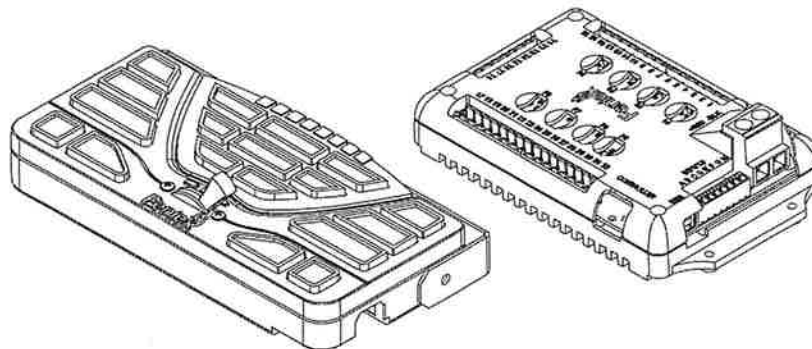# Feniex

INNOVATION AT ITS BRIGHTEST

4200 V1

MANUAL

This instruction manual serves as a guide for the Feniex 4200 smart controller. **IMPORTANT! Please read through all provided instructions and any listed warnings in regards to product use.**

Feniex Model #: C-4200

Record Product Serial Number:

Table of Contents

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 the 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 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. The Feniex 4200 has a 5 year warranty.

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.

