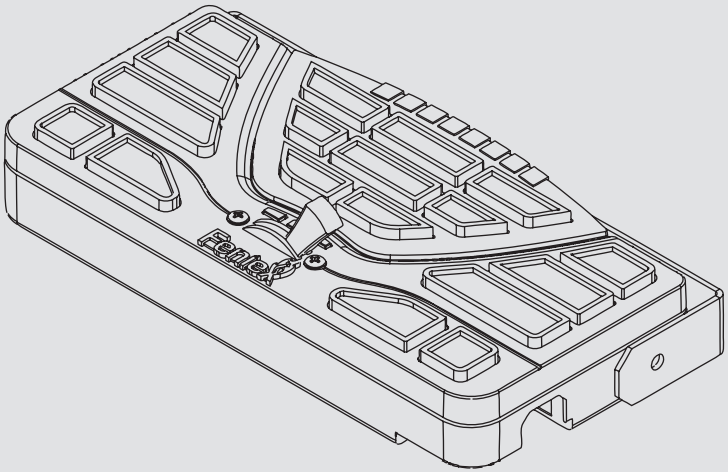
4200 Controller
Instruction Manual

V.3



4200

Model # - C-4200

This instruction manual serves as a guide for the **4200 Controller**.

IMPORTANT! Please read through all provided instructions and any listed warnings in regards to product use.

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Safety Regulations

The following provides all the information necessary to safely operate the previously listed products of Feniex Industries, Inc. Please read this manual thoroughly before installing or operating your new product in order to prevent any damage or injury. Failure to follow the listed instructions in this manual may result in damage to your products or personal injury.

- Proper installation of this product requires good knowledge of automotive systems, electronics and procedures.
- Please guarantee all vital components of the vehicle are not in danger of being damaged by drilling holes necessary for installation. Check all sides of the mounting surface before drilling any holes into the vehicle.
- Do not install this product in any way that interferes with the deployment of the air bag. Doing so may damage the effectiveness of the air bag and can lead to serious personal and vehicle injury. The installer will assume full responsibility of proper installation of the new unit.
- Please clean the mounting surface before installation of the unit when using tape, brackets, magnet, Velcro or suction cups.
- The product's ground wire must be connected directly to the Negative (-) battery post for effective use of the unit. Please follow all wiring guidelines provided to guarantee long lifespan and productivity. Failing to follow these instructions may result in damage to the product.

Warranty

Feniex Industries, Inc. warrants to the original purchaser that the product shall be free from defects in material and workmanship for sixty (60) months from the date of purchase for all LED products. Feniex Industries warranties speakers, sirens and controllers for 24 months; switches and flashers for 12 months.

If a warranty problem occurs, please contact customer support at 1.800.615.8350 or visit the web site at www.Feniex.com. If the product needs to be returned for repair or replacement, call our customer support line to receive a return merchandise authorization number.

Operational times are from 10 a.m. to 5 p.m. central time, Monday through Friday. Please do not send in product without contacting support first for a RMA number.

Service After Expiration

Feniex Industries will still provide service for all products after expiration of the warranty. For any issues, call the customer support line. In some instances it may be necessary for the product to be shipped, freight prepaid and insured for loss or damage to Feniex headquarters.

Warning! *Utilizing non-factory screws and mounting brackets may result in loss of warranty coverage.*

