E-TRAK Setup Instructions for Downloading Data:

Data from E-TRAK is downloadable to most Windows based computers through a USB port. The recommended method is to use a USB to TTL Serial Cable supplied by FTDI Chip (http://www.foxterm.net/) and the FoxTerm application software. Other USB product solutions may also work.

FoxTerm is a terminal emulation application that is free for both personnel and business use. Once loaded on a PC, FoxTerm supports loading an XML file that communicates with E-TRAK that will:

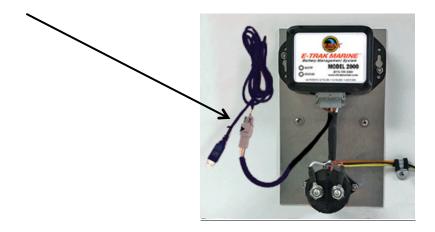
- Download date stamped data
- Download statistical data
- View and/or change customer programmable parameters (requires a password)
- Reprogram firmware that is application specific (requires factory authorization)

Before the first download:

- Install the FoxTerm application software on a PC. This is provided on a CD. If you do not have a copy, go to www.ftdichip.com for a free download.
- Install the software driver. Many computers do this automatically. To do this manually, go to the FTDI website, www.ftdichip.com and download the software. Note: You must expand this zip file.
- The USB port designation and settings must be correct in order for communicate with E TRAK to start.

Using the interface connector:

- Plug the USB connector into a USB port on the computer
- Plug the other end of the cable to the 3-way connector from E-TRAK



Initial setup: (you should only have to do this once)

- 1) Open the Control Panel/ Device Manager
 - Click on the new device "TTL232R"
 - Under the Hardware Tab, change the Port, (COMx) to agree with the COM port being used on the PC.
- 2) Open FoxTerm and click on FILE.
 - Open "New Connections" and set the parameters as shown here:
 - Close by clicking OK when you are done.

same Port as above

Use the Save Session As... to save the file (.XML)

Port: set as required

Baud: 19200
Data Bits: 8
Parity: none
Stop Bits: 1

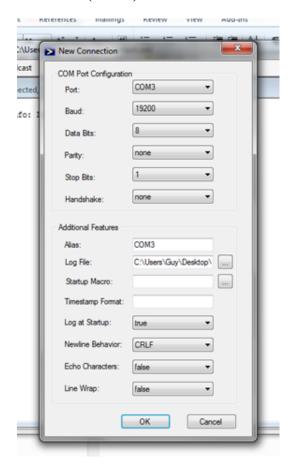
Handshake:

Alas:

none

Log File: name your file
Start Up Macro: leave blank
Timestamp: delete any entry

Newline Behavior: CRLF Echo Character: false Line Wrap: false



Communication via the Menu:

You are now ready to start communicating with E-TRAK

Press "m" or "M' to access the E-TRAK Menu

FoxTerm Info: Logging started. ---PROGRAMMING MENU ---(A) Serial Number 226625 (B) Download Data (C) Print Start Monitor (D) Clear Data (E) Programming Mode (F) Change Password (G) Time and Date 08/10/17 10:55 AM (H) Starter Cable Micro-Ohms @ 20C 250 (I) Battery Relax Time (1/10 hrs) 40 (J) Timeout Period (minutes) 15 (K) Interval of Start Cycles Analysis 25 (L) Start Voltage Drop Threshold 75 (M) Starter Current Dropout (amps) 200 (N) Battery Baseline Resistance (u-Ohms) 1500 (T) Test Contactor (X) Exit

- *(1) Download Data* provides data retrieval No password is required
- All other commands require a password When prompted entire a password The default password is <u>1578</u>
- (F) Change Password, used to change the password

Reading the Data:

- Don't forget to save the file
- Saved files are formatted as comma separated values
- Use any text editor to view the file
- Its recommend the file be open in spreadsheet (i.e. Excel). This is easier to read and provides tools for statistical analysis.

This section gives accumulative totals for the life of the vessel up to present time

E-TRAK Marine 2000	
Version	EM2000B278
Header	EM2000B277.h
Serial Number	100406
Battery Current State of Charge	100
Battery State of Health	100
Total Battery Connect hours	1142.6
Battery Connect Cycles	15
Total Contactor Closed hours	50.2
Contactor Closed Cycles	132
Total Key ON hours	33.2
Key On Cycles	132
Total Starter Engaged Time minutes	4.8
Starter Engaged. Cycles	126
Total Charging Time hours	31.5
Total Over-Charging Time hours	0
Alternator Charging Cycles	125
Total Time with Alerts	0
Total Time with Faults	0
Total Alert Count	0
Total Fault Count	0
Total Logs	411
Stored Logs	409