

VSS/OSS Universal T56 Reverse Lockout Unit Installation Guide

Rev. 1.0

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Thank you for purchasing the Accutach Co. VSS/OSS Universal T56 Reverse Lockout Unit. It is designed to energize the Tremec T56 (or TR6060) transmission reverse lockout solenoid by controlling the ground side of the solenoid. The Lockout Unit energizes the solenoid when the car is stopped to enable a safe shift into reverse. When the car is moving, the Lockout Unit de-energizes the solenoid to prevent an accidental shift into reverse. The Universal unit will work with all styles of speed sensors, analog and digital.

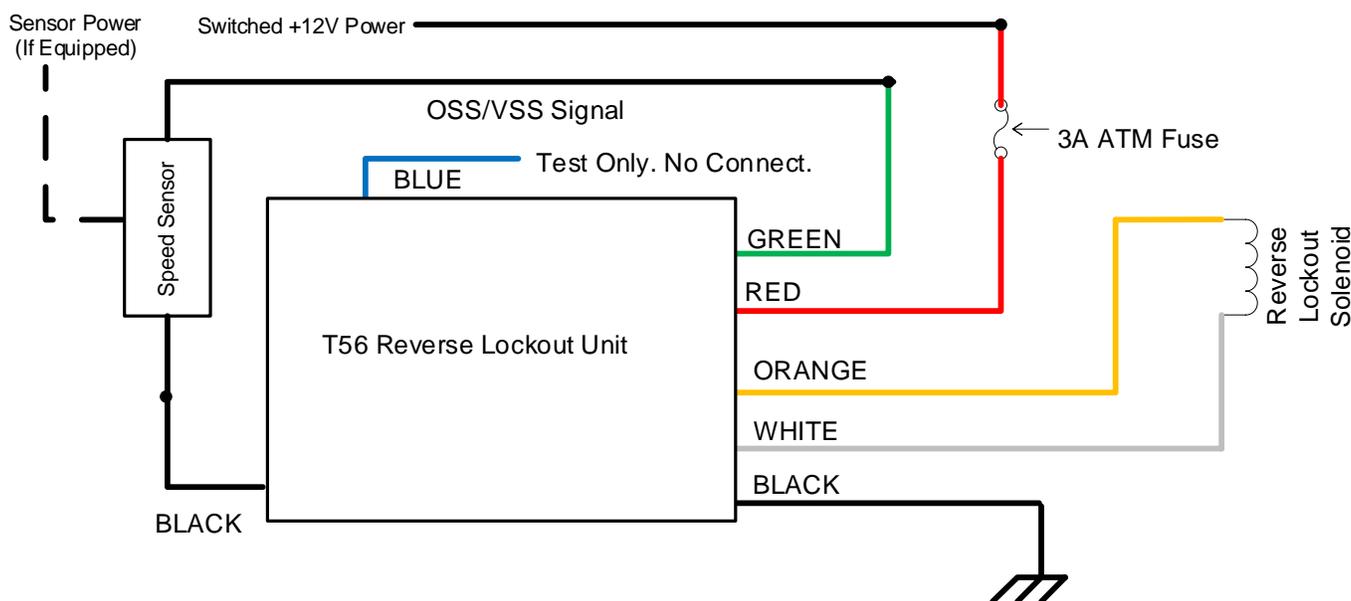
Before you begin, you will need to purchase the connector for the T-56 reverse lockout solenoid. It is Modern Driveline part number: MD-700-0003L, GM part number: 12101857 or ACDelco # PT249. It is not supplied by Accutach Co. You should locate a suitable inside or outside mounting point for the Reverse Lockout Unit. This unit is designed to survive zip-tying it to a transmission harness under the vehicle. Keep the unit away from heat sources such as exhaust pipes.

If your vehicle does not have an analog OSS/VSS connector on its harness, you will also need to purchase a OSS/VSS connector. The Modern Driveline part number is MD-700-0020.

Be sure to use good splicing techniques, such as solder and shrink tubing. Do not use the "twist & tape" method. "Scotch-lock" style splices are not recommended. It is also recommended that you protect all wiring from with proper conduit or ties. For splices outside of the cabin, we recommend using DR-25 shrink tubing, available on eBay, due to its increased resistance to oil and fuel vapors.