Copyright

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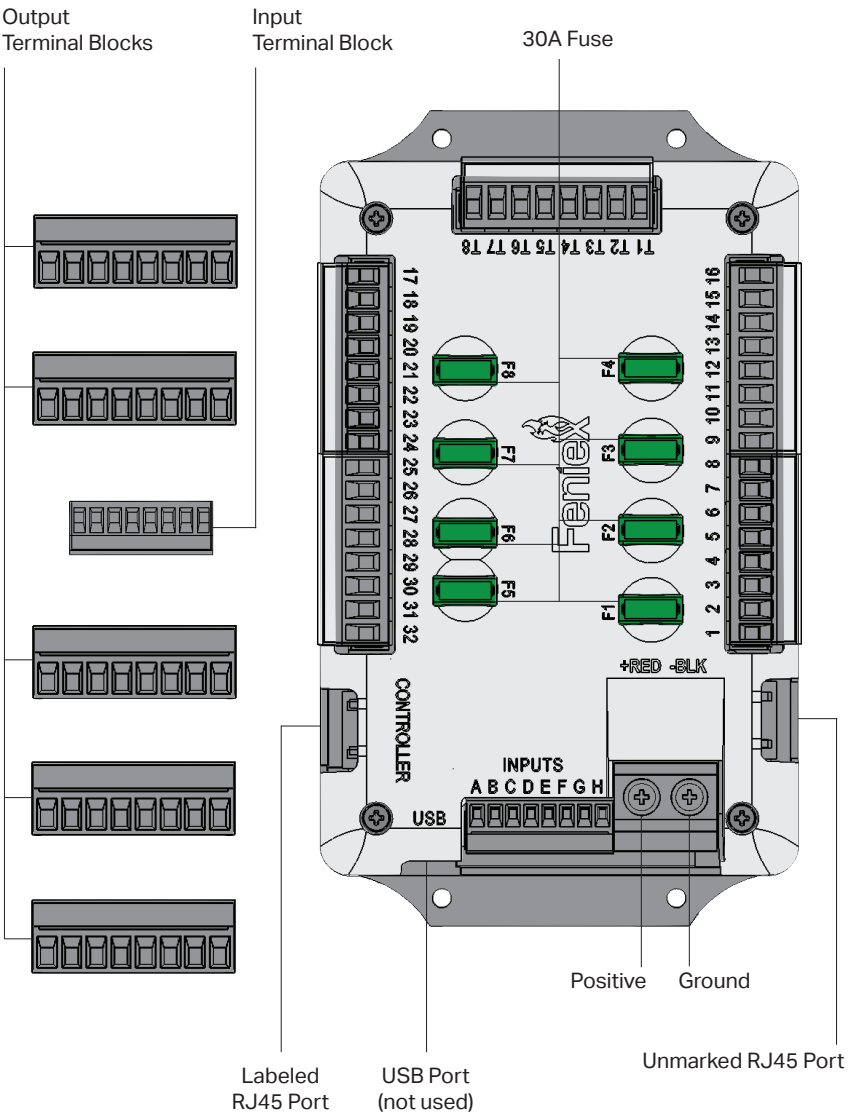
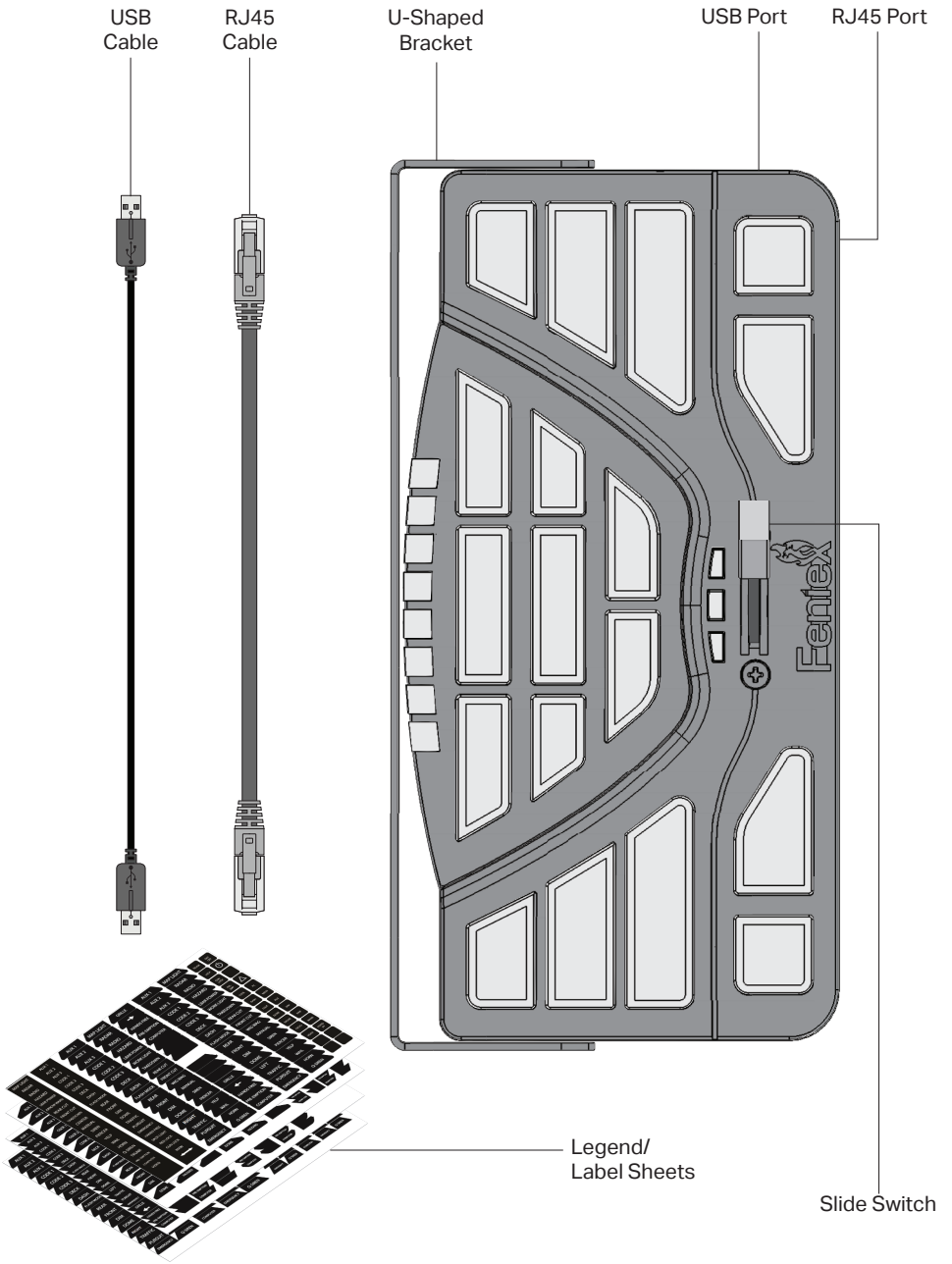


