

Visi-Trak[®]

SENSE, MONITOR, CONTROL

FT2/L[™]

True-Trak 20/20[™]

DIE CASTING PROCESS MONITORING

Software Installation and computer Setup

April 2017

Introduction

The following describes how to install the True-Trak 2020™ software on your computer and connect the computer to the FasTrak2™ Portable through the computer's Ethernet port. It is assumed that you are installing this on a computer of your own. If you purchased a computer from Visi-Trak Worldwide these steps will have already been done.

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Obtaining Your True-Trak 2020™ Software

You should have received an Installation USB Drive with your shipment.

The drive contains the latest version of the Visi-Trak software (Example v8.14.exe).

Double click this file which will create a directory on your computer named

C:\Installx.xx (where x.xx is the number of the latest software version. Example

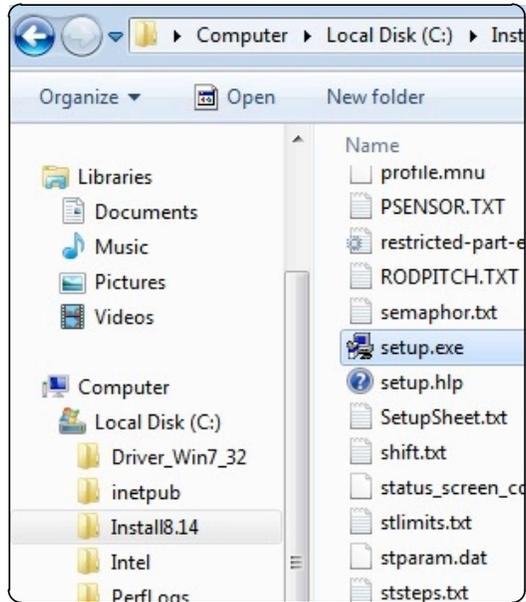
C:\Install8.14).



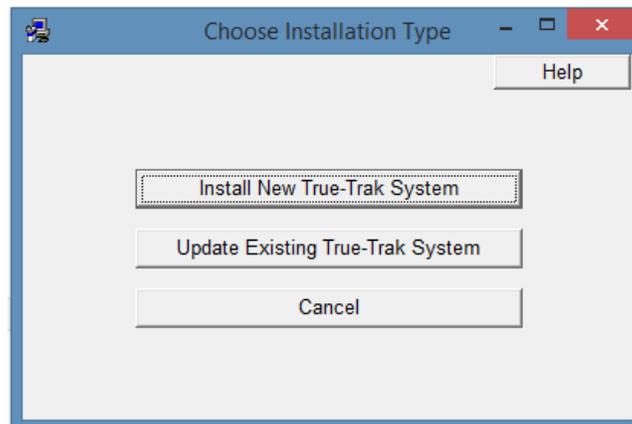
v814.exe

Installing Your True-Trak 2020™ Software

Open `C:\Install8.14` directory and run the "setup.exe" file.

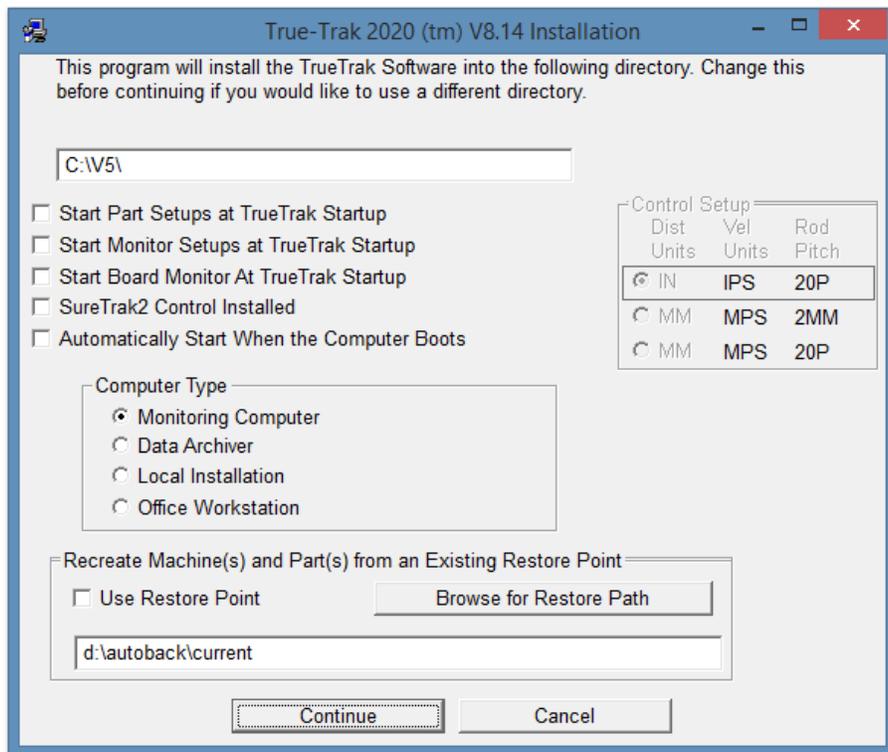


Press the "Install New TrueTrak System" button.



