

ELECTRIMOTION INC.  
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DELAWARE, OH 43015  
**740.362.0251**

**TF Command Module Ver 5.03**  
**2026 NHRA TF**



## Connections

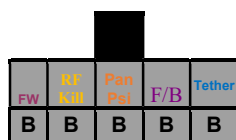
**Power Input connector:**

2 pin plug (red-black) wires  
9-21 volt input

**Start Switch connector:**

2 pin green connector  
Short wires together to start timer  
(org wire is input power).

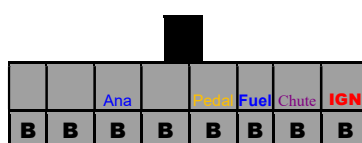
## Safety Box Inputs



RF



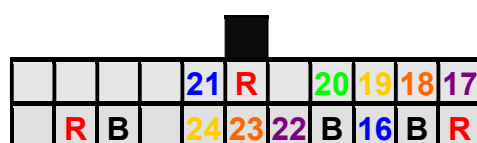
## Safety Box Outputs



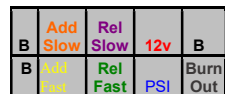
### Outputs: Timer Channels 1- 15



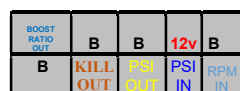
## Timer Channels 16- 24



## AR1



## Boost/Rev



## CR



**R** = Input Power      **B** = Ground

### Mounting:

10-32 screws—2.500" by 2.000"

**Warning** Do not use screws longer than 3/8" or damage to unit may occur.

**Overall Dims:**

6.0 " \*4.5" 2.75"

## **Overview:**

**The Electrimotion Command Module is a modular control system made up of, 21 timer outputs, 1 air regulator, a Boost Ratio safety module, Low and High Clutch Regulators and a Full Safety Box with distance and analog output. Data entry can be done via the keypad or on a pc with the included Command Module software. The Command Module has an SD memory card to facilitate transferring data to and from the pc.**

**The 21 Timer channels have the following programmable features.**

- **On times including “On Now” mode, which allows a channel to be on before the throttle is hit.**
- **Off mode, which can be a time or another channel. In off channel mode, a timer channel will turn off when another channel turns on; this is useful in turning on a sequence of outputs one at a time.**
- **21 timer outputs without RPM feature, 3 Clutch stop timers.**

**The Electronic Air Regulator for fuel control, has the following Programmable features.**

- **15 time/pressure points to build a pressure curve. These points can be graphically edited using the Command Module software. The time/pressure points can also be edited via the keypad.**
- **Initial Delay time feature, which allows the pressure curve to be shifted in time with just one time change.**
- **Standby Pressure which is the pressure before the throttle is hit.**
- **Using the Shift Curve menu, you can raise or lower the entire curve.**

## **Boost Ratio Safety Module.**

- **Able to create a Boost Pressure map to shut car off in the event of an over boost situation. A Boost/RPM ratio rate setting and time window to trigger safety system in the event of a rapid rise in Boost Ratio.**

## **High and Low Clutch Regulators.**

- **Same features as the Air Regulators.**
- **Hold Off time to disable the regulator.**
- **Pressure Rate**

## **Full Safety Box.**

- **Inputs: Manifold Tether, RF, Fire Bottle, Crew Shut off, Front Wheel Distance, Boost Ratio.**
- **Outputs: Chute Air, Fuel Shutoff Air, Ignition power, Throttle Release Air.**

## **Notes:**

- **This version has limited user parameter access.**
- **File Format \*.EM2 files**
- **Best used with version 4.08 software and latest descriptions.**
- **Older \*.EM2 files will load into Command Module.**
- **Visual NHRA logo on faceplate for easy identification.**
- **5.03 or newer firmware identified on startup screen.**

