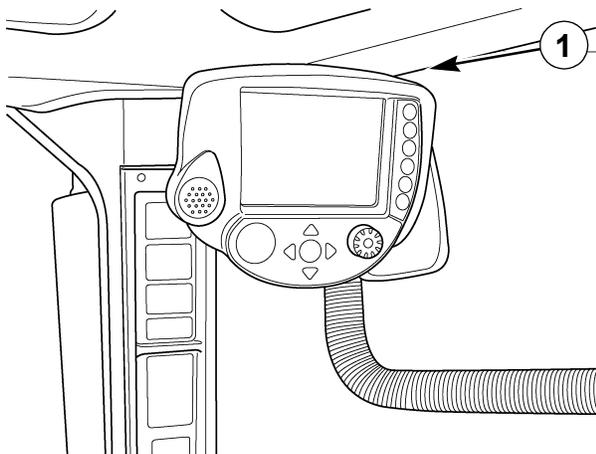
Left Click Mouse On: Equipment Selection  Button



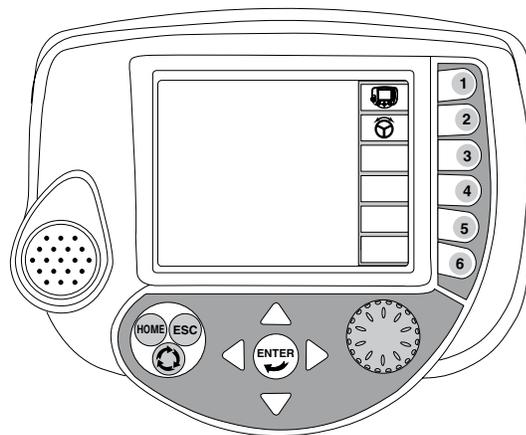
RT04D013-2

AutoGuidance Calibration

Calibration of the AutoGuidance System is done through the on-board interface (Virtual Terminal). The Electronic Service Tool cannot be used to make these important calibrations. Refer to the AutoGuidance and GPS Operator's Manual for information concerning calibration.



RD03G100



RH04A086-1

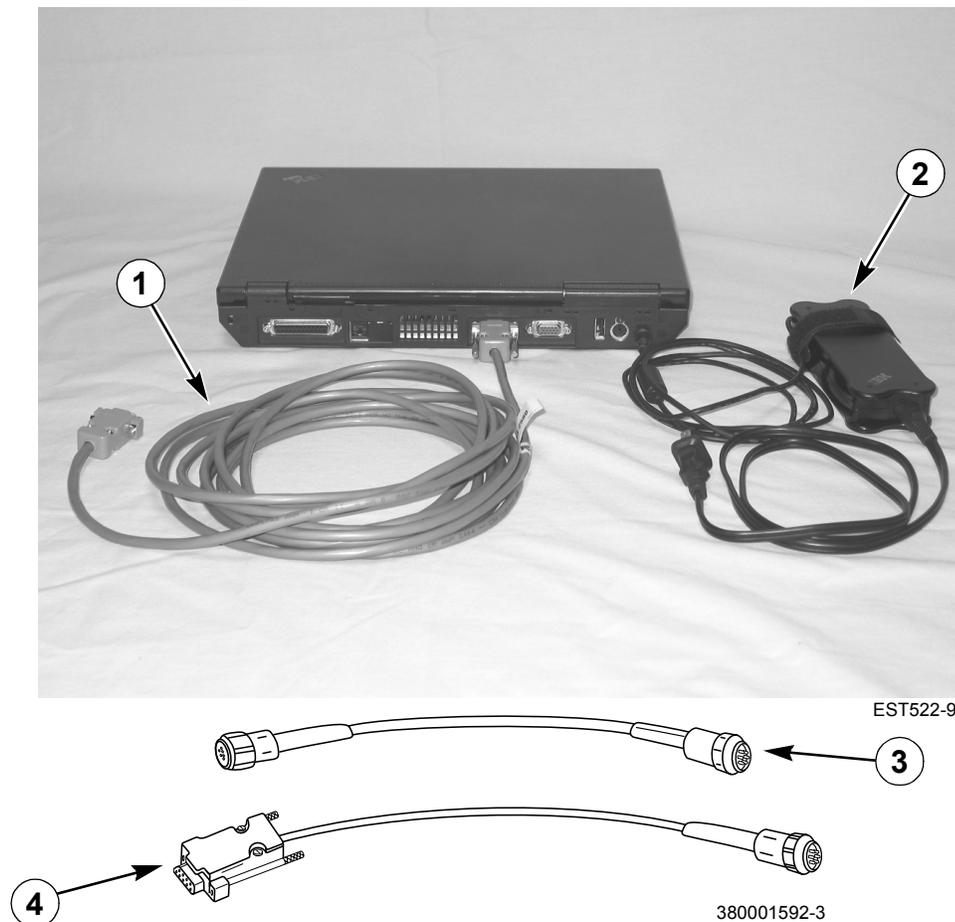
Item	Description
1	Virtual Terminal (VT)

Connecting the Electronic Service Tool to the AutoGuidance System

Connect the Electronic Service Tool to the PC-to-adapter cable supplied with the EST kit. Connect the AC/DC power inverter to the vehicle cigar lighter to assure a stable power supply for the Electronic Service Tool computer.

AutoGuidance Communication Adapters

Communication adapter cables are used with the Electronic Service Tool in the AutoGuidance application. Connect The Electronic Service Tool laptop computer to the AutoGuidance system using adapter cables 380001593 and 380001592 as required.

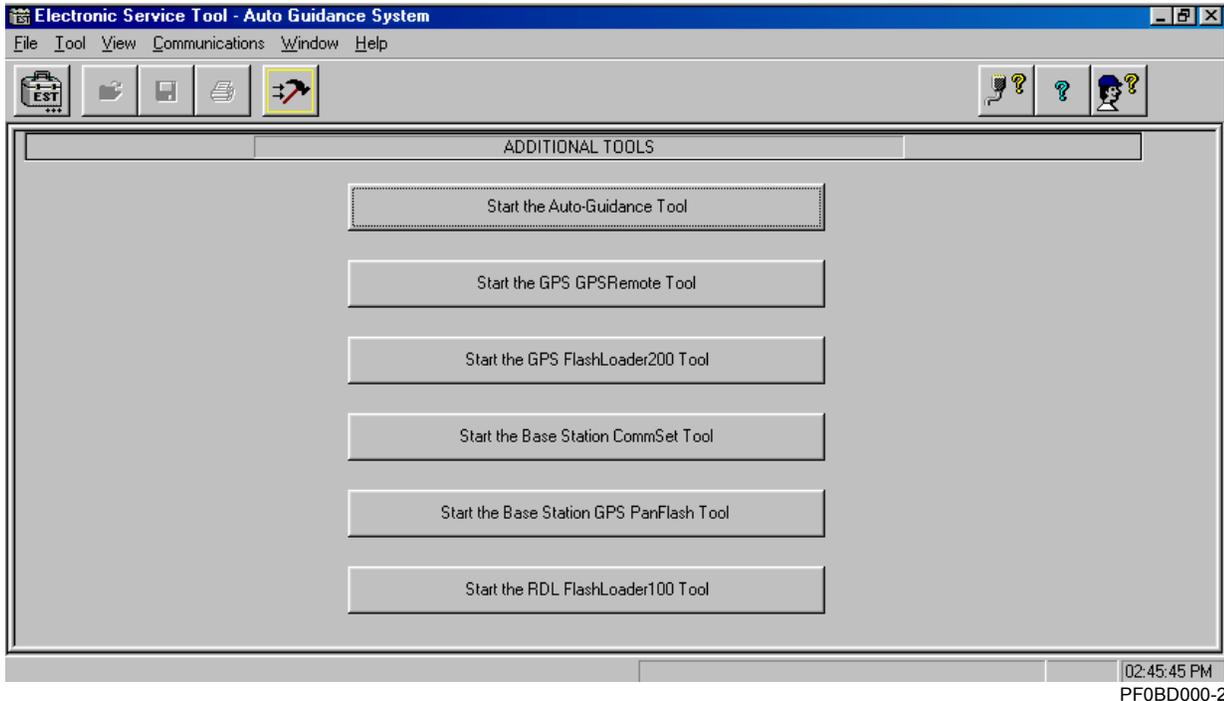


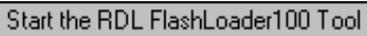
Item	Description
Identification Guide - Locations and appearance of some components may vary.	
1	380000602 (CAS2580A or CAS2580) Electronic Service Tool Interface Cable - Used to connect vehicle communication adapters to Electronic Service Tool serial port.
2	Laptop Computer AC Power Cord
3	380001592 - Interconnection Adapter Cable is required to connect the Electronic Service Tool Interface Harness Cable 380000602 (CAS2580A or CAS2580) to some components in the AutoGuidance system.
4	380001593 - Primary AutoGuidance/GPS Diagnostic Cable is used to adapt the Electronic Service Tool Interface Harness Cable 380000602 (CAS2580A or CAS2580) to the AutoGuidance and GPS application.

Section 3: Selecting Electronic Service Tool > AutoGuidance

As the Electronic Service Tool is started, the current application displays.

Note: *When the AutoGuidance application is selected the Additional Tools screen will be displayed. In the AutoGuidance application the Additional Tools screen provides links to the AutoGuidance program screens.*



Item	Description
	Start The Auto-Guidance Tool Button — Used to service the AutoGuidance controller and report fault codes for the AutoGuidance system.
	Start The GPS GPSRemote Tool Button — Used to service the GPS receiver. It provides monitoring, setup, and diagnostic functions.
	Start The GPS FlashLoader 200 Tool Button — Used to service the GPS receiver. It provides reprogramming, viewing of configuration information, and upgrading functions.
	Start The Base Station Comm Set Tool Button — Used to service the RTK radio for the base station or tractor. It provides setup, configuration information viewing, and reprogramming functions. Note: <i>When servicing the tractor radio, remove the radio unit from the tractor and connect to the Electronic Service Tool using the harness in the Base Station Kit.</i>
	Start The Base Station GPS PanFlash Tool Button — Used to reprogram the GPS receiver in the base station.
	Start The RDL FlashLoader 100 Tool Button — Used to reprogram the Remote Data Logger (RDL) and perform diagnostic functions.