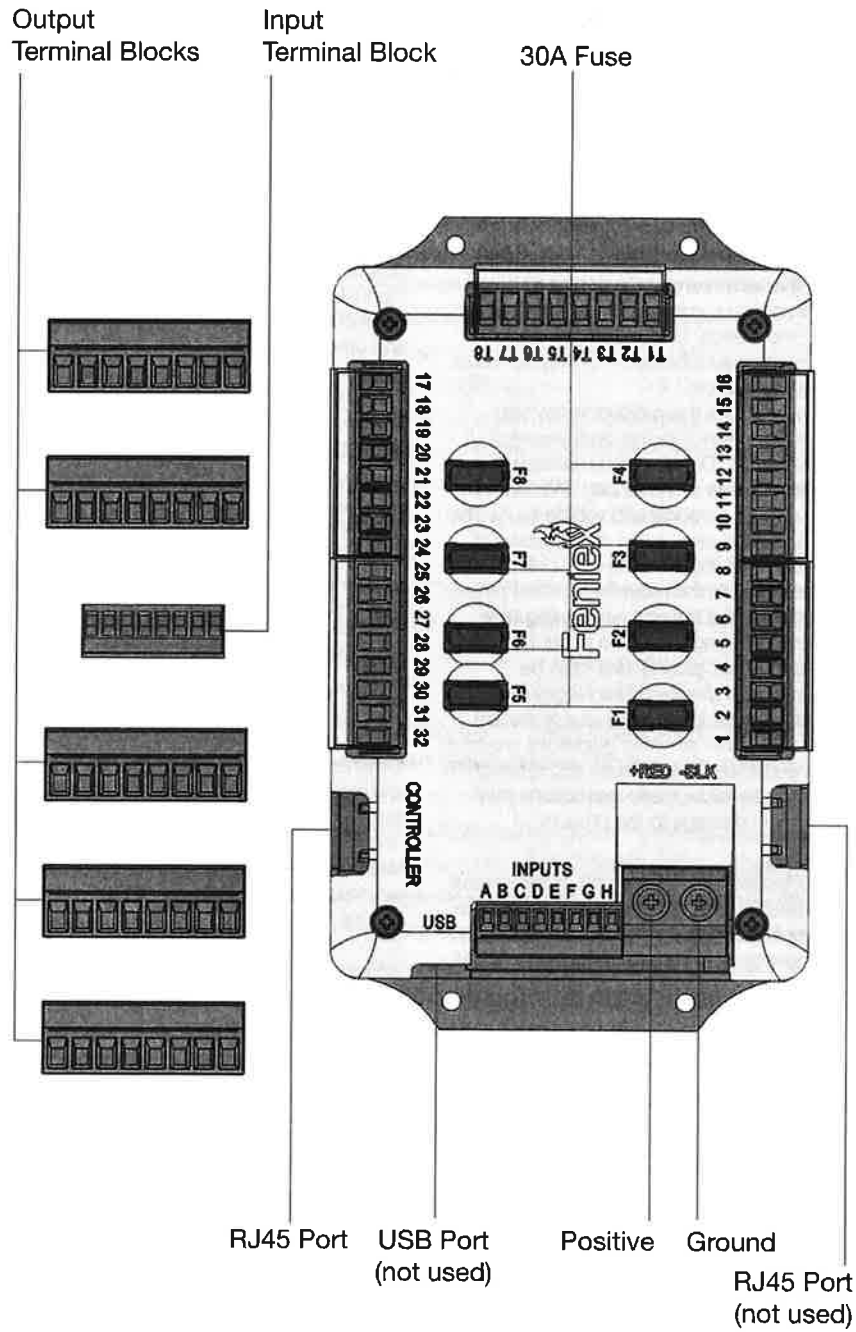**Warning!** Utilizing non-factory screws and mounting brackets may result in loss of warranty coverage
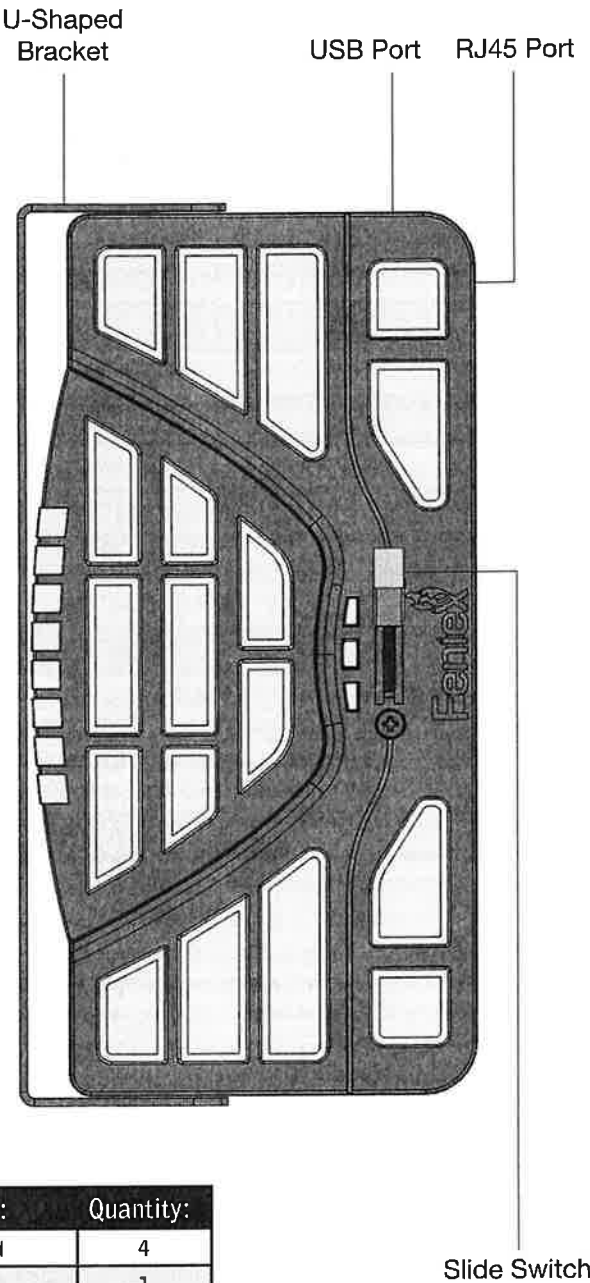
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Feniex 4200 Content Diagram

Output
Terminal Blocks

Input
Terminal Block

30A Fuse

RJ45 Port

USB Port
(not used)

Positive

Ground

RJ45 Port
(not used)