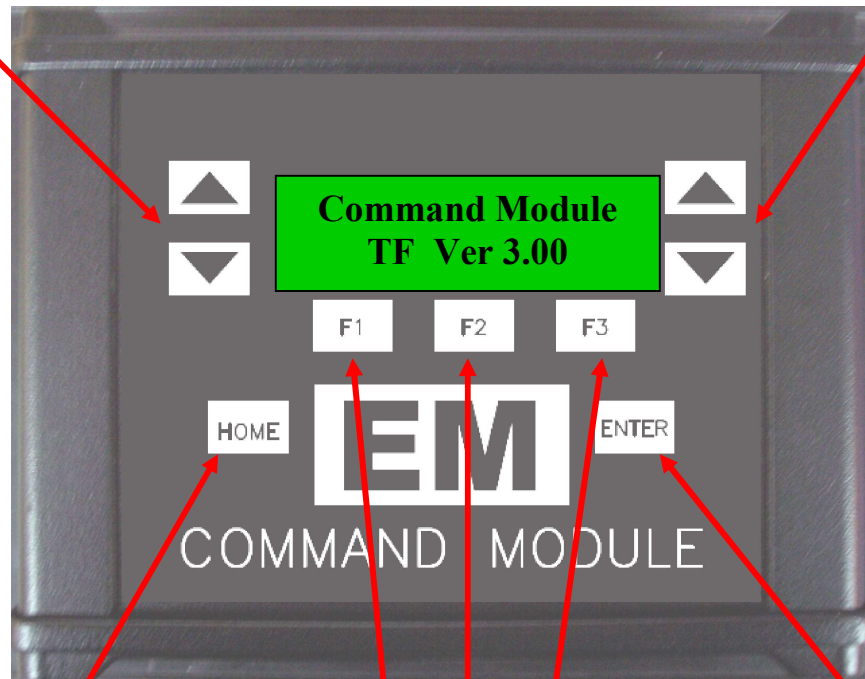
# Button Functions:

## Menu up and Down:

Used to select mode of operation. I.e. Timer and Air Regulators 1-4.

## Up and Down:

Used to select channel and also used to change data values



## Home Button:

Returns unit to starting screen.

## Function Buttons:

Used to enter the edit modes.

**F1:** Used to enter on time edit mode.

**F2:** Used to enter the pressure edit mode, for air regulators

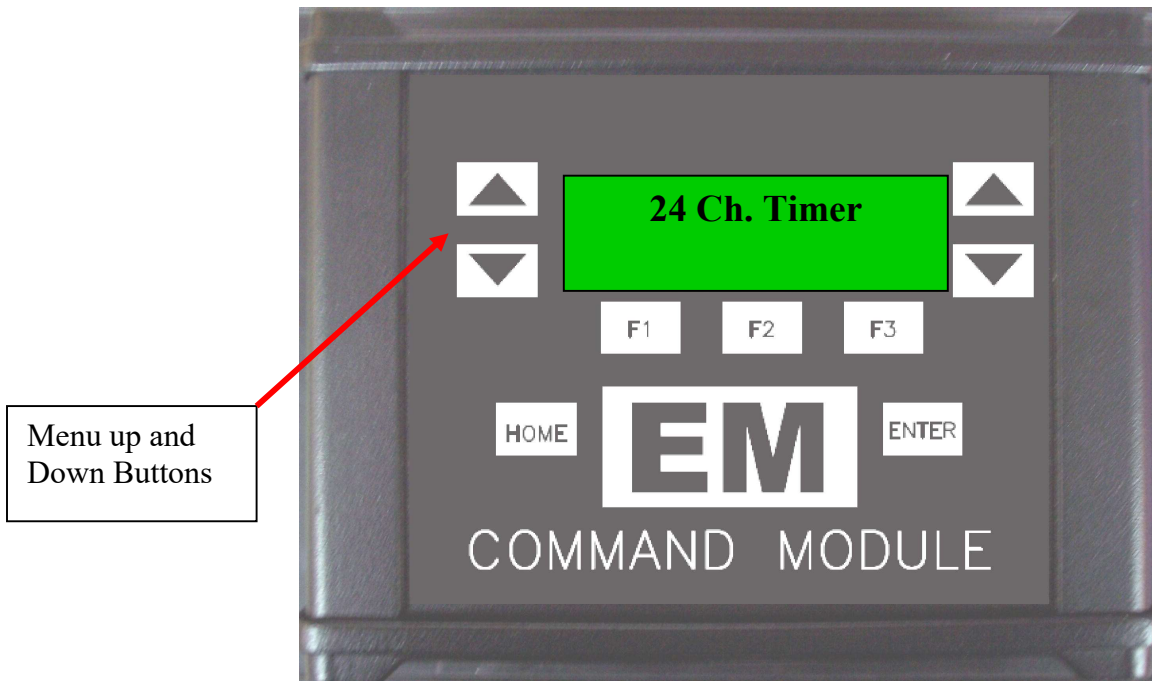
**F3:** Used to enter off time/channel edit mode.

## Enter Button:

Used to enter timer or air regulator modes.

Also used to save an edited value.

