ELECTRIMOTION INC.
1484 DALE FORD RD.
DELAWARE, OH 43015
740.362.0251

TF Command Module Ver 3.00 W/Safety Box

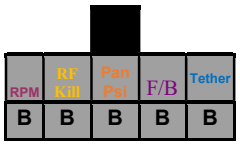
Connections

Power Input connector:

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

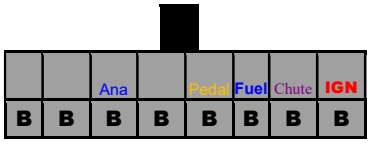
Start Switch connector:
2 pin green connector
Short wires together to start timer
(org wire is input power).

Safety Box Inputs

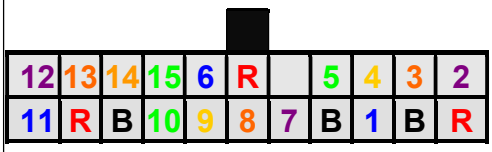


RF

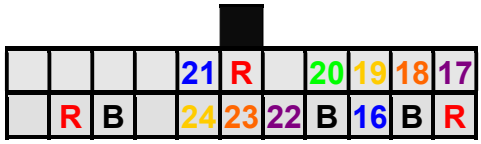
Safety Box Outputs



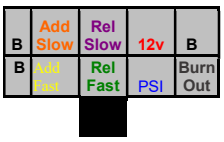
Outputs: Timer Channels 1- 15



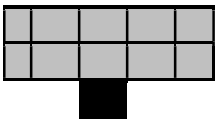
Timer Channels 16- *24*



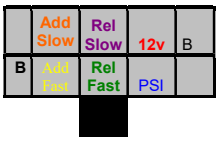
AR1



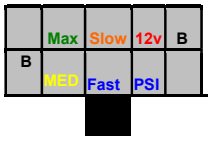
Not Used



AR3



CR



R = Input Power **B** = Ground

Mounting:
10-32 screws—2.500” by2.000”
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, up to 24 timed outputs and up to 4 air or Clutch Regulators. 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 24 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.**

Air Regulators have 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.**

Clutch Regulators have the following Programmable features.

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

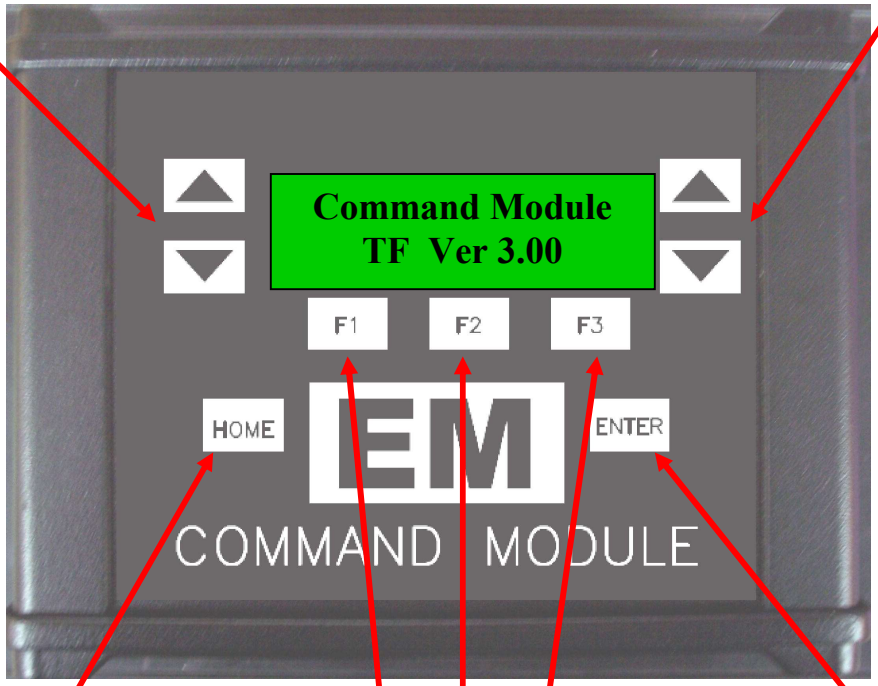
Button Functions:

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

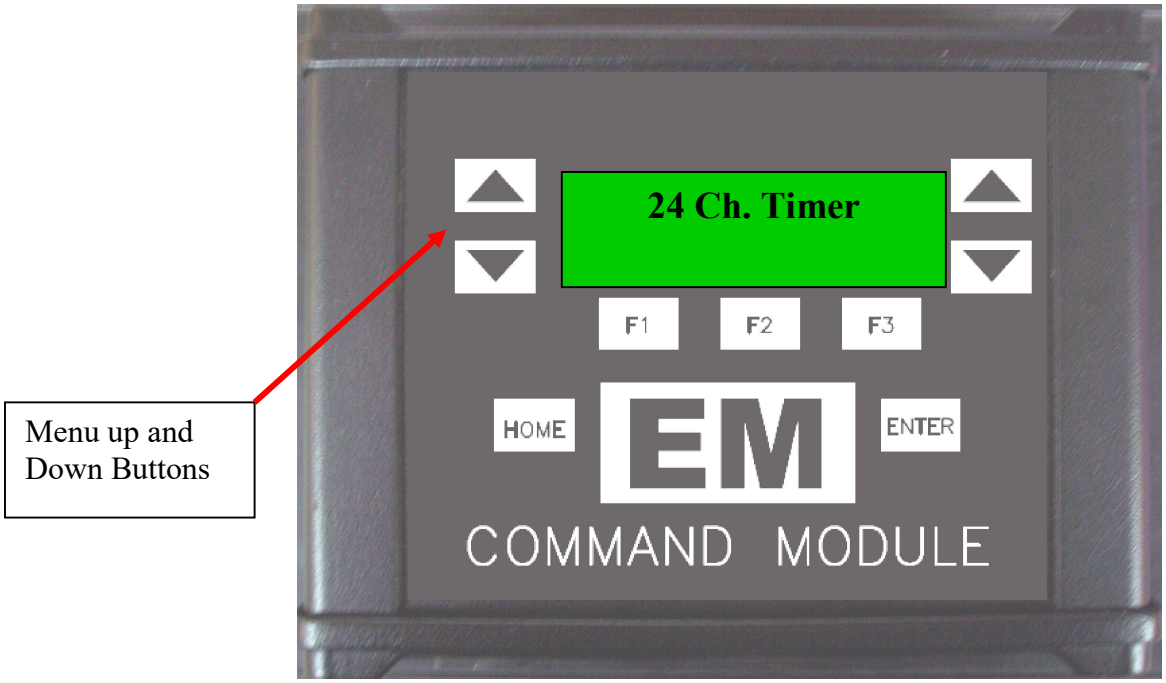
F3: Used to enter off time/channel edit mode.

Enter Button:

Used to enter timer or air regulator modes.

Also used to save an edited value.

Module Operation:



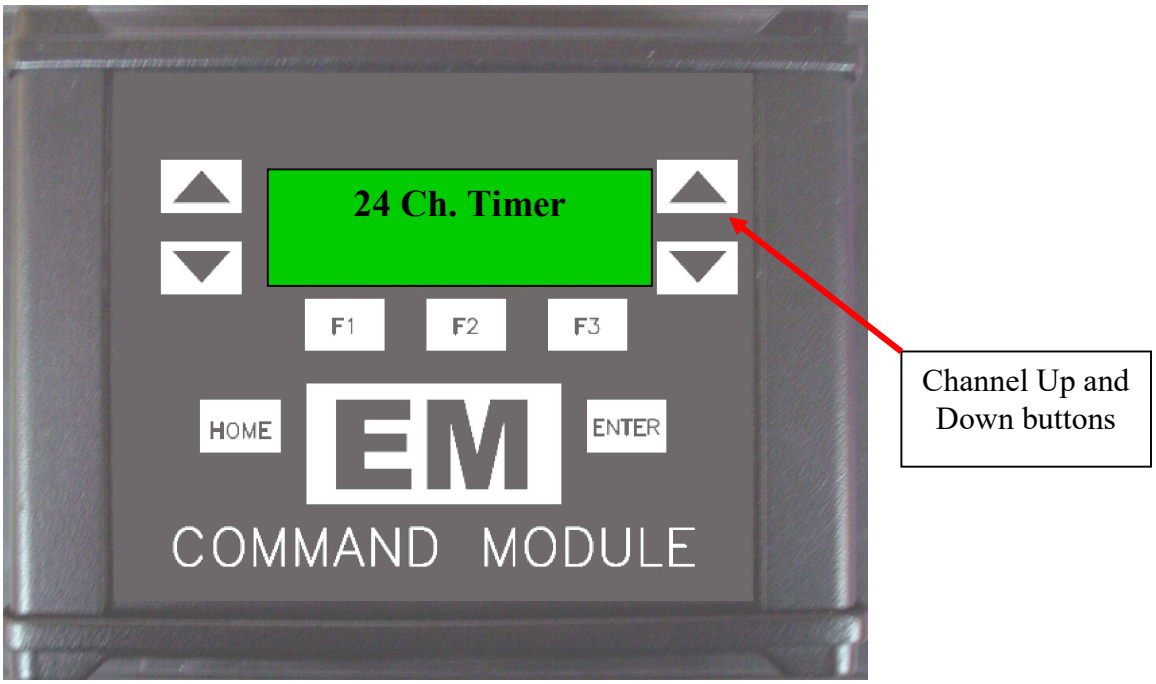
Main Menu:

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.

