

# PROJECT X GB538823 Ghost Box Wireless Control Instruction **Manual**

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PROJECT X GB538823 Ghost Box Wireless Control



# **Product Information**

Model No.: GB538823

# **Technical Specifications:**

#### GHOST BOX

• Input Voltage (Nominal): 12V DC

Output Voltage (Nominal): 12V DC

◦ Operating Voltage Range: 11.6V – 14.7V DC

• Output Maximum Current: 20A @12V DC (Channel 1)

#### KEYPAD

# **Included Accessories:**

- 4x GHOST BOXES
- 8x Button Head Screws (L25)
- 8x M5 Lock Nuts
- 16x M5 Washers
- 8x External Antennas
- 4x 3M VHBTM Double Sided Tapes
- 8x Large Rubber Caps (Spare)
- 8x Small Rubber Caps (Spare)
- 5x PROJECT X Stickers
- 1x KEYPAD
- 1x Keypad Mount
- 2x M5 Truss Head Self-Tap Screws
- 1x 4mm Hex Allen Key
- 2x M6 Washers
- 2x M6 Split Nuts
- 2x M6 Nuts

- 2x M6 Bolt Rubber Caps
- 1x Accessory Labels (4pcs a set)
- 1x 3M VHBTM Double Sided Tape
- 1x RJ45 Power Cord

# **Product Usage Instructions**

#### Installation - GHOST BOX

**Option** 1 – Mounting with screws:

- 1. Use Button Head Screw (L25) and M5 Washer to secure the Ghost Box in place.
- 2. Use an M5 Washer and M5 Lock Nut to tighten the screw.

Note: The maximum torque for the M5 Lock Nut is 18 in/lbs, 1.5 ft/lbs, 2.03 Nm.

**Option 2 –** Mounting with 3M VHBTM double-sided tape:

1. Stick the Ghost Box to the desired surface using the provided 3M VHBTM double-sided tape.

## Wiring – GHOST BOX

#### **Opening the GHOST BOX:**

- 1. Unscrew and open the lid of the Ghost Box.
- 2. Remove the O Ring and the transparent plastic cover.

#### Wire Connection:

- 1. Cut the pointed head of the Rubber Caps according to the thickness of the hardwire cable.
- 2. Use the Small Rubber Cap for cable diameter range 1 3.5 mm (cut at position 1).
- 3. Use the Large Rubber Cap for cable diameter around 3.5 mm (cut at position 3).
- 4. Use the Large Rubber Cap for cable diameter range 4 5.5 mm (cut at position 2).

# Wiring:

- 1. Refer to the provided illustration and connect the hardwire cables to the Ghost Box.
- 2. Reassemble everything and close the lid.

Note: Remove the fuse before making any connections.

**Note:** Hardwire cables are not included. Refer to the provided chart to choose the correct wire size according to your 12V powered accessories.

# Mounting - KEYPAD

#### **Option** 1 – Mounting with screws:

1. Use the Keypad Mount and M6 Washer, M6 Spring Washer, M6 Nut, and M6 Bolt Rubber Cap to secure the Keypad in place.

**Note:** The maximum torque for the M6 Nut is 30 in/lbs, 2.5 ft/lbs, 3.38 Nm. Do not exceed the maximum torque to avoid overtorque.

# **Option** 2 – Mounting with 3M VHBTM double-sided tape:

1. Stick the Keypad to the desired surface using the provided 3M VHBTM double-sided tape.

## Important safety Information

- SAVE THESE INSTRUCTIONS This manual contains important safety and operating instructions.
- Before using this product, read all instructions and cautionary markings.
- Use of an accessory outside of amp rating could result in fire, electric shock or failure. Professional installation is highly recommended.
- Do not expose the Keypad to rain, moisture, or snow.
- Do not operate or disassemble the Keypad if it has been dropped, received a sharp blow, or otherwise damaged in any way – replace it immediately.
- To reduce risk of damage or electric shock, disconnect the Ghost Box System from the vehicle battery before attempting any maintenance or cleaning. Turning off controls will not reduce this risk.