Important!
Do not use the unmarked RJ45 slot. This is an unactivated slot. Use of this slot can cause damage to unit.

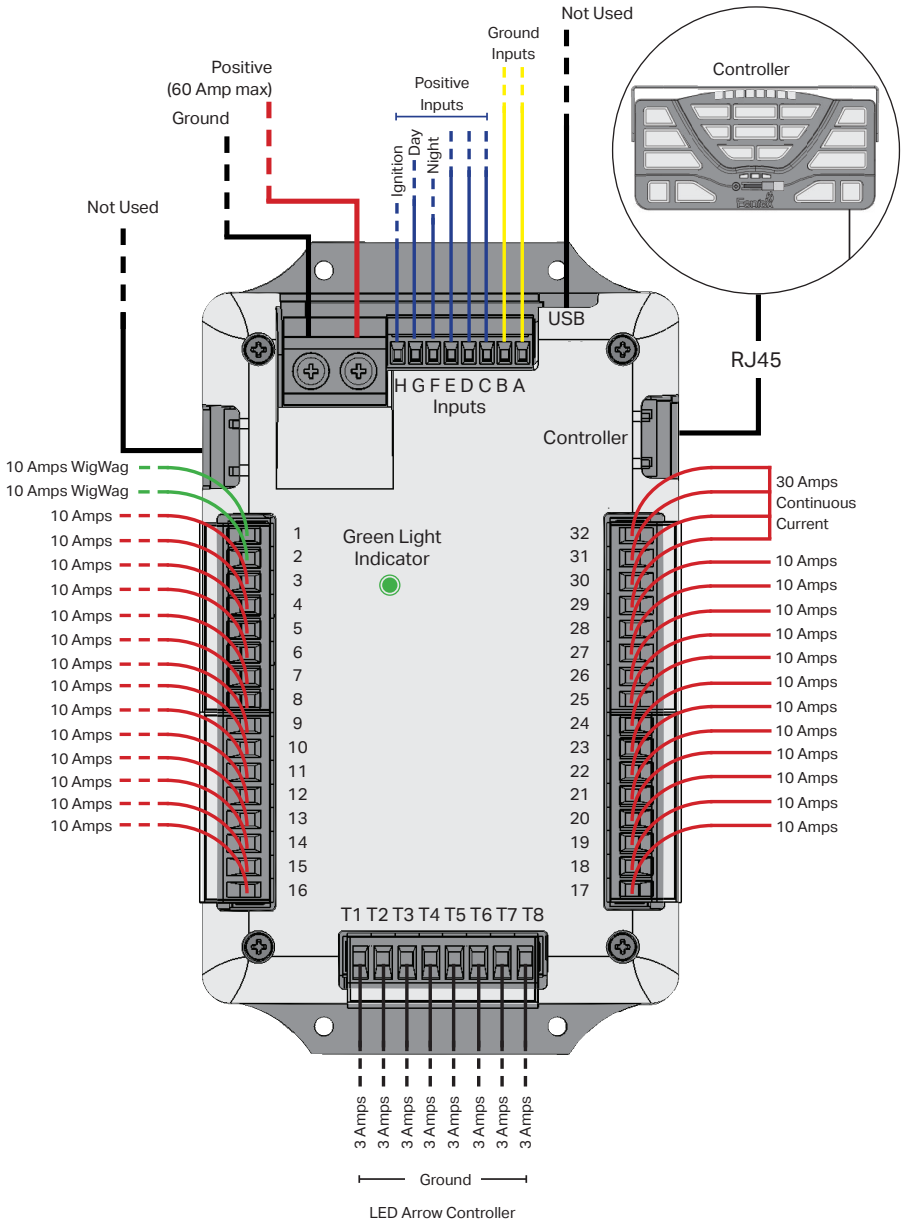

USB Cable
RJ45 Cable
U-Shaped Bracket
USB Port
RJ45 Port
Legend/ Label Sheets
Slide Switch

Below you will find the key specifications for the 4200 system. Review the information to better determine your installation needs.
Warning! Do not deviate from the specified voltage.