## Module Operation:



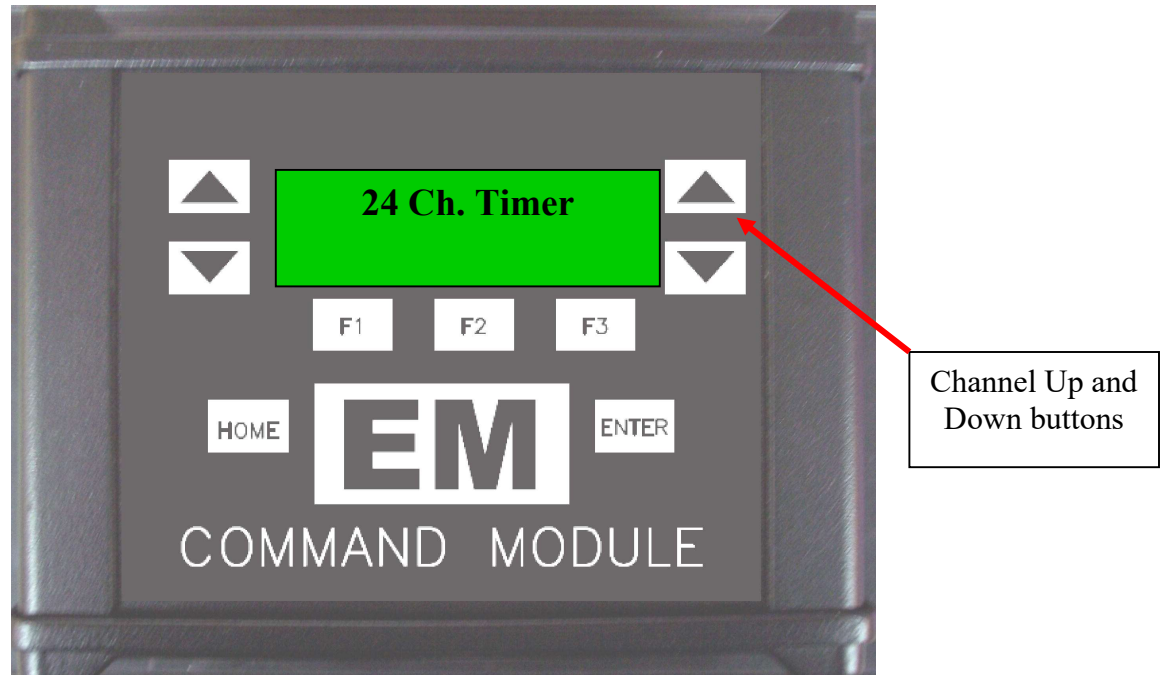
### Main Menu:

**By Pressing the Menu up button you can cycle through the installed modules, which can include up to the following modules. Press the enter button to enter the selected menu item.**

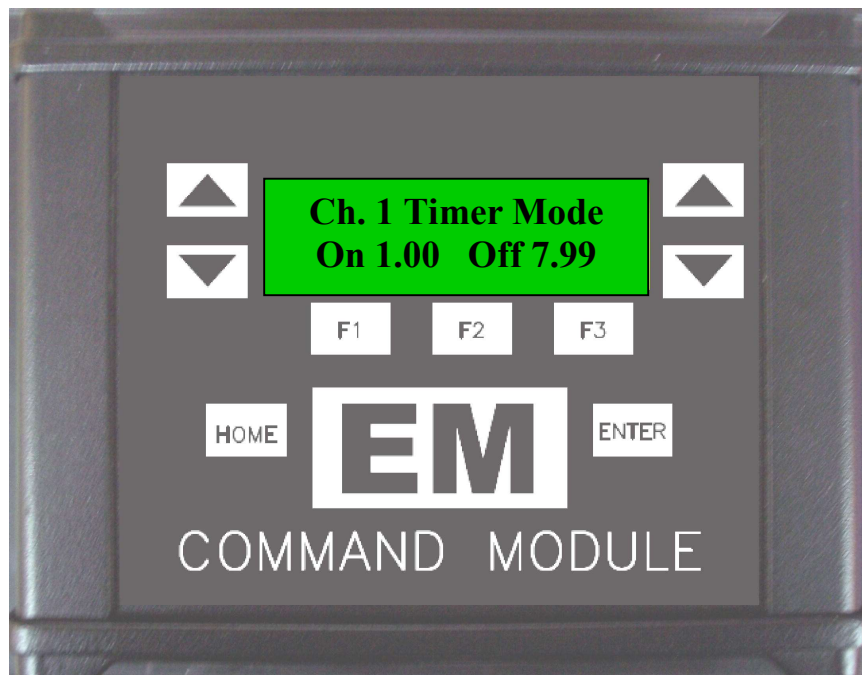
#### Main Menu items

- **24 Ch. Timer**
- **Air Regulator 1**
- **Air Regulator 2**
- **Air Regulator 3**
- **Clutch Regulator 4**
- **Battery Voltage (Displays current battery voltage)**
- **Transfer File (Menu to send or receive file to SDcard)**

## 24 Channel Timer Mode:



1. With the main menu at 24 Ch. Timer, press enter.
2. The timer data for channel 1 will be displayed for you.
3. By pressing the channel up and down buttons you can review each of the available timer channels.