U-Shaped
Bracket

USB Port   RJ45 Port

Slide Switch

Contents Include:	Quantity:
Label Sheet / Legend	4
RJ45 Cable	1
USB Cable	1

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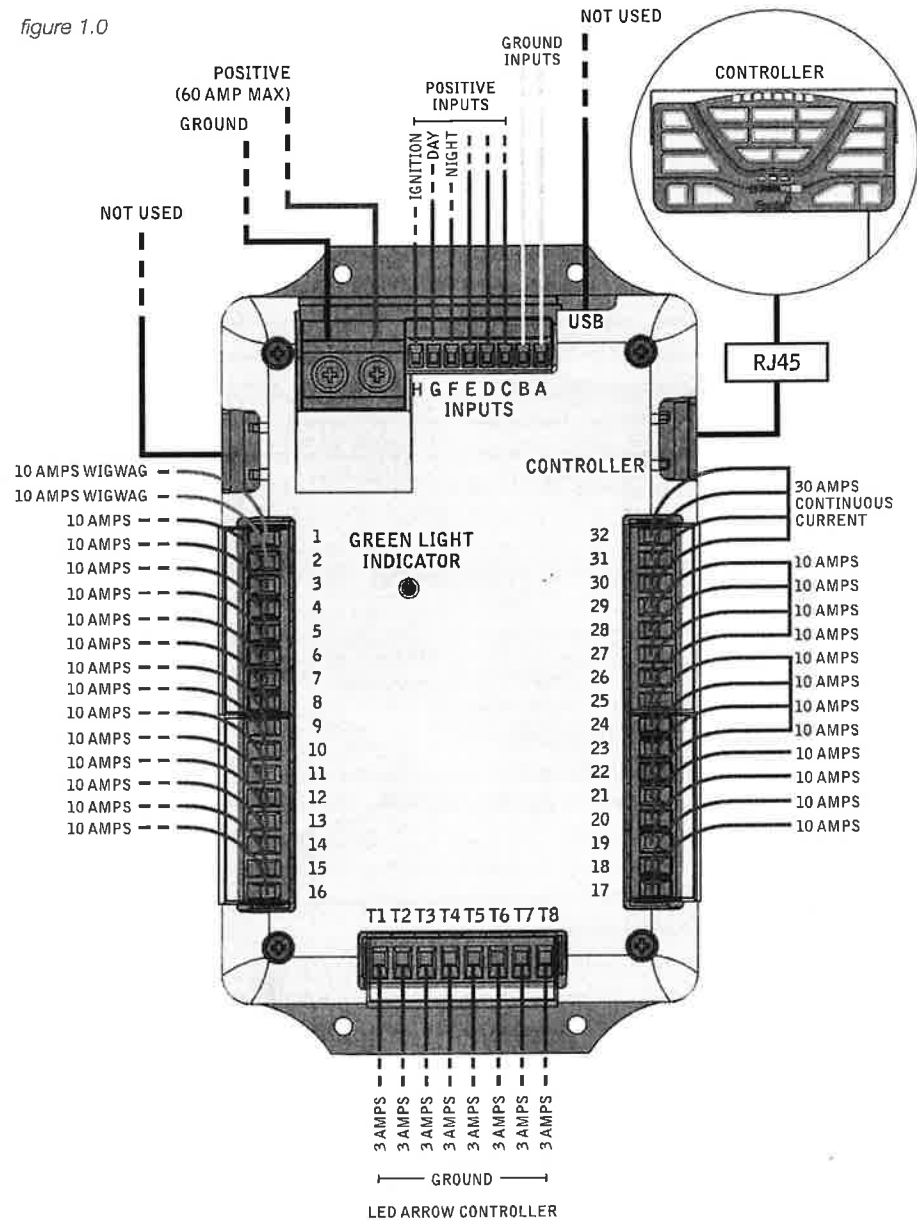information to better determine your installation needs.*
Warning! *Do not deviate from the specified voltage.*

System Specification

Input Voltage	11Vdc to 16Vdc
Temperature Range	-40C to +70C
Standby 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 (+)
Outputs 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" x 1.3"
Power Supply Dimensions	6" x 4" x 1.5"
Bluetooth Range	40ft (+/- 5 ft)

Feniex 4200 Wiring Diagram

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

figure 1.0

www.feniex.com

Mounting Control Head

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
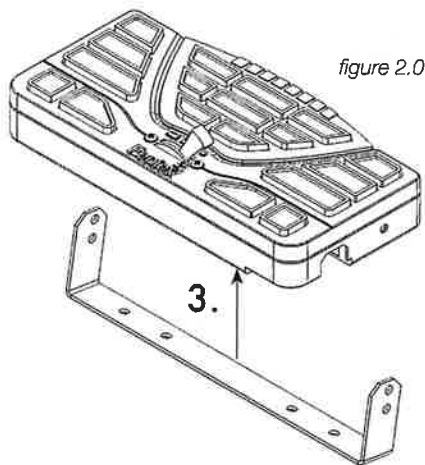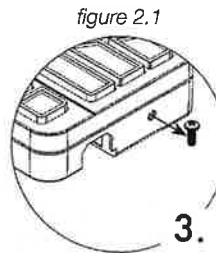
figure 2.1