Stand-alone Installation: (2 or 3 wire sensor)

Locate a switched power source capable of supplying at least one amp of current and a good ground near where you plan to mount the unit. Connect the Red wire of the Lockout Unit to the switched power source. Connect the Orange wire to one side of the lockout solenoid. Connect the Lockout Unit's White wire to the other side of the lockout solenoid. Ground one of the Black wires of the Lockout Unit and connect the other Black wire to the speed sensor ground (3-wire sensor). Polarity does not matter for either the solenoid or a 2-wire sensor. Connect the Lockout Unit's Green wire to the other side of the speed sensor. Do not connect anything to the Blue test wire and make sure it is not accidentally grounded. If the blue wire's conductor is grounded, the lockout unit will not work properly.



Installation in a vehicle with an existing OSS/VSS Sensor:

This section details how to install this unit into a vehicle with an existing speed sensor. 1979-2018 Ford Mustang wire colors are shown, but installation into other OSS/VSS vehicles will be very similar.

You will need to locate the Vehicle Speed Sensor (or Output Shaft Sensor) signal wire close to where you plan to mount the unit. Locate both wires from the Tremec T56 reverse lockout solenoid, a good chassis ground point and a switched 12V power source capable of supplying at least one amp of current. Backup light power is often a good source of switched power in the transmission harness.

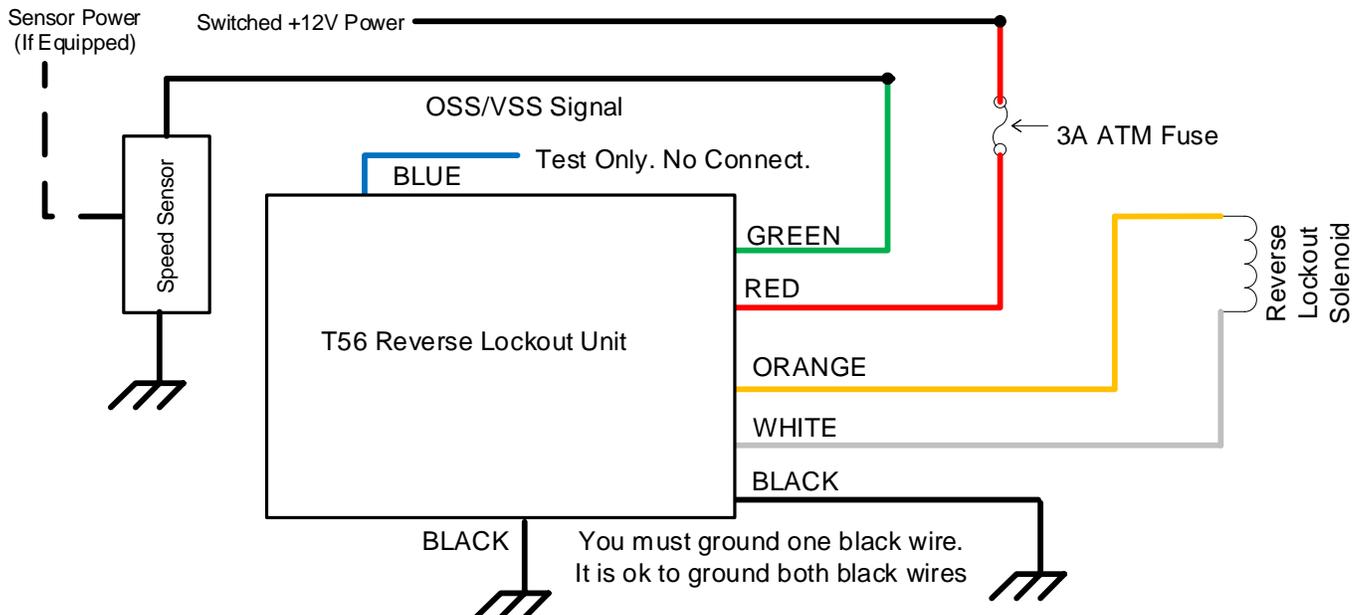
Mustang OSS/VSS Sensor Signal Wire Colors:

Years	Signal Wire
1979-1988	DK GRN/WHT
1989-1993	DK GRN/WHT
1994-1998	GRY/BLK
1999-2004	DK GRN/WHT
2005-2009	DK BLU/YEL
2010	GRY/ORG
2011-2014	BN/GN
2015-2018	YE/OG, BN/GN, YE/OG to BN/GN, depending on year & model

In 1979-1998 Mustangs, the VSS signal wires can be found in the transmission harness, the PCM harness or the instrument cluster harness. In 1999-2018 Mustangs, the OSS signal wires can be found in the transmission or PCM harnesses. A ground lug under the OSS/VSS mounting screw is a good grounding point for the reverse lockout unit if the lockout unit is mounted under the car. Any good chassis ground point will work inside the passenger compartment. Do not splice the lockout unit's black ground wire to the sensor signal return wire in a vehicle with an existing OSS/VSS sensor.