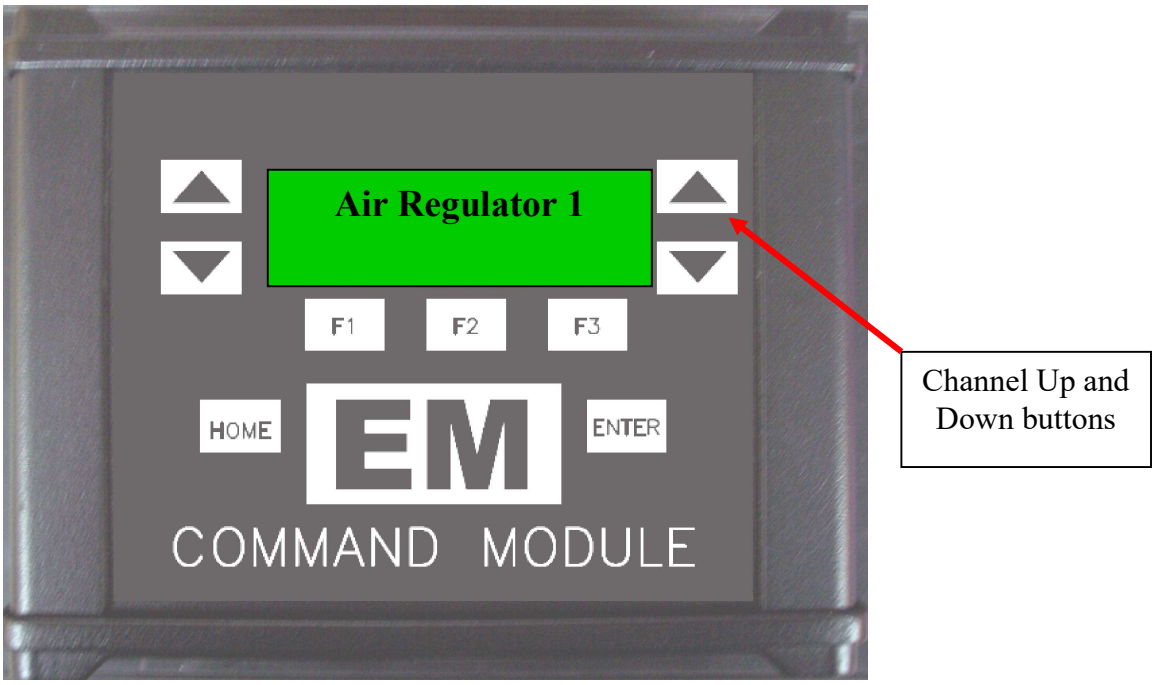
Timer Off Time Edit Mode:

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 1, press enter.**
2. **The Initial Delay for Air regulator 1 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.**

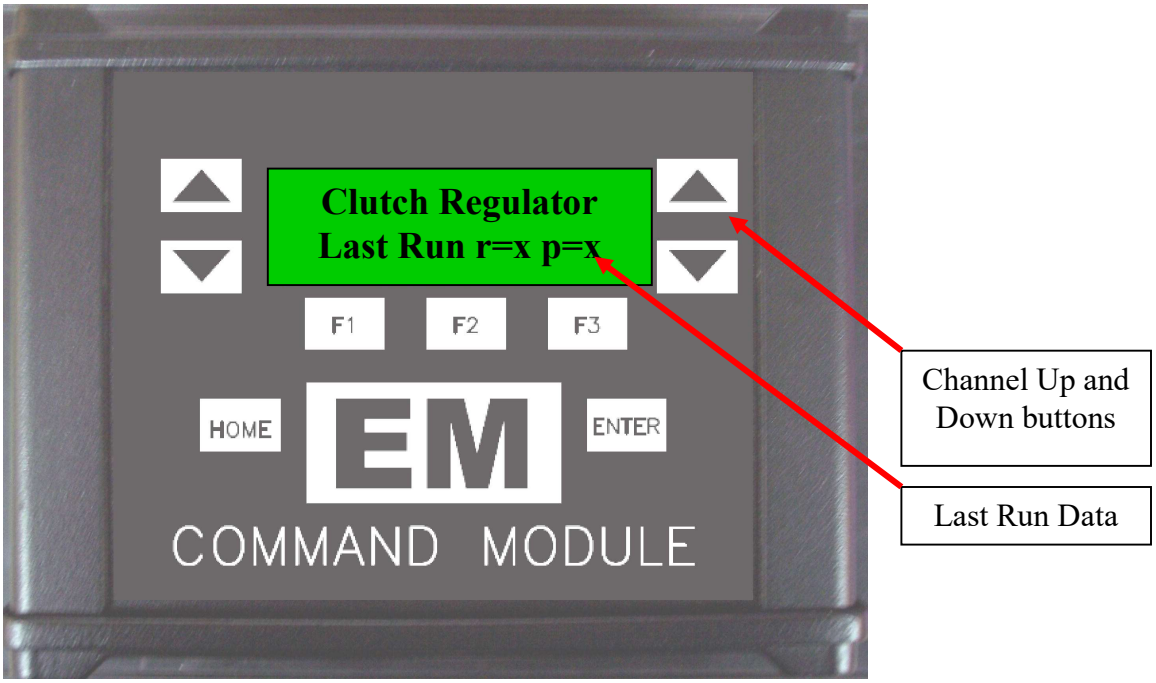
Air Regulator on Time Edit Mode:

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.**

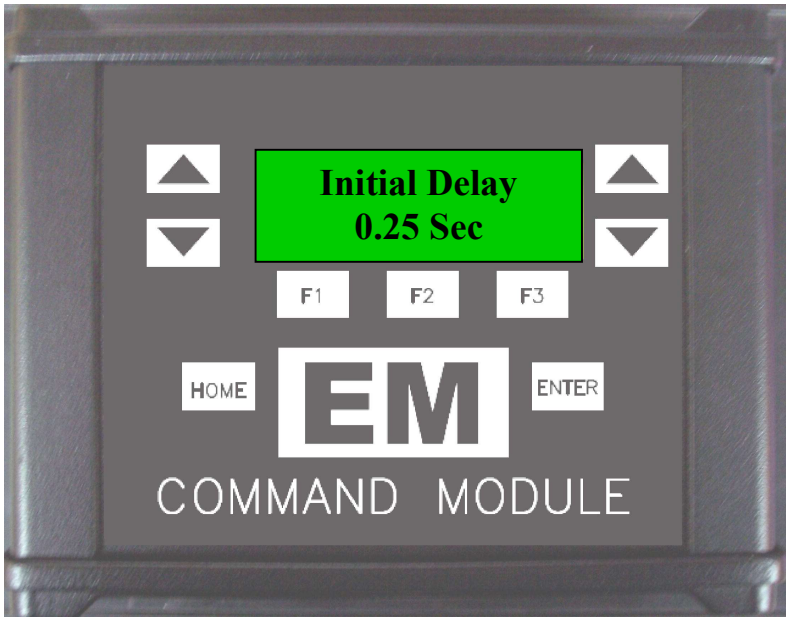
Air Regulator Pressure Edit Mode:

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.**

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:

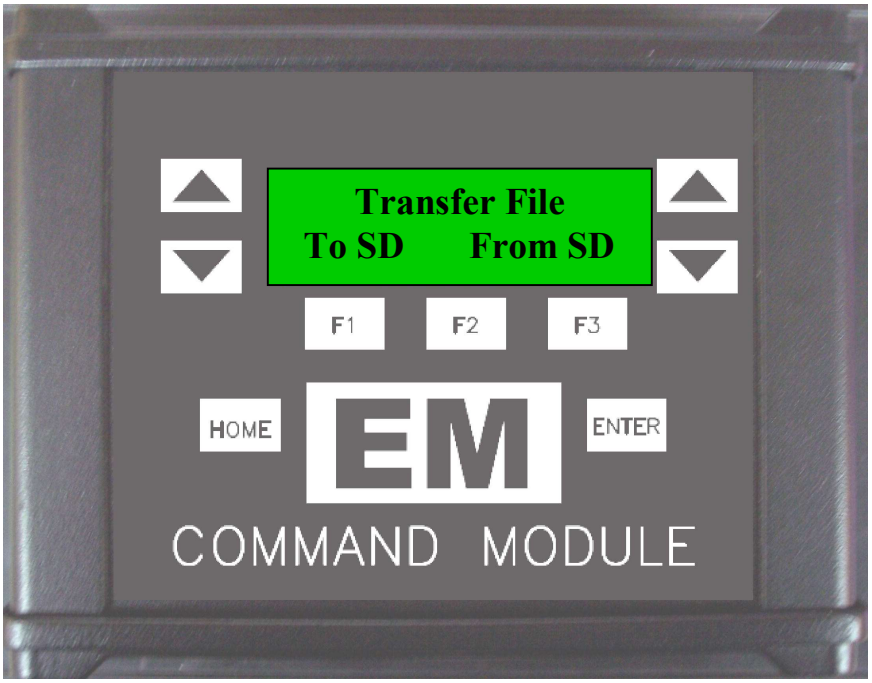
9. **To edit the Hold Off time, press the channel up button until you pass channel 16. The next screen is the hold off time screen**
10. **After pressing F2 you will be able to edit the tenths value, to change the Seconds digit, press F1 while in edit mode. To edit the hundredths digit, press the F3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

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. 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!