The installation screen gives you a number of options. The first section allows you to choose which programs, if any, are started along with the main "Plot" program.

- The "Start Part Editor at TrueTrak Startup" will run the Part Setup program when you start the TrueTrak software.
- The "Start Board Monitor at TrueTrak Startup" will run the Board Monitor program, the program that communicates with the FasTrak2™ and records the shot data, when you start the TrueTrak software.
- The "Automatically Start When the Computer Boots" option will run the TrueTrak software automatically when the computer is turned ON.



If this is a FasTrak2™ Portable system you may not want any of these checked. In any case you can rerun this setup program again later and change the start-up programs (you must choose "Update Existing TrueTrak System" on the first screen if you are updating an existing installation).

Dedicated Monitoring Computer

For a dedicated monitoring computer you will probably want the "Part Setup" and FasTrak Board Monitor" programs to be checked and you will probably want them to automatically Start When the Computer Boots", as shown to the below

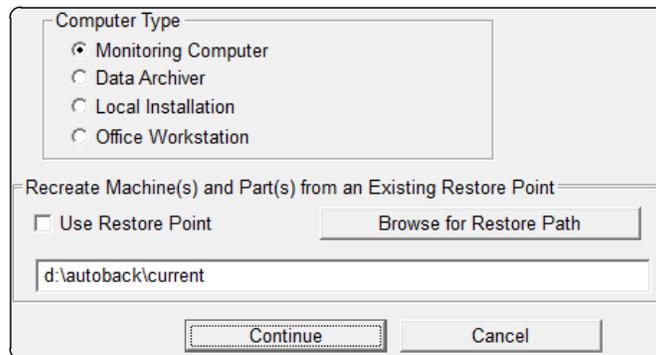


A screenshot of a configuration window with a light gray background and rounded corners. It contains five checkboxes with the following text:

- Start Part Setups at TrueTrak Startup
- Start Monitor Setups at TrueTrak Startup
- Start Board Monitor At TrueTrak Startup
- SureTrak2 Control Installed
- Automatically Start When the Computer Boots

The remaining options should remain as they are.

Press the "Continue" button to begin the installation.



A screenshot of a dialog box titled "Computer Type". It has a light gray background and rounded corners. The "Monitoring Computer" radio button is selected. Below this is a section titled "Recreate Machine(s) and Part(s) from an Existing Restore Point" with a "Use Restore Point" checkbox (unchecked) and a "Browse for Restore Path" button. A text box below contains the path "d:\autoback\current". At the bottom are "Continue" and "Cancel" buttons.

When the installation is complete, you will see the following icon on your screen. Double clicking on this will start the main plot program.

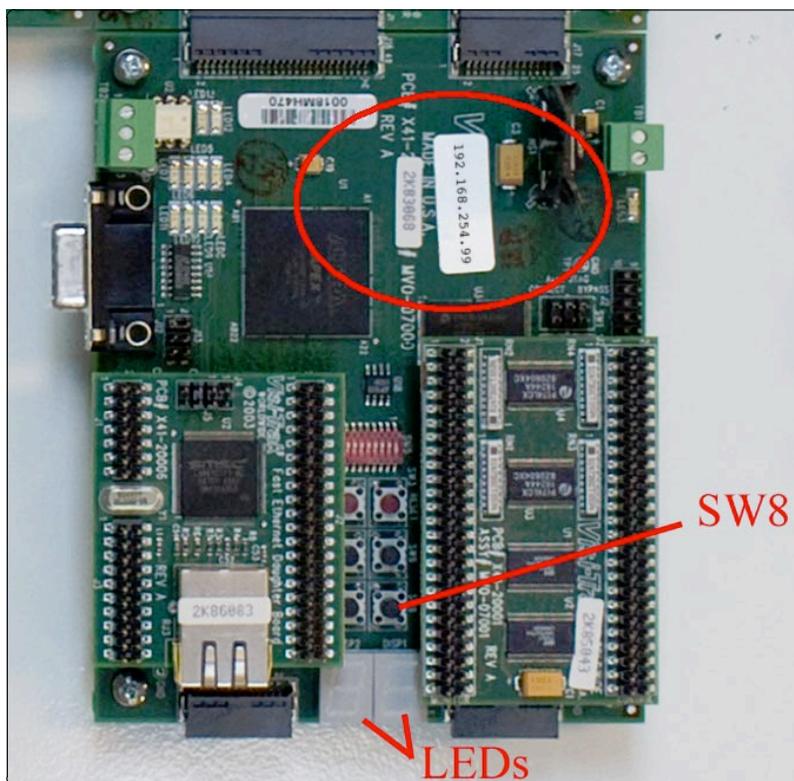
If you chose to have any of the optional programs start at TrueTrak start-up these will also be started at this time.