Since the Tremec reverse lockout solenoid requires one amp of current, if you power your unit from a power source that is always on, you will run the risk of draining the battery when the car is parked. Use only switched power to power your lockout unit.

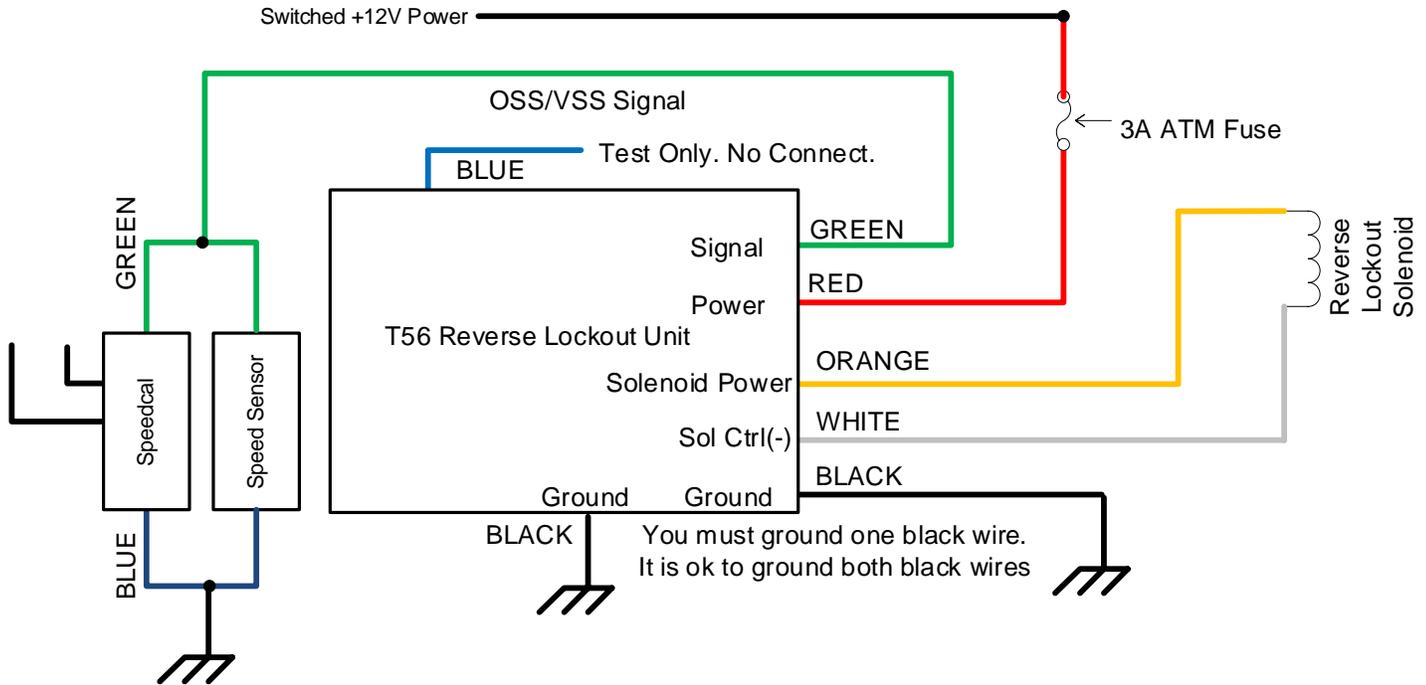
Connect the Red wire of the Lockout Unit to the switched power source. Connect the Orange wire to one side of the lockout solenoid. Connect the Lockout Unit's White wire to the other side of the lockout solenoid. Ground one or both of the Black wires of the Lockout Unit. Connect the Lockout Unit's Green wire to the speed sensor signal. Do not connect anything to the Blue test wire and make sure it is not accidentally grounded. If the blue wire is grounded, the lockout unit will not work properly.



