Vintage LED
Installation Instructions for 71-73 Sequential Taillights

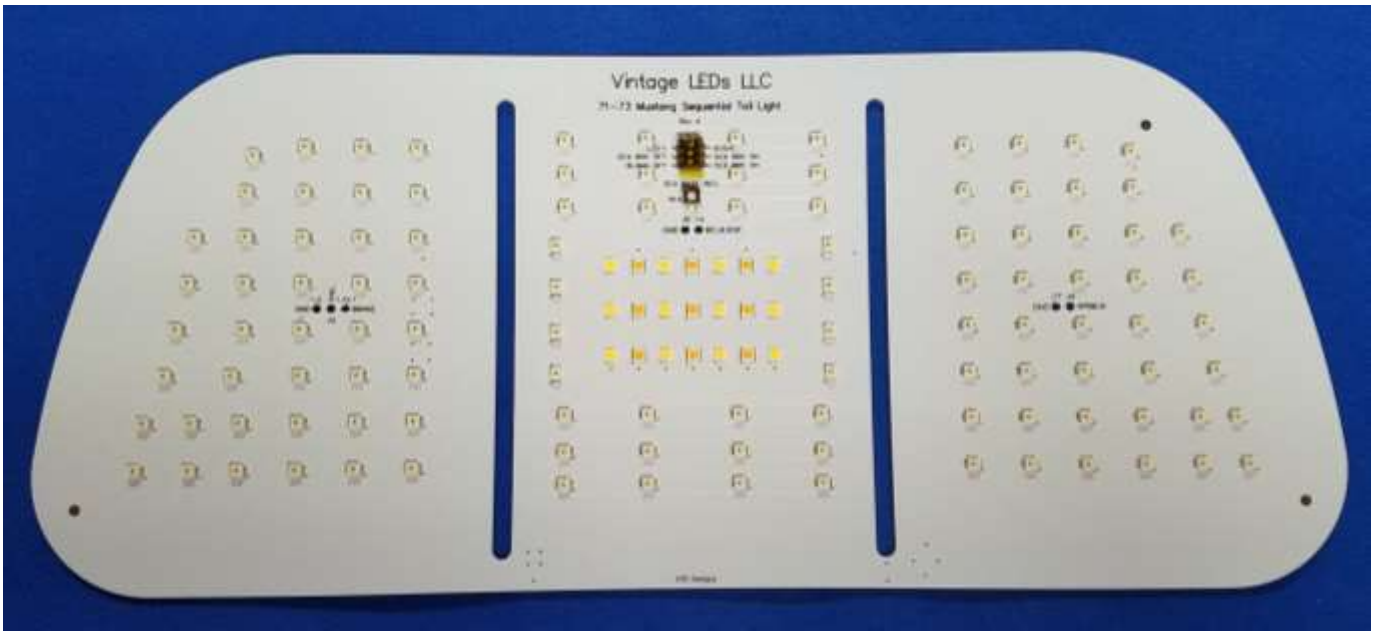
Please install in this order and test the lighting system after each step!

1. Install turn signal flasher module
2. Install hazards flasher module
3. Test turn and hazards function, you can leave the existing 1157 bulbs in place for this test.
4. Lay the LED tail assembly in the trunk
5. Remove the bulb socket from the light bucket
6. Plug LED tail assembly to bulb socket, test brake, turn functions and reverse lights

Turn and Hazards Flasher Relay

Install the new flashers first and verify that they are hooked up correctly. This flasher will work with the existing 1157 bulbs. If the turn signals or hazards do not work correctly or the flasher module chatters, then try reversing the polarity on the wires. The X symbol on the flasher designates the hot side; the L symbol designates the Lamp or output side.
Note: The BF12L-CH that currently ships is not polarity sensitive and will work wired in any direction.