# **Technical Specifications**

#### **GHOST BOX**

• Input Voltage (Nominal): 12V DC

• Output Voltage (Nominal): 12V DC

Operating Voltage Range: 11.6V – 14.7V DC

• Output Maximum Current: 20A @12V DC (Channel 1) 40A @12V DC (Channel 2)

Output Maximum Power: 480W @12V DC

• Operating Temp: -22°F to 149°F

• Storage Temp: -40°F to 185°F

• Waterproof Rating: IP65

• Wireless Frequency: 2.4GHz RF WiFi & Bluetooth 5.0

• Wireless Range (RF WiFi): 98.4 Feet (without interference or obstruction) Wireless Range (Bluetooth®): 33 Feet (without interference or obstruction)

• Replacement Fuse: 40A Max - Standard ATC Type KEYPAD

• Input Voltage (Nominal): 12V DC

• Output Voltage (Nominal): 12V DC

• Operating Voltage Range: 11.6V – 14.7V DC

Maximum Power Consumption: 0.84W @ 12V DC

Operating Temp: -22°F to 149°F

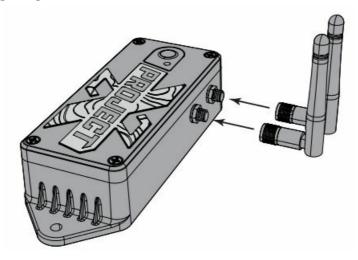
• Storage Temp: -40°F to 185°F

- Wireless Frequency: 2.4GHz RF WiFi & Bluetooth 5.0
- Wireless Range (RF WiFi): 98.4 Feet (without interference or obstruction) Wireless Range (Bluetooth®): 33 Feet (without interference or obstruction)
- The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by ADC Solutions Offroad & Adventure, LLC is under license.
- Other trademarks and trade names are those of their respective owners.

#### **INCLUDES**

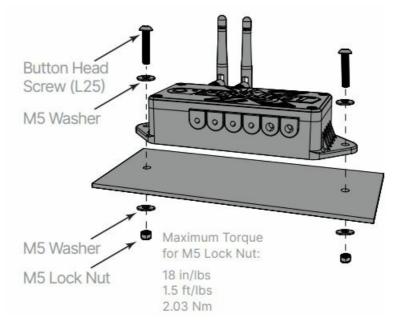
- 4x GHOST BOXES
- 8x Button Head Screws (L25)
- 8x M5 Lock Nuts
- 16x M5 Washers
- 8x External Antennas
- 4x 3M VHB™ Double Sided Tapes
- 8x Large Rubber Caps (Spare)
- 8x Small Rubber Caps (Spare)
- 5x PROJECT X Stickers
- 1x KEYPAD
- 1x Keypad Mount
- 2x M5 Truss Head Self-Tap Screws
- 1x 4mm Hex Allen Key
- 2x M6 Washers
- 2x M6 Split Nuts
- 2x M6 Nuts
- 2x M6 Bolt Rubber Caps
- 1x Accessory Labels (4pcs a set)
- 1x 3M VHB™ Double Sided Tape
- 1x RJ45 Power Cord

#### **INSTALLATION – GHOST BOX**



• Insert the External Antennas to the Ghost Box.

#### **Mounting – GHOST BOX**

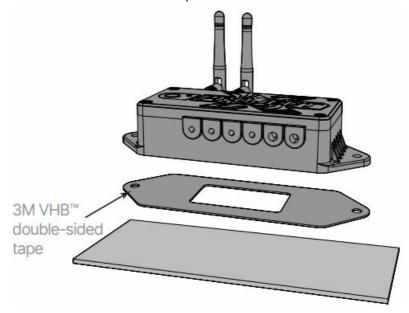


• Choose a suitable mounting location for the Ghost Box. Make sure the location is strong enough to mount the Ghost Box.

# Option 1 - Mounting with screws

- Mark two holes for a precise installation and make sure nothing beneath will be damaged by drilling.
- Drill 2 pilot holes using a 13/64 inch drill bit.
- Line up the Ghost Box with the pilot holes and secure with Button Head Screws (L25), M5 Washers and M5 Lock Nuts.
- NOTE: Do not exceed the maximum torque in order to avoid overtorque.