System Specification:

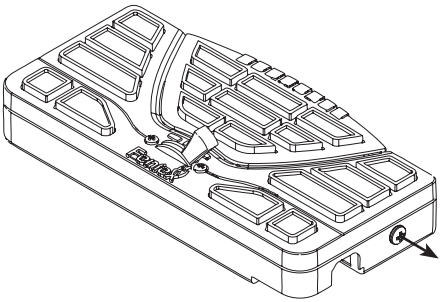
Input Voltage:	11VDC to 16VDC
Temperature Range:	-40C° to +70CV°
Stand By Current:	> 100m Amps
Logic Input A-B	Ground
Logic Input C-D-E	Positive
Logic Input F	Night Mode (+)
Logic Input G	Day Mode (+)
Logic Input H	Ignition (+)
Output 1-2	WigWag 10 Amps (+)
Outputs 3-28	10 Amps (+)
Outputs 29-32	30 Amps Group Continuous (+)
Max Input Current	60 Amps
Controller Dimensions	6.8″ x 3.5″ 1.3″
Power Supply Dimensions	6″ x 4″ x 1.5″
Bluetooth Range	40ft (+/- 5ft)

Recommended! *Add a 60Amp fuse in-line with 12V (+)*



Decide which mounting option you would like to implement for the 4200 controller: **Option A** is a vertical mount, allowing the controller to hang down. **Option B** is a surface mount; with the bracket mounting from the rear of the controller. The controller can also be mounted with a custom face on a console mount. Please contact your preferred console manufacturer for a 4200 console faceplate (option not shown).

Option A: Vertical Mount



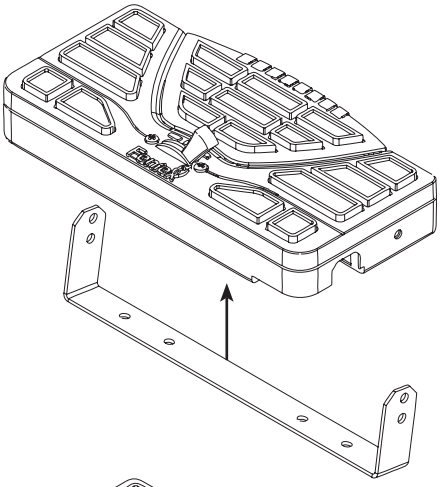
Step 1: Select a dry, cool location to mount the control head

Step 2: Remove the two factory provided screws located on either side of the controller.

Step 3: Place the U-Shaped bracket into place and screw the two factory provided screws back on each side of the controller.

Step 4. Connect the RJ45 cable to the RJ45 port located on the rear of the controller).

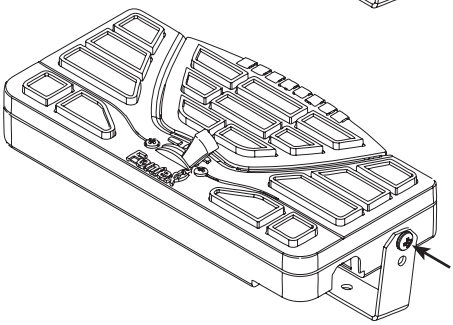
Option B: Surface Mount



Step 1: Mount the U-Shaped Bracket in the desired location using 2 self-tapping screws. If you wish to use machine screws, simply drill out the required hole size based on the size of screw choice.

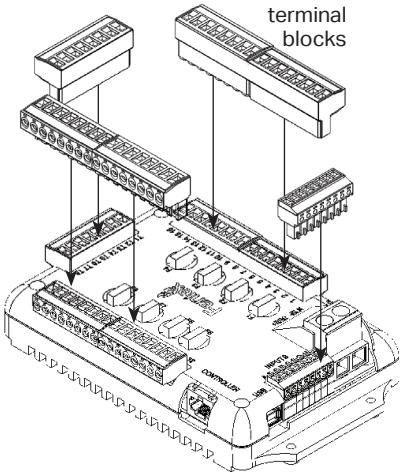
Important! Make sure not to damage any vital parts of the vehicle or mounting surface. Do not mount anywhere that interferes with the vehicle air bag.

Step 2: Re-attach the control panel head to the U-Shaped bracket utilizing the factory provided screws.



Step 3. Connect the RJ45 cable to the RJ45 port located on the rear of the controller.

Follow the instructions below when mounting and installing the 4200 relay power supply. To avoid warranty concerns, do not mount the power supply in a moist or exterior location.



Wiring

Step 1: Locate the 8 Pin terminal blocks provided.