### **Timer on Time Edit Mode:**

- 1. To edit an on time, press the F1 button, the screen will change to a blinking on time.**
- 2. Now the channel up and down buttons will allow you to change the on time.**
- 3. After pressing F1 you will be able to edit the second's value, to change the tenths digit, press F2 while in edit mode. To edit the hundredths digit, press the F3 button while in edit mode.**
- 4. To select the "On Now" mode, set the on time to 0.00 and then press the channel down button one more time.**
- 5. To save the edited value, press enter and the screen will stop blinking.**

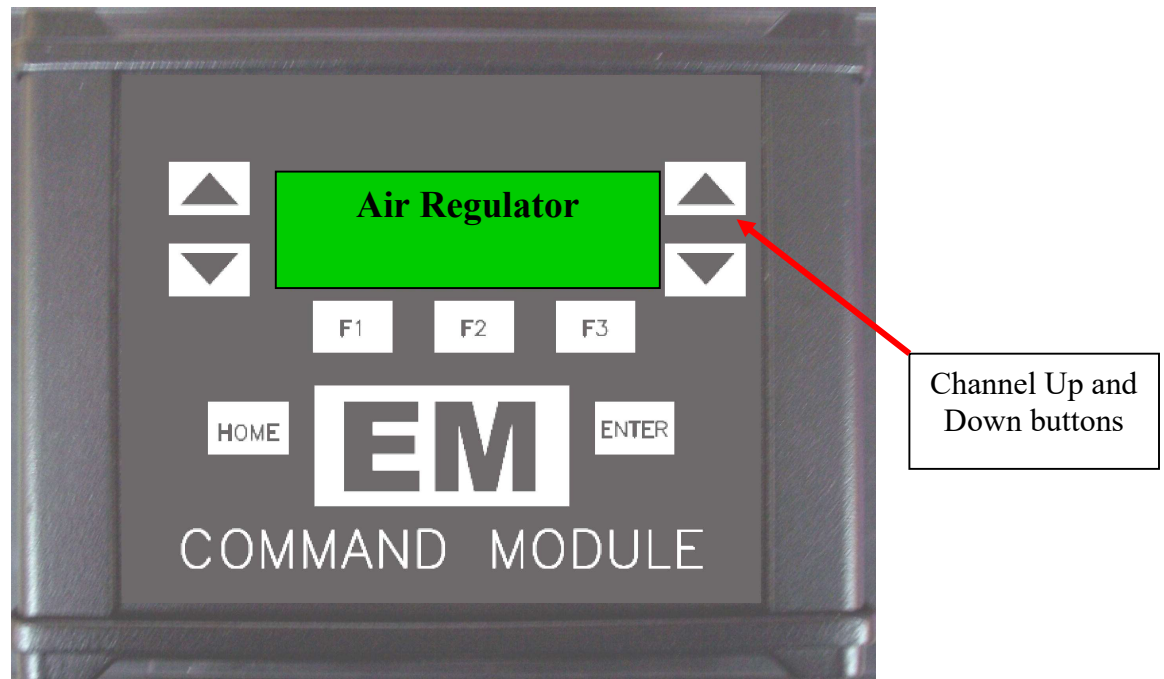
### **Timer Off Time Edit Mode:**

- 1. To edit an off time, press the F3 button, the screen will change to a blinking off time.**
- 2. Now the channel up and down buttons will allow you to change the off time.**
- 3. After pressing F3 you will be able to edit the second's value, to change the tenths digit, press F2 while in edit mode. To edit the hundredths digit, press the F3 button while in edit mode.**
- 4. To save the edited value, press enter and the screen will stop blinking.**

### **Timer Off Channel Edit Mode:**

- 1. To edit an off channel, press the F3 button, the screen will change to a blinking off time.**
- 2. Press the channel up and down buttons until the off time value changes to a Channel number i.e. CH. 5.**
- 3. To save the edited value, press enter and the screen will stop blinking.**

## Air Regulator Mode:



- 1. With the main menu at Air Regulator, press enter.**
- 2. The Initial Delay for Air Regulator will be displayed for you.**
- 3. By pressing the channel up and down buttons you can review the Initial Delay, Standby Pressure and each of the time/pressure points.**