Section 4: AutoGuidance Tool

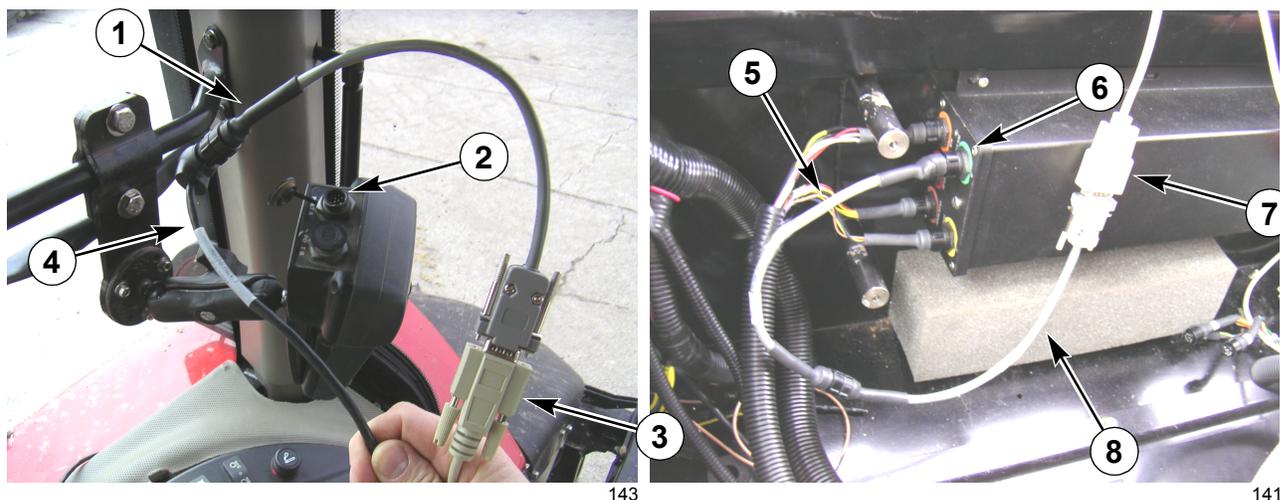
The AutoGuidance Tool is used to:

- Update the AutoGuidance controller firmware.
- View controller diagnostic information.
- View controller fault information.
- View controller/vehicle general information.
- Save and restore vehicle setup information.

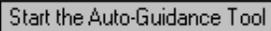
AutoGuidance Tool Connections

Connect to the Electronic Service Tool using:

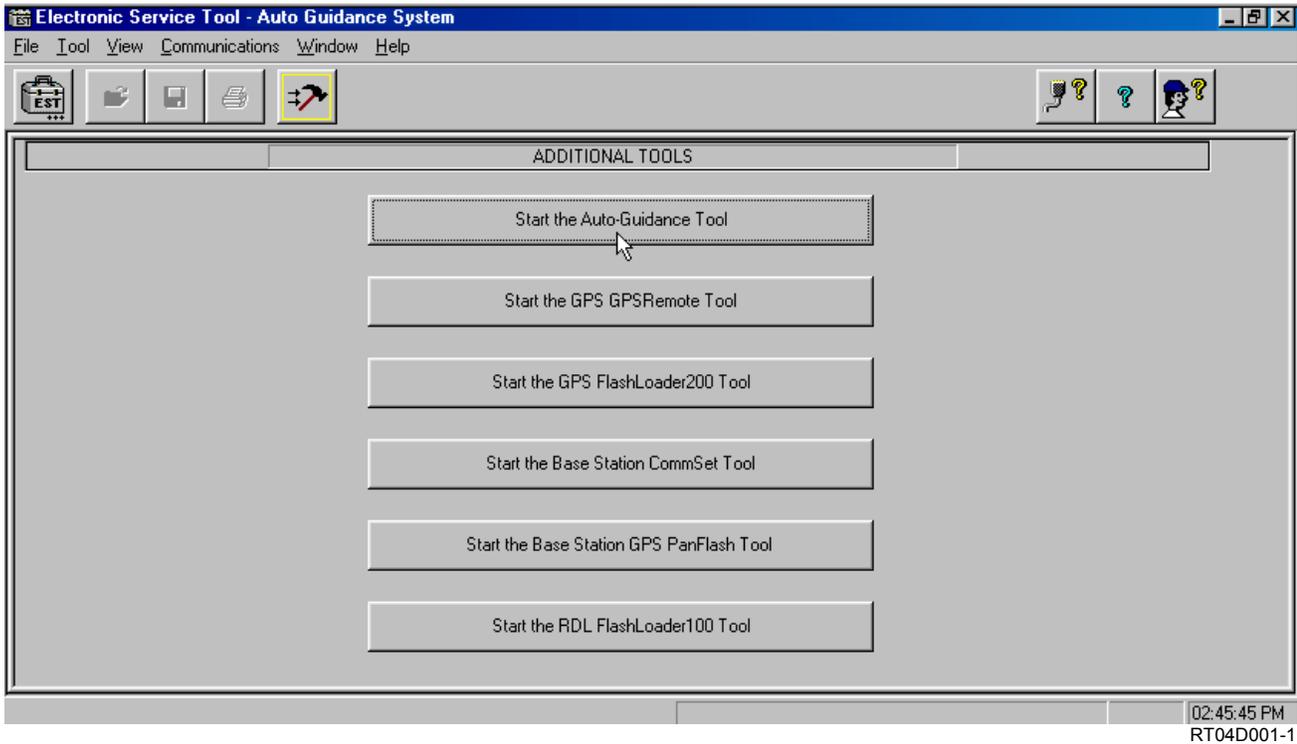
- **Connections Required If Equipped with a Remote Data Logger (RDL)** - Disconnect the cable from the “B” connector at the Remote Data Logger. Connect to the disconnected cable using programming/diagnostic cables 380000602 and 380001593.
- **Connections Required If Not Equipped with a Remote Data Logger (RDL)** - Connect to the controller at the “D” connector location using programming/diagnostic cables 380001592 and 380001593.



Item	Description
Connections Required If Equipped with a Remote Data Logger (RDL)	
1	380001593 - Primary AutoGuidance/GPS Diagnostic Cable
2	Remote Data Logger “B” connector
3	380000602 (CAS2580A or CAS2580) Electronic Service Tool Interface Cable - Used to connect vehicle communication adapters to Electronic Service Tool serial port.
4	Remote Data Logger Cable (removed from “B” connector of Remote Data Logger)
Connections Required If Not Equipped with a Remote Data Logger (RDL)	
5	380001592 - Interconnection Adapter Cable is required to connect the Electronic Service Tool to some components in the AutoGuidance system.
6	AutoGuidance Controller “Green” connector, marked J5.
7	380000602 (CAS2580A or CAS2580) Electronic Service Tool Interface Cable - Used to connect vehicle communication adapters to Electronic Service Tool serial port.
8	380001593 - Primary AutoGuidance/GPS Diagnostic Cable

Place the cursor arrow  over the Start the AutoGuidance Tool  button. Use the mouse to left click the Start the AutoGuidance Tool button.

Left Click Mouse On: Start the AutoGuidance Tool Button



The AutoGuidance Toolbox screen is displayed.



AG04D002

AutoGuidance Toolbox

The AutoGuidance Toolbox is divided into three functional areas.

Update Firmware



The Update Firmware button is used to:

- Install Firmware with New Installations
- Install Updated Firmware with Existing Installations - Used only if the AutoGuidance controller has not been moved from another tractor.

Informational screens will be display as the firmware installation is completed. This information will be valuable as a guide to assure proper installation of the file. Carefully read all screen information during firmware installation.

Diagnostics Button



The Diagnostics button is used to view:

- Controller Diagnostic Information
- Controller Fault Information
- Controller/Vehicle General Information

Subject tabs are located under the Diagnostics button. The subject tabs allow organization of the controller and vehicle information.

- Installation Diagnostics Diagnostics
- System Fault Information Faults
- General Controller and Vehicle Information Information

Save/Restore Setup Button



The Save/Restore Setup button is used to save and restore vehicle setup information. The setup information can be:

- Saved to a file on the Electronic Service Tool hard drive storage disk.
- Saved internally on the controller.

The restore operation:

- Replaces the vehicle setup information in the controller after the software download process.

AutoGuidance Toolbox — Update Firmware

Important: During firmware installation the Electronic Service Tool will display informational and warning screens. Always read and follow the instructions on the screen. The screens displayed are dependant on the type of firmware installation.

Left Click Mouse On: Update Firmware  Button



AG04D002



AG04D014

Before the firmware installation begins an ATTENTION  dialog screen will be displayed.

Important: To prevent the loss of stored implement and vehicle setup information in the controller save the items individually using the Store Remote Feature with a Remote Data Logger (RDL), if equipped.

Left Click Mouse On: OK  Button



AG04D015

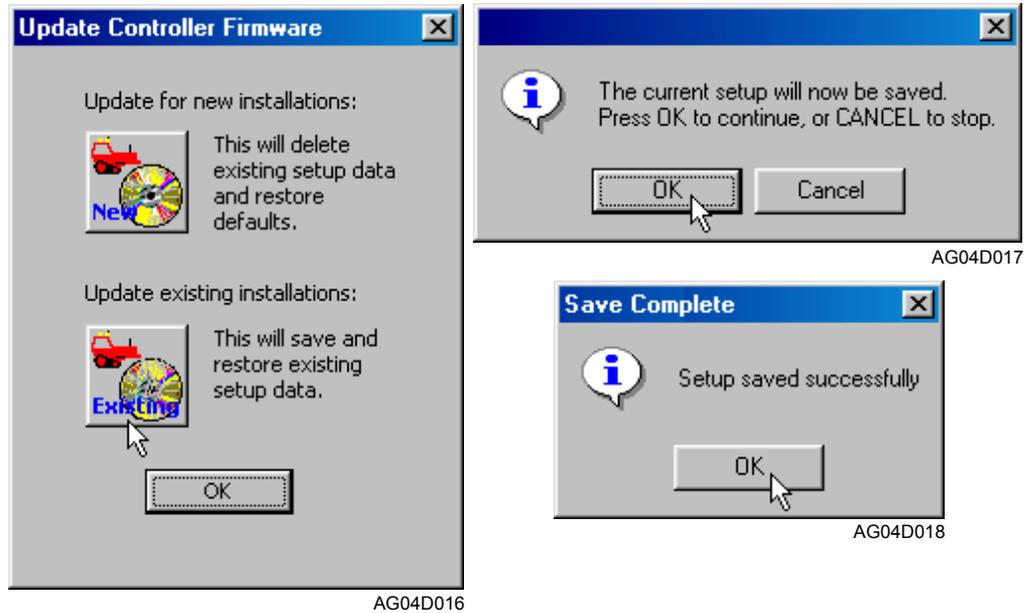
Update Firmware

The following illustrates a typical firmware file update to an existing controller installation. An existing controller installation, is an installation in which the controller has already been calibrated for a particular vehicle upon which it is installed.