Determining the TCP/IP Address of the FasTrak2™ Board

The original IP Address, the address of the board when it is shipped from Visi-Trak Worldwide, is marked on a label on the main FasTrak2™ board. It is shown here with a red oval.

Also shown here are the locations of switch SW8 and the two seven segment leds located on this board.



Pressing SW8 causes the ip address to scroll across the leds.

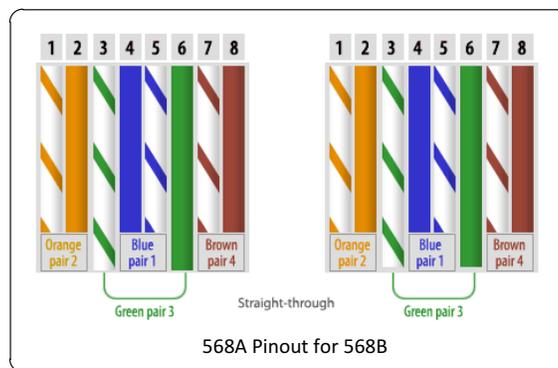
The following pictures show the sequence of changes to the leds as they would appear if you tilted your head to the right, which makes it easier to decipher the address as it scrolls. 192.168.254.99.

Setting Up the Ethernet Port on the Computer

The following is a description of how to connect a FasTrak2™ Portable to a separate computer.

If you have an integrated monitoring computer then the computer and the FasTrak2™ board are located inside the same cabinet and are normally connected by an orange cat5 crossover cable that goes directly from the FasTrak2™ board to the "FasTrak2 Direct Connection" Ethernet port on the computer. Otherwise, the steps shown here are the same that are performed by Visi-Trak Worldwide personnel before an integrated system is shipped.

Plug a normal Cat5 Ethernet patch cable into the Ethernet port on the computer.



On the computer, open the Network Connections dialog. Right click on the Network icon and select Open Network and Sharing Center.



Click Local Area Connection

View your active networks

[Connect or disconnect](#)



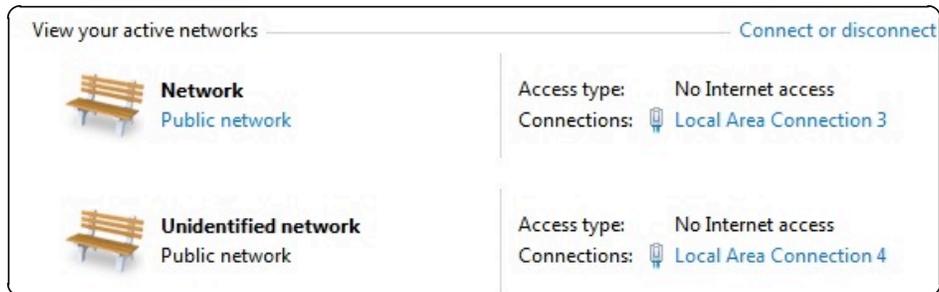
Unidentified network
Public network

Access type: No Internet access

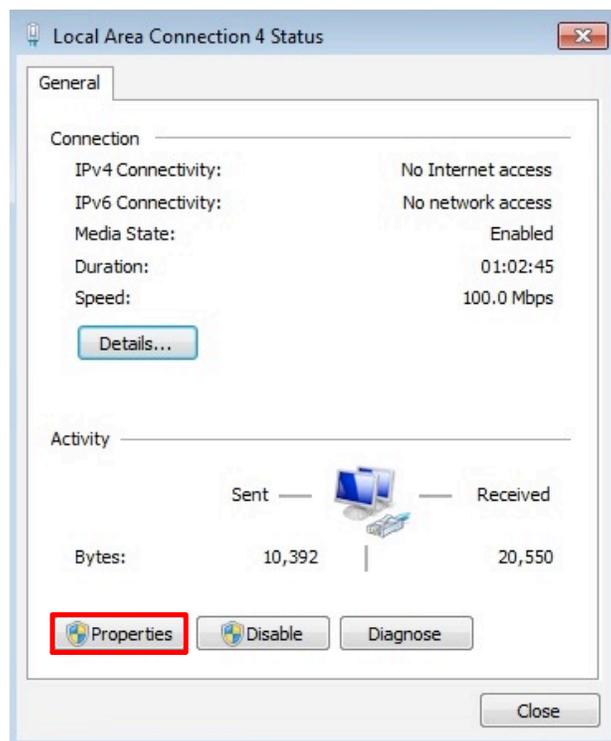
Connections:  [Local Area Connection 4](#)

If you have more than one port and don't know which you are going to use, try plugging and unplugging the Ethernet cable from the port on the Visitrak Board.