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

figure 2.0

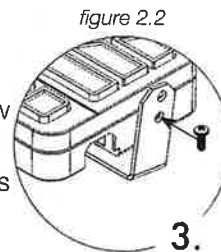Step 3: Place the U-Shaped bracket into place and screw the two factory provided screws back on each side of the controller.

figure 2.2

Step 4. Connect the RJ45 cable to the RJ45 port located on the rear of the controller *(as shown in figure 2.3)*.
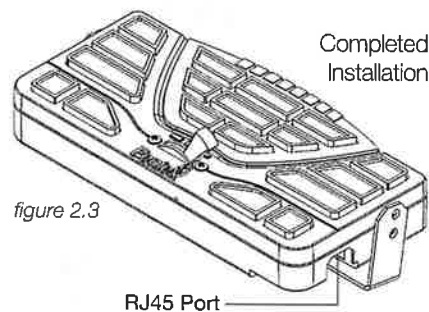
Option B: Surface Mount

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.

Completed Installation

figure 2.3

RJ45 Port

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.

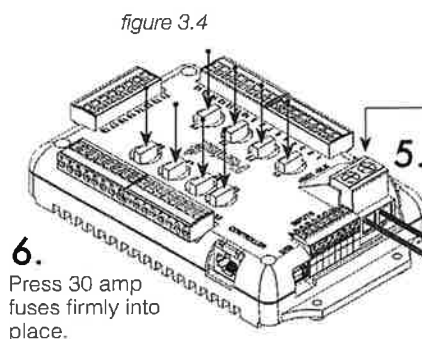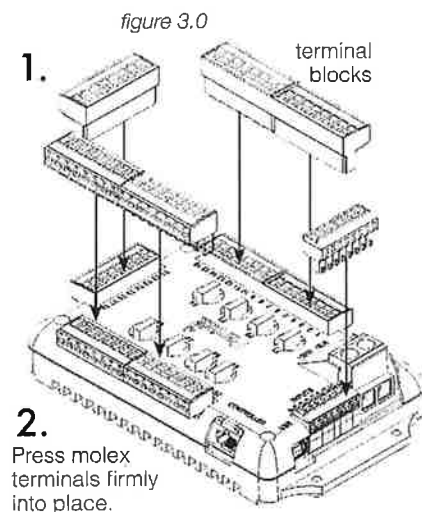Step 3. Connect the RJ45 cable to the RJ45 port located on the rear of the controller *(as shown in figure 2.3)*.

Mounting Power Supply

Follow the instructions below when mounting and installing the 4200 power supply. To avoid warranty concerns, refrain from mounting the power supply in a moist or exterior location.
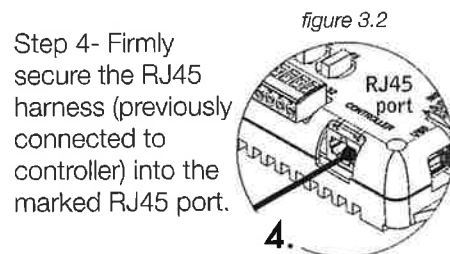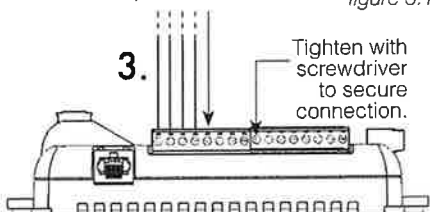
Wiring

Step 1: Locate the 8 Pin terminal blocks provided (shown in figure 3.0).

Step 2: Insert the six blocks in their desired location. Press down firmly in place to ensure connectivity.
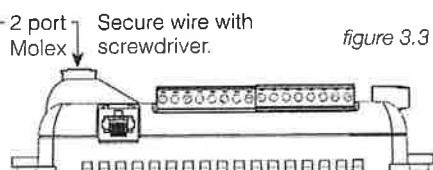
figure 3.0

1.
terminal blocks

2.
Press molex terminals firmly into place.

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

figure 3.1

3.
Tighten with screwdriver to secure connection.

figure 3.2

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

RJ45 port

4.

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.

Important! Do not reverse connect the 12V(+) with 12V(-) on the 2 port molex terminal block.

figure 3.4

5.

