

# Exhaust Controller for Ferrari 488 Pista, Lamborghini Aventador SVJ Model B4-FP Mod 1

## Kit Contents



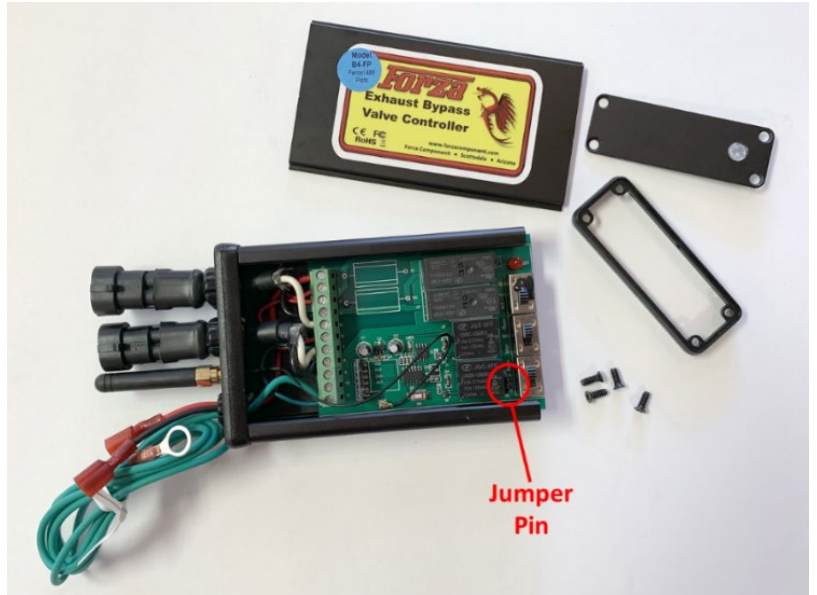
Item	Description	Quantity
1	Forza Exhaust Controller – Model B4-FP	1
2	Connection wire (120 cm), red & black <i>(may be purple &amp; blue)</i>	2
3	Fuse Tap -Mini Form Factor w/ 10A fuse <i>(may be yellow)</i>	1
4	Extension cable (120 cm)	1
5	Connection cable (120 cm)	2
6	Pierburg vacuum control valves (with 3M VHB mounting strip applied to base)	2
7	Silicone rubber vacuum line (3.5mm ID)	1
8	Vacuum hose barbed coupler	2
9	Stainless steel cable ties – 14"	3
10	3M Dual Lock mounting strips	2
11	Remote RF Transmitter (already paired to controller)	2
12	Insulation Displacement Connector	1

## Vehicles Equipped with Gasoline Particulate Filters

Vehicles equipped with Gasoline Particulate Filters (GPF or OPF), will perform regular functional testing of the GPFs. The F8 Tributo performs this test by closing the exhaust bypass valves and measuring the internal pressure of the GPFs. If the controller is set to Always Open when this test is performed, the car's ECU may sense a fault and record an error condition. The 488 Pista does not have GPFs and is therefore not an issue. The Lamborghini performs the functional test without the closing the exhaust bypass valves.

## Set Option for Valve Position at Engine Start

- Locate the indicated Jumper Pin on the Forza printed circuit board.
- Set jumper position according to the illustration below.
- NOTE: Jumper position is only if using the remote fob to operate the controller. If using a manual switch to operate the controller, the jumper position is irrelevant.

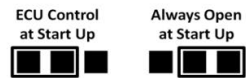


### Important Note:

As of June 2021, the internal circuit boards have a second jumper located on the circuit board. This jumper must always remain in the position shown below.