You should see which Network disappears and reappears, that means that in this case Local Area Connection 4 is the one connected to the Visitrak Board.

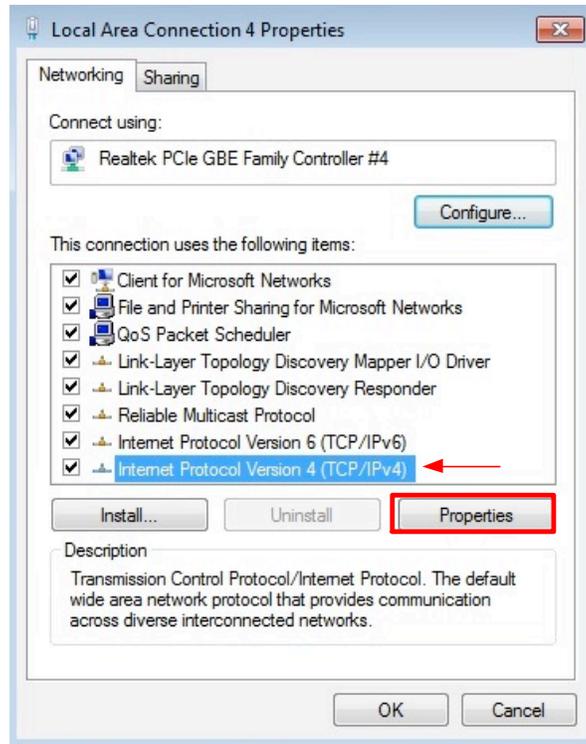


When you double click on the icon for the Ethernet port the properties dialog for that port will appear.



If you are connecting directly to the FT2 Portable uncheck all but the "Internet Protocol (TCP/IP)".

Click once on the "Internet Protocol (TCP/IP)" to highlight it and then press the "Properties" button.



The Internet Protocol Properties dialog will appear. It will probably be set to obtain an IP address automatically.

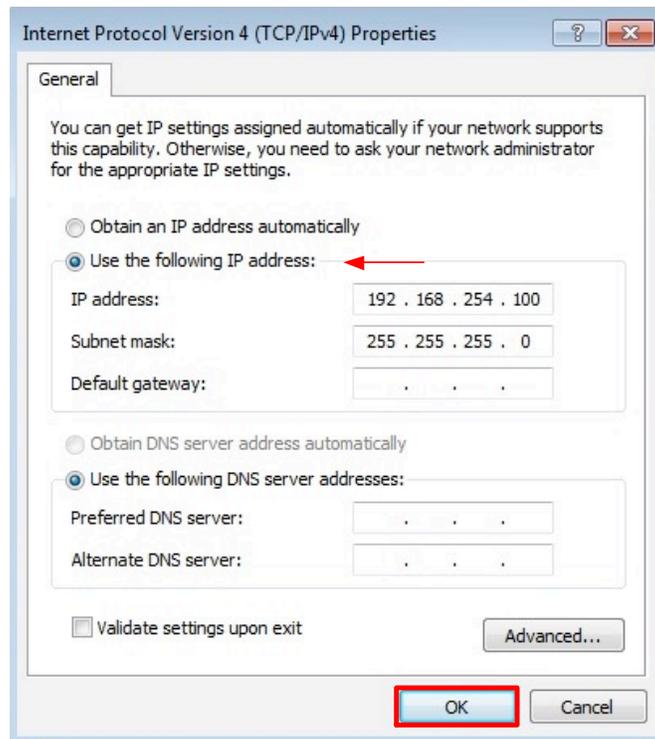
Click the "Use the Following IP Address" button.

Enter an IP address for the computer.

The first three numbers of this address, "192.168.254" in this example, must be the same as those of the FasTrak2 board. The last number must be different. In this example the FasTrak2 board has an address of 192.168.254.99.