6.
Press 30 amp fuses firmly into place.

2 port Molex — Secure wire with screwdriver.

figure 3.3

Step 6- Ensure that each 30 amp fuse is not loose and is firmly connected.
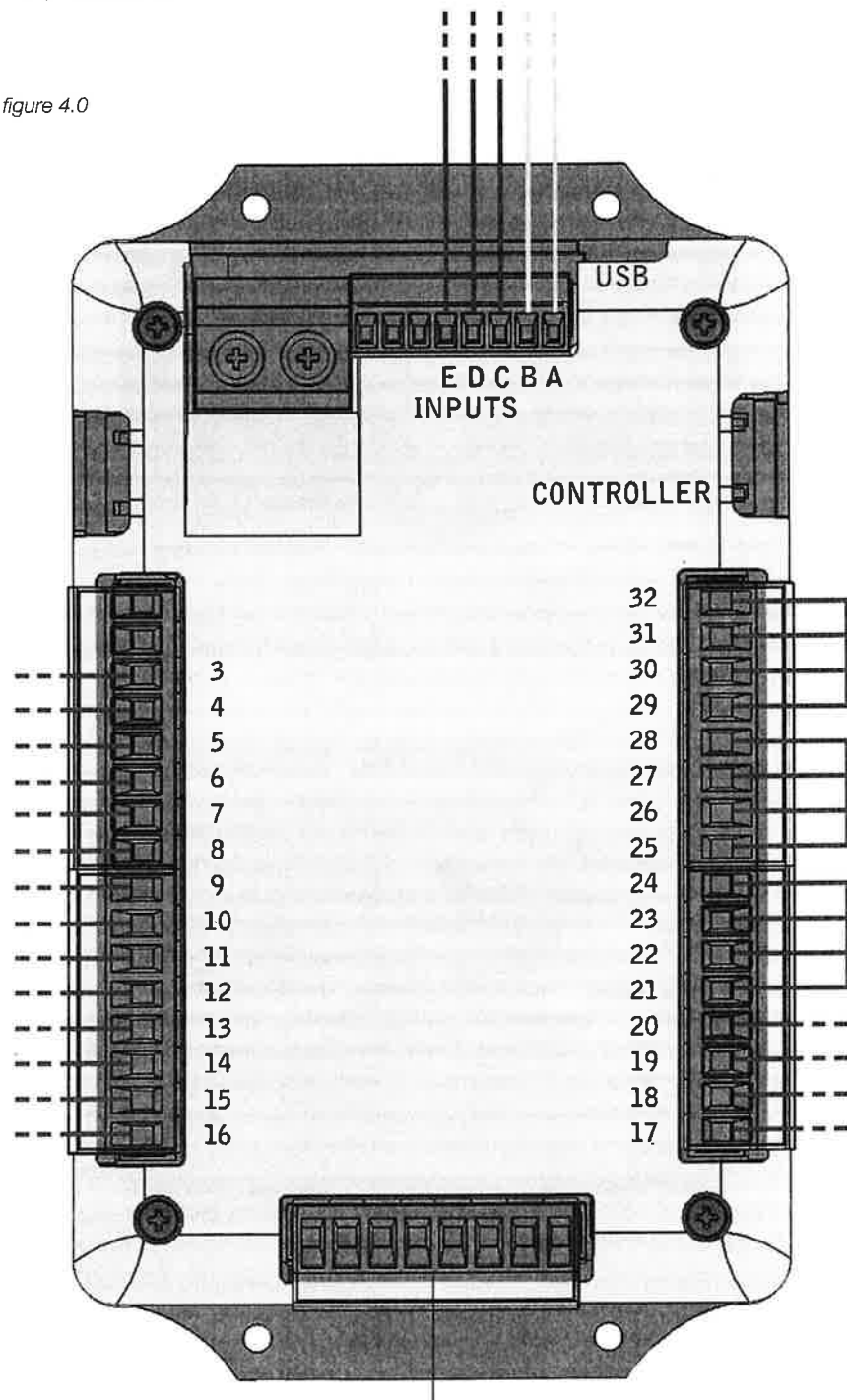
Configuration Record

Use this document to record the products connected to each outlet to assist when programming the control head with the provided software package. *Reference figure 4.0*

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	*(No buttons for outputs 29 - 32)*

▨ *Continuous 12V (+)*   ☐ *Grouped Outputs*   ▨ *Grouped Outputs*

Inputs:	Outputs / Buttons:
A (-)	
B (-)	
C (+)	
D (+)	
E (+)	

figure 4.0

USB

E D C B A
INPUTS

CONTROLLER

3
4
5
6
7
8
9
10
11
12
13
14
15
16

32
31
30
29
28
27
26
25
24
23
22
21
20
19
18
17

////////////////// *T1 - T8: Used for traffic advisor lightbars* //////////////////