Step 2: Insert the six blocks in their desired locations. Press down firmly in place to ensure connectivity.

Step 3: Firmly secure each wire into its desired port.

Step 4: Firmly secure the RJ45 harness (previously connected to controller) into the marked RJ45 port.

Step 5: Apply power and ground to the 2 port Molex terminal block (shown in figure 3.4). Using a Phillips screwdriver, firmly clamp down on the wire. A poor connection may result in warranty issues.

Step 6: Ensure that each 30 amp fuse is not loose and is firmly connected.

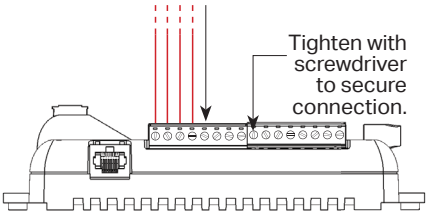
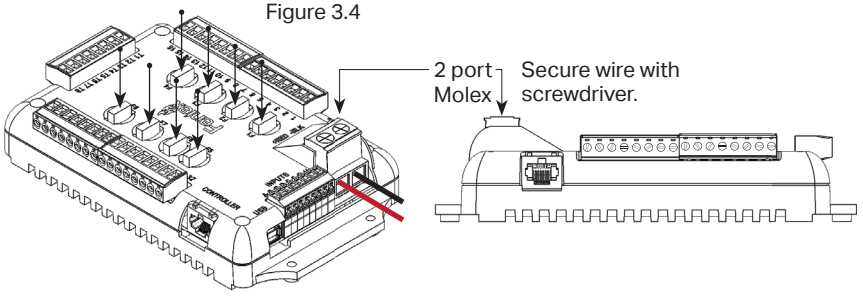
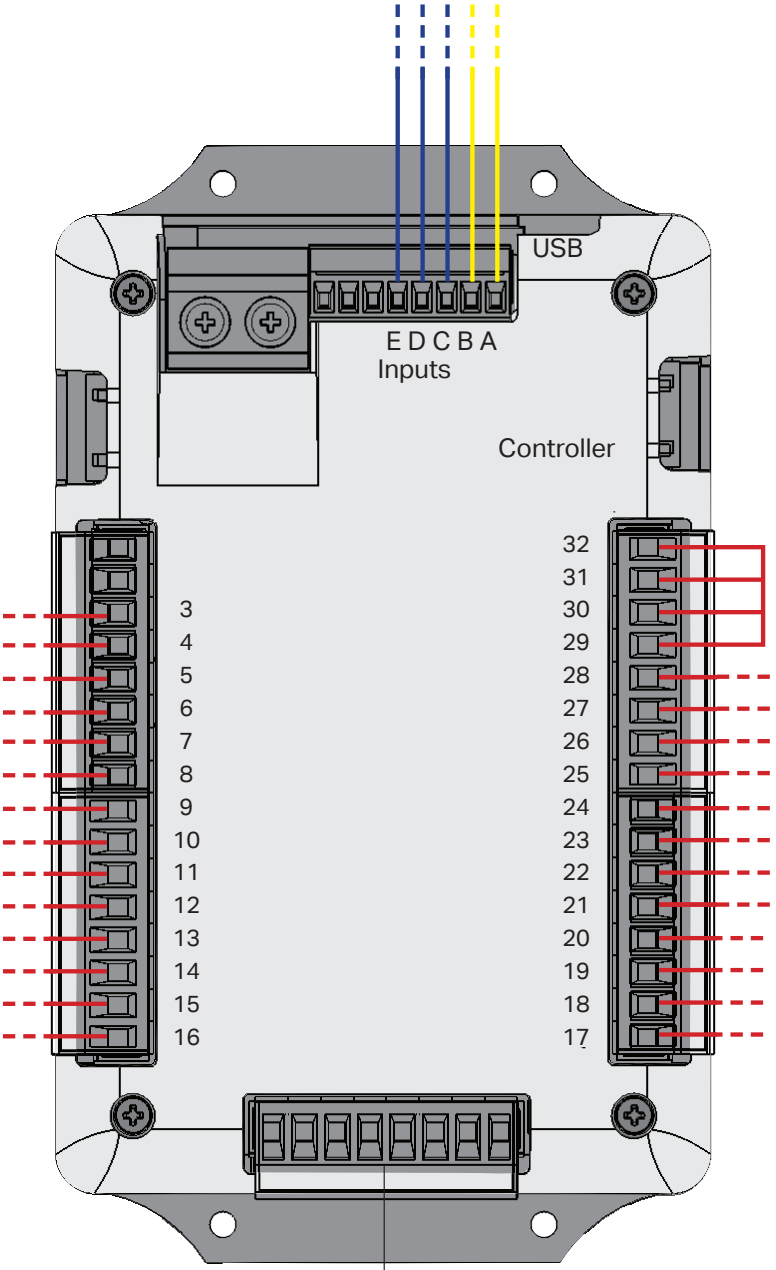


Figure 3.4



Use this document to record the products connected to each outlet to assist when programming the control head with the provided software package.