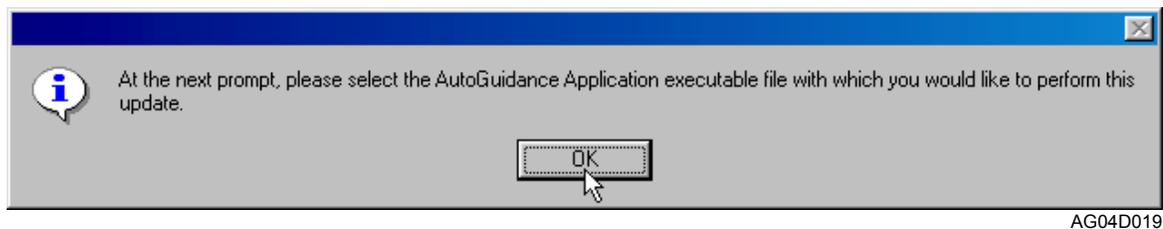
Left Click Mouse On: Existing  Button

Left Click Mouse On: OK  Button

Left Click Mouse On: OK  Button

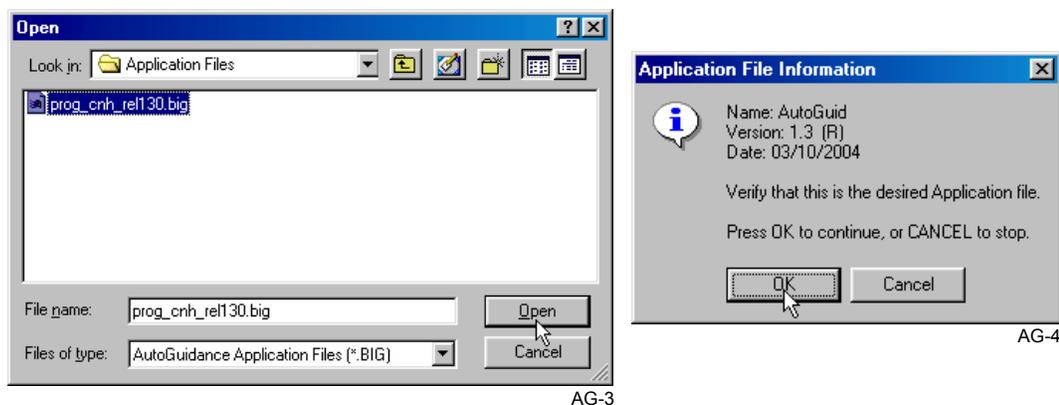


Left Click Mouse On: OK  Button



To select the file, left click the file name. As the name is selected it will be highlighted (darkened).

Left Click Mouse On: File Name > Open  Button > OK  Button

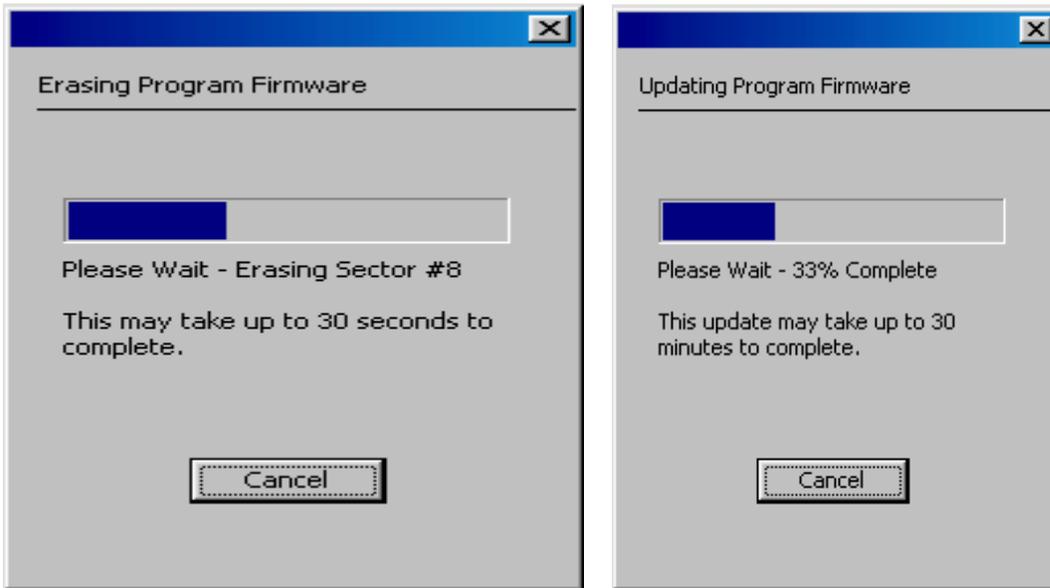


Left Click Mouse On:  Button



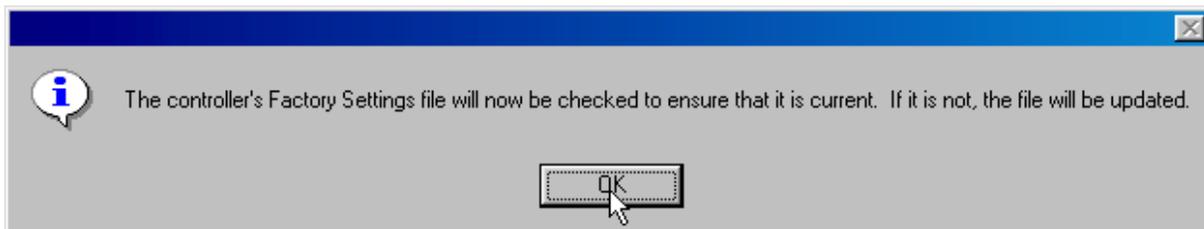
AG-5

As the installation progresses the Electronic Service Tool will display the status. Dialog  screens will be displayed to guide the installation process.



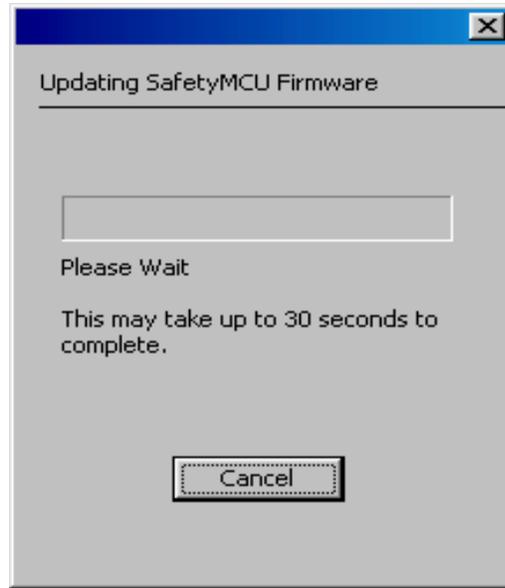
AG-7

Left Click Mouse On:  Button



AG-8

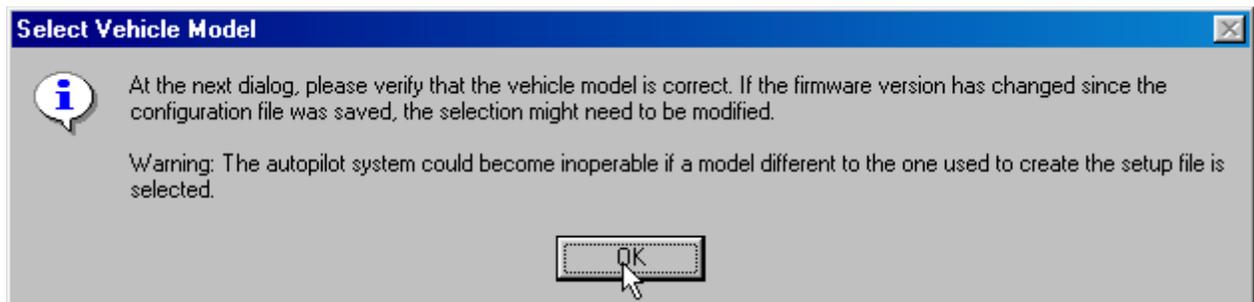
As the installation progresses the Electronic Service Tool will display the status.



AG-9

A Select Vehicle Model dialog  screen will display. Read the information in the dialog screen and proceed.

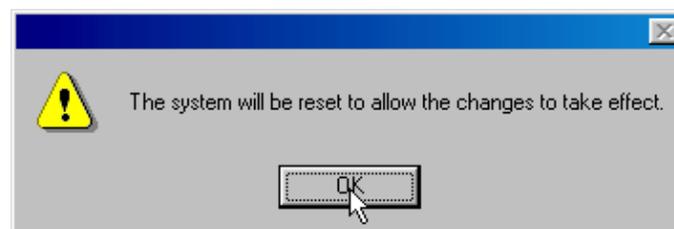
Left Click Mouse On:  Button



AG-10

 The AutoGuidance system will be reset.

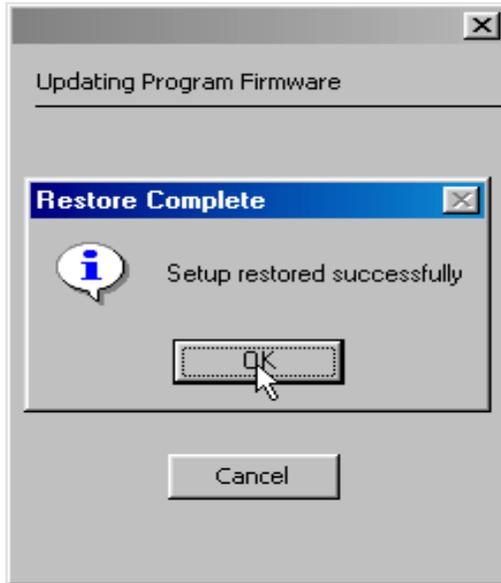
Left Click Mouse On:  Button



AG-11

As the installation progresses the Electronic Service Tool will display the status. Dialog  screens will be displayed to guide the installation process.

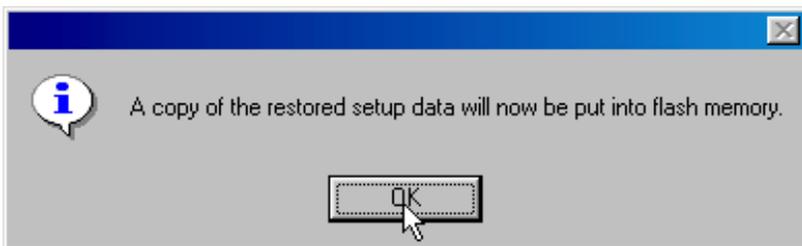
Left Click Mouse On: OK  Button



AG-12

Left Click Mouse On: OK  Button

Left Click Mouse On: OK  Button



AG-13



AG-14

Left Click Mouse On: OK  Button



AG-15

Use the mouse to left click the OK  button to close the Update Controller Firmware screen and return to the AutoGuidance Toolbox screen. Use the mouse to left click the Close  button to close the AutoGuidance Toolbox screen and return to the AutoGuidance main screen.

