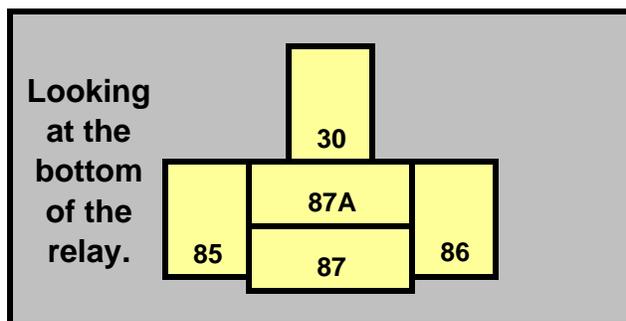


Supplemental Wiring Information

4 Way -- Emergency Flasher Diagram



The relays must be internally configured like
Bosch Part Number
3320015006

A source for this relay is the 700 series Volvo, most wrecking yards charge \$1-\$3 for a used relay. Easy ID is that Volvo prints a "K" on top of the relay.

1. Run a 14 Gage wire from a fused constant hot terminal on the fuse panel to one terminal of a toggle or push/pull switch, continue on that same wire to a flasher unit and then to terminal 30 on the relay..
2. From the other terminal of the switch, run 14 gage wire to terminal 85 on the relay.
3. Run a Black 14 gage wire from terminal 86 on the relay to a good ground.
4. Relay terminals 87 & 87A are the output terminals and must be spliced into the existing directional signal wiring, example: wire from relay terminal 87 is spliced into the left signal wires and wire from 87A into the right signal wires. The exact place to splice into the existing system may vary depending on the configuration of the existing wiring harness. Usually the easiest is where the signal wires come out of the steering column.

In order for the Brake Light and Signal lights to share the same bulbs, it is necessary to isolate the the front signal lights from the rear. This is why the Turn Signal Switch has 6 wires (See below). Since I do not have an original wiring harness in my 56 Fairlane, a little trial and error may be required to determine where to splice in the wires from the relay. If all else fails, simply use two relays, one for front and one for rear lamps. Remember relay terminals 87 & 87A must not be connected except when the relay is activated by the push-pull switch.

If using the above wiring instructions causes the parking lights to come on when you apply the brakes, then your car wiring configuration will require using two relays.

How to wire 4-Way Flashers on 56 Ford or any car that Signal Lights and Brake Lights share the same lamps.

1. Run a 14 Gage wire from a fused constant hot terminal on the fuse panel to one terminal of a toggle or push/pull switch, continue on that same wire to a flasher unit and then to terminal 30 on the first relay, then continue that wire to terminal 30 on the second relay.
2. From the other terminal of the switch, run 16 or 14 gage wire to terminal 85 on the first relay, then continue that same wire to terminal 85 on the second relay.
3. Run a 16 gage (Black) wire from a good ground, to terminal 86 on first relay and continue that wire on to terminal 86 on the second relay. (See note 4)
4. Run wires from terminals 87 & 87A on both relays, these wires are not hot until the push pull or toggle is placed in the "On" position. These wires are to be connected to the wires that go to the right front, left front, right rear and left rear signal lights.

Note: Where you actually splice them into the existing wires should be predicated on ease of access to the individual wires. On the 56 Ford that would be at the steering column where the wires come out of the signal light switch.

How I wired 4-Way Flashers on my 56 Fairlane

The Fairlane has a Ron Francis "Bare Bones II" Wiring kit installed.
Modifications to system:

Converted the back-up lights to signal lights, I purchased a tail light lenses repair kit and cut a piece of amber plastic to the shape of the back-up light lenses. I placed the amber plastic behind the original white lenses. I replaced the white lamps with amber single element bulbs.

Since I had totally cut out the remnants of the factory wiring harness, I used a multi-meter to determine which wires coming out of the turn signal switch were left, right and power in.

The Signal Switch looks like an original, based on that assumption, the following should apply to other 56 Fords.

Six wires come out of the Turn Signal Switch, 3 green, 1 blue, 1 orange, 1 white.

Concept is one wire goes to each lamp (Left & Right rear, Left & Right Front, one power-in and one power-in wire in from the output side of the brake light switch).

The following is how I connected the 4-way system to the car. (See 4-way system schematic above.)

Connected a wire from flasher terminal on fuse panel to terminal 30 on relay.

Connected an orange wire from terminal 87 on relay to orange wire coming out of signal switch. (Right)

Connected a green wire from terminal 87A on relay to green wire coming out of signal switch (Left).