**Option** 2 – Mounting with 3M VHB™ double-sided tape

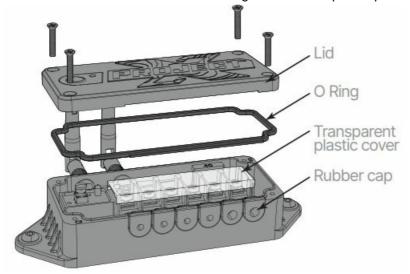


- Clean the area thoroughly with isopropyl alcohol to ensure a good sticking surface.
- Attach the Ghost Box to your desired location with 3M VHB™ double-sided tape.

#### WIRING - GHOST BOX

# **OPEN THE GHOST BOX**

Unscrew and open the lid of the Ghost Box. Remove the O Ring and the transparent plastic cover.

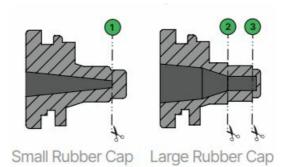


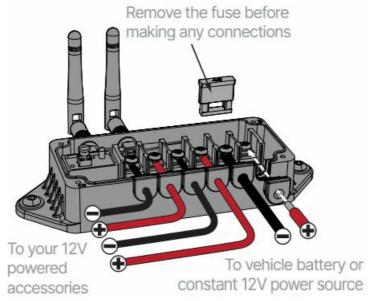
#### WIRE CONNECTION

Refer to the illustration below and connect the hardwire cables to the Ghost Box. Re-assemble everything and close the lid.

**NOTE:** Hardwire cables are not included. Please refer to the below chart and choose the correct wire size according to your 12V powered accessories to prevent the Ghost Box from entering sleep mode due to "voltage drop". You can also adjust the low voltage protection settings inside the PROJECT X App.

- Cut the pointed head of the Rubber Caps according to the thickness of the hardwire cable.
- Cut at on the Small Rubber Cab for cable diameter range 1 3.5 mm
- Cut at on the Large Rubber Cab for cable diameter around 3.5 mm
- Cut at on the Large Rubber Cab for cable diameter range 4 5.5 mm

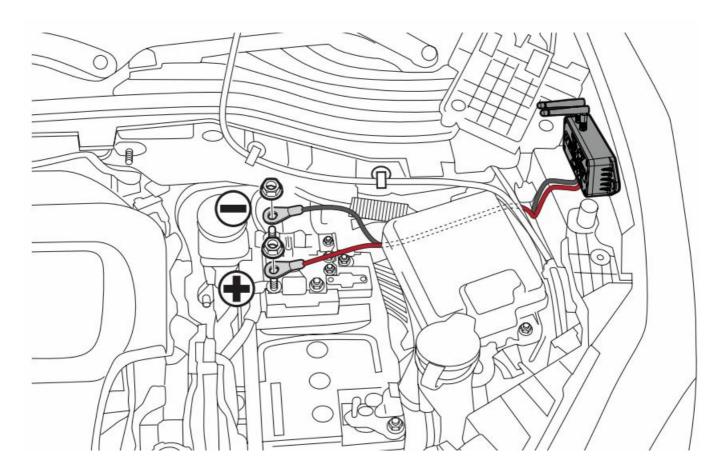




- Suggested gauge of wire for direct connection: 10 AWG
- **REMARK:** For wire gauge under 10 AWG a terminal block connection is recommended.

Length of wire (Feet)											
		0-4	4-7	7-10	10-15	15-20	20-25	25-30			
	0-5	16 AWG	16 AWG	16 AWG	16 AWG	14 AWG	12 AWG	12 AWG			
	5-10	16 AWG	16 AWG	14 AWG	12 AWG	10 AWG	10 AWG	10 AWG			
Cur rent (Am p)	10-1 5	14 AWG	14 AWG	12 AWG	10 AWG	10 AWG	8 AWG	8 AWG			
	15-2 0	14 AWG	12 AWG	12 AWG	10 AWG	8 AWG	6 AWG	6 AWG			
	20-2 5	12 AWG	10 AWG	10 AWG	8 AWG	6 AWG	6 AWG	6 AWG			
	25-3 0	10 AWG	10 AWG	10 AWG	8 AWG	6 AWG	6 AWG	4 AWG			
	30-4 0	8 AWG	8 AWG	8 AWG	6 AWG	6 AWG	4 AWG	4 AWG			

