# Installation & Operating Manual

## GTI Bi-Fuel®

*Form GTI+ AGV5 Terminal Program IOM 1-15*

altronic
HOERBIGER Engine Solutions

# 1.0 COMMUNICATING WITH THE GAS TRAIN

**Connect the RS-485 USB Adapter to AGV5-xL**

***NOTE: Steps to be used during normal Bi-Fuel operation***

1.1 Connect (691210-1) isolated RS-422/485 USB adapter or equivalent to the proper port on computer

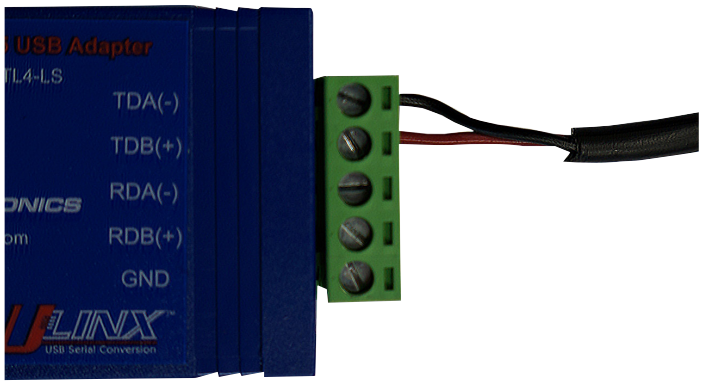
Verify 4-switch setting on adapter

- Switch 1 should be set to RS-485
- Switch 2 should be set to Echo OFF
- Switch 3 and 4 should be set to two wire


1.2 On the adapter, locate the connection points labeled: TDA(–), TDB(+), RDA(–), RDB(+), and GND

1.3 On the adapter side

- Connect black insulated wire (28 to 16awg) to TDA(-) on the RS-485 Adapter. Torque to 4lb-in
- Connect red insulated wire (28 to 16awg) to TDB(+) on the RS-485 Adapter. Torque to 4lb-in




**Skip steps 1.4 and 1.5 if AGV5 RS-485 communication is not in the panel.**

1.4 Locate the label on the back plate of the GPN20XX that displays TDA(–) and TDB(+)

1.5 Connect the black wire to TDA(–) and the red wire to TDB(+). This connection is on the panel side.

**Skip steps 1.6–1.9 if AGV RS-485 communication is in the panel.**

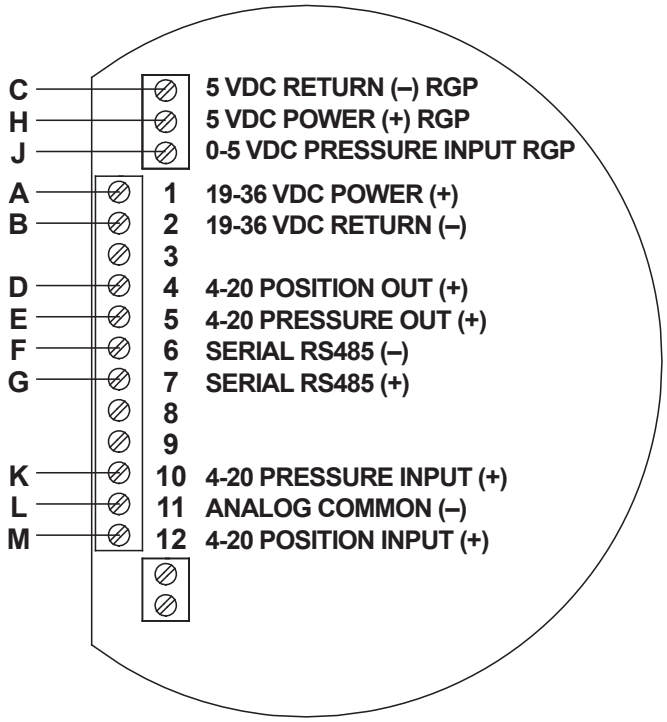
1.6 On the AGV5, remove the top cover.