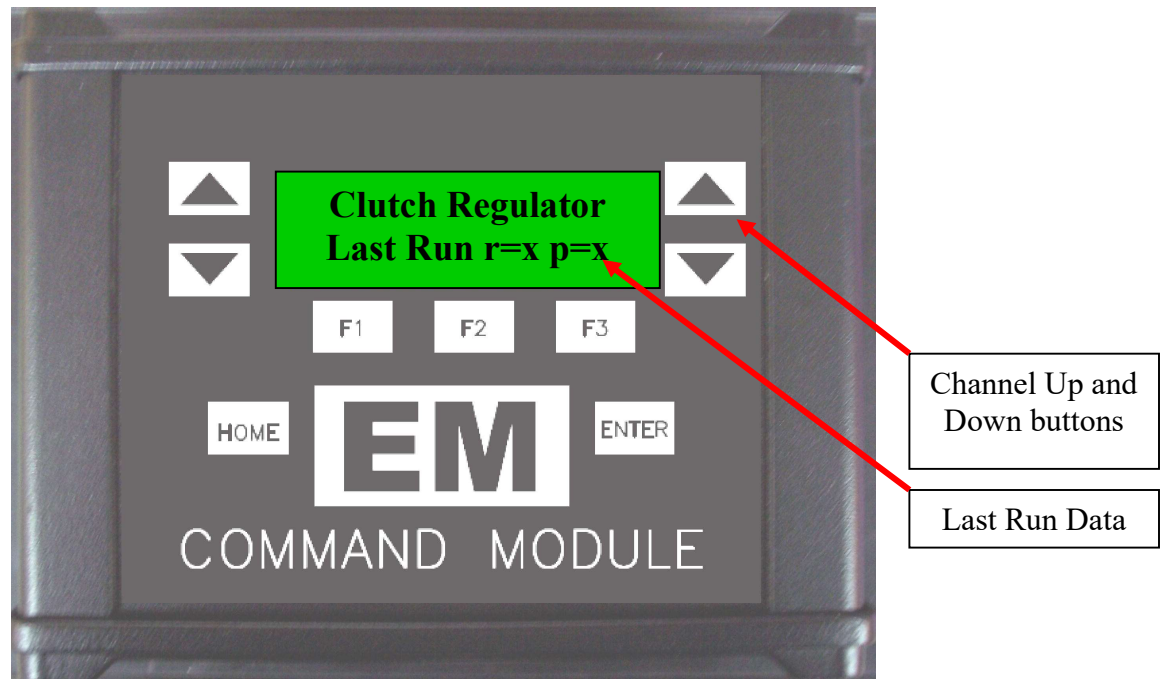
## **Air Regulator on Time Edit Mode:**

- 1. To edit an on time, press the F1 button, the screen will change to a blinking on time.**
- 2. Now the channel up and down buttons will allow you to change the on time.**
- 3. After pressing F1 you will be able to edit the second's value, to change the tenths digit, press F2 while in edit mode. To edit the hundredths digit, press the F3 button while in edit mode.**
- 4. To save the edited value, press enter and the screen will stop blinking.**

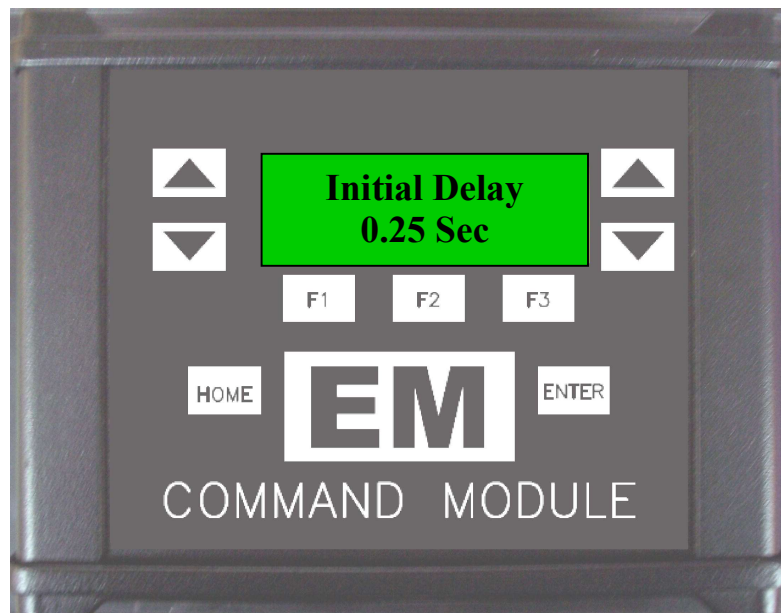
## **Air Regulator Pressure Edit Mode:**