If you choose to mount the unit near the transmission under a 96-04 Mustang, you can splice into the power wire for the backup lights and zip-tie the unit to the harness. In 96-98 Mustangs, this is a Purple/Orange colored wire and in 99-04 Mustangs, this is an Orange/Green wire. If you choose to install it in the console of a 96-98 Mustang coupe, we suggest you trim a male spade lug to fit the switched power pin (Purple/Orange) on the convertible switch connector found under the console bucket. You will need to splice into this wire if installing in the console of a convertible.

Installation with a Dallas Mustang Speedcal:

If your vehicle is equipped with a Dallas Mustang Speedcal unit, you will simply need to connect the Reverse Lockout Unit's GREEN signal wire to the GREEN speed signal input wire to the Speedcal unit. DO NOT connect the Lockout Unit's GREEN wire to the speed signal output of the Speedcal. You must ground the Speedcal's BLUE wire. The other wires are connected as they are in a non-Speedcal equipped vehicle.



Testing

With the key off, validate that the T56 Lockout prevents the shifter from going all the way to the right, which disables the transmission from accidentally going into reverse. Note that, with enough force, you can still overpower the T56 reverse lockout spring.

Turn the key to the On position to ensure that the lockout unit is powered up, without the car moving. You should now be able to easily push the shifter all the way to the right, which enables a shift into reverse.

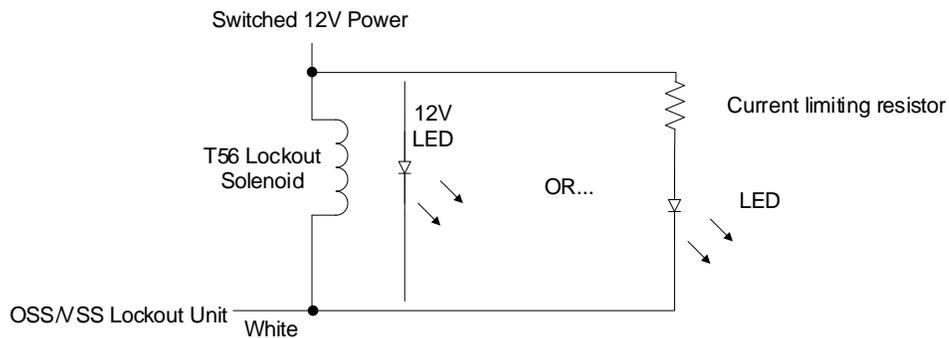
Now drive the car at 10MPH or above and try to push the shifter all the way to the right. If the lockout unit has been installed correctly and is working properly, it will not allow you to easily push the shifter all the way to the right. If there is a problem and the lockout system does not prevent you from moving the shifter all the way to the right, DO NOT try to push the shifter up into Reverse while the car is moving. Significant damage to your transmission and vehicle can occur.

Troubleshooting

The lockout unit's BLUE test wire can be used to ensure that the lockout unit is working properly. Strip a bit of insulation from the end of the BLUE wire. With the key on, the T56 solenoid should energize, allowing a shift into reverse. Connect a 1.5V to 12V battery to the BLUE wire and ground the other side of the battery. The T56 solenoid should de-energize and it should be very difficult to shift into reverse. If the lockout unit fails this test, please contact Accutach Co. for a replacement unit. If the lockout unit passes the test, then there is a problem in how the unit is wired into the vehicle which must be corrected. After using the BLUE test wire, shrink wrap the wire to ensure the BLUE wire conductor is not able to touch ground.

Optional LED Indicator (not included)

Should you want a visual indicator that a shift into reverse is enabled, you can add a 12V LED or a regular LED with a current limiting resistor in parallel with the T56 Lockout solenoid:



Dimensions

The OSS/VSS T56 Reverse Lockout unit measures about 1" x 1" x 0.75", and the case is made of ABS plastic:



Disclaimer

You use this product at your own risk. Accutach Co. is not responsible for any damage done to you, your vehicle or your accessories. Accutach Co. guarantees this product for one year after purchase, you only pay the shipping. We will repair or replace any failed unit at our discretion. Contact Information: <http://accutach.com/contactus.aspx>

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