



Sequential Tail Light System

Installation Instructions

Notice: Our conversion systems are intended for 1965-70 Ford Mustangs only. This is not a replacement system for Shelby Mustangs or Mercury Cougars with factory sequential turn signals. Early Mustangs with generator systems may not be suitable for this conversion system. **The electrical system must be in proper working condition as to provide enough power to the conversion system.** Please check your brake lights and turn signals **before** starting this conversion to confirm that all systems are in working order.

This system converts the tail lamps from one bulb to three bulbs. All light functions, tail lights, brakes, turn signals and emergency flashers will use all three bulbs on each side. For 1967-70 cars, this conversion requires removal and opening of the tail lamp housings when replacing burned out bulbs.

Only the turn signals in the tail lights and the brake lights will sequence. All other turn signal lights at the front and in the dash will flash at a slower rate than normal to allow the sequencer to cycle. Altering this system for other than the intended purpose will void any and all warranties.

Although installation of this system is simple and straight forward, a basic understanding of your Mustangs electrical system is helpful. No special tools are required. You will need a wire cutter/stripper/crimper, a Phillips screw driver and a 3/8" deep socket (11/32" if converting a 1967-68.) You will also need a length of 18 gauge insulated wire for the power wire harness. *A Ford shop manual or detailed electrical schematic for your year Mustang may also be helpful.*

Each system has a pair of dedicated inserts that are identified by specific colored wires. Refer to the drawing. Improper installation will yield undesired results.

Use only 1157 bulbs provided. This system is not designed for high intensity bulbs or led lamps. Use of other than standard 1157 bulbs can damage the system and void any and all warranties.

Caution!

Always disconnect the ground(-)battery cable before working on the electrical system.

AT THE DASH PANEL:

The turn signal flasher will need to be replaced with our **electronic variable flasher**, the small box with mounting tabs, included with the conversion system. If your mustang is equipped with emergency flashers, you may wish to purchase an additional electronic flasher for that circuit. Attempting to operate the emergency flashers without an electronic flasher may damage the system. Consult the Ford shop manual for the location and procedure to change the flashers. **Connect the orange wire from the flasher to the orange wire plug and the blue wire to the blue wire plug.** The flasher also has it's own ground wire. Connect the black ground wire to a suitable ground point. Always double check your ground point to confirm you have good ground.

The new flasher has a variable-rate feature to allow you to increase or decrease the time between the turn signal sequence. We recommend the factory setting. If rate adjustment is desired (*after the system has been installed*) open the flasher box and carefully turn the adjuster, the blue box with yellow dial, in small increments. Allow turn signals to cycle several times before changing rate again. You may want to relocate the flasher to make future adjustments easier.

A new **power wire** will need to be run from the fuse panel to the trunk area. Use the fuse spade to connect to the 7.5 Amp fuse. (*1969 & 1970 Mustangs require the provided 7.5 Amp in-line fuse holder. Connect the loop connector to the accessory post.*) The other end of the power wire will need to be split with two female connectors. Run a length of wire to the trunk area. One female connector will be near the left tail lamp and the other near the right. You may wish to run the power wire in the same area as the original harness was to keep it up and out of the way. Some years of mustangs had a wire harness run to the trunk for an optional trunk light. This circuit can be used. **Make sure that the circuit is always "Hot". Do not** use the interior dome light circuit (**Hot** when the doors are open) or the rear license plate light circuit (**Hot** when the headlamps are on.) When installing connectors, keep in mind that "**Hot**" wires should have female connectors. This will prevent a short in the system if the connection comes apart.

AT THE TRUNK:

CONVERTING A 1965-66 MUSTANG.