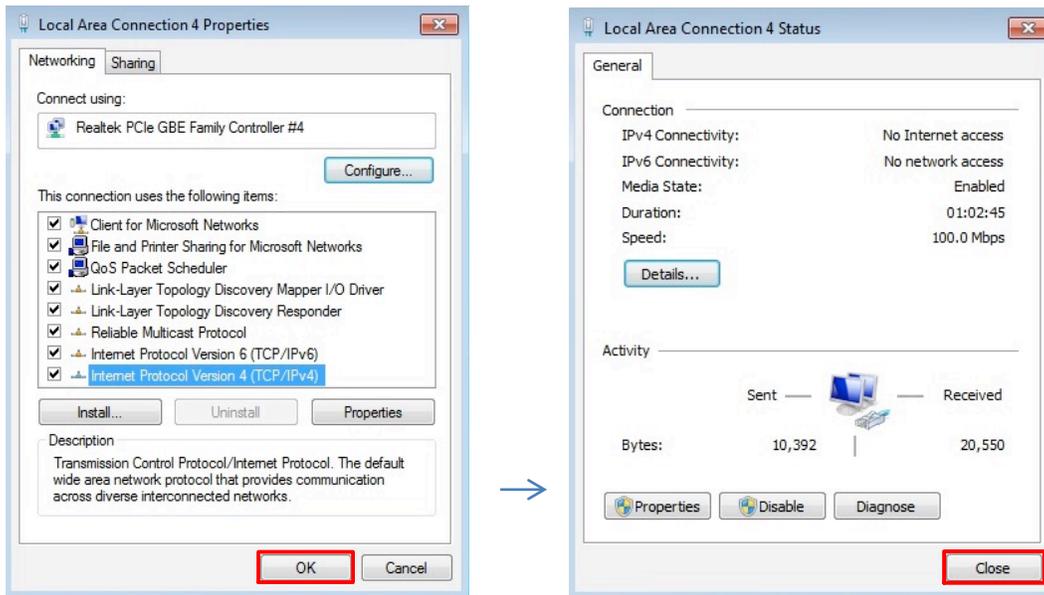
For the computer the last number can be any number except 99 (in the range 1 to 255).

For this example 192.168.254.100 for the address.



Press the "OK" button to close the Internet Protocol Properties dialog.

Press the "Close" button to close the Local Area Connection Properties.



Getting the Program to Talk to the FasTrak2 Board

Make sure the Ethernet cable connects the computer to the FT2 Portable and that the FT2

Portable is turned on.

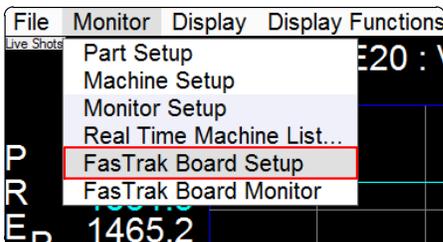
Start the True-Trak program on the computer.



If the "FasTrak2" program is running, pull down the "File" menu and choose "Exit and STOP Monitoring" to shut the program down.

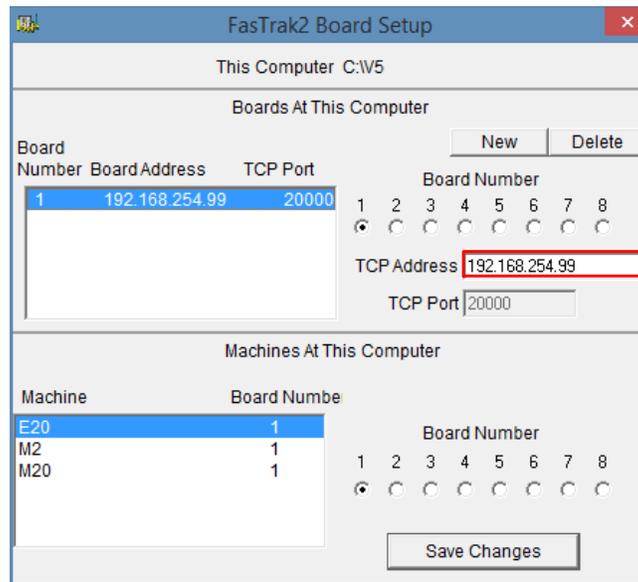


Pull down the "Monitor" menu and choose "FasTrak Board Setup".

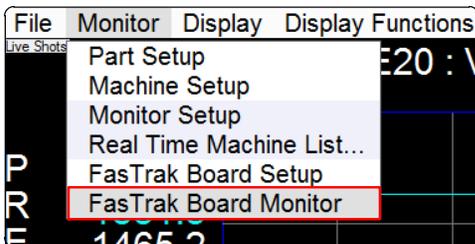


When the FasTrak Board Setup dialog appears, check the "Address" of the FasTrak2 board, pointed to on the picture below, and make sure it is the same as the actual address of the FasTrak2 board that you are trying to connect to.

Press the "Save Changes" button at the bottom of the dialog and then close the dialog.



Pull down the "Monitor" menu and choose "FasTrak Board Monitor".