Important: *After reprogramming the Virtual Terminal, clear any faults in the AutoGuidance controller. Faults may be cleared by using the Electronic Service Tool or the Virtual Terminal.*

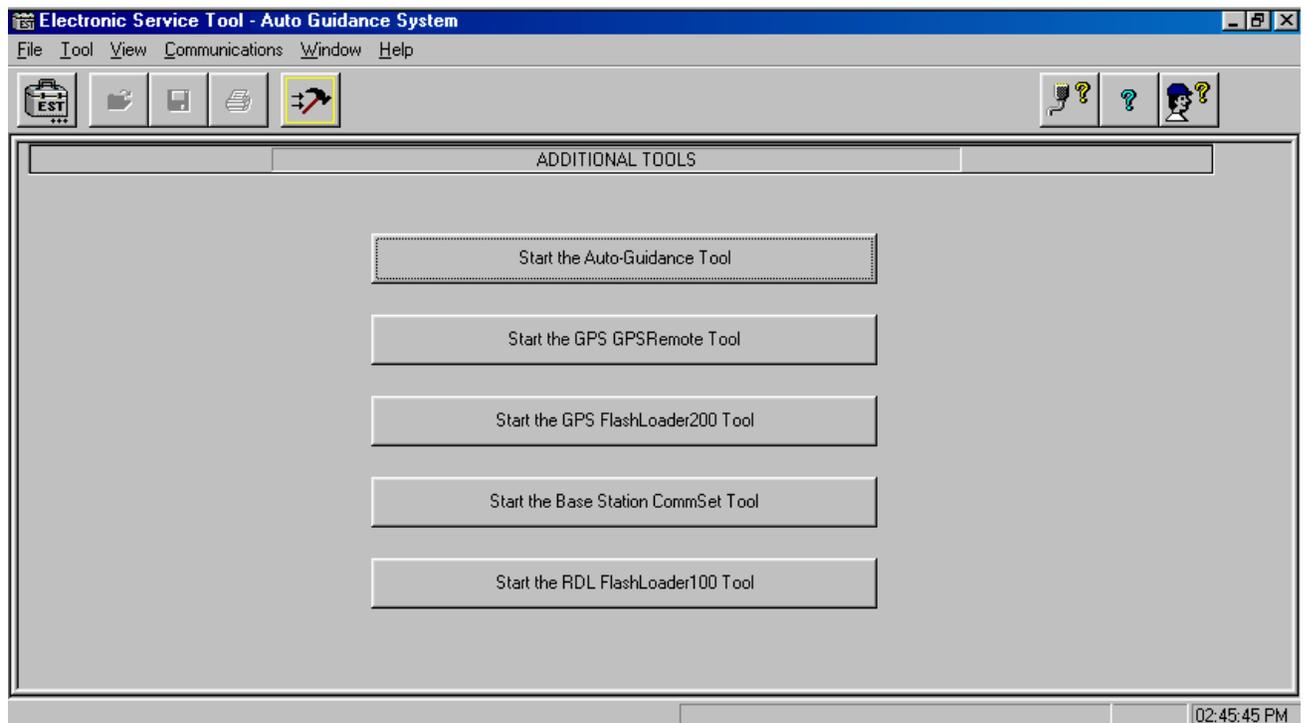
Left Click Mouse On: OK  Button > Close  Button



AG-16



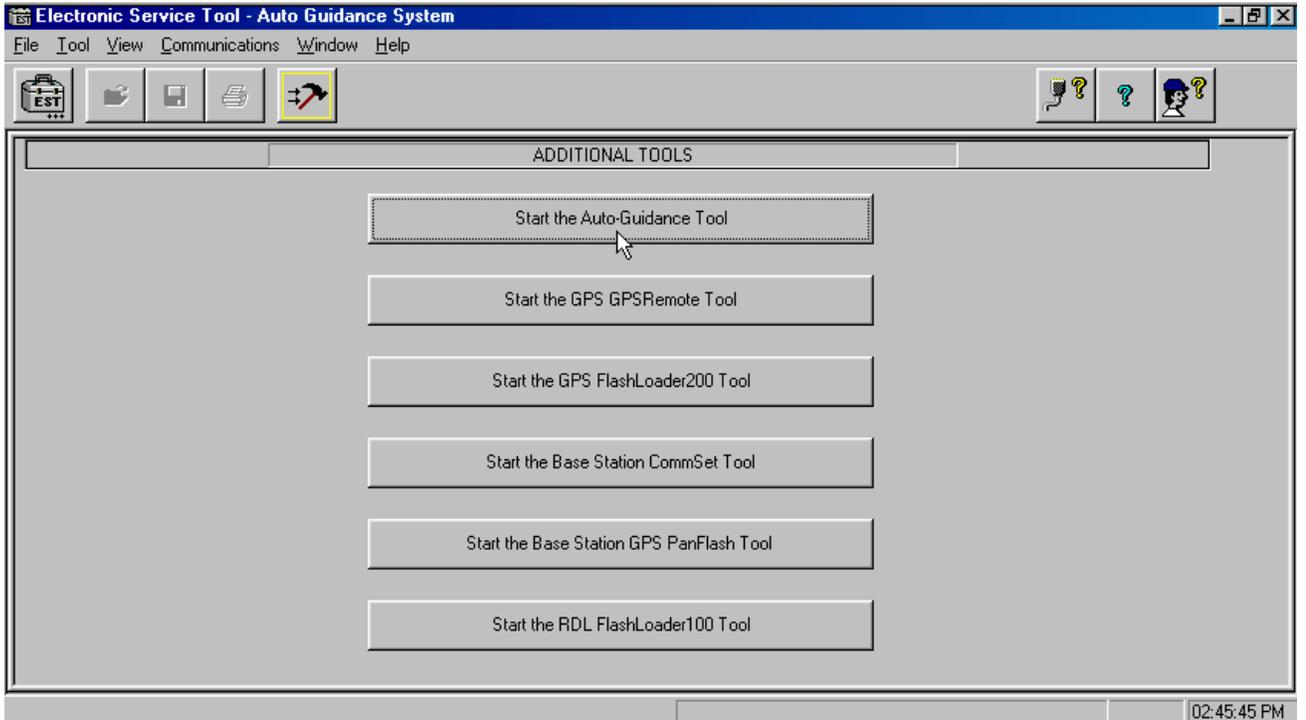
AG04D021



AutoGuidance Toolbox — Diagnostics

Place the cursor arrow  over the Start the AutoGuidance Tool  button. Use the mouse to left click the Start the AutoGuidance Tool button.

Left Click Mouse On: Start the AutoGuidance Tool



02:45:45 PM
RT04D001-1

Left Click Mouse On: Diagnostics  Button



RT04D002



RT04D003

The AutoGuidance Toolbox Setup screen will be displayed. The setup screen provides tabs to navigate through the functional areas of the AutoGuidance Toolbox Setup screen.

- Installation Diagnostics
- System Fault Information
- General Controller and Vehicle Information

Note: Each tab is operated by placing the cursor arrow  over the tab and using the left button of the mouse to operate the tab function.

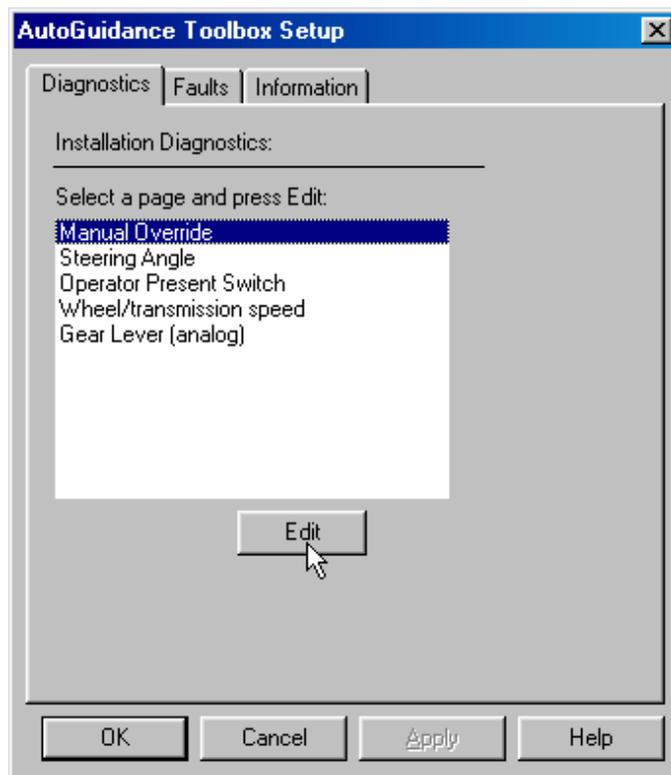
Diagnostics Tab - Monitor Function

The Diagnostics tab allows the user to view a series of monitor screens. The monitor screens display information from the vehicle and system components. This information is used in troubleshooting system functional problems.

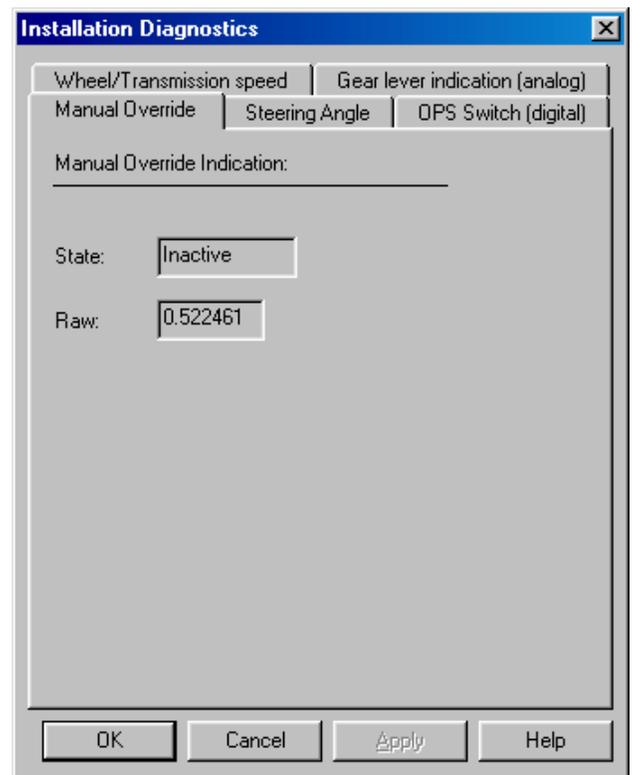
The Diagnostics screen displays a listing of available monitor subjects/screens. Use the mouse to left click the name of the initial screen for viewing. As the name is selected (Manual Override shown) it will be highlighted (darkened). Left click the Edit button to view the Installation Diagnostics screens. The first screen displayed will be the same as the highlighted (Manual Override shown) selection.