Baffled inserts are provided. (*Complete housing assemblies are provided in our deluxe kit*). Unplug or cut the tail lamp connectors and remove the old housings. If the housings are not being replaced, punch out the old sockets. Rubber plugs are provided to install in the hole in the back of the housing. Install the new inserts in each housing. Check the contacts in each lamp socket. They should be seated and not touching each other or the side of the socket. Install the 1157 bulbs. We recommend that the inserts be riveted, spot welded or screwed in place to ensure a good ground contact. Check the color of the wires on each insert to determine left and right. Refer to the drawing. While changing lamp housings, consider replacing old seals. This is also an excellent time to replace the lenses. If you have purchased the deluxe kit for 1965-1966, new polycarbonate lenses are included. **We strongly recommend using our polycarbonate lenses to avoid melting your standard lenses due to increased heat and decreased distance from the bulbs to the lens.**

Note: The colored wires with the stripe, on the original taillight harness, will be connected to the control module harness. The black wire will be connected to the three red wires from the new inserts. Crimp a female connector to each wire on the original tail lamp harness.

CONVERTING A 1967-70 MUSTANG.

Baffled inserts are provided. Unplug the lamp socket from the housing. Remove the housing from the tail panel and remove the thick seal to remove the lens. This is an excellent time to replace rotted seals and scratched and cracked lenses. Position the inserts in each housing. Match the color of the wires as indicated on the drawing. Check the contacts in each socket to make sure they are seated. Install the 1157 bulbs. Check to make sure the insert is right side up by checking the shape of the baffles to the slope of the lens (*not required for 1970 inserts*). The insert is held in place by two of the screws that retain the lens. Install the insert under the gray lens to housing seal. The 1967-1968 kits include new thicker gaskets to be used between the lens and the housing. Rubber plugs with a hole are provided to

cover the socket hole in the lamp housing and protect the wire harness. Pull the wire harness through the plug and out the back of the housing. Replace the lens. (*When securing the lens to the housing in 1967-1968 cars do not over tighten. Remember that the new gasket is thicker. One or two turns after the screw starts is fine.*) Mount the housing back on to the tail panel.

CONVERTING A 1965-70 MUSTANG.

Locate each control module box near each housing. Ample harness wire is provided. For a discrete look, the box can be hidden from view. Consider a location that will keep the wire harness out of the way to prevent the wires from getting snagged and away from any possible water leaks. Double sided foam tape is a good choice for mounting the control module boxes.

The three red wires from the new inserts will be joined together with one male bullet connector. Plug this group into the black tail lamp wire on the original harness.

Note: 1967- 1970 tail lamp harnesses have a black ground wire and a black tail lamp wire. We are dealing with the tail lamp wire. If uncertain, confirm that the wire has power when the headlamps are on.

Each control module harness has two green or blue wires. Refer to the drawing. Plug the green wire (*left side*) or blue wire (*right side*) to the colored & striped wires on the original harness. Connect the other colored wires to their matching color wires from the inserts. Connect the black ground wire from the control module with a loop connector and mount to a ground point at each tail lamp housing. Plug the red wire from each control module into the new power wire that you brought from the front of the car. Plug each harness into each control module box. Check all connections.

Now, re-connect the battery.

TESTING AFTER INSTALLATION:

With the engine running, check each turn signal. The rate of sequence can be adjusted with the flasher at the dash. All sequential operations should start with the inside bulb and end with the outside bulb.

Check the brake lights. Both sides should sequence once and stay on. Check the tail lamps by pulling out the head lamp switch. All three bulbs in both housings should light up but not as bright as the brake lights.

With the tail lamps on, recheck the turn signals and brake lights. All tail lamp functions should operate with all bulbs.

Trouble shooting

The most common problem with automotive electrical systems is with the ground. Always make sure all grounds are good. Painted and rusted ground points may need to be cleaned for a good connection. Electrical shorts are another common problem. Blown fuses are a great indicator of shorts.

Power is also a problem with this sequential system. *Too little* will cause the system to not function and *too much* will cause damage. 7.5-10 Amps is what the system is designed to Operate with.

In field tests, we have found that any weak component of the original electrical system may, and most likely, will fail. Old original brake light switches may not handle the increased power For 6 bulbs. Old turn signal switches may fail.

Note: Scott Drake Enterprises is not responsible for any electrical components damaged during or after the installation of this system.

We have also found that cars with low output alternators will not provide enough power under all conditions. Increasing the engine rpm should make the turn signals function again. When running the power wire from the front of the car, take extra care not to pinch and cut the wire under sill plate or back seat. Always confirm the power wire is hot under all conditions.