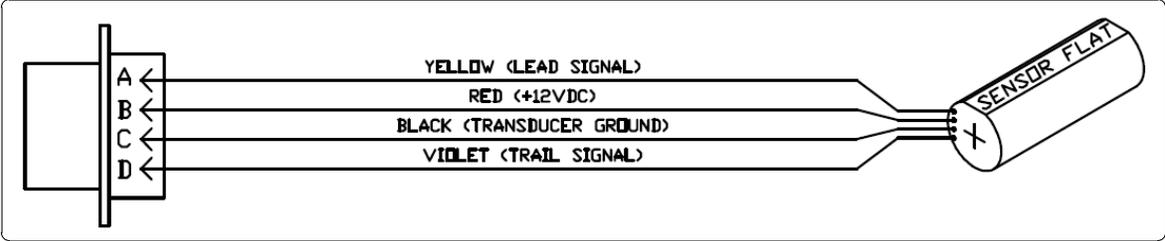
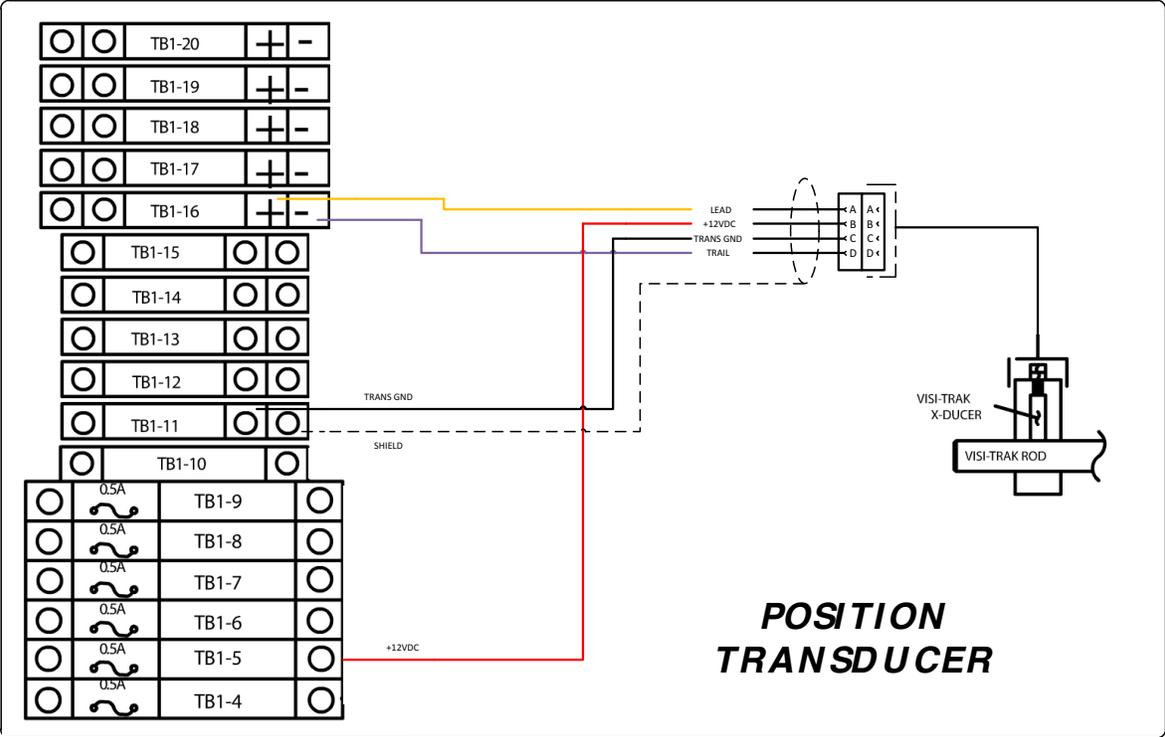


The FasTrak Board Monitor program will appear and should immediately connect with the FasTrak2 Board. This is indicated by the word "Connected" under the "Comm Status".



If this is the first time you have connected to this FasTrak2 board you will see the "Monitor Status" display "Uploading..." for a second or two and then it will display "Upload Complete".

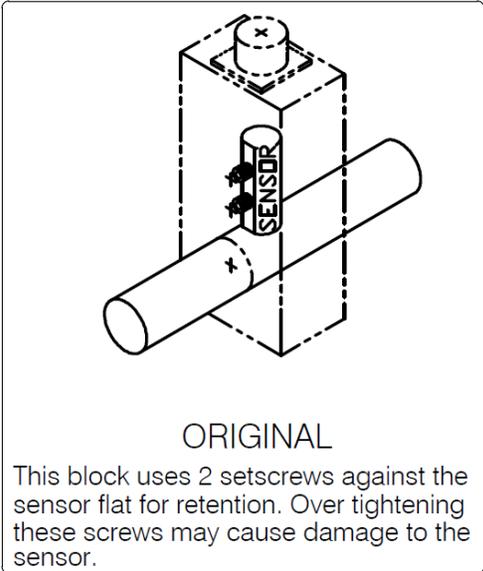
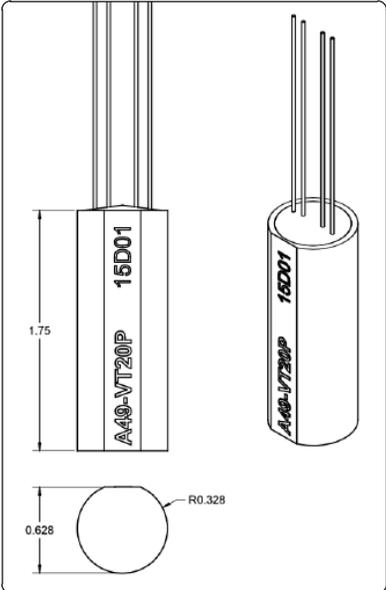
Connecting the Cable to the Visi-Trak® Position Transducer



Installation Instructions for Position Transducer

The Transducer has already been pre-tested at the factory and a small sticker should be located on the face. This sticker provides the recommended gapping distance between the rod and the transducer. Any tape located on the sides of the transducer body may prevent proper insertion of the transducer into the transducer mounting block due to the close tolerances that exist.