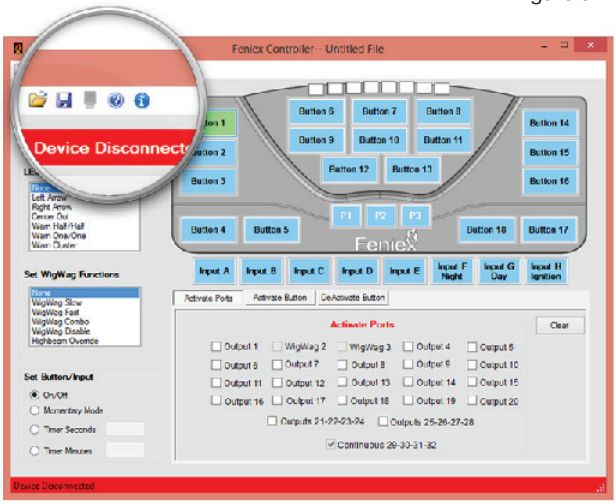
Outputs:	**Buttons:** (1 - 18, P1 - P3)
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29 - 32 Continuous 12V (+)	[No buttons for outputs 29 - 32]
Inputs:	**Outputs / Buttons:**
A (-)	
B (-)	
C (+)	
D (+)	
E (+)	



T1 - T8: Used for traffic advisor lightbars

This software program is downloaded directly from feniex.com at http://www.feniex.com/product.php?prod_id=247. The file size is 50MB, so the file may be slow to download depending on the internet connection.

Figure 5.1



Help

For help on how to use the software, please click the help button located on the top bar in the software interface. You will find informative videos on how to program every function of the 4200 software system.

Figure 5.1

Step 1: Open the Feniex Controller software (downloaded from www.feniex.com (reference p.12).

Step 2: Connect the provided USB wire to the controller. Connect the other end to the USB port on the computer.

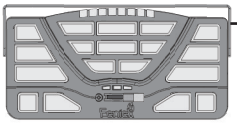
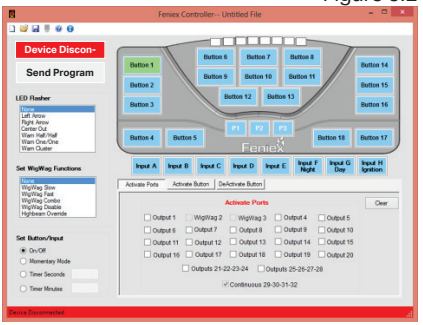


Figure 5.2



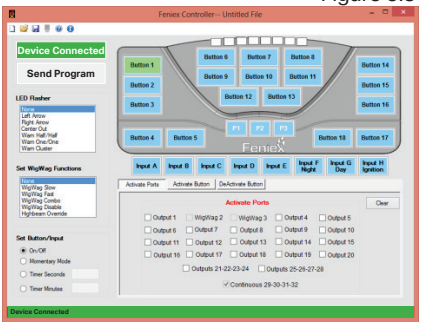
When the controller is plugged in, the red box reading Device Disconnected changes from red to green and reads: Device Connected (see figures 5.2 and 5.3).

Step 3: Program the buttons using the software.

Use the help icon (see figure 5.1) for instructional videos on the following categories:

- Input Programming
- Traffic Controller
- WigWag
- External Siren
- Button Programming

Figure 5.3

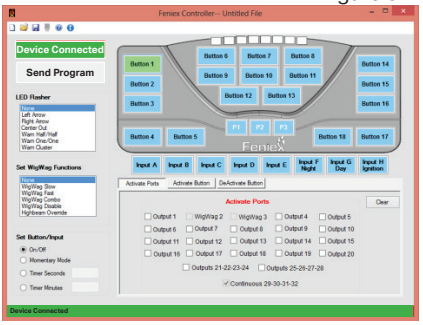


Step 4: Save XML file

Step 5: When finished, select: Send Program (see figure 5.4).

Step 6: Disconnect the controller from the computer when software states: Device Successfully Programmed.