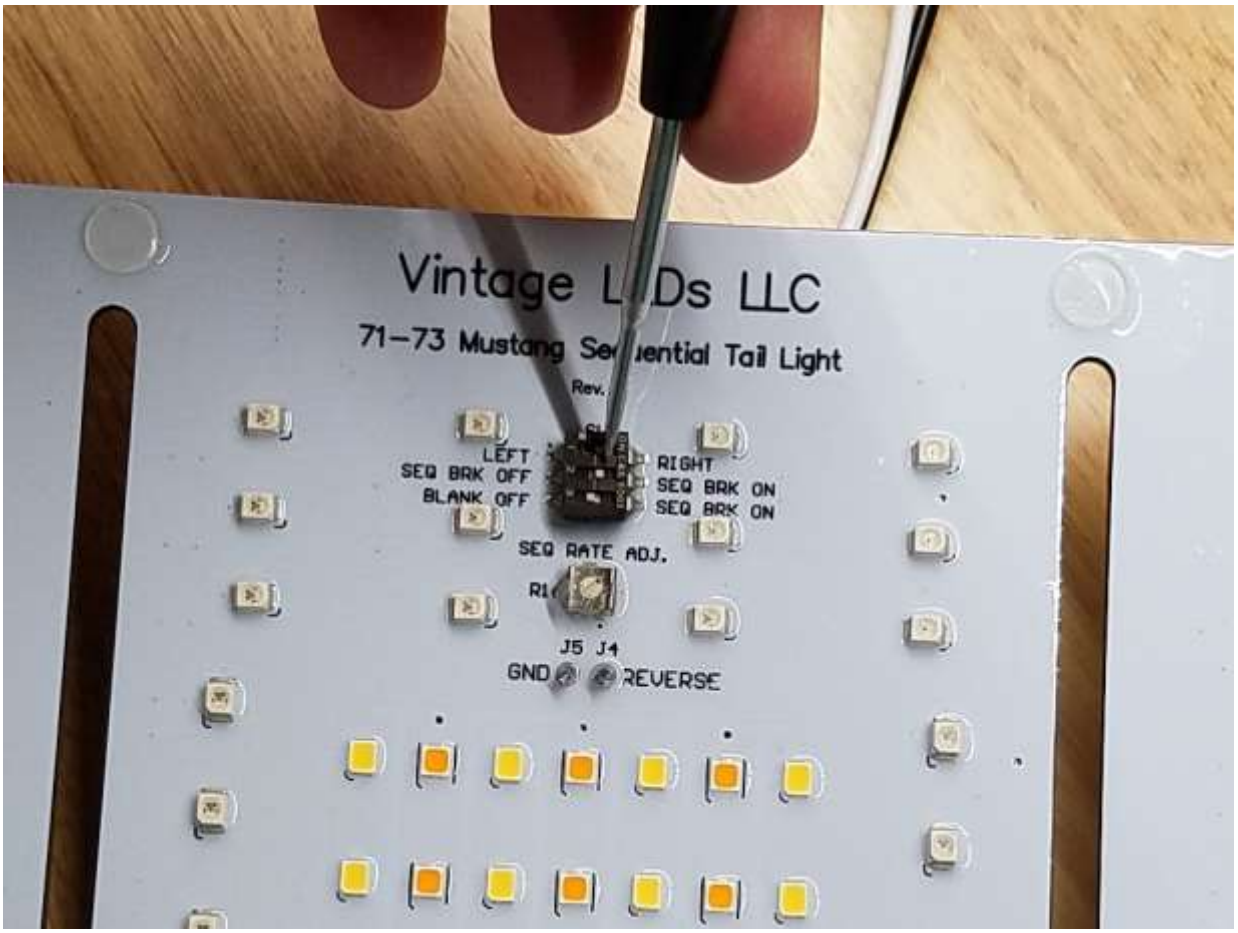
Locate and Replace the flasher modules. The turn flasher is generally located on the back of the instrument cluster. Since the LEDs draw less current than the 1157 bulb, (0.8A vs. 2.3A) the stock thermal turn flasher will not work. You will need to replace this with an electronic or LED flasher unit.
Note: The black wire on the LED flasher will need to be connected to chassis ground.