**WIRING – GHOST BOX** 

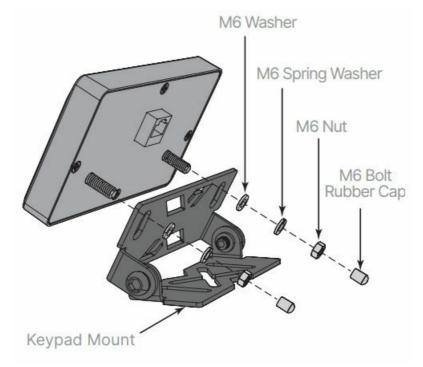


- Ghost Box hardwire cables are color coded, RED for POSITIVE (+) and BLACK for NEGATIVE (-). Connect the RED cable to the POSITIVE (+) battery clamp as illustrated. The POSITIVE battery post will be slightly larger than the NEGATIVE post, and will be marked with a PLUS (+) sign. There may also be a RED protective cover over the positive battery post. Connect the BLACK cable to the NEGATIVE (-) battery clamp as illustrated. The NEGATIVE will be marked with a MINUS (-) sign. There may also be a BLACK plastic protective cover over the negative battery post.
- Every installation is unique. This diagram is meant to be for illustrative purposes only. Professional installation is highly recommended.

#### NOTE:

- After connecting the Ghost Box to the car battery, the LED power indicator will flash Green. If the LED power indicator does not flash once connected, please double check your power connections.
- The Ghost Box has built-in voltage protection to prevent the vehicle battery from draining in case an accessory controlled by the Ghost Box is accidentally left on. LED indicator will turn off automatically and the Ghost Box will be on sleep mode when the voltage drops to approximately 12.2V. Once on sleep mode, do not turn on the Ghost Box until you start the engine again or until the battery is recharged to 13V or higher.
- The Ghost Box has a small parasitic draw that will not affect your vehicle if driven regularly. If you are planning to store your vehicle or leave it non-operational for a long period of time, we recommend either hooking it up to a battery charger or removing the fuses in each Ghost Box to avoid draining the battery.
- WARNING: DO NOT mix up the cables or allow the metal ends to touch together because this may damage
  the battery, charging system and/or electronics on your vehicle. When installing, please make sure the battery
  is disconnected.

# mounting - KEYPAD



- Mark two holes on the surface of your desired mounting location for a precise installation and make sure nothing beneath will be damaged by drilling. Drill 2 pilot holes using a 13/64 inch drill bit.
- Mount the Keypad with Keypad Mount on the surface using the M5 Truss Head Self-Tap Screws.

# Option 1 – Mounting with screws

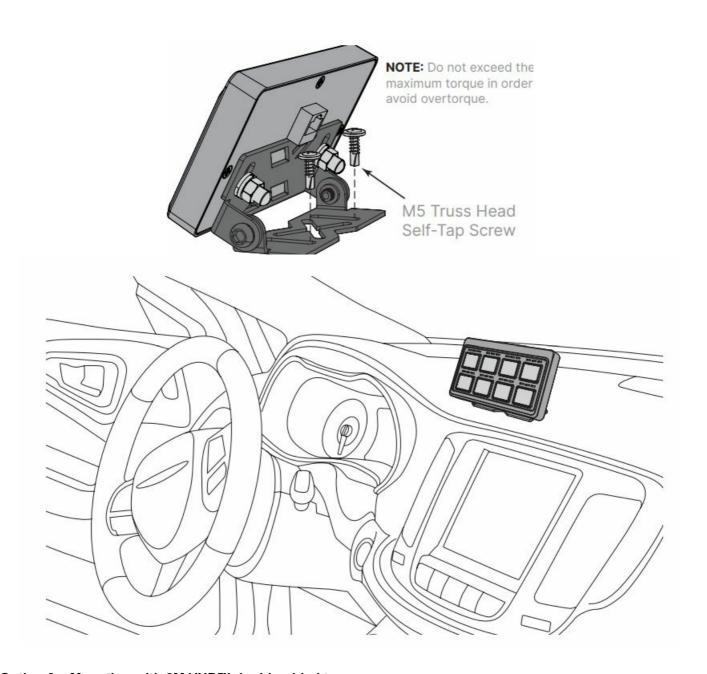
- Choose a suitable mounting location for the Keypad (preferably on the top of the dashboard or center console).

  Make sure the Keypad does not block your view after mounting.
- Mount the Keypad to the Keypad Mount using the M6 Nuts, Washers, Spring Washers, and Bolt Rubber Caps.