Carefully insert the sensor into the proper hole of the transducer mounting block and rotate until the flat edge of the sensor lines up with the permanent alignment key and inset the sensor until it touches the rod. Once in place and tighten the nylon tip set screw as shown in the image bellow.

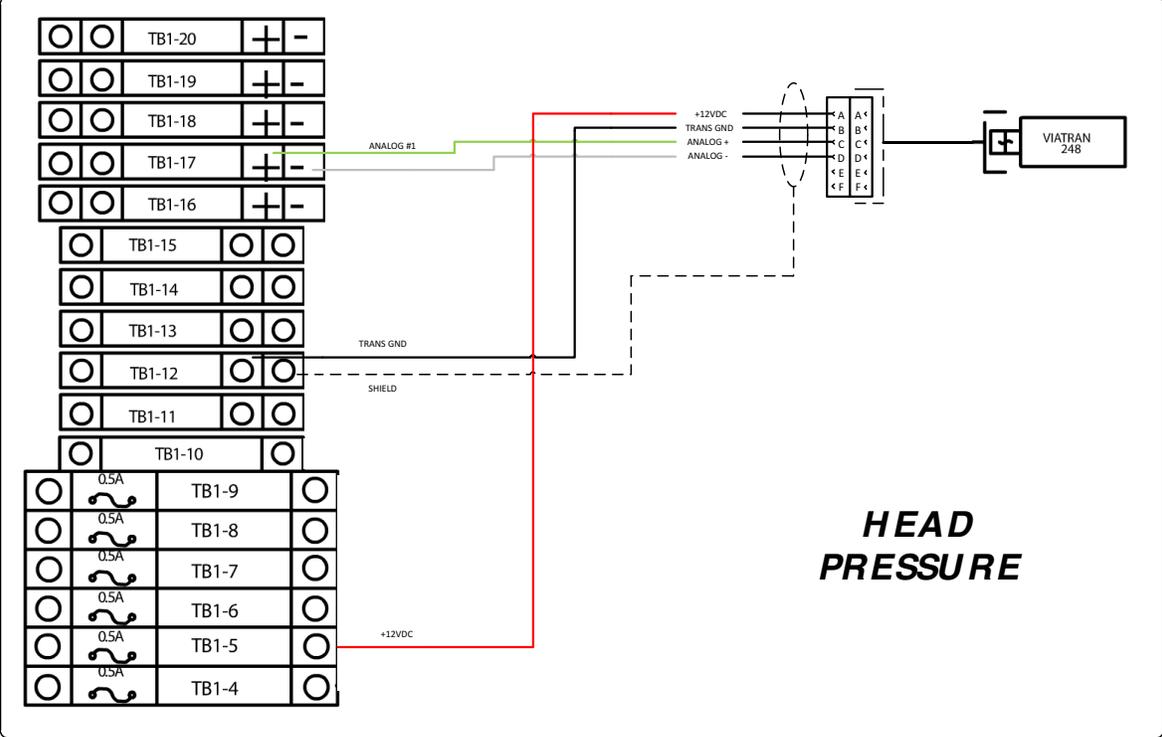


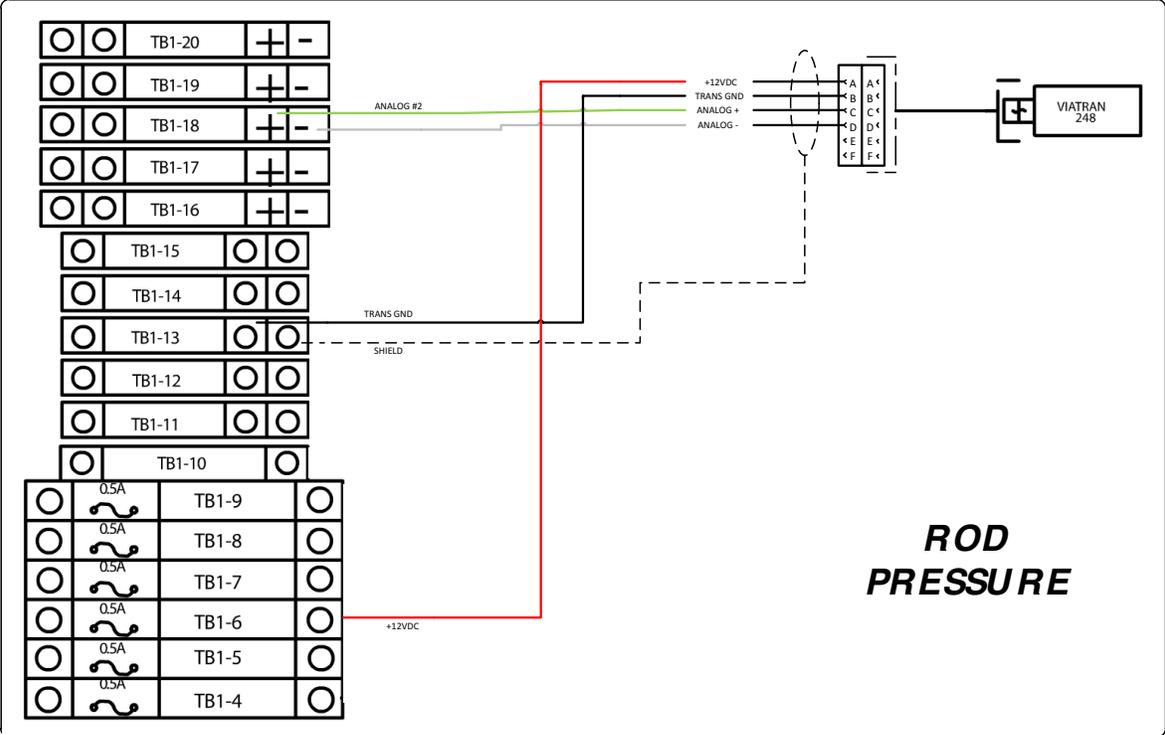
Model	Pitch	Resolution	Max Gapping
A49-VT20P	0.05"	0.0125"	0.020" (0.51mm)
A49-VT10P	0.1"	0.025"	0.040" (1.02mm)
A49-VT1MM	1mm	0.25mm	0.015" (0.38mm)
A49-VT2MM	2mm	0.5mm	0.035" (0.89mm)

The diagram shows two square wave signals. The top signal is labeled 'Leading Channel' and the bottom signal is labeled 'Trailing Channel'. Both signals have a high level of 12V and a low level of 0V. The Leading Channel signal is phase-shifted relative to the Trailing Channel signal. A horizontal double-headed arrow labeled 'pitch' indicates the distance between the rising edges of the two signals.