Warning!

This conversion system requires power to sequence 6-1157 bulbs. The electrical system In your mustang must be in correct working order. It is very important that you take time To confirm the sequential turn signal system works correctly. This system involves the Brake lights. Brake light failure may result in a serious accident. Confirm that brakes Lights are working under all conditions.

Powerful sound systems or other power robbing accessories may play a part in a Sequential system failure.

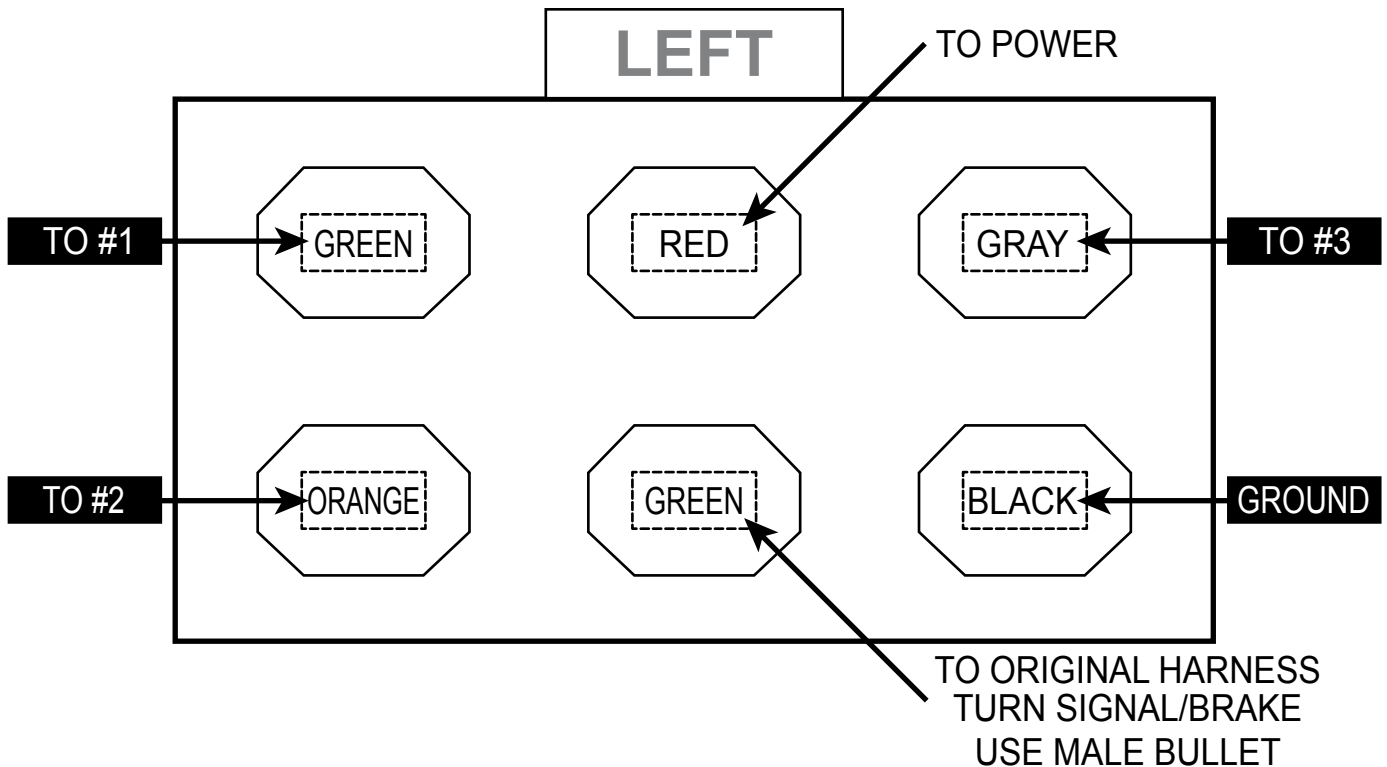
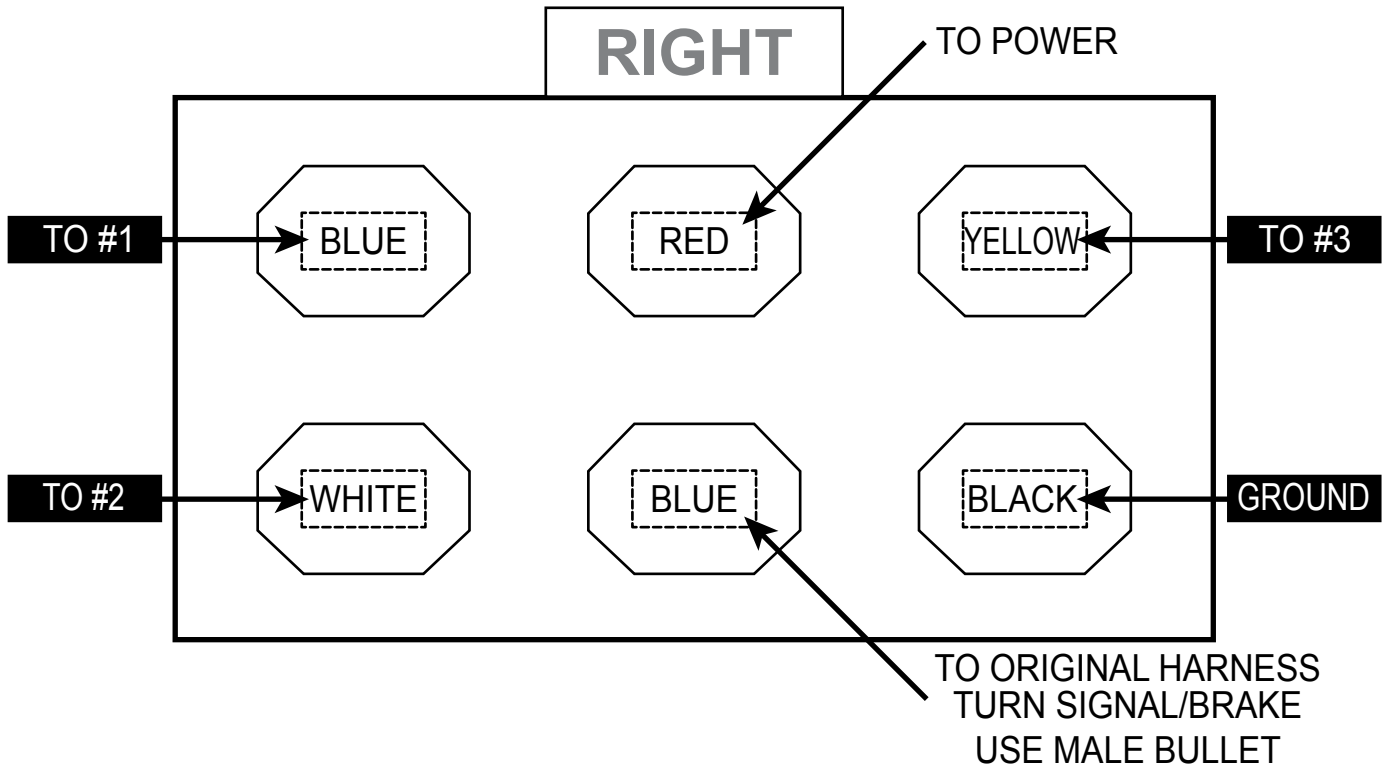
Return policy

Scott Drake Enterprises, Inc. warranties this product to the original purchaser from the date of purchase for 90 days. Products found to be defective in manufacturing may be returned, post paid for replacement only within the warranty period. Proof of purchase and dated receipt must be presented with the returned product. Returns may be sent directly to Scott Drake Enterprises.

Returned products are tested. If found to be damaged by the installer, No replacement will be issued.

Contact our customer service department at **1-702-853-2098**

**Note: Each connector has two blue (RH) or two green (LH) wires.
Connect as shown below.**



SEQUENTIAL WIRING DETAIL

RIGHT SIDE SHOWN