Note: Use the mouse to left click the OK button to close the Installation Diagnostics screen when viewing is completed.

Left Click Mouse On: Button



AG04D004

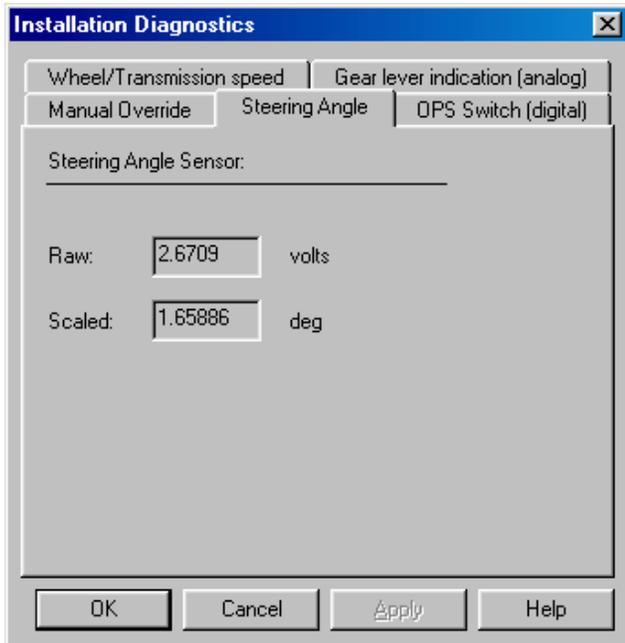


AG04D005

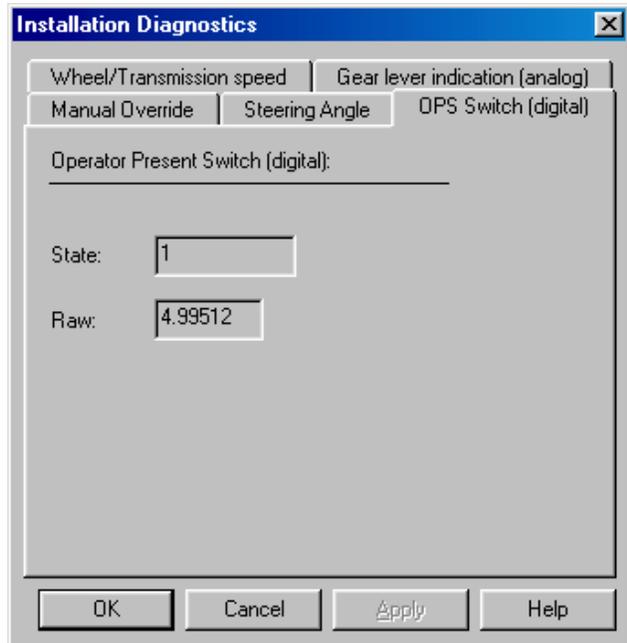
Steering Angle — Ops Switch (Operator Presence Switch)

The Steering Angle tab value should change as the steering angle on the vehicle changes.

The OPS Switch (digital) tab display should change state as the operator presence switch is activated/deactivated.



AG04D006

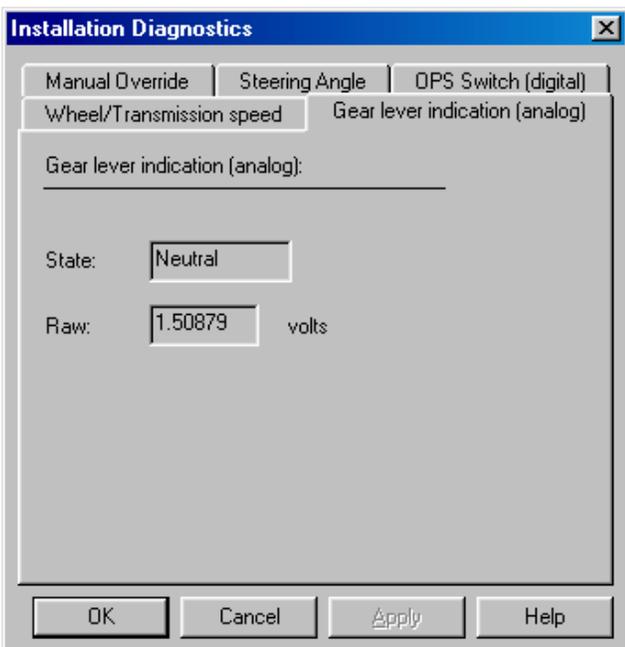


AG04D007

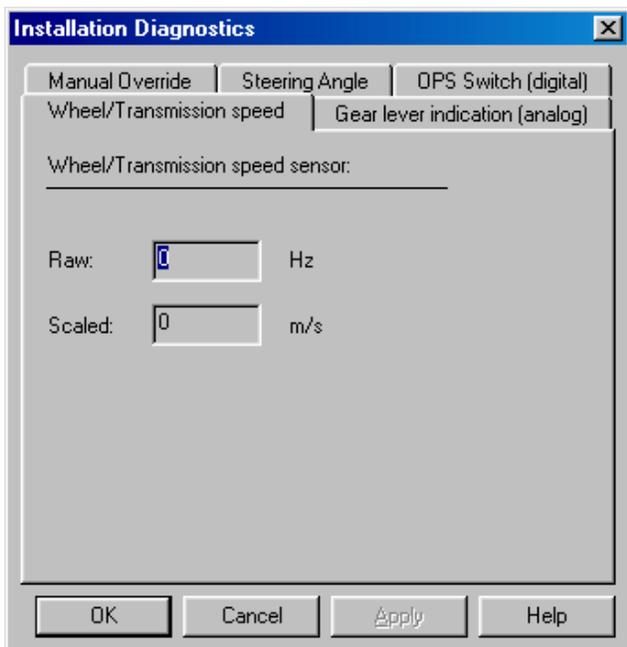
Gear Lever Indication — Wheel/Transmission Speed

The Gear Lever Indication (analog) tab value should display the position of the control.

The Wheel/Transmission Speed tab should display values that represent the speed of the vehicle.



AG04D008



AG04D009

Faults Tab

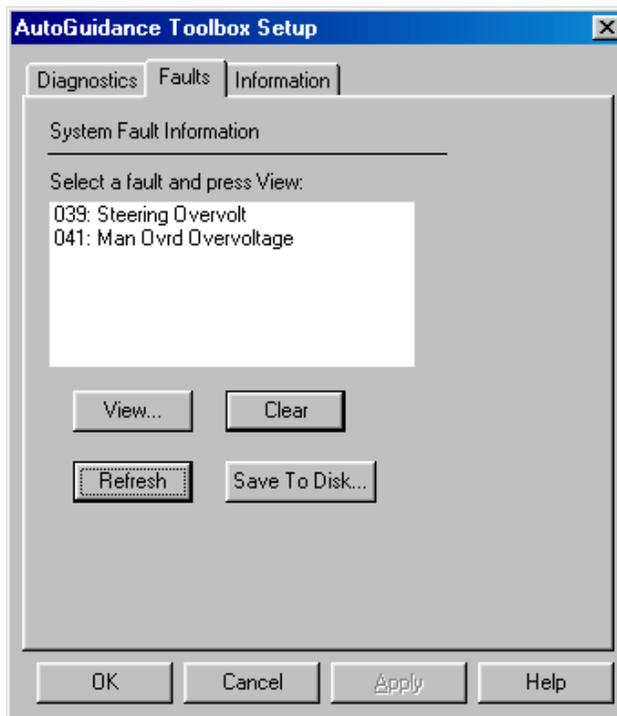
Use the mouse to left click the Faults **Faults** tab. The Faults screen displays a listing of faults currently stored in the controller. Using this screen:

- Faults can be viewed
- Faults can be saved to the Electronic Service Tool hard drive storage disk
- Faults can be refreshed (resampled)
- Faults can be cleared from the controller

Information Tab - Controller

Use the mouse to left click the Information **Information** tab. The Information screen displays information related to the controller and vehicle. Information on this screen includes:

- Controller Serial Number
- Firmware Version
- Firmware Date (date firmware was installed)
- Vehicle Model selected
- Options Installed



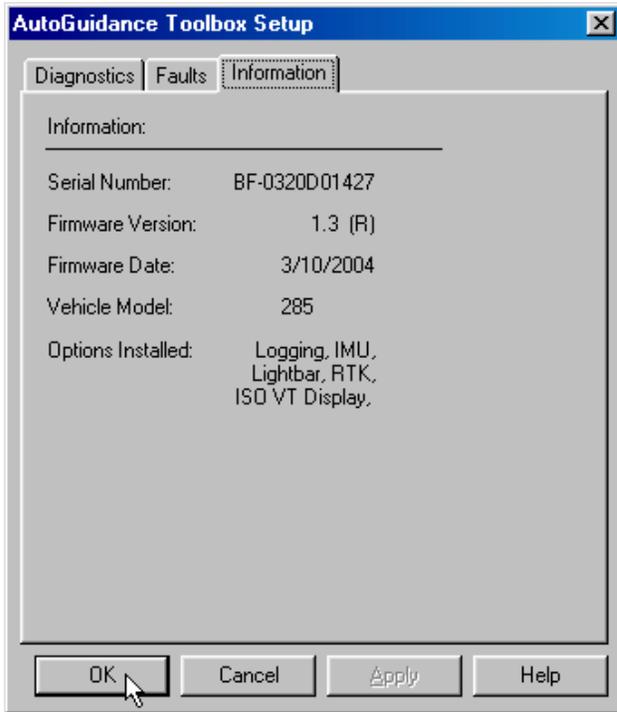
AG04D011



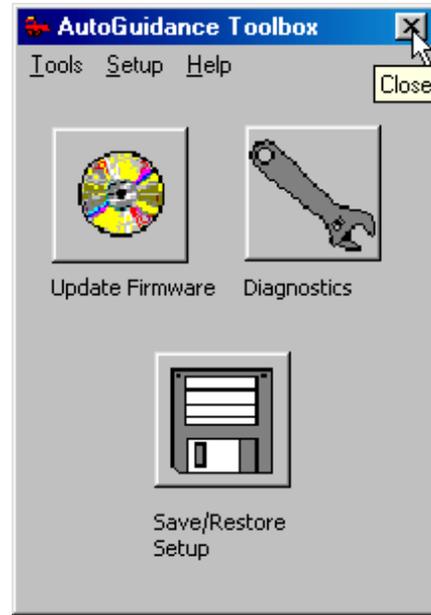
AG04D012

Use the mouse to left click the OK  button to close the AutoGuidance Toolbox Setup screen. Use the mouse to left click the Close  button to close the AutoGuidance Toolbox screen and return to the AutoGuidance main screen