- 1. To edit a pressure value, press the F2 button, the screen will change to a blinking pressure value.**
- 2. Now the channel up and down buttons will allow you to change the pressure value.**
- 3. After pressing F2 you will be able to edit the tens value, to change the Hundreds digit, press F1 while in edit mode. To edit the ones digit, press the F3 button while in edit mode.**
- 4. To save the edited value, press enter and the screen will stop blinking.**

## Lo – Hi Clutch Regulator Mode:



1. With the main menu at **Clutch Regulator**, you will see **Last Run** data. The "r" indicates, how many times the clutch regulator turned on due to the Ramp function. The "p" indicates, how many times the regulator turned on due to the pressure curve.
2. Press enter.
3. The **Initial Delay** for Clutch regulator will be displayed.
4. By pressing the channel up and down buttons you can review the **Initial Delay**, **Standby Pressure** and each of the **time/pressure points**.



### **Clutch Regulator on Time Edit Mode:**

- 1. To edit an on time, press the F1 button, the screen will change to a blinking on time.**
- 2. Now the channel up and down buttons will allow you to change the on time.**
- 3. After pressing F1 you will be able to edit the second's value, to change the tenths digit, press F2 while in edit mode. To edit the hundredths digit, press the F3 button while in edit mode.**
- 4. To save the edited value, press enter and the screen will stop blinking.**

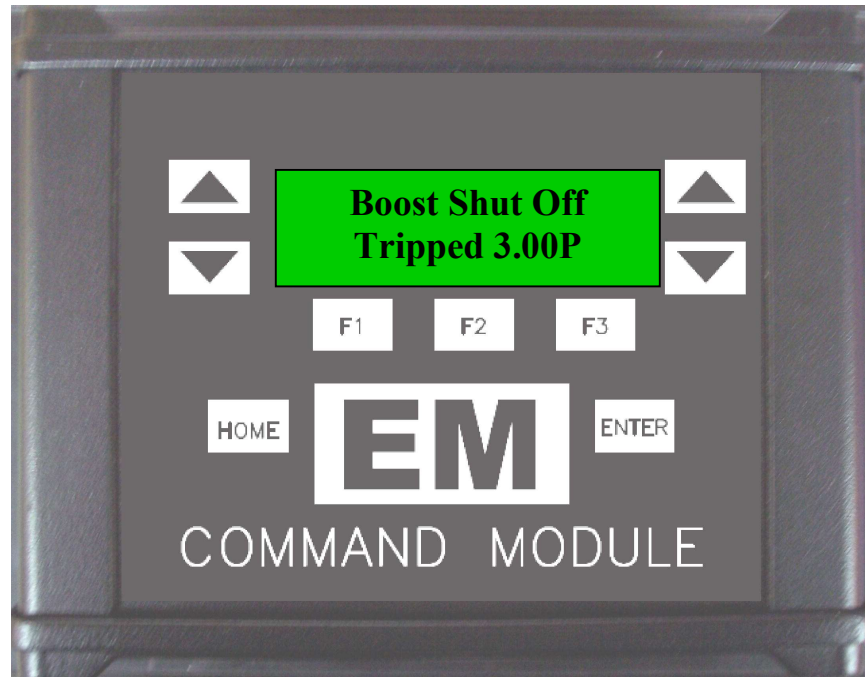
### **Clutch Regulator Pressure Edit Mode:**

- 5. To edit a pressure value, press the F2 button, the screen will change to a blinking pressure value.**
- 6. Now the channel up and down buttons will allow you to change the pressure value.**
- 7. After pressing F2 you will be able to edit the tens value, to change the Hundreds digit, press F1 while in edit mode. To edit the ones digit, press the F3 button while in edit mode.**
- 8. To save the edited value, press enter and the screen will stop blinking.**

### **Clutch Regulator Hold Off Time Edit Mode:**

- 9. To edit the Hold Off time, press the channel up button until you pass channel 16. The next screen is the hold off time screen**
- 10. After pressing F2 you will be able to edit the tenths value, to change the Seconds digit, press F1 while in edit mode. To edit the hundredths digit, press the F3 button while in edit mode.**
- 11. To save the edited value, press enter and the screen will stop blinking.**

## **Boost Shut Off, Status Screen**



**The Boost Shut Off, Status Screen, tells the user if the unit tripped during the last run. If the unit was tripped, the display will show “Tripped” followed by the time it tripped and the letter “P” for Pressure map, or “R” for Boost Ratio Rate.**

