
Pantera Electronics LED Group 4 Rear Signal Conversion Installation Manual

2nd Generation

This LED signal lamp conversion was designed to replace the incandescent lamp 1157 with a Light Emitting Diode Array designed specifically for 1971 through 1974, Pre-L and L- Model Pantera lamp housings. These LED Array's meet or exceed SAE illumination specifications for automotive signal lamps, yet consume only 30% the power of 1157 incandescent lamps. This significantly reduces the current through the headlight switch extending the life of the switch.

- The LED Array's are designed to connect to the original Pantera wiring harness.

The Group 4 LED arrays are designed to “rotate” the illumination as the turn signal flashes. Counter clockwise for the left turn signal and clockwise for the right turn signal.

The Reverse LED array illuminates white when in reverse and when reverse is not being used illuminates high intensity red during braking.

The only changes that are required is the replacement of the turn signal flasher and an adapter for the turn signal indicator in the tachometer. The signal flasher needs to be changed to the Pantera Electronics electronic adjustable rate signal flasher designed for the Pantera. A turn signal Indicator Adapter is included.

IMPORTANT !

DO NOT LOOK DIRECTLY AT THE LED ARRAY'S WHEN IN OPERATION, DAMAGE TO THE RETINA CAN RESULT.

— **Only view the LED arrays after installation behind the original Pantera lenses.**

Do not touch or clean the LED's, the lenses are fragile.

**Disconnect the battery by removing the negative (-)
or ground cable from the battery terminal.**

There are 3 LED Array's utilized in each tail light housing.

The BRAKE LED Array emits red light with a black, yellow and red wire.

The TURN SIGNAL LED Array emits amber light with a black and blue wire.

The REVERSE LED Array emits red and white light with a black, red and white wire.

1) Remove tail light lens by removing 4 Philips head screws. Remove incandescent lamp 1157 by pushing in and simultaneously turning bulb ¼ turn counterclockwise.

2) Remove two M10 nuts from the studs that retain the tail light housings. You might want to set-up a work level that allows the taillight housing to reset on while making the modification. If the tail light housing falls and impacts the floor it may crack or break severely.

3) After removing the 1157 lamp the bottom of the lamp socket has a spring pushing the contacts upward out of the socket. This allows a small gap of clearance through a slot in the socket and out of the back hole where the present wires are. This small gap is enough to push the 3 wires of the LED Array through. If there is corrosion or any reason that you prefer not to use this method for passing the wires to the back of the tail light housing, a hole can be drilled in the back of the tail light housing for the wires to pass through.