Connected a constant hot wire from fuse panel to one side of push-pull switch.

Connected a wire from other side of push-pull switch to relay terminal 85 on relay.

Connected a wire from relay terminal 86 to ground.

Tools & Supplies required to install the 4-Way Flashers

T	Wire Cutter,
O	Wire Stripper (Some come with a wire cutter)
O	Needle Nose Pliers
L	Single edge razor blade
S	Small Flat Tip Screwdriver

S	2 Bosch Relays 3320015006
U	2 Terminal Block for relays
P	Small roll Black 16 gage wire
P	Small roll Red 14 gage wire.
L	1 Toggle or Push Pull switch
I	1 Signal Light Flasher
E	4 Terminal End Splices
S	10 Terminal Ends for relays

Notes:

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|---|--|
| 1 | I recommend you obtain the Bosch relays from wrecking yard, get them complete with the terminal blocks, The terminal blocks are a standard configuration and can be obtained from any type vehicle that uses any of the 5 prong relays configured as shown above. Just cut all wires going into block. |
| 2 | Remove the existing relay that is currently in the used relay terminal block. Look at the end of the terminal block where relay plugs in, you will see a small relief (Square hole) adjacent to the terminal end that is currently installed. Take the small flat tip screwdriver and insert it into the relief, screwdriver should be no wider than the relief, (An eye glasses screwdriver works well.) push the screwdriver down about a third to half way, this will release the existing terminal end and it can be pulled out. Repeat until all 10 existing terminal ends (wires) are removed from the used relay terminal blocks. |
| 3 | If you want to use the relay terminal block, new terminal ends are required, the Napa Part Number is 725284, the only other part number I have for this same terminal end is from Car Quest, Part Number TA733, these are listed as Ford or Universal type. There is a very similar one that is listed as GM type, the Car Quest Part Number is TA 708. I prefer the Ford type, the relay is easier to plug into the relay block, and much easier to remove. These are expensive at 5 for \$3.00, considering they probably cost less than a penny to make, Napa & Car Quest parts side by side, look like they are made by the same manufacturer. |
| 4 | Strip end of wire just long enough to install terminal end, then about an inch and half from the end of the wire, use a razor blade to remove enough insulation to install another terminal end. Crimp the terminal end on and then bring the wire back parallel so the terminal end will fit into the relay terminal block. Be sure to insert the insulated part of the wire into the terminal end so the first pair of tangs are crimped on the insulation, then crimp the second set of tangs on the bare wire. |

Emergency Electric Fuel Pump shut off Switch wiring instructions.

Every Fuel Injected Ford vehicle manufactured since the early 90s has had an Emergency Fuel Pump shut-off switch installed. Ron Francis Wiring sells this same switch with a relay for \$75.95. These exact Inertial Switches are available from any wrecking yard, most of the local yards around here charge \$1-\$5 for the switch. They are located either in the trunk on driver's side rear wheel well, or behind one of the front kick panels forward to the front door post. Ford Part # E7AE-9341-AA (There now be a later version with a slightly different part number.). The later type have a round red reset button, the earlier ones (Not recommended) have a rectangle white reset button. If you have multiple cars to pick from, get one the newest model available, make sure the car has not been submerged. If the car was wrecked the red button should up in the "up" position, if pushing in down caused it to click an reset, the relay is good.

Installation instructions: Pump must be mounted with the red button as close to straight up as possible.

There are two ways to wire, depending on the amperage of the fuel pump.

For a low amp pump, simply cut the wire to the fuel pump, splice a wire and run it to one side of the Inertial switch, then run wire from other side back to where you cut the fuel pump wire and splice it in, if the splice is exposed to the weather, be sure to water proof it.

For a high amp pump, use the Inertia Switch to operate a relay with the required amp capacity. Cut wire to fuel pump, connect to #30 terminal on relay and to one side of Inertial Switch, connect #87 terminal on relay back to where wire was cut. Connect a wire from the other side of the Inertia Switch to terminal #85 on the relay and then a ground wire from relay #86 terminal to a solid ground.

There are three different Inertia Switch mounting brackets used by Ford, The LTDs have a mount that attaches in the area of the driver's side rear wheel well, the Probe uses a bracket that mounts to the sub frame rail in the trunk by the left quarter panel, the other Ford imports use a bracket that mounts in the spare tire wheel well. Some of the compact Fords, do not use a bracket and bolt the Inertia Switch directly to the body. I am not sure how these switches are mounted in trucks.