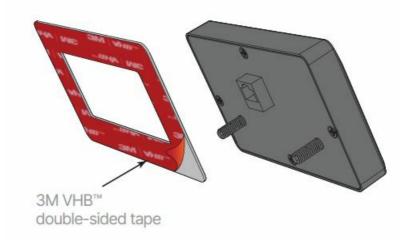


# **Maximum Torque for M6 Nut:**

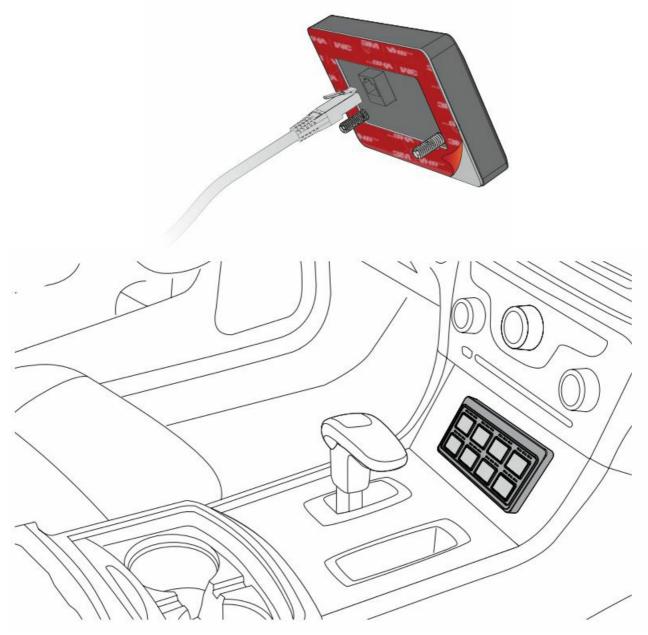
- 30 in/lbs
  - 2.5 ft/lbs
- 3.38 Nm



Option 2 – Mounting with 3M VHB™ double-sided tape



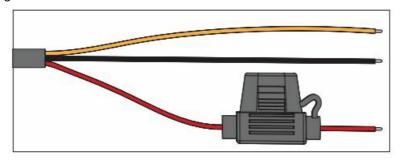
- Choose a suitable mounting location (preferably any flat interior panel near the driver's seat or center console).
- Clean the area thoroughly with isopropyl alcohol to ensure proper adhesion.
- Drill 3 holes on the surface big enough for the 2 thread protrusions and RJ45 power cord to pass through.
- Attach the Keypad to the desired location with 3M VHB™ double-sided tape.



- **WARNING:** Disconnect the negative terminal on the vehicle's battery prior to installation. Do not allow the wires or metal ends to come into contact with each other, as this may cause damage to the product as well as your vehicle's battery, charging system, and/or electronics.
- Route the RJ45 power cord through the firewall into the engine compartment, and hardwire to the vehicle battery according to the diagram below:

# **WIRE CONNECTION**

- Red Wire = Positive (+) Post
- Black Wire = Negative (-) Post
- Yellow Wire = ACC / Ignition Fuse



• Installation methods may vary depending on year, make, and model. Professional installation is highly recommended.

# button functions – GHOST BOX

<b>Button Functions</b>	BLE Status	Description	LED status an d color
Press Once	Standby Mode	Ghost Box is on and providing output power	On
Press again	Standby Mode	Ghost Box turns off output power	On
Press and Hold for 3 Sec	Pairing Mode	Ghost Box enters Pairing Mode	Blinking (0.25se c.)
Press and Hold for 8 Sec	Sleep Mode	<ol> <li>Ghost Box enters Sleep Mode to reduce pow er drainage</li> <li>Ghost Box returns to Standby Mode when vol tage is over 13V (e.g. when the engine starts)</li> </ol>	Off
Press and Hold for 1 5 Sec	Reset	Ghost Box resets to factory settings	Flash Green

Button Functions	BLE Status	Description	LED status an d color
Press Once (Unpaire d Status)	Standby Mode	No action. Only Indicating the button is working.	Off
Press Once (Paired Status)	Standby Mode	Mode switching. (3 modes + Off mode)	On
Press and Hold for 3 Sec	Standby Mode	Pairing	Blinking (0.25se c.)
Press and Hold for 8 Sec	Standby Mode	Unpairing button     When unpairing a circuit it is recommended t hat you manually "reset" the Ghost Box and repair as needed so both circuits are secure.	Off
Press and Hold the # 5 and #8 key for 6 Sec	Standby Mode	Reset	Off

# **DOWNLOAD** app







Compatible with iPhone 4s and higher, iPad3, iPad Mini, iPad Air and higher, and iPod touch 5th Generation and higher. Requires iOS 9.0 or higher.





Compatible with phones with Android™ 5.0 or higher.

- Scan the above QR code or search "PROJECT X Off-Road" in the App Store or Google Play. Download and install the App. Once installed, open the App and begin enjoying your PROJECT X Off-Road App.
- NOTE: The App is only available on smartphones with apple iOS 9 or newer, and Android 5.0 or newer. The

#### **ADD DEVICE**

• We recommend you to connect a battery charger to the vehicle during the set up and pairing process if your vehicle is not running. Follow these instructions to add the Ghost Box System to the App.



- 1. Tap ADD DEVICE on home page.
- 2. Tap GHOST BOX SYSTEM.
- 3. Tap KEYPAD WITH GHOST BOX.
- 4. The App will search for nearby devices. Select the Keypad and then tap ADD.



- 5. Keypad is added to the list of device. Tap on it again.
- 6. Tap SYNC FROM KEYPAD to synchronize the Keypad with the App.
- 7. Press the pair button on the Ghost Box and any one of the 8 device buttons on the Keypad together and hold for 3 seconds. If the App screen shows a new device is added, that means the pairing of the Ghost Box, Keypad and the App is successful. You can start customizing your 12V accessories.

**NOTE:** For detailed instructions on customizing your accessories with the PROJECT X Off-Road App, check out our video library at <a href="https://www.projectxoffroad.com">www.projectxoffroad.com</a>.

#### **Cautions**

- 1. Do not install or the use the product if it, in any way, impairs the safe operation of your vehicle.
- 2. Follow manufacturer's instructions to ensure the product is properly and safely installed.
- 3. Check your state or provincial laws before installing. Vehicle owner must comply with all applicable laws.
- 4. This product is intended solely for off-road purposes. Manufacturer and seller assume no liability for installation or use, which are solely the responsibility of the purchaser.
- 5. This product is not DOT approved and is designed and intended for off-road uses only.
- 6. The manufacturer and seller are not responsible or liable for consequential, incidental, or indirect damages, whether to person or property, resulting from the installation or improper use of this product.

**WARNING:** This product can expose you to chemicals including Di(2-ethylhexyl) phthalate (DEHP) and Diisononyl Phthalate (DINP), which are known to the State of California to cause cancer and birth defects or other reproductive harm.

For more information go to <a href="https://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>.

# Warranty

- This PROJECT X product carries a 1 year warranty on Ghost Box System, as referenced on the website:
   www.projectxoffroad.com/pages/returns-warranty
- DISCLAIMER OF WARRANTIES, INCLUDING WARRANTY OF MERCHANTABILITY AND WARRANTY OF
  FITNESS FOR PARTICULAR PURPOSE: EXCEPT AS SPECIFICALLY SET FORTH HEREIN, NO
  WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIES, IS MADE AS TO THE GHOST BOX SYSTEM.
  PROJECT X AND/OR ITS AFFILIATES EXPRESSLY DISCLAIMS, WITHOUT LIMITATION, ANY STATUTORY
  WARRANTIES AND ALL IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF
  MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.
- PROJECT X
  - 2975 Red Hill Ave.
- Ste. 100
  - Costa Mesa, CA 92626
- USA

## **FCC Compliance statement**

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference, and
- 2. this device must accept any interference received, including interference that may cause undesired operation.

**WARNING:** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or change to this equipment. Such modifications or change could void the user's authority to operate the equipment.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm during normal operation.



PROJECT X GB538823 Ghost Box Wireless Control [pdf] Instruction Manual GB538823, GB538823 Ghost Box Wireless Control, Ghost Box Wireless Control, Box Wireless Control, Wireless Control, Control

# References

- **P65Warnings.ca.gov**
- ▶ PROJECT X Offroad
- Returns and Limited Warranty Policy PROJECT X Offroad

Manuals+,