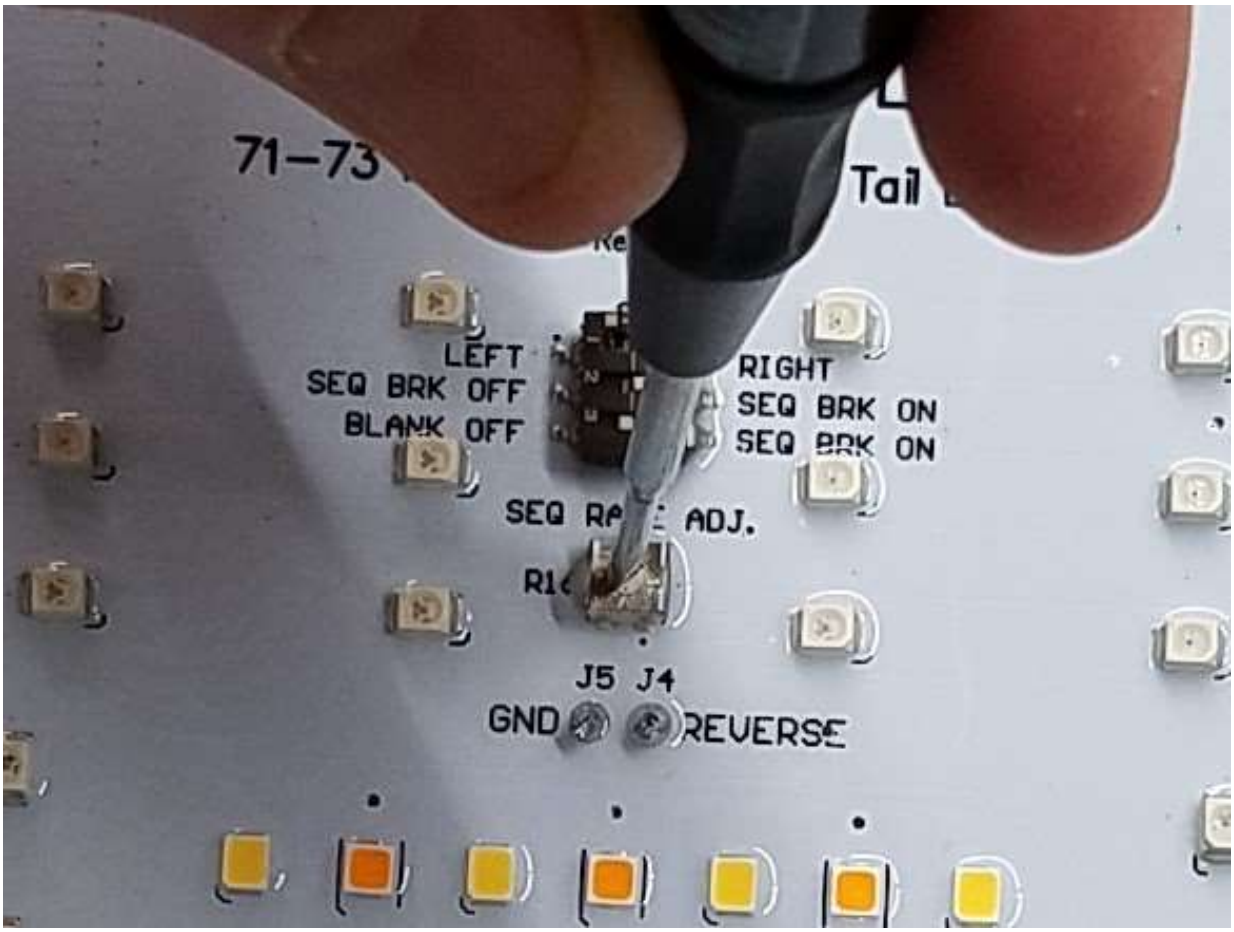
Board Setup

Pull the bulb socket from each brake light. Remove the bulb and plug in the LED board. Lay the LED boards in trunk.

SW1: Set the right light to RIGHT and the left light to LEFT.



Turn on the hazard lights and adjust the sweep rate on each board by turning the potentiometers R1.
Adjust R1 Counterclockwise (CCW) for slower, clockwise (CW) for faster.



1. Check the sweep rate with the turn signals.
2. Confirm sweep rate with head lights on engine off. Low voltage condition.
3. Confirm sweep rate with head lights off and engine on. High voltage condition.

If you do not want sequencing lights at all, simply turn the POT fully clockwise and all three segments will come on together.

Decide if you want sequence brake or solid brake/Sequence Off
Theory of operation for Solid Brake/Sequence Off

The micro controller (uP) is used to keep time of the voltage pulses from the blinker module.
With Sequence Off mode, the first turn signal will light up all three segments. With each successive pulse from the flasher module, the LED board will produce a sequence pattern.

The uP keeps track of the off time between pulses. If the off time of the turn pulse is less than approx. 1.3 to 1.5sec, then the uP will read this as turn signal input. If the time between pulses is greater than 1.5sec, then the uP reads this as a Brake conditions and all three lights will come on at once. The flashers I tested were between .3 and .6 sec. The slowest times were at 10v. However, at 12V, most are around .4 sec.

Now if you hit the brakes, all three will come on. However, if you rapidly pump the brakes, the lights will sequence.

Hazard lights will be sequential.

Taillight Blanking
Blank On = Taillight blanking
Blank Off = No taillight blanking

With the switch in the Blank On position and the taillights of the vehicle on, the taillights will turn off at the beginning of the sequential sweep. This adds a higher contrast between brake and taillights.