## Boost Shut Off, Data Entry

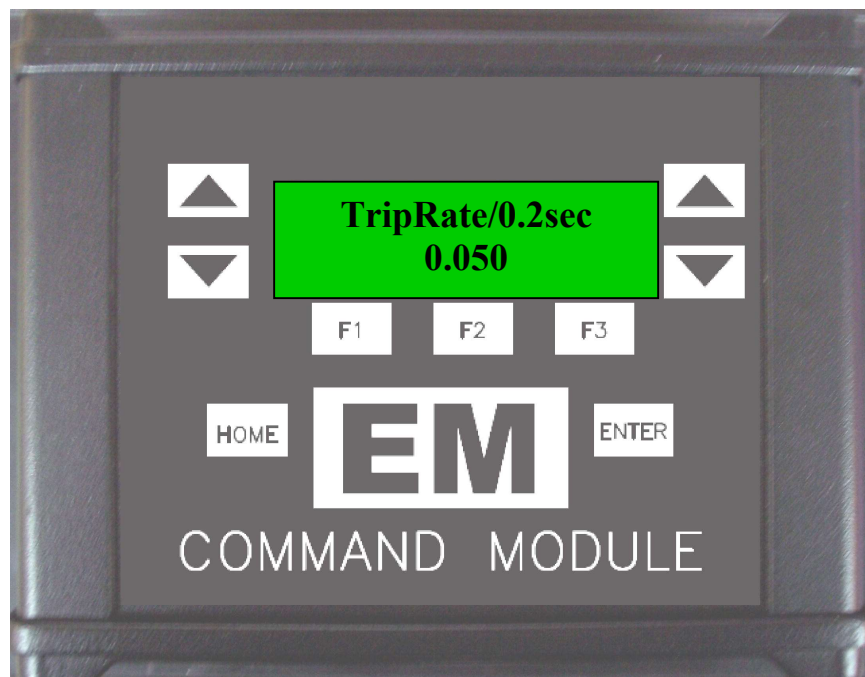


### Pressure Curve:

**6 Time/ Psi points are available to build a max pressure curve.**  
**The time of the first point is when the map becomes active.**