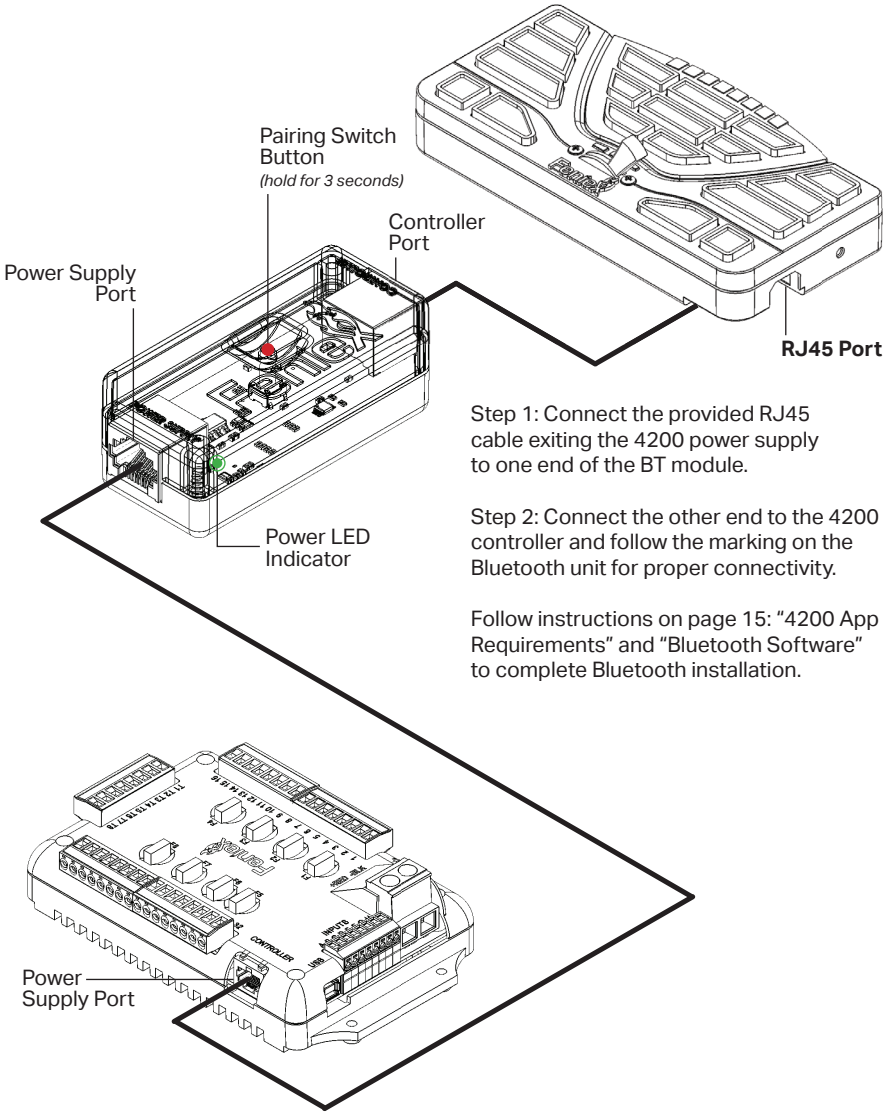
Figure 5.4



Important! Set WigWag Functions to outputs 2 - 3. See FAQ on page 16 for more info.

Bluetooth Hardware

The Feniex 4200 has the option of being controlled via a smart phone or tablet. To enable this feature you will require the Feniex in-line Bluetooth module (part #: C-4200WB-AD for Android Bluetooth; C-4200WB-AP for Apple Bluetooth). Follow the installation instructions below to pair the 4200 with a smart phone or tablet.



Step 1: Connect the provided RJ45 cable exiting the 4200 power supply to one end of the BT module.

Step 2: Connect the other end to the 4200 controller and follow the marking on the Bluetooth unit for proper connectivity.

Follow instructions on page 15: “4200 App Requirements” and “Bluetooth Software” to complete Bluetooth installation.

Bluetooth Software

Step 3: Upload software to your handheld device.

- To download for apple devices, go to the App Store.
- To download for android devices, visit the Feniex website at: http://www.feniex.com/product.php?prod_id=247

*The app is not yet available on Google Play

Step 4: Turn Bluetooth on using handheld device.

Step 5: Press and hold pairing switch button on Feniex Bluetooth device for 3 seconds.

Step 6: In the 4200 app, select "connect" in the upper right corner.

Step 7: Select "Search for device" for Android or "Scan" for Apple

Step 7: Enter password:

- For android devices, select Feniex 4200 and enter password: 1111.
- For apple devices, select Feniex 4200 and choose enter 8 digit password: 11111111

Step 8: When the app is successfully paired with the Bluetooth module, the circle next to "connect" changes from red to green.

4200 App Requirements:

Android App minimum requirements are the following:

- Android 2.2 or higher
- Bluetooth 2.0 EDR with SPP support

The app should be compatible with most phones made in 2011 or after. The current Android version is 4.4.