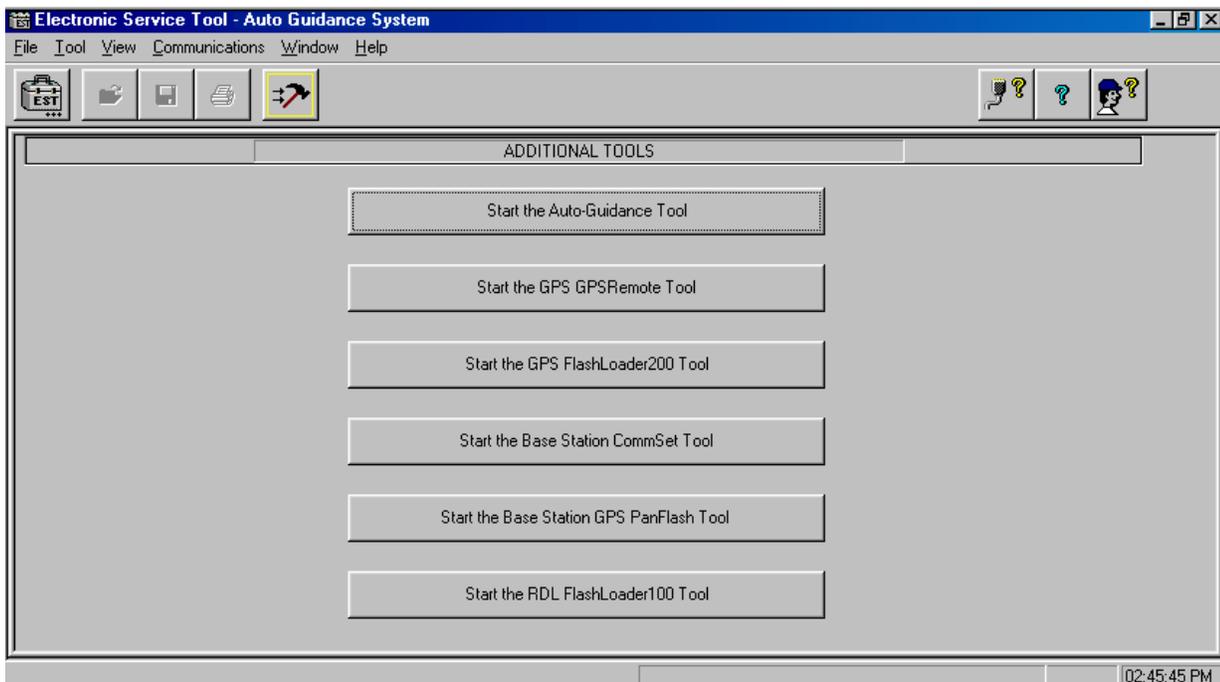
Left Click Mouse On: OK  Button > Close  Button



AG04D013



AG04D021

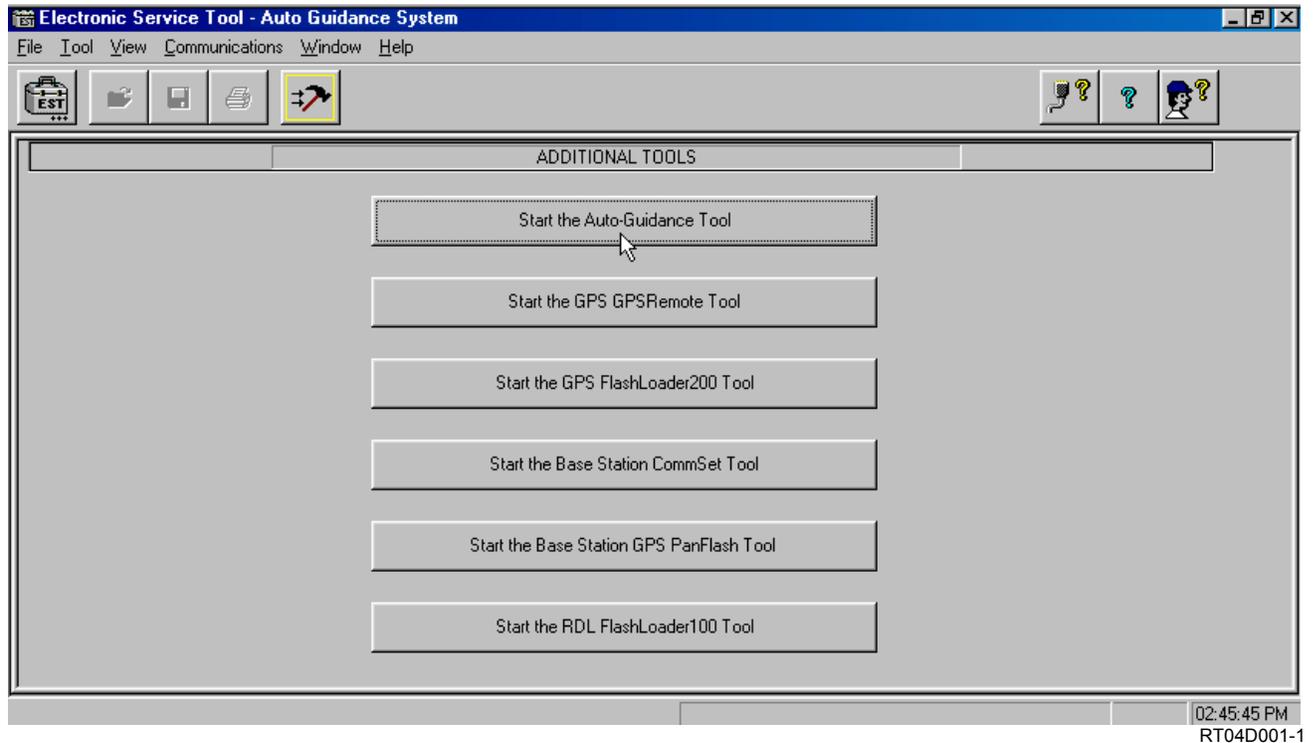


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PF0BD000-2

AutoGuidance Toolbox — Save/Restore Setup

Place the cursor arrow  over the Start the AutoGuidance Tool  button. Use the mouse to left click the Start the AutoGuidance Tool button.

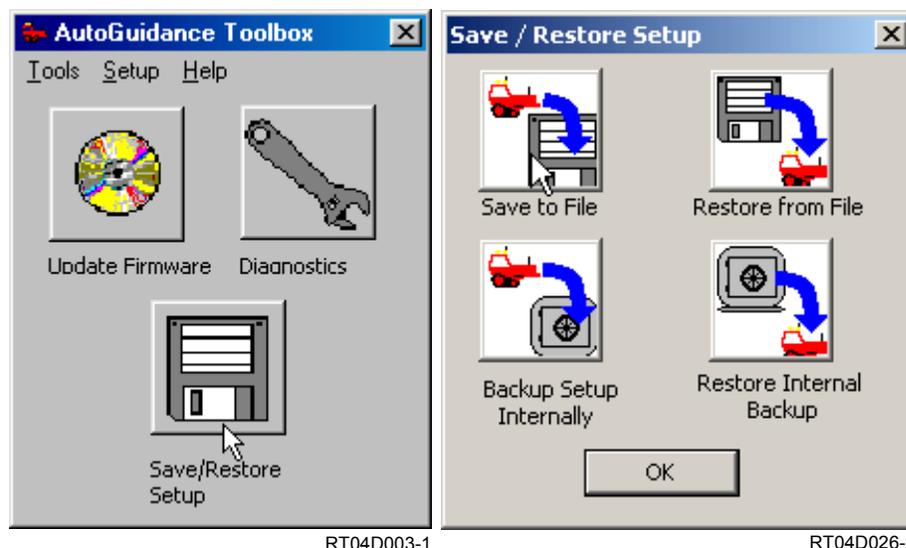
Left Click Mouse On: Start the AutoGuidance Tool



Save Setup to File

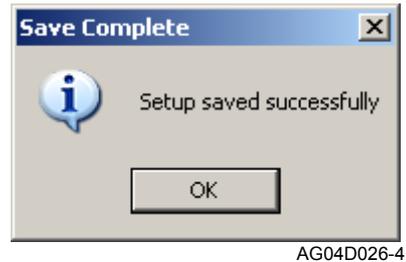
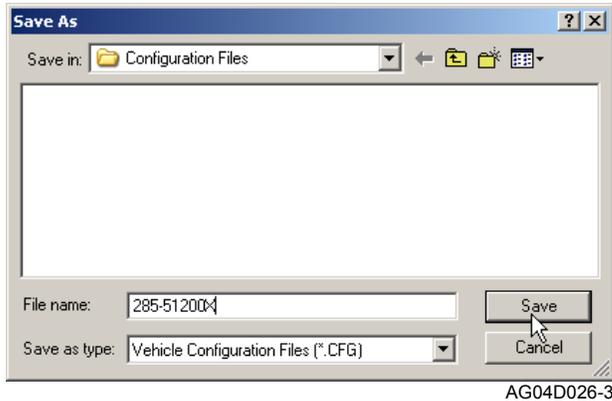
Important: *The Save/Restore Setup is used to save the vehicle setup only. The vehicle setup data consists of calibration and configuration values established for the current vehicle. It is not used for A/B lines (jobs), implement setups, boundaries, or obstacle sets. These items must be saved to a Compact Flash (CF) card using the Remote Data Logger (RDL). Refer to the AutoGuidance and GPS Operator's Manual.*

Left Click Mouse On: Save/Restore Setup  Button > Save to File  Button



A Save As dialog box will display with the storage location of the configuration text file. Using the mouse, left click in the File name field and enter a suitable file name. Place the cursor arrow over the Save  button and left click on the Save button. Left click the OK  button to close the Save Complete  screen.