### Boost Ratio Rate:

**The Boost ratio monitor has 3 values.**  
**On Time, Off Time and Trip Rate.**

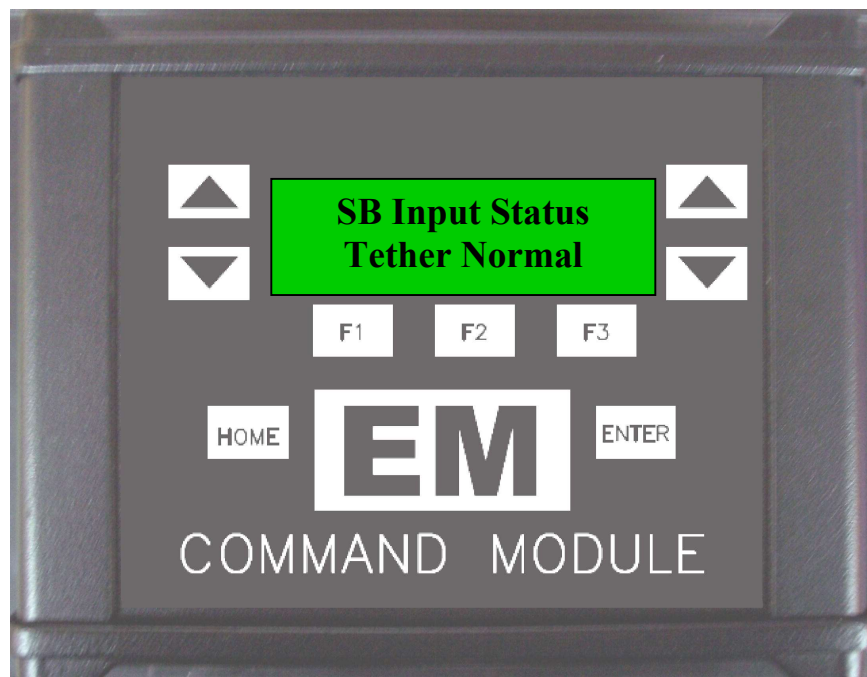


## Safety Box:



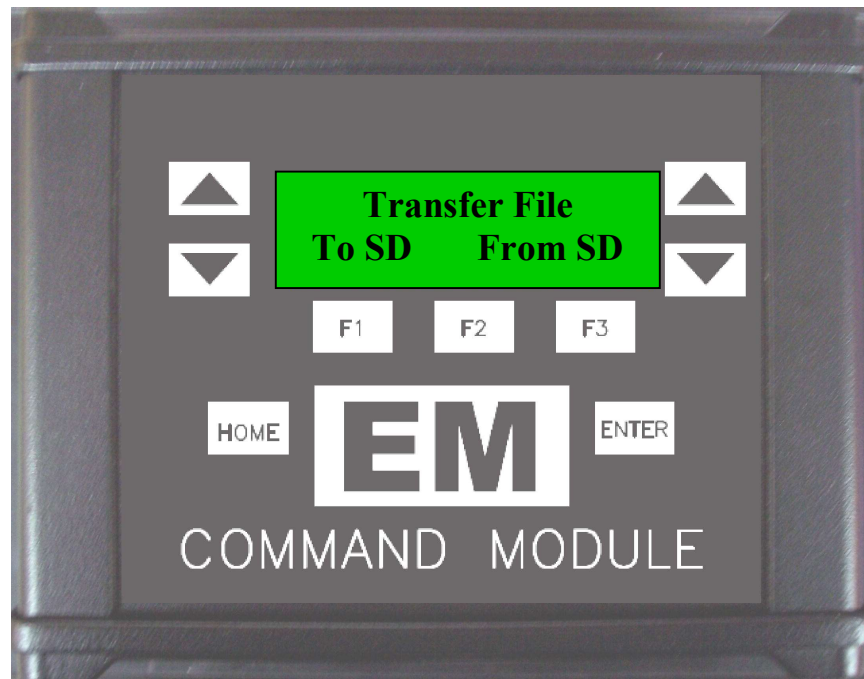
## Monitoring Safety Box Inputs:

- 1. To monitor the inputs to the Safety Box, press the menu button up until you see “Safety Box”, then press enter.**
- 2. The display will show “SB Input Status” the second line will show the state of the Tether input “Tether Normal”.**
- 3. By pressing the Channel Up button you will see each of the Safety Box inputs in real time. This can be used to verify the inputs or troubleshoot the safety system**





## File Transfer Mode:



1. With the main menu at Transfer Menu, you can transfer the module data to the SDCARD or transfer data from the SDCARD.
2. To transfer the module data to the SDCARD press F1.
3. The Display will show “File Transfer Successful” when completed.
4. To transfer the settings from the SDCARD to the module press F3.
5. The module will display the first EM file on the card on the second line of the display. By pressing the up and down channel buttons you can scroll through the list of up to 20 EM files on the SDCARD. Once you see the file that you want to load, press enter.
6. The Display will show “All”, this means that all the values in the file will be transferred to the CM. By pressing the up and down channel buttons you can select either a specific module or all modules for transferring. Press enter to initiate the transfer.
7. The Display will show “File Transfer Successful” when completed. (Takes about 10-15 seconds).

### **General Warnings:**

IT IS THE RESPONSIBILITY OF THE PERSON INSTALLING ANY CONTROL SYSTEM COMPONENT OR KIT TO DETERMINE THE SUITABILITY OF THE COMPONENT OR KIT FOR THAT PARTICULAR APPLICATION. IF YOU ARE NOT SURE HOW TO SAFELY USE THIS COMPONENT OR KIT, YOU SHOULD NOT INSTALL OR USE IT. DO NOT ASSUME ANYTHING. IMPROPERLY INSTALLED OR MAINTAINED CONTROL SYSTEMS ARE DANGEROUS. IF YOU ARE NOT SURE, GET HELP OR RETURN THE PRODUCT. YOU MAY OBTAIN ADDITIONAL INFORMATION AND TECHNICAL SUPPORT BY CALLING ELECTRIMOTION AT (740) 362-0251, OR VISIT OUR WEB SITE AT [WWW.ELECTRIMOTION.COM](http://WWW.ELECTRIMOTION.COM). USE OF ELECTRIMOTION TECHNICAL SUPPORT DOES NOT GUARANTEE PROPER INSTALLATION. YOU, OR THE PERSON WHO DOES THE INSTALLATION, MUST KNOW HOW TO PROPERLY USE THIS PRODUCT. IT IS NOT POSSIBLE OVER THE PHONE TO UNDERSTAND OR FORESEE ALL THE ISSUES THAT MIGHT ARISE IN YOUR INSTALLATION. LIABILITY ON DEFECTIVE MERCHANDISE OR MERCHANDISE NOT CONFORMING TO MANUFACTURER'S SPECIFICATIONS IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE ITEM. RACING EQUIPMENT MUST BE MAINTAINED AND SHOULD BE CHECKED REGULARLY FOR FATIGUE, DAMAGE, AND WEAR. DO NOT OPERATE ANY VEHICLE ON UNTESTED CONTROL SYSTEMS!