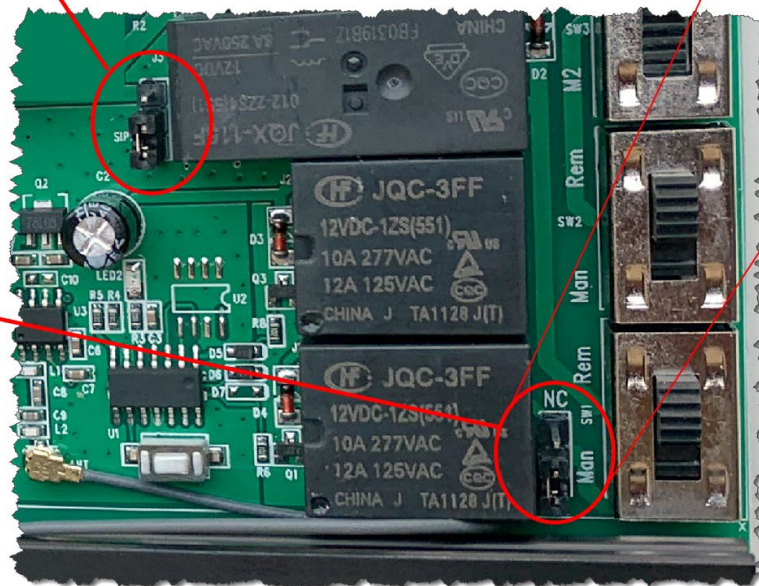


### Jumper Position



This jumper must always remain in position shown

Jumper for Valve position at engine start



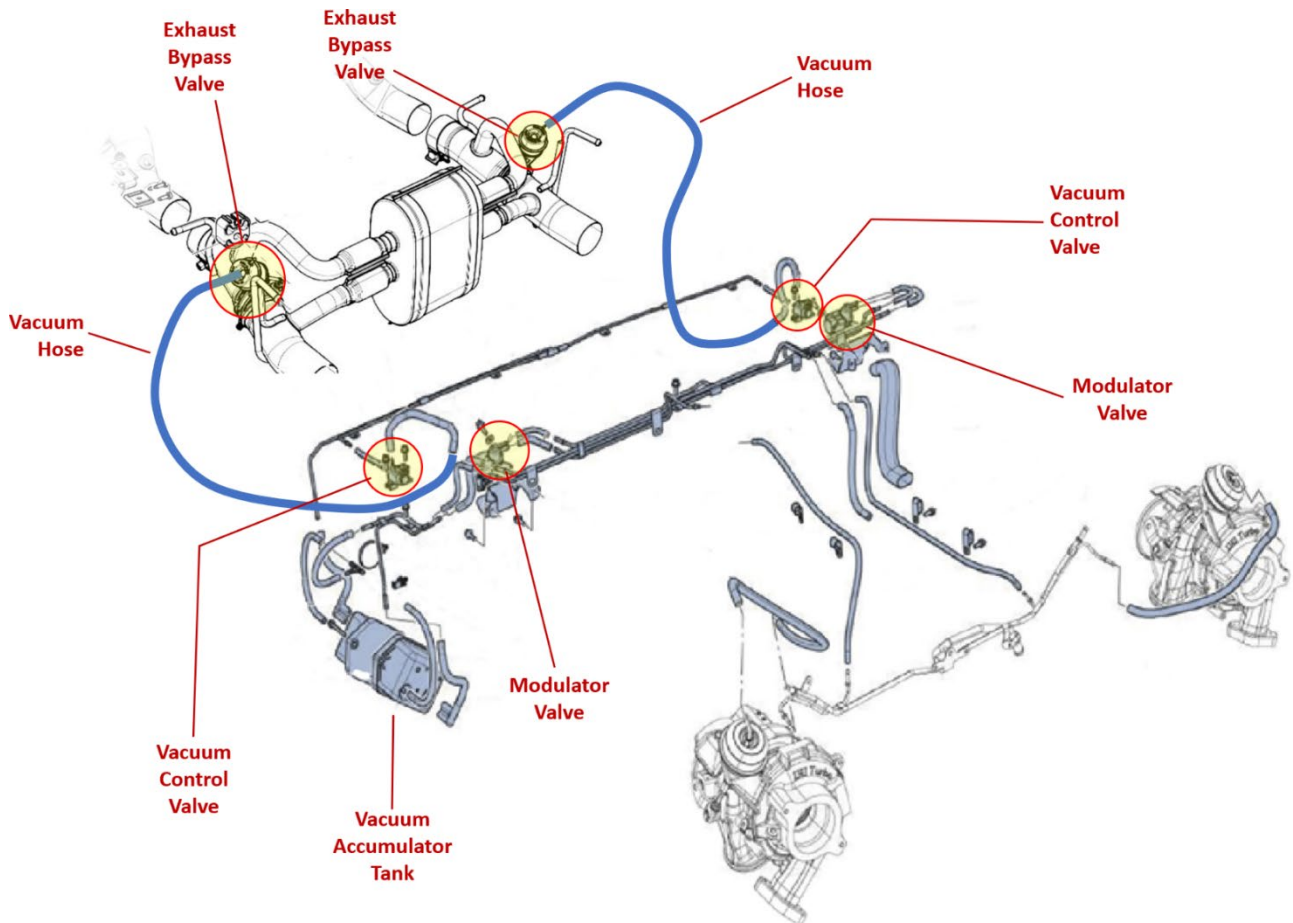
# Ferrari 488 Pista – Locate Vacuum Control System for Exhaust Bypass Valves (2X) – F8 Tributo and Aventador SVJ Similar

**NOTE:** These instructions are written using illustrations of the Ferrari 488 Pista. Installation on other vehicles such as the Lamborghini Aventador SVJ follow the same methodology and principals. Refer to the Forza website for updated information such as solenoid positions.