Control Head Programming

figure 5.0

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.
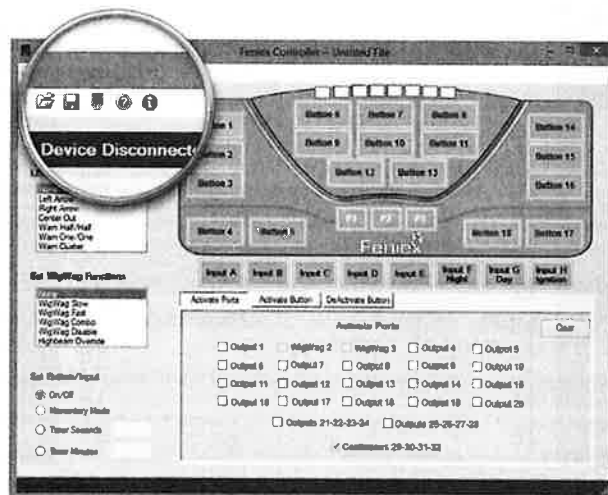

figure 5.1

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.

Control Head Programming (cont'd)

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

figure 5.2

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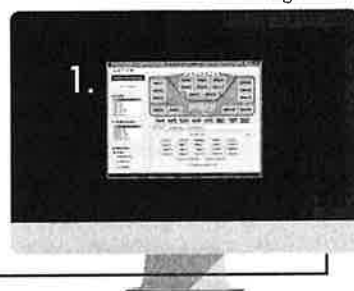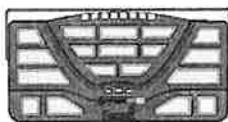
Connect the
other end
to the USB
port on the
computer.

When the controller is plugged
in, the red box reading Device
Disconnected changes from red to
green and reads: Device Connected
(*see figures 5.3 and 5.4*).

Step 3: Program the buttons using
the software.

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

figure 5.3

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

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

Important! When selecting a button on the
controller, do not select the same button in
the Activate Button check box.

figure 5.4

Step 4: Save XML file

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

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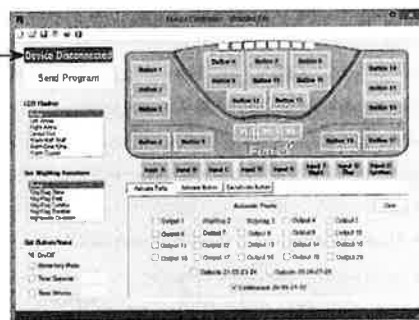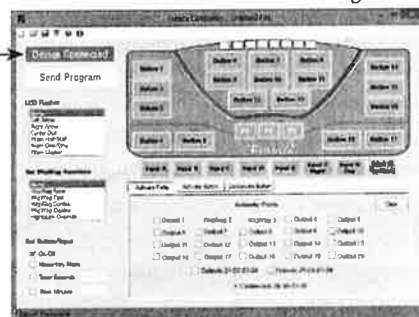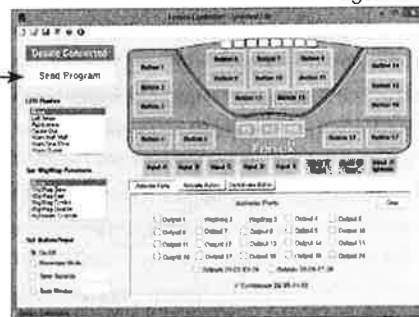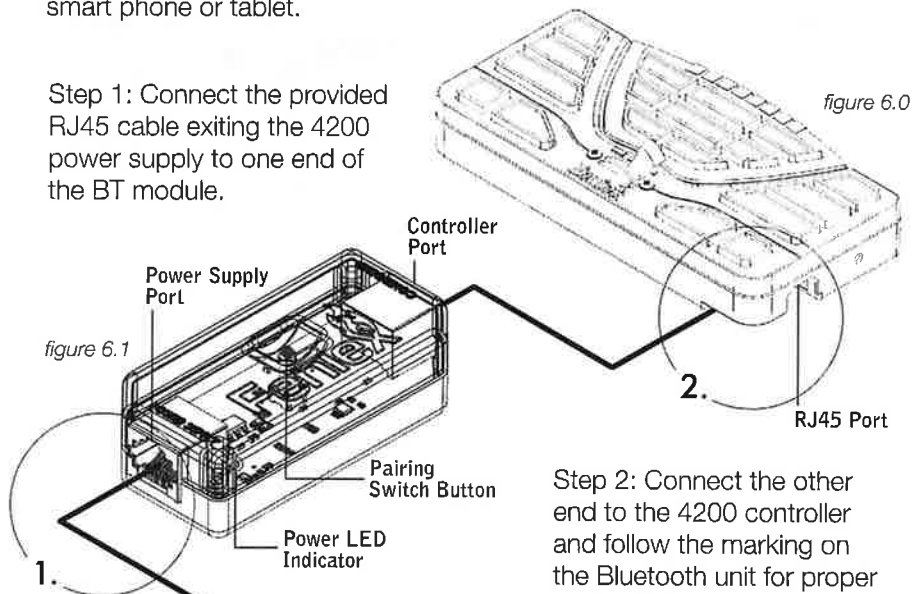Device Successfully Programmed.