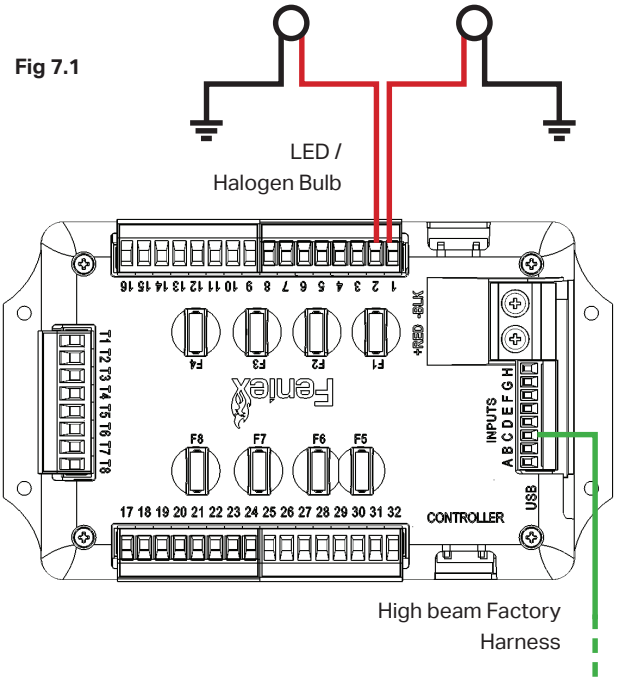
Apple App should work on the following devices:

- iPhone 4S
- iPhone 5
- iPhone 5C
- iPhone 5S
- iPad Air
- iPod Touch 5th Generation
- iPad 3rd & 4th Generation

Devices must have Bluetooth 4.0 and iOS 6.0 software or newer.

Important: Use the video link below to use the correct settings before installing application:
http://howto.cnet.com/8301-11310_39-57602654-285/how-to-install-apps-outside-of-google-play/

Fig 7.1



1.) How do I know if there is power to my 4200 Relay?
A flashing green LED light on the PCBA will indicate if there is power to the board if the firmware is fully operational.

2.) Why can't I program to outputs 1 - 2?
Outputs 1 - 2 are only for the WigWag Function Box.

3. What are T1 - T8 outputs used for?
T1 - T8 are used for traffic advisor control. A lightbar or stick utilizing 12V(-) outputs can connect into outputs T1 - T8.

4. My traffic advisor on my Cobra lightstick doesn't work in T1-T8?
Do not connect the blue and gray wire (product directional wires) to T1-T8. Use one of available outputs from 3-28 for your directional needs. If you would like the light stick to work with T1-T8; you will need a lightstick manufactured without an internal driver.

5. My controller does not turn on after I programmed it?
Make sure to provide 12V+ into the "Ignition Input" (Input H).

6. What are outputs 29 - 32 used for?
Outputs 29 - 32 are a 12V junction connection that use continuous current. These outputs are used to provide power to low voltage products, like Apollo Innerbar, Cobra Light Bars and not high voltage ones like siren systems.

7. What is the password for Feniex Bluetooth Module?
Android: The password is: 1111
Apple: The password is: 11111111

8. Can I still use my high beams with the WigWag function?
Yes, please use the wiring diagram (see fig. 7.1) as a reference.

- To program, select Input C, D, or E
- Select "Highbeam Override" (see right, fig 7.2).

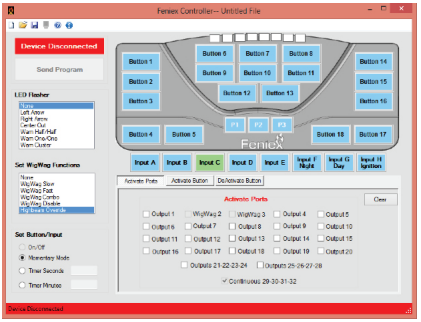
9. How do I use my wig wag option?
Each output will support 1 high beam light assembly. This option can be used for low beams. Make sure to wire each output to the positive side of the high beam or low beam. Be sure to completely cut the wire to not splice into it to percent feedback.

10. How do I wire the "highbeam" function from the vehicle?
Run the "switch side" wire, after its cut off from the high beam bulb, into the 4200's input (C,D or E). In the programming software, select the input of the vehicle's highbeam wire and on the left column of the programmer under "Wig Wag Function" select "high beam" override.

11. My controller button is not illuminating?
Make sure to provide 12V+ into Input G (day mode).

12. The program software will not acknowledge my 4200 controller.
Make sure the 4200 control panel is plugged in via provided USB to the computer.

Fig 7.2



13. Can I change button labels on the App for handheld device?
Yes. If using Android app, press and hold button on handheld device. Enter new name for button when text box appears. On Apple app, select "settings" to edit labels on buttons.

Fig 7.3

Important! Do not reverse-connect the 4200 relay, by switching the red positive 12V(+) wire with the ground 12V(-) wire.