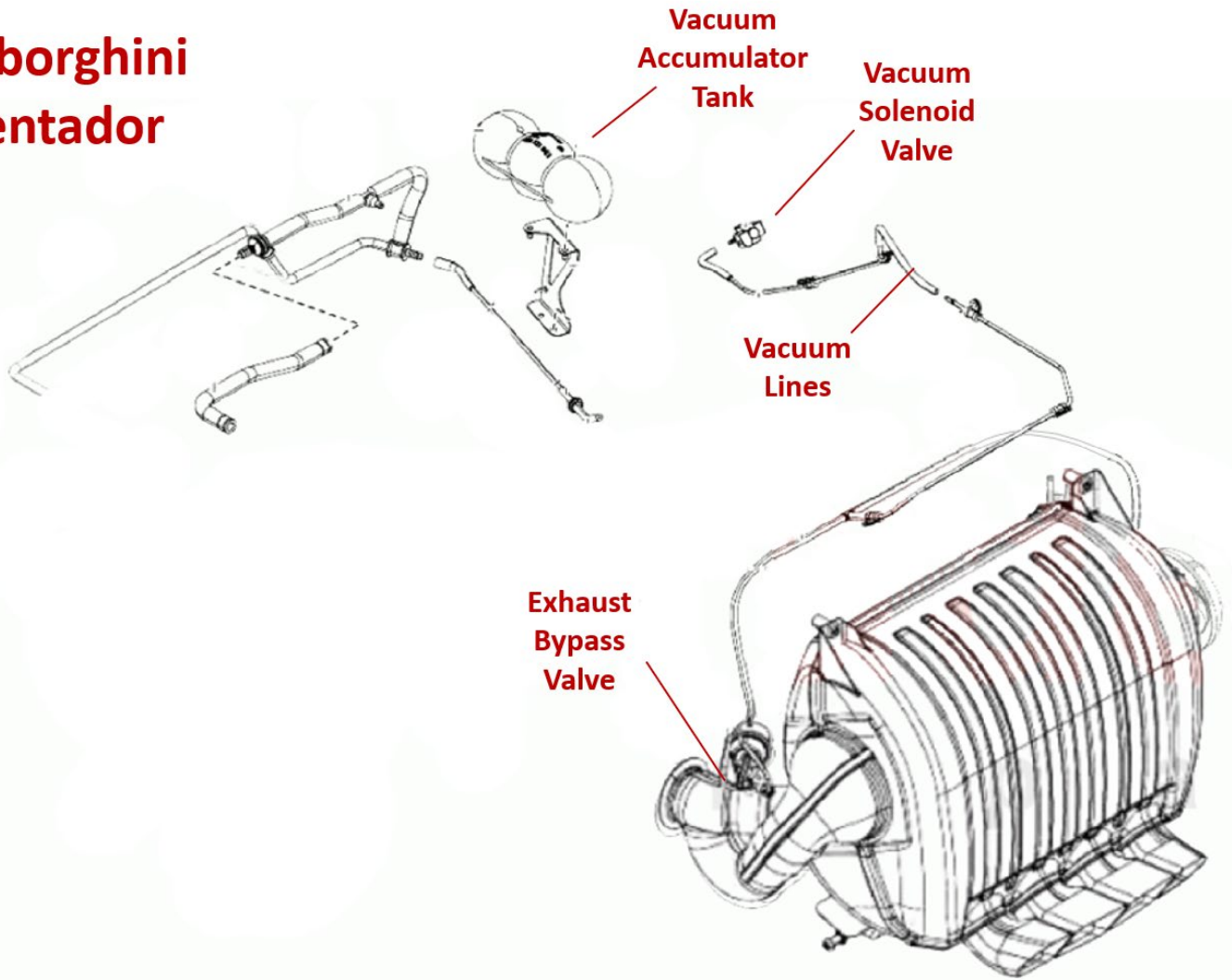
## Review 488 Install Tips

<https://www.forzacomponenti.com/support-supplemental-docs>

## Ferrari 488 / 488 Pista



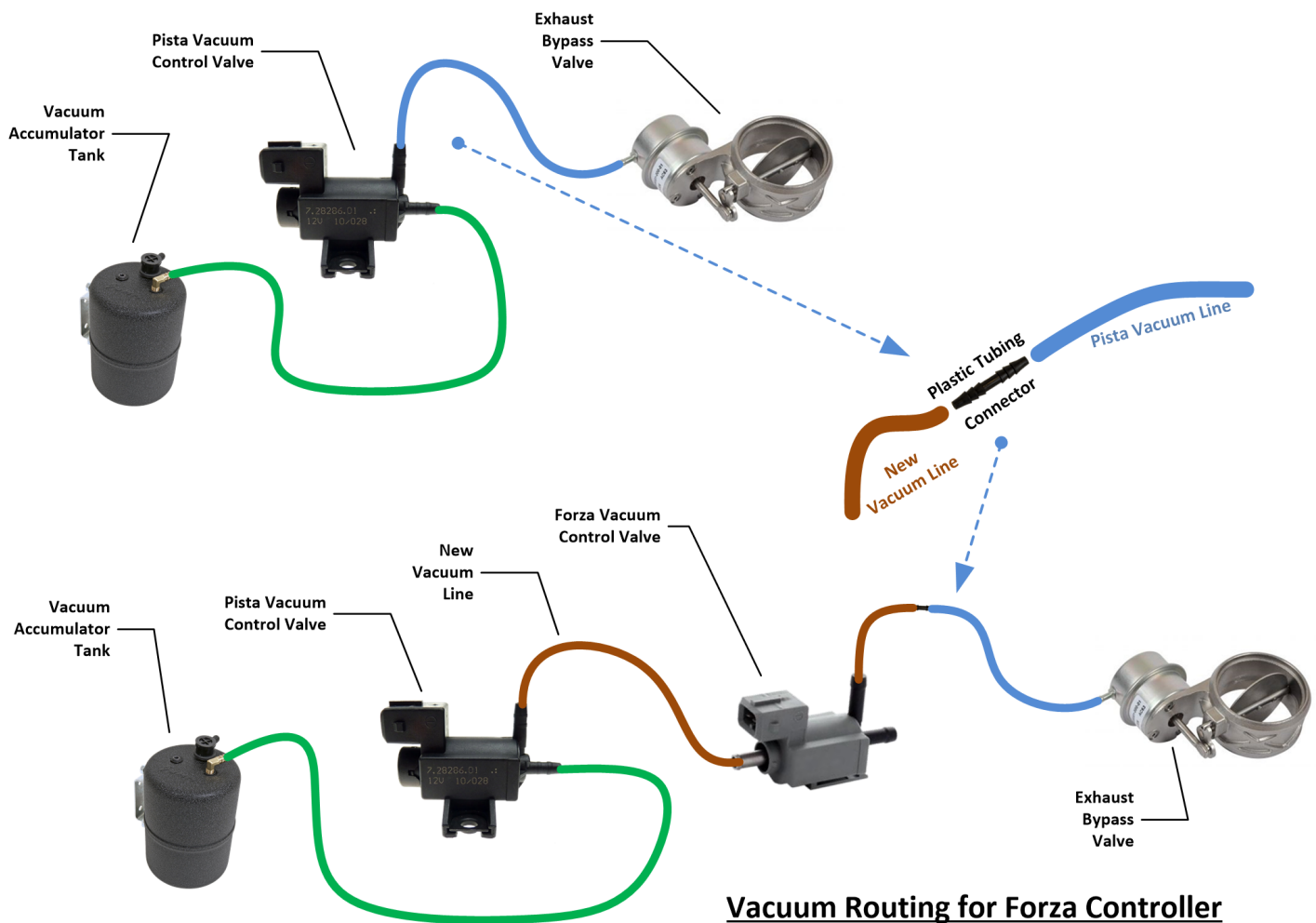
# Lamborghini Aventador



# Vacuum Routing for Forza Controller Installation

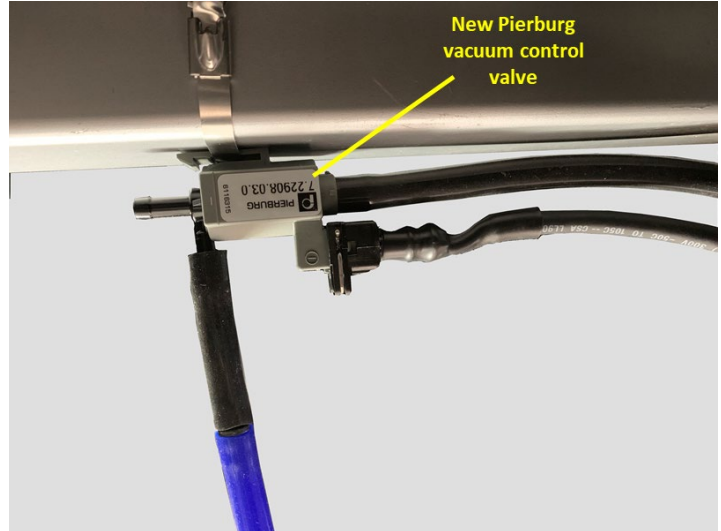
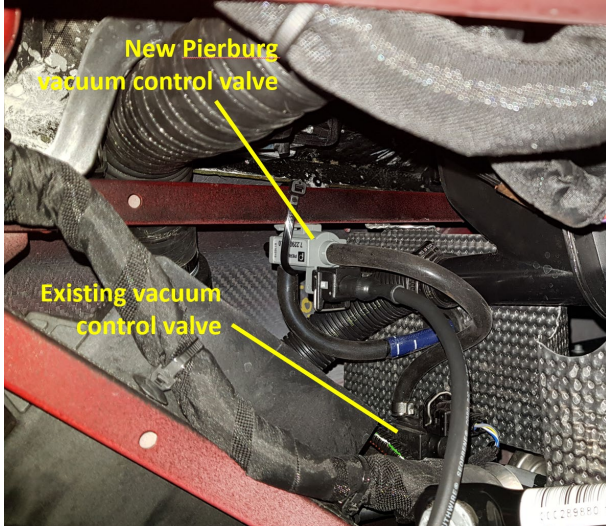
- Locate existing vacuum lines that are connected to the top port of the Pista's vacuum control valves.
- Disconnect vacuum lines from the top port of existing vacuum control valves.
- Cut short length of new vacuum tubing and couple to this vacuum line using a hose connector.
- Connect vacuum line to the top port of the new Forza (Pierburg) vacuum control valve.
- Cut length of new vacuum tubing to connect the top port of the existing valves to the front port of the new Forza (Pierburg) valves, as shown below.