Sensor Specifications	
Supply Voltage	12V ± 10%
Supply Current	28mA Typ. (50mA Max)
Linear Speed	500 IPS Max
Operating Temp.	-40°C to 85°C
Output Waveform	50% Duty Quadrature
Red Wire	Supply Voltage
Black Wire	Ground
Yellow Wire	Leading Channel
Purple Wire	Trailing Channel

Connecting the Cable to a Viatran Pressure Transducer



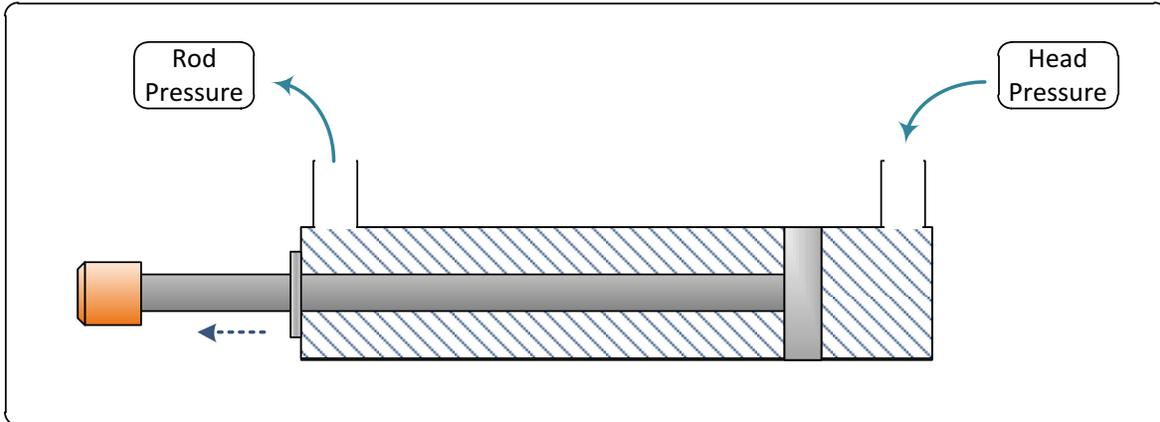


Cylinder Head

The main function of the head is to enclose the pressure chamber from the other end.

Piston Rod

The piston rod is typically a hard chrome-plated piece of cold-rolled steel which attaches to the piston and extends from the cylinder through the rod-end head.



Connecting the Cycle Start for automatic shots

A signal from the DCM has to trigger an input in Visitrak Automatic start cycles, this signal can be for example the Die Lock ready from the DCM.