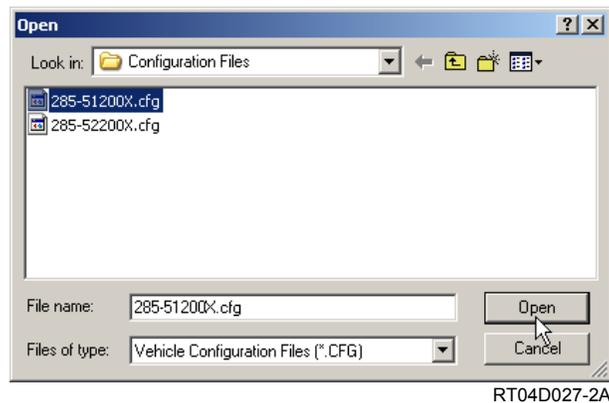
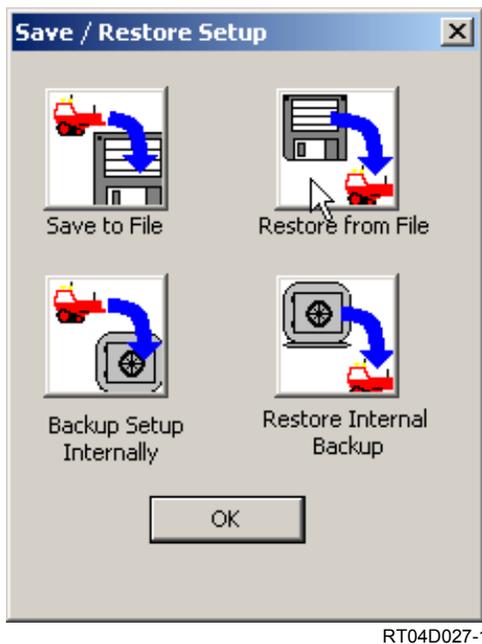
Left Click Mouse On: Save  Button > OK  Button



Restore Setup From File

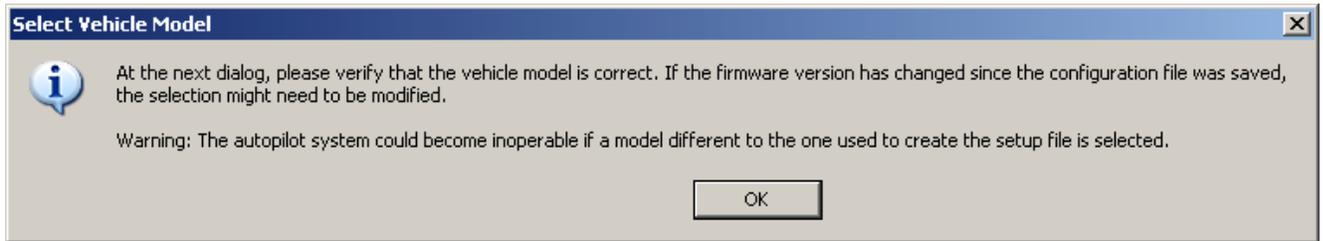
Use the mouse to left click the Restore from File button and then, select the proper file. As the name of the file is selected, it will be highlighted (darkened). Use the mouse to left click the Open  button.

Left Click Mouse On: Restore from File  Button > Open  Button



Left click the OK  button to acknowledge the Select Vehicle Model  screen.

Left Click Mouse On: OK  Button

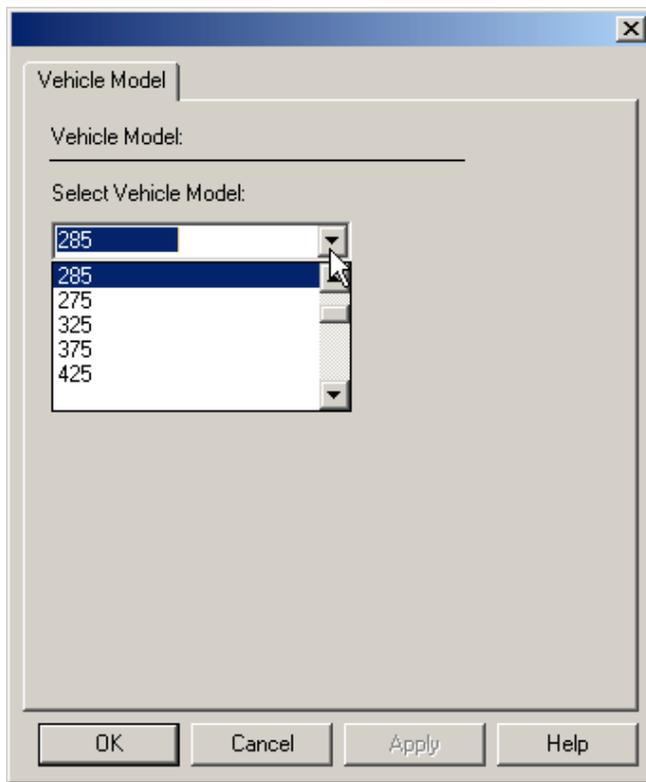


AG04D027-3

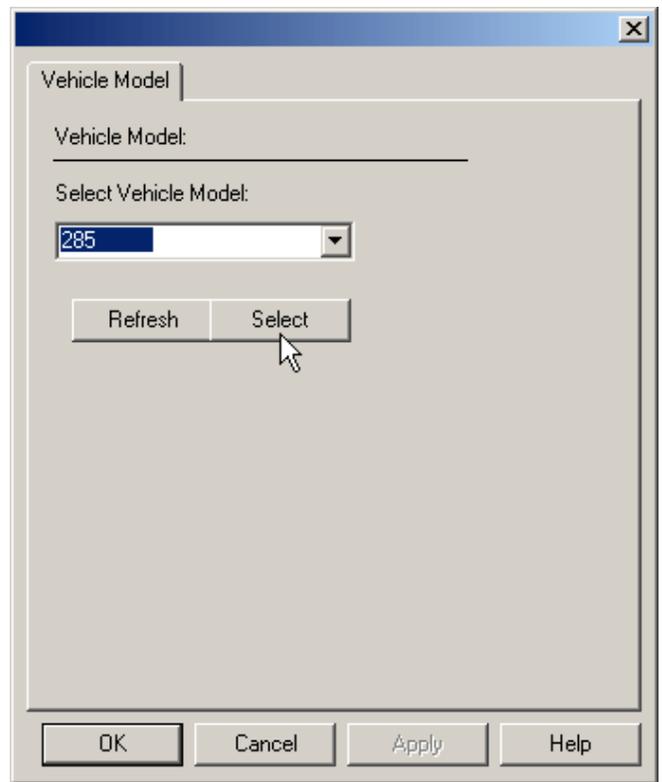
Left click the appropriate model and then the Select  button to chose a model.

Note: *The screen shown depicts generic equipment and model selections. The screen viewed using the Electronic Service Tool will display specific models and brands.*

Left Click Mouse On: Model Selection > Select  Button



AG04D027-4



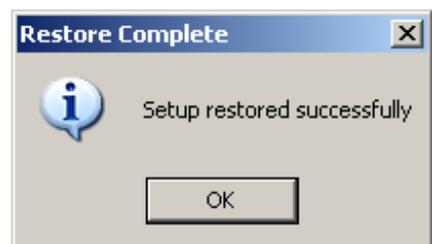
AG04D027-5

Left click the OK  button to close the Restore Complete  screen.

Left Click Mouse On: OK  Button > OK  Button



AG04D027-6



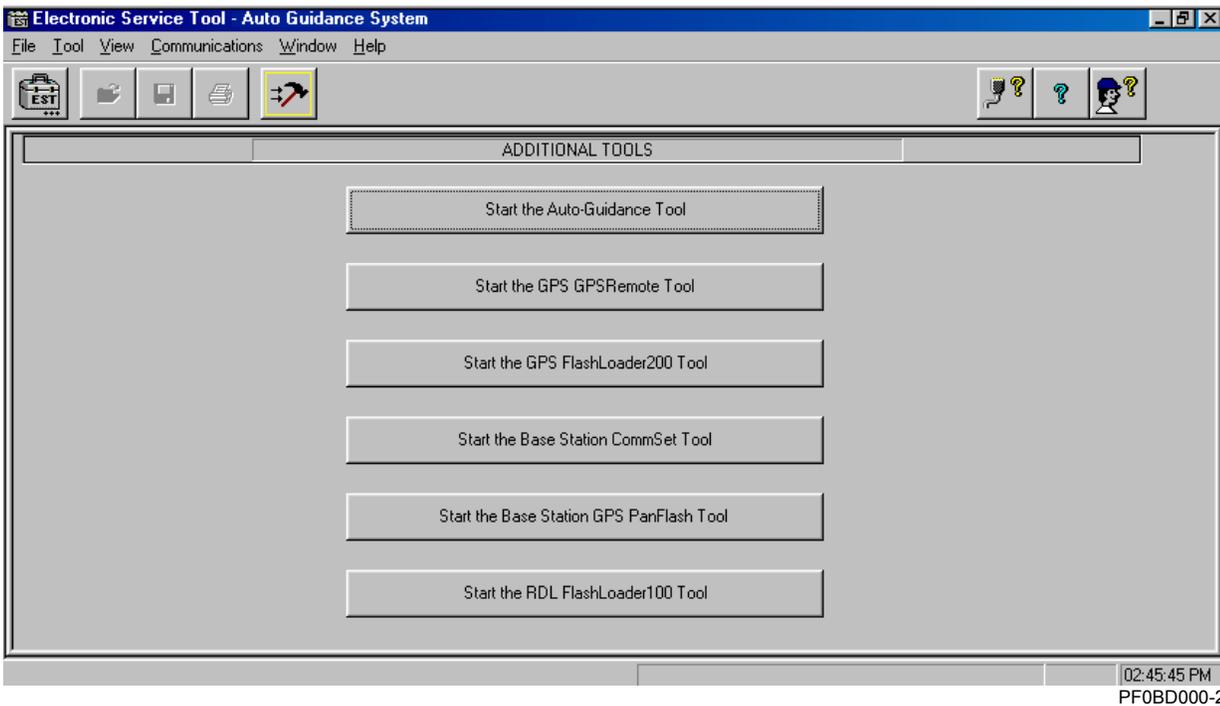
AG04D027-7

Left click the Close  button to close the AutoGuidance Toolbox screen and return to the AutoGuidance main screen

Left Click Mouse On: Close  Button

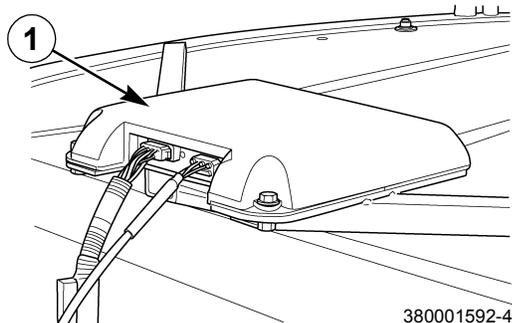


AG04D021



Section 5: GPSRemote Tool

The Electronic Service Tool GPSRemote Tool is used to provide a user interface to configure the GPS receiver.