## Existing Pista Vacuum Routing



## Location for new Pierburg Vacuum Control Valves

- Locate new Pierburg valves near existing vacuum control valves.
- Existing valves are bolted to the square tubing as shown in photograph.



- Select spot near existing vacuum control valves to secure new Pierburg valves. Thoroughly clean surface to be free of oil, water or any debris. Use alcohol or similar solvent.
- Peel backing off adhesive strip on new Pierburg valves and firmly press to establish a good bond with the surface of the square cross-member tubing.
- For extra security, you can use a cable tie, stainless-steel zip tie or safety wire or similar method to mechanically secure the new valves to the square tubing.

## Ferrari 488 Pista – Install Forza Exhaust Controller – F8 Tributo and Aventador SVJ Similar

**New vacuum line. Connect from the disconnected port on the vehicle's vacuum control valve to the new Pierburg valve as shown.**

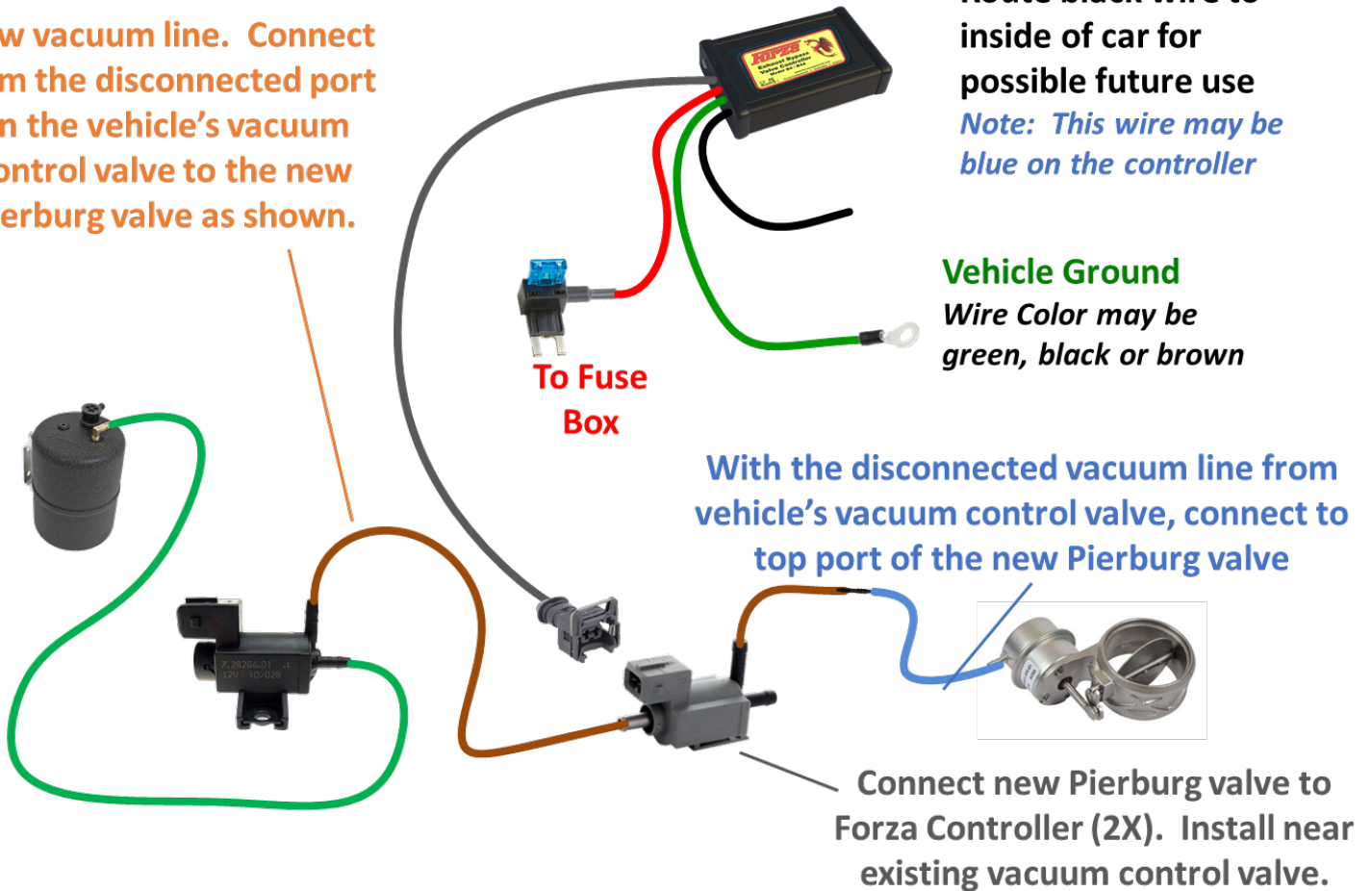
**Route black wire to inside of car for possible future use**  
*Note: This wire may be blue on the controller*

**Vehicle Ground**  
*Wire Color may be green, black or brown*

**To Fuse Box**

**With the disconnected vacuum line from vehicle's vacuum control valve, connect to top port of the new Pierburg valve**

**Connect new Pierburg valve to Forza Controller (2X). Install near existing vacuum control valve.**



Note: Illustration above depicts obtaining power from vehicle fuse box. Refer to *Alternative to Tapping a Circuit at the Fuse Box* on page 10 for an alternative method of obtaining power.

