Feniex University
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20X®

COMPLETE CONTROL

20X CONTROLLER*
C-4020

MADE IN THE USA

*NOT PROGRAMMABLE.

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SAFETY REGULATIONS & WARRANTY

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 all our products shall be free from defects in material and workmanship. Feniex Industries' speakers, sirens, rocker panels, AM600 Beacons, Torch Lights, AI lightbars, AI Cubes, AM900 Work Lights, 8.5" Dome Lights, Cargo Lights, flashlights, Remote Spot Lights, and controllers are warranted for 2 years from the manufacturing date. In addition, all other products are warranted for 5 years from the manufacturing date.

If a warranty problem occurs, please contact customer support at 1.800.615.8350 or visit the website at www.feniex.com/support.

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 9 a.m. to 6 p.m. central time, Monday through Friday. Please do not send in product without contacting support first for an RMA number.

Service After Expiration

Feniex Industries will still provide service for all products after the expiration of the warranty. 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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◢ BOX CONTENTS

1x - 20X Controller	
1x - 20X Relay	
1x - 20X Controller Cable	
1x - U-Shaped Bracket*	
2x - L-Brackets & Screws	
4x - Button Legend Sheets	

*These items come attached to the product.

◢ INPUTS

All buttons can be configured as on/off or momentary. Buttons 1 & 2 can be configured as wig wag operation.

INPUT A (-) / C (+)	Activate Output 14
INPUT B (-) / D (+)	Activate Output 15
INPUT E (+)	Activate Output 16
INPUT F (+)	High Beam Override Outputs 1 & 2

Important! Provide 12V+ to Input H for ignition. This turns the controller on.

◢ WIG-WAG

1	Single Slow
2	Single Fast
3	Single Combo
4	Highbeam Override
5	Wig Wag Disable

◢ SPECIFICATIONS

CONTROLLER	7.25" x 1.13" x 3.5"
RELAY	6.3" x 4.4" x 1.6"
VOLTAGE	11-16VDC
MAX CURRENT	60 Amps
AMPS PER OUTPUT	3 Amps @ 13V
EXTERNAL FUSE	125% Circuit Load
INPUTS	2 Ground, 3 Positive
OUTPUTS	20 Outputs
BUTTONS	16 Buttons
SLIDE SWITCH	3 Position Switch
WARRANTY	2 Years

Important! Recommended to use a power disconnect device to disconnect the system from vehicle battery. Failure to do so can deplete the vehicle's battery.

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◢ CONFIGURATION INPUT RECORD

BUTTON	OUTPUTS	ASSIGNED TO
Button 1	Output 1	
Button 2	Output 2	
Button 3	Output 3	
Button 4	Output 4	
Button 5	Output 5	
Button 6	Output 6	
Button 7	Output 7	
Button 8	Output 8	
Button 9	Output 9	
Button 10	Output 10	
Button 11	Output 11	
Button 12	Output 12	
Button 13	Output 13	
Button 14	Output 14	
Button 15	Output 15	
Button 16	Output 16	

P1	Output 17	
P2	Output 18	
P3	Output 19 & 20	

Input A (-) / C (+)	Output 14	
Input B (-) / D (+)	Output 15	
Input E (+)	Output 16	
Input F (+)	Outputs 1 & 2 Steady On	

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◢ MOUNTING INSTRUCTIONS

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 bsed 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 coverage.

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

3. Connect the RJ-45 cable to the RJ-45 port located on the rear of the controller.
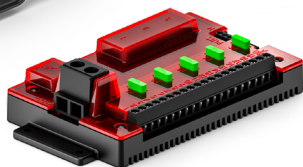
20X Controller

U-Shaped Bracket

2x L-Brackets

20X Controller Relay

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◢ FREQUENTLY ASKED QUESTIONS

■ 1. Do I need a software to program the 20X?

No, a software is not required. It is a direct button/input to output operation.

■ 2. How do I install wig wags to the 20X?

Power the controller and apply 12VDC+ to Input G. Hold buttons 1& 2 until they turn red. Button 1 will be Wig Wag On, button 2 will be Pattern Changer, and outputs 1 & 2 can be used for light output and Input F (+) for high beam override.

■ 3. How do I switch my buttons from on/off to momentary?

Power the controller and apply 12VDC+ to Input G. Hold the button for 2 seconds until it turns red. Remove Input G, then turn on the controller for confirmation.

■ 4. Is there a night mode to dim the buttons?

Yes. With ignition (Input H), brightness is 100%. Adding 12VDC+ to Input F (Night Mode) dims the buttons to 20% brightness.

■ 5. How do I know if the relay has power?

A green LED will flash inside the relay. If the controller doesn't turn on, there may be a short in the cable causing a blown onboard fuse.

■ 6. Can a button be grouped to more than one output?

Unfortunately, the buttons are designated to their corresponding output. The only grouped outputs are with the slide switch position 3.

■ 7. What is the max current for each output?

Each output supports up to 3 amps.

■ 8. What is the recommended gauge for 60 amps?

Use a 6-gauge stranded wire up to 20 feet in length.

■ 9. What size external fuse should I use?

Add 125% to the total amp draw through the relay. Example, 50 amps x 1.25 = 62.5. Roughly a 63 amp fuse would be ideal (round up).

■ 10. Can I add a Storm Pro siren system?

Yes. However, serial connection will not apply. Use the 12VDC inputs to activate siren tones.