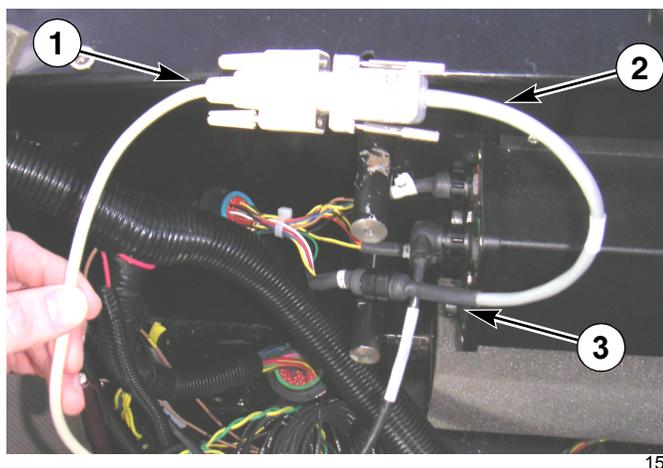


Item	Description
1	Receiver - The Electronic Service Tool GPSRemote Tool is used to provide a user interface to configure the GPS receiver.

GPSRemoteTool Connections

Disconnect the cable from the “Yellow” connector at the AutoGuidance controller. Connect the disconnected cable to the Electronic Service Tool using:

- 380000602 (CAS2580A or CAS2580) Electronic Service Tool Interface Cable - Used to connect vehicle communication adapters to Electronic Service Tool serial port.
- 380001593 Primary AutoGuidance/GPS Diagnostic Cable - Used to connect the AutoGuidance harness to the EST Interface Cable.



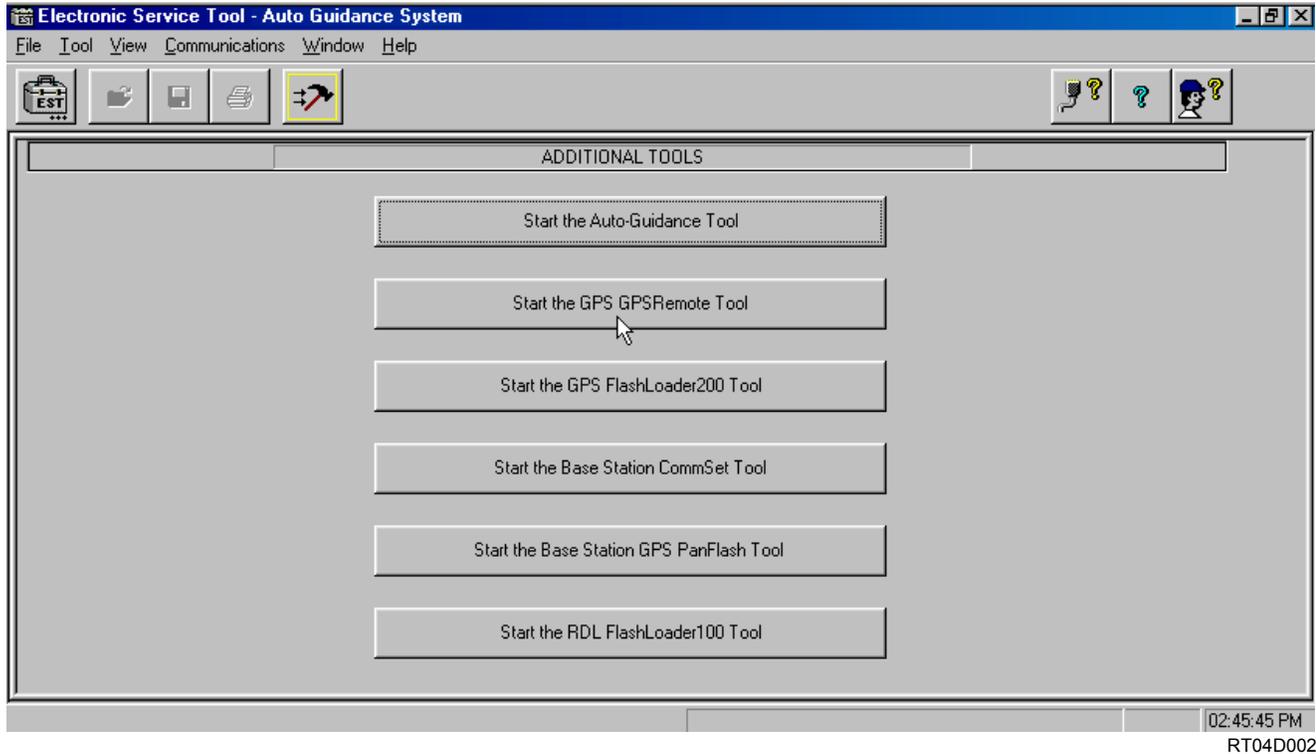
155

Item	Description
Identification Guide - Locations and appearance of some components may vary.	
1	380000602 (CAS2580A or CAS2580) Electronic Service Tool Interface Cable - Used to connect vehicle communication adapters to Electronic Service Tool serial port.
2	380001593 - Primary AutoGuidance/GPS Diagnostic Cable
3	AutoGuidance Controller “Yellow” connector

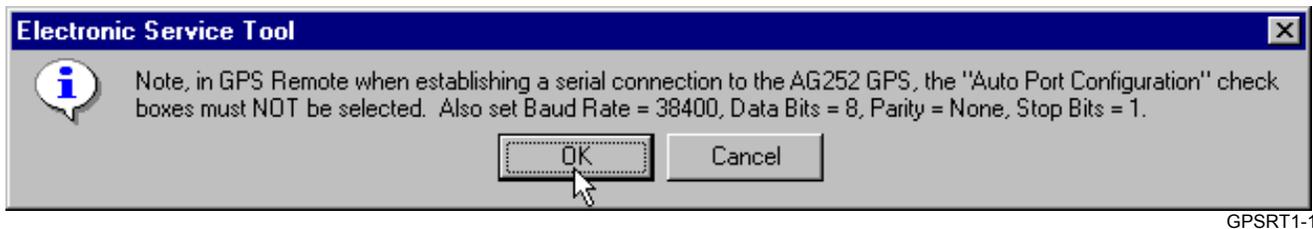
Start the GPSRemote Tool

Place the cursor arrow  over the Start the GPSRemote Tool  button. Use the mouse to left click the Start the GPSRemote Tool button.

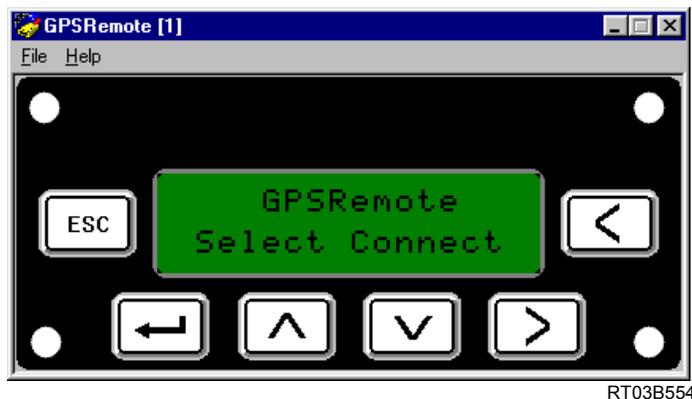
Left Click Mouse On: Start the GPSRemote Tool



A Electronic Service Tool  screen will display. Read the information on the screen and then acknowledge the message by using the mouse to left click the OK  button.



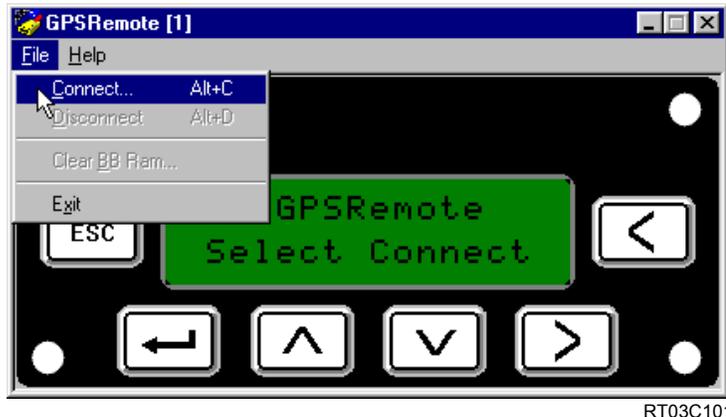
The GPSRemote screen will be displayed. This screen is used to simulate a key pad. It allows configuration of the GPS Receiver without the need for a key pad.



Connect GPSRemote

To connect to the GPS Receiver use the mouse to left click the File pull down menu and then the Connect selection.

Left Click Mouse On: File > Connect



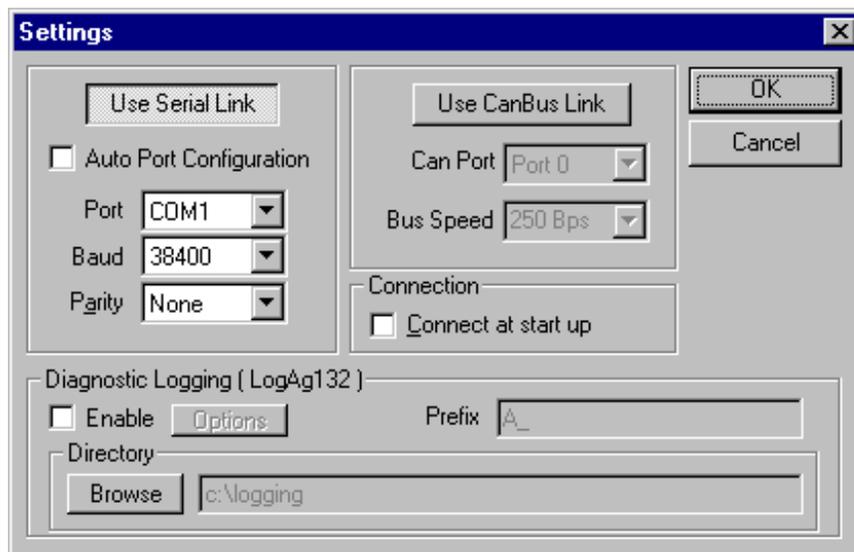
RT03C101

A Port Setting screen will be displayed. To change the Port Settings:

Important: For AutoGuidance applications the Auto Port Connection check box must not be selected. If the Auto Port Connection check box is selected communication with the GPS receiver will not be possible.

1. Place the cursor arrow over the down arrow of a drop down list.
2. Use the mouse to left click on the desired setting. As the setting is selected, it will be highlighted (darkened).
3. Place the cursor arrow over the OK button.
4. Use the mouse to left click the OK button.

Left Click Mouse On: Drop Down Arrow > Port Setting > OK Button



GPSRT1-2