1.7 Locate terminals 6 and 7 on the AGV5 circuit board

1.8 If wires labeled F and G are landed in terminal 6 and 7, remove wires and move them out of the way

1.9 Connect the black wire to terminal 6 and the red wire to terminal 7

***NOTE: Communication will not be established until Bi-Fuel is ON and the AGV has power***

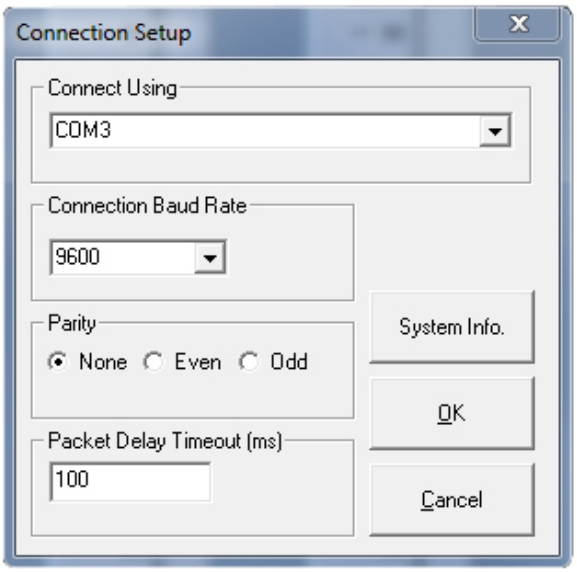



## 2.0 AGV5_GTI+ Terminal Program

2.1 Open the AGV5_GTI+ Terminal Program

A "Connection Setup" box will appear

- "Connect Using" should select the proper COM port on your computer
- "Connection Baud Rate" should display 9600
- "Parity" should have None selected
- "Packet Delay Timeout (ms)" should display 100



2.2 Once the setup information is correct, select OK

Once Bi-Fuel is ON and the AGV5 is powered, communication should be established. TD and RD on the adapter will blink frequently. If TD or RD is a solid light, there is a communication error.

## 3.0 Understanding the Home Screen

3.1 **Connection** — The Connection key allows the user to select a new computer communication port and protocol. The Baud Rate should be set to 9600, Parity set to None, and Packet Delay set to 100.

3.2 **ResetComStats** — In the event of an AGV5 power off-to-on event (commissioning and moving to a new load point), ResetComStats can be used to reset communication with the AGV5 without closing the terminal program or redoing the Connection protocol.

3.3 **Disconnect** — The Disconnect key breaks the communication link between the AGV5 and the computer in use.

3.4 **Chart** — The Chart key allows the user to display the AGV5 functions in graphical form.

3.5 **SnapShot** — The SnapShot key allows the user to take a picture of the home screen.

3.6 **LogFile** — LogFile can be turned on or off. LogFile records all of the data the AGV is processing into a .CSV file.

3.7 **Advanced** — The Advanced key is currently for Altronic Factory Use Only. This key allows for the change of the AGV5-xL characteristics.

3.8 **Help** — The Help key displays the terminal program version and date

3.9 **Exit** — The Exit key exits out of the program.

3.10 **Control Loop Parameters** — The Control Loop Parameter section of the home screen displays the current limits the AGV5 has to operate within.

3.11 **Demand (D)** — The Demand (D) graph displays in percent the signal the GPN control panel is requesting the AGV5 to achieve. This D value is the same as the mA D value displayed on the Next screen of the GPN2020.

3.12 **Sensor (S)** — The Sensor (S) graph display in percent where the AGV5 is in reference to the D value. The S value is derived from the RGP Mixer sensor. The S value in the terminal program is not the same as the S value displayed on the NEXT screen of the GPN2020.

3.13 **Valve Positon** — The Valve Positon graph displays in percent the position of the AGV5 actuator.

3.14 **Valve Drive** — The Valve Drive graph displays in percent the amount of energy being sent to the voice coil to move the valve.