Light Assembly

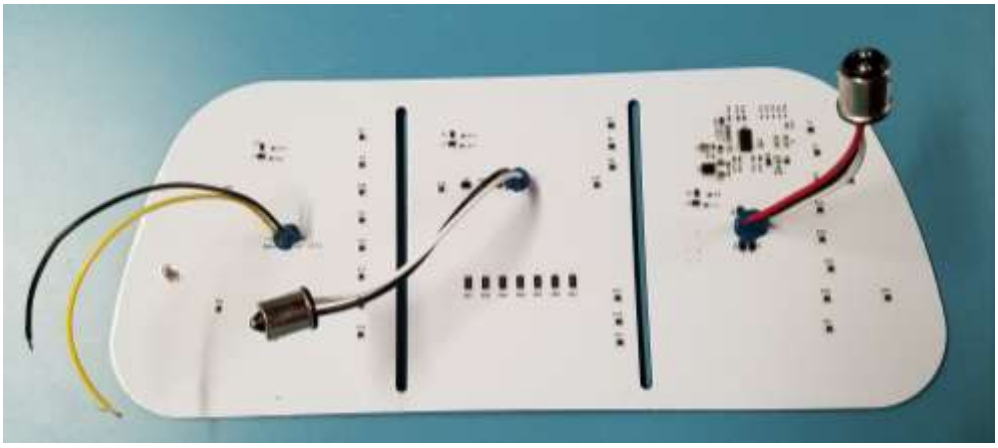
Remove light bucket from Vehicle.

Remove body gasket. Replace if deteriorated.

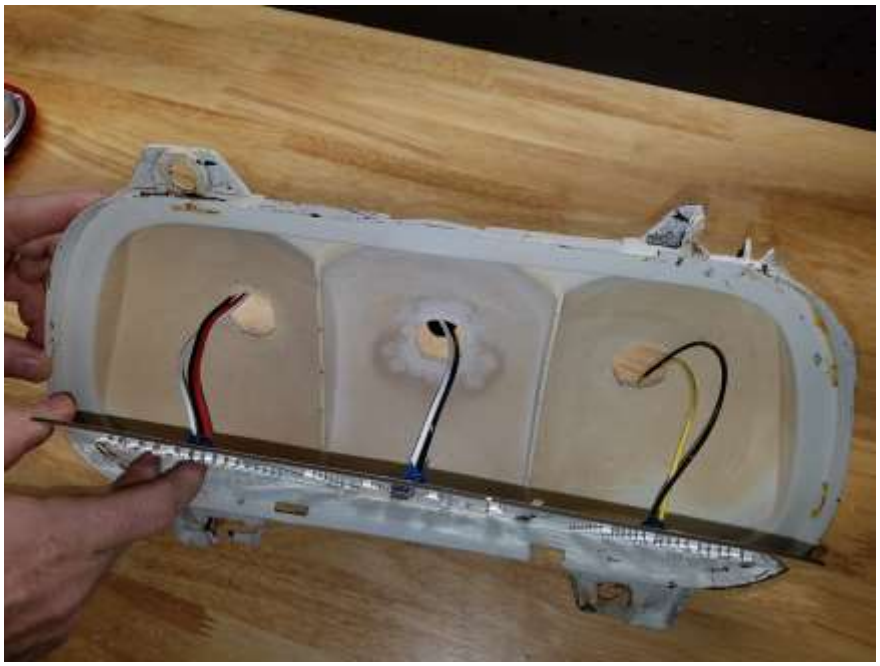
Remove Lens from bucket.

Remove lens gasket.

Note: the lens gaskets are usually in bad shape on these cars. Now would be a good time to install a new gasket.



1. Insert board in light bucket. SW1 will be at the top of the board. Be sure and pull the 1157 and 1156 pigtails thru the hole in the back of the bucket.

2. 

The circuit board will sit flat inside the lens recess.

Install the lens.

3. Reinstall light assembly in the car and connect factory socket to 1157 and 1156 pigtails.
4. Note: You only need to connect one of the brake light connections. Make sure you remove the bulb from the unused 1157 connector. Leaving the bulb in place will overheat the circuit board.

Amber Turn Option

On the right side (back) of the circuit there are two wires for the amber turn signal. Yellow is 12V Positive, Black is ground. These will need to be wired into the turn signal circuitry. Do not connect these to the brake lights at the rear.

You will need to pull a wire for each side form under the dash. Possibly connect this to the front turn signal circuity. Please consult your factory wiring diagram to find the best location to tap.

The black wire can be connected to any chassis ground.

Now enjoy your sequential taillights.

Note:
Never disconnect the battery cable while the engine is running. This can cause a voltage spike in excess of 40V. This could damage the electronics in this light along with other electronics in your vehicle.