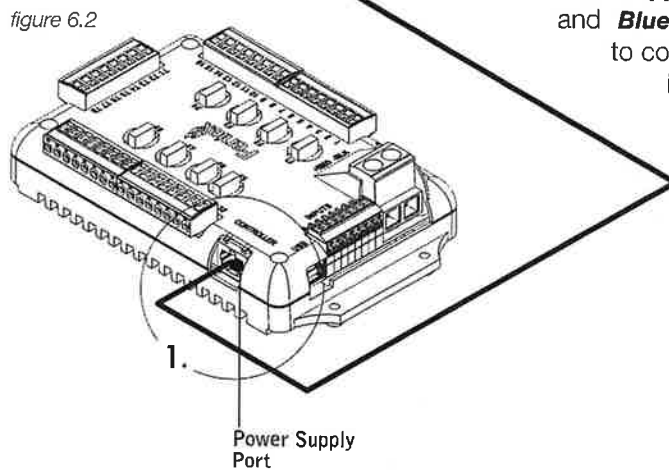figure 5.5

Bluetooth

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-4200B-AD for Android bluetooth; C-4200WB 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.

figure 6.0

Controller Port

Power Supply Port

figure 6.1

2.

RJ45 Port

Pairing Switch Button

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

Power LED Indicator

1.

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

figure 6.2

1.

Power Supply Port

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. (see figure 6.1).

figure 6.3

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 a password.

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/

www.feniex.com

FAQ

Why am I having problems programming my buttons on the Feniex 4200 software?

When selecting a button in the software interface, do not select the same button in the Activate Button check box.

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.

Why can t I program to outputs 1 - 2?

Outputs 1 - 2 are only for the WigWag Function Box.

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.

What are outputs 29 - 32 used for?

Outputs 29 - 32 are a 12V junction connection that use continuous current.

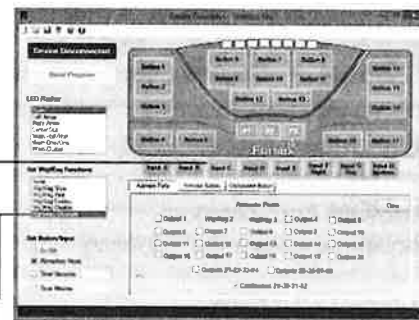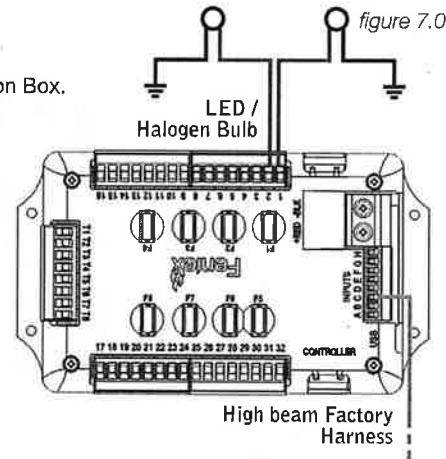• *Example: Storm Siren, Cobra Light Bars*

What is the password for Feniex Bluetooth Module?

The password is: *1111*

Can I still use my high beams with the WigWag function?

Yes, please use the wiring diagram (*see right, fig. 7*) as a reference.

• To program, select Input C, D, or E
• Select "Highbeam Override"

figure 7.0

LED / Halogen Bulb

High beam Factory Harness

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.

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