- Once you have secured the new Pierburg valves and made the vacuum line connections, then connect the female plug of each connection cable to the valve's male connector.
- Route the connection cables to the controller module and make connections.
- Secure the cables using zip ties or other suitable method.

*Note: The fuse tap included in the kit may be yellow or red. There is no difference except the color.*

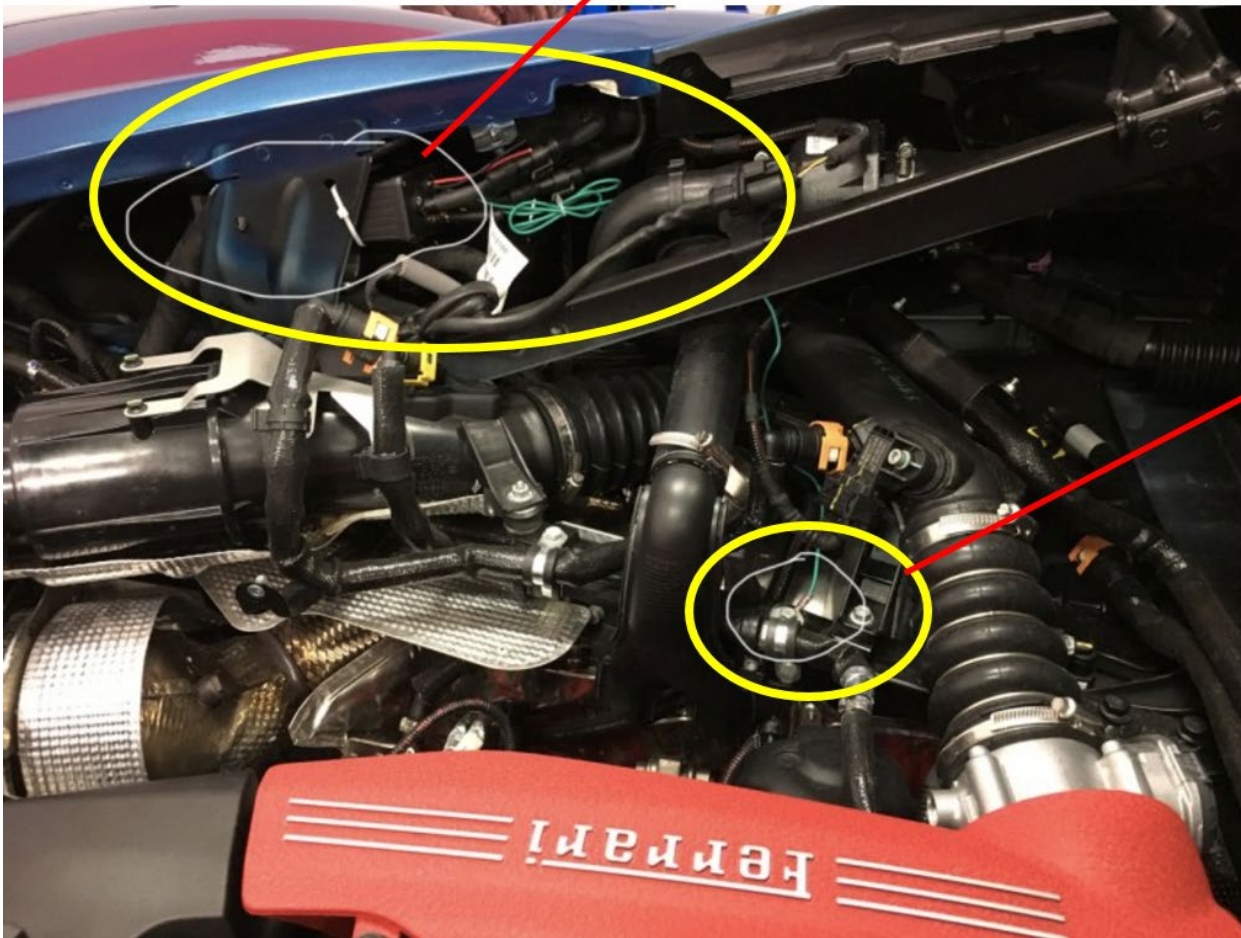
## Location for Forza Controller Module

Two recommended locations for the Forza controller module. The most common choice is in the engine bay behind one of the engine bay side covers.

**CAUTION:** Protect the controller module from high heat sources. Do not expose the controller module directly to exhaust components. Likewise, take care routing cables that they are protected from high heat sources as much as possible.

The photo below shows the installation in the 488 Pista. Similar locations are available on the F8 Tributo and Aventador SVJ.

**Forza Controller behind  
engine bay side cover**



**Possible  
ground  
location**

### Alternate Location

As an alternative, you can install the controller inside the vehicle, behind or under one of the seats. This would require routing of the two connection cables from the new Pierburg valves, through the firewall to inside the vehicle.

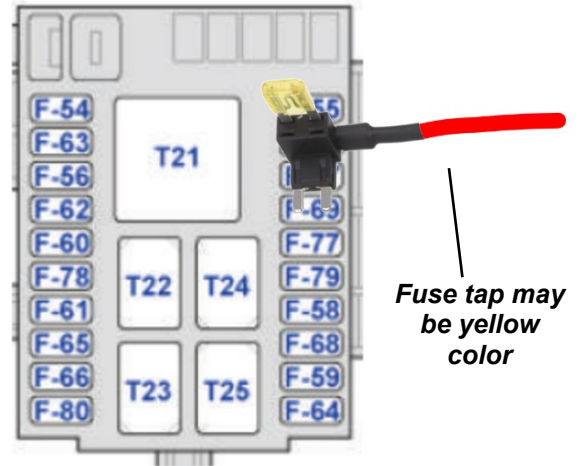


## Ferrari 488 Pista – Connect Fuse Tap at Fuse Box

The illustrations here show the fuse box for the Pista. The F8 Tributo has a similar fuse box located behind the driver-side seat. In the F8 fuse box, fuse F78 or F80 should provide a switched electrical circuit. For the Lamborghini Aventador, refer to the owner’s manual for fuse locations and choose a fuse that is switched to the ignition.

Note: See *Alternative to Tapping a Circuit at the Fuse Box* on page 10 for alternative method.

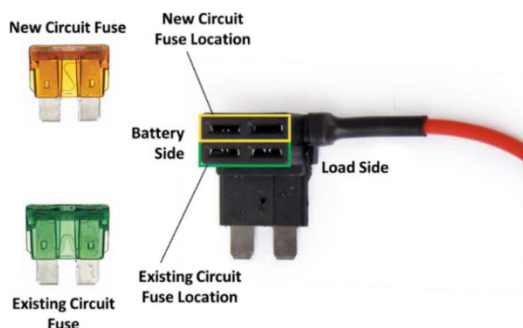
- Locate the fuse box on driver-side rear side panel. Remove access panel to view fuse slots.
- Identify fuse at location F-69 (Cigarette Lighter). You will be installing the fuse tap in this slot.
- There is an existing grommet in the firewall that the factory uses for routing of wiring from inside the car to the engine bay. Use existing grommet to route the wiring for the controller.
- Route the red power wire from the Forza Controller, through the grommet, to the fuse box. While you are routing red wire for power from fuse box, also route the black wire for possible future use. You do not need to fuse protect the black wire. When using the remote fob, the black wire is not active. When using a manual switch, the black wire is merely a path to ground.
- Remove the existing fuse from fuse location F-69 and insert it into the lower socket of the fuse tap. Insert the fuse tap into the selected fuse socket on the car. NOTE: Orient the fuse tap as shown in the illustration with red pigtail toward the outside of the fuse box.
- Test polarity of the fuse tap. **This is important to ensure the controller is fuse protected.** If the fuse tap is not with the correct polarity, the controller’s electrical load will be on the same fuse as the original fuse. This may not be a problem if the original fuse is at least 15A but could be an issue if the original fuse is 5A or less.
  - Remove the Forza Controller fuse (New Fuse) from fuse tap.
  - Route red power wire to the Forza controller and connect to the fuse tap. Ensure controller is properly grounded.
  - Turn on ignition
  - LED power indicator is **NOT** illuminated.
  - Insert the Forza fuse into the fuse tap.
  - With ignition still on, LED power indicator is illuminated.
  - Turn off ignition and continue installation.
  - Otherwise, reverse orientation of the fuse tap.



Note: Fuse box may appear upside down. Note position of relays (T21 – T25) relative to fuse F-69

Also: The fuse tap included in the kit may be yellow or red. There is no difference except the color.

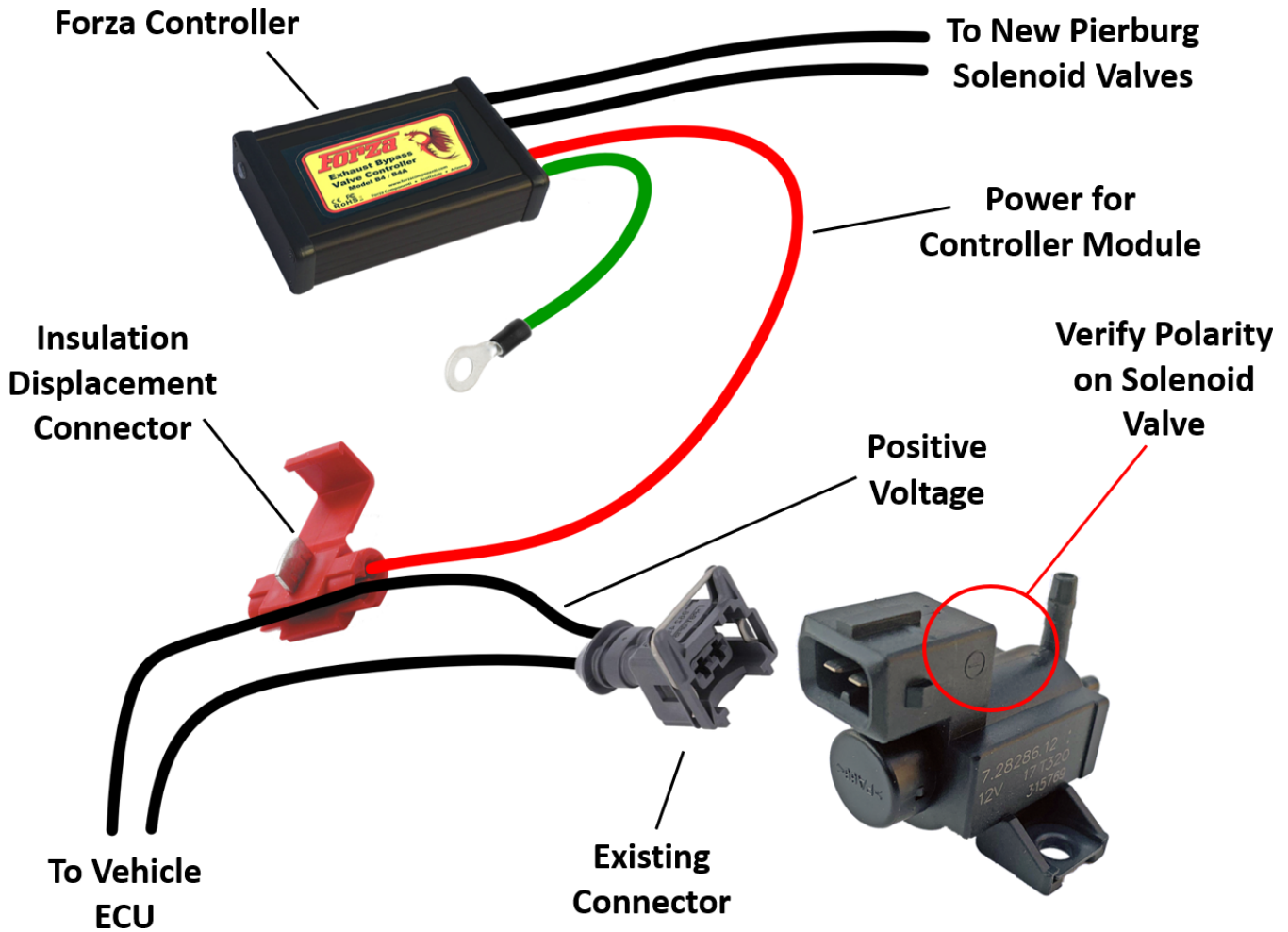
Ref.	Amp.	Use
F-54	15	/
F-55	10	+15 injection ECU, engine ionising ECU, fuel pump ECU
F-56	30	Driver Configuration Node
F-57	7.5	/
F-58	7.5	Start-up
F-59	7.5	Reverse light power supply
F-60	30	NAP
F-61	7.5	+30 Driver Position Node (electronic), front lift
F-62	7.5	Passenger Configuration Node
F-63	20	+30 Semi-automatic gearbox main relay
F-64	7.5	Fuel filler flap actuator power supply
F-65	20	+30 Door lock actuator
F-66	7.5	+30 Semi-automatic Gearbox Node
F-69	20	+15 Cigarette lighter
F-77	10	+15 Rear parking camera
F-78	30	+30 Battery charger
F-79	7.5	+15 Semi-automatic Gearbox Node
F-80	30	+30 Starting relay
T21	50	Relay for utilities with ignition switched on: engine, cigarette lighter, rear parking camera, DCT gearbox



## Alternative to Tapping a Circuit at the Fuse Box

If you determine that access to the car's fuse box is too difficult or inconvenient, an alternative to obtain power is to use an insulation displacement connector or splice into a switched power source. Ensure that you choose a circuit that has a fuse of at least 10 amperes. Generally, if you choose a source wire that is at least 16 AWG (1.5mm<sup>2</sup>), there would be little likelihood of that circuit not being at least 10A. One potential power source is the positive side of one of the existing vacuum solenoid valves. That source should be switched, but the installer should verify it is active when the ignition is on.

**NOTE:** Any conductor of at least 18 gauge that is active positive voltage and is switched to the ignition should be adequate for the purpose of supplying power to the Forza controller. The illustration below shows attachment to the existing cable to the existing vacuum solenoid valve, but any electrical conductor that meets the requirements should be suitable.



If you use this method of obtaining power, ensure you are tapping into a positive voltage power source. Most vacuum solenoid valves have a polarity indicator, however, use a voltmeter to verify that positive voltage is indeed obtained.

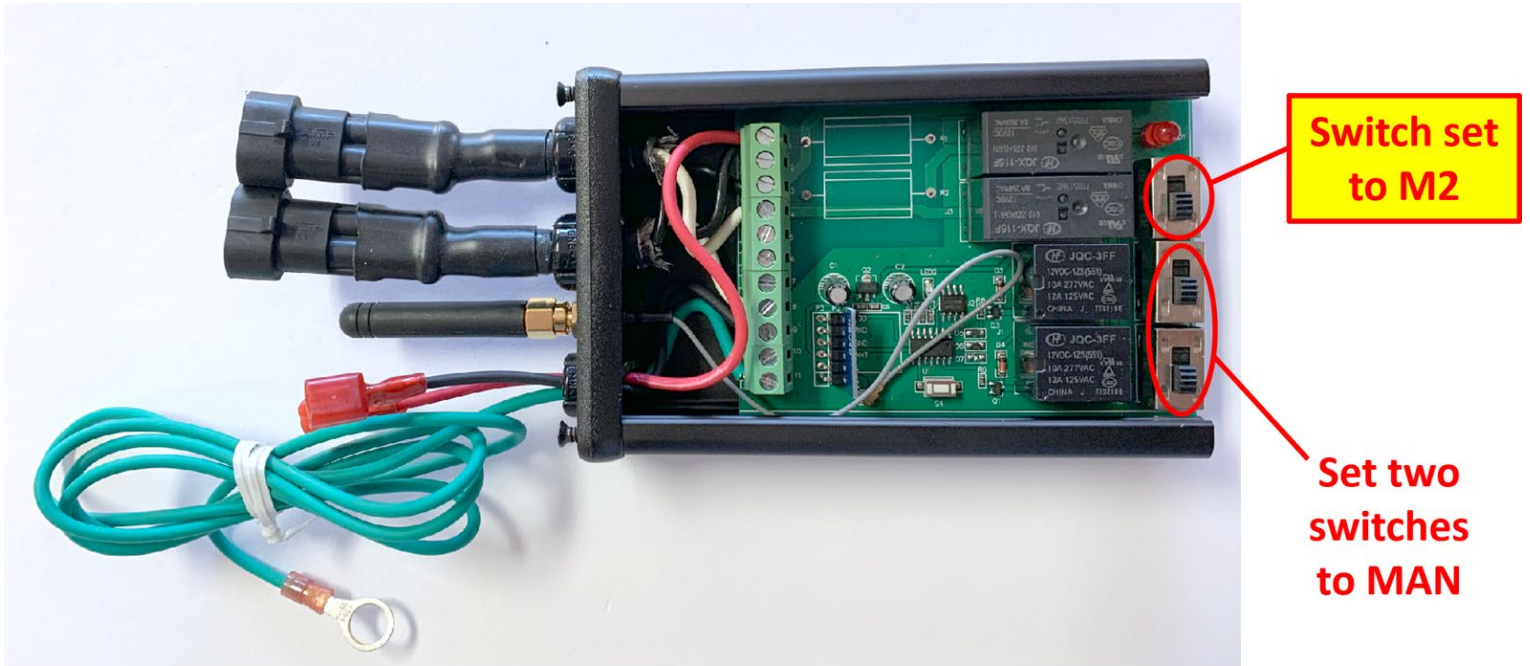
Using an insulation displacement connector should be done with an understanding that this is not plug and play. Should the controller be removed in the future, the insulation displacement connector should be removed (or taped over) and the source wire repaired if necessary.

**NOTE:** An additional load of up to 1.3A will be added to the circuit that you are tapping in to. This should not be an issue as existing circuits in vehicles have a safety margin of 3x to 8x the anticipated load. Check the vehicle service manual to ensure that the existing circuit will not be overloaded.

## Using Manual Switch to Control Valve Position

This is an optional step if you wish to use a manual switch to control the exhaust valve position.

- Access controller.
- Set the two switches shown below to the MAN position.
- Position a manual switch in the location of your choice inside the vehicle.
- Connect the black wire from controller to one side of a manual switch. Connect other side of the switch to any suitable vehicle ground.



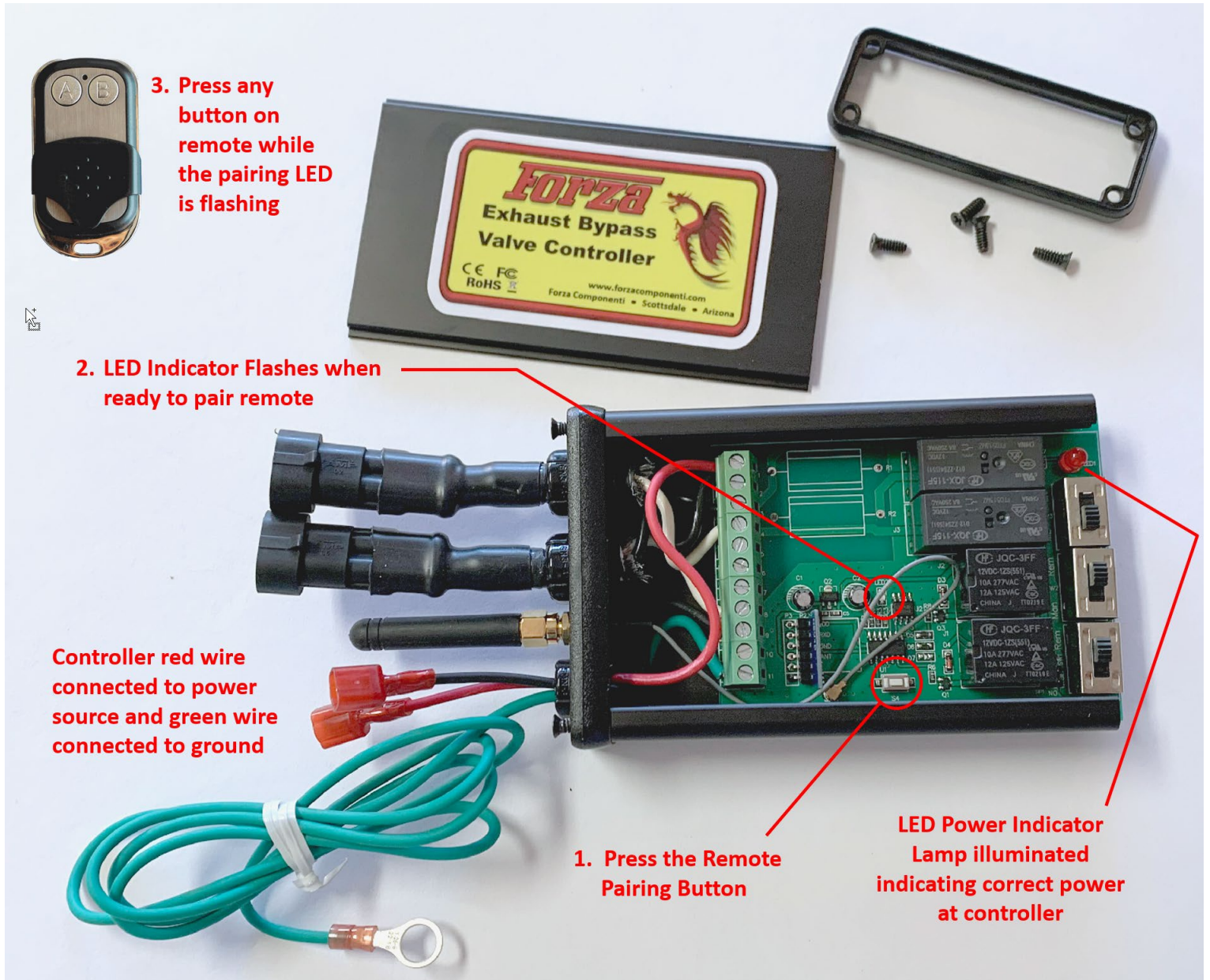
*Common Switch Types*



## Remote Pairing Instructions

**NOTE:** Your kit when originally shipped will have the remote fob(s) already paired to the controller. These instructions are to be followed when replacing the remote fob or if re-pairing becomes necessary.

- Access the controller module
- With power applied to controller (e.g., turn on ignition), press the Remote Pairing Button until the LED indicator flashes.
- While the LED is flashing, press any button on the remote.
- LED stops flashing indicating pairing complete.



## Using the Controller with Homelink Systems

The Homelink installed in the vehicle must support 433MHz. Some Homelink systems do not support this frequency (e.g., prior to 2014 in North America). For specific instructions, refer to your vehicle's owner manual for specific instructions setting up the system.

In general, to program Homelink, press and hold the Homelink button you wish to program and hold until an indicator light slowly flashes. While the Homelink light is slowly flashing, hold the remote fob within a few inches of the Homelink. Press the transmit button on the fob for 3 to 5 seconds, then release and immediately press again. The sequence of pressing and releasing the fob button will prevent the fob transmitter from timing out before the Homelink can successfully clone the signal. Continue pressing and releasing the fob button until the Homelink indicator lamp solid or flashes rapidly. You will need to program one button on the Homelink for function button on the transmitter fob.



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## 3M Dual Lock Fastening Tape

Included in your kit are two strips of 3M Dual Lock fastener.

### Directions for use

- Thoroughly clean both surfaces of dirt and oil using a solvent that does not leave residue such as isopropyl alcohol.
- Apply Dual Lock to both substrate surfaces.
- Mount the strip along the length of the controller. An easy way to align the piece on the controller with the piece on the mounting surface is to position the Dual Lock on the control unit, gently press the mating piece on and then position the controller in place and gently apply pressure to stick the mating piece in place on the mounting surface. This will assure proper alignment of the two Dual Lock pieces. Once positioned, you can take the controller off and then press the piece on the mounting surface in place to assure a firm hold.
- Press each mounting piece on to the substrate and allow it to rest for 30 to 60 minutes.
- Press the controller in place until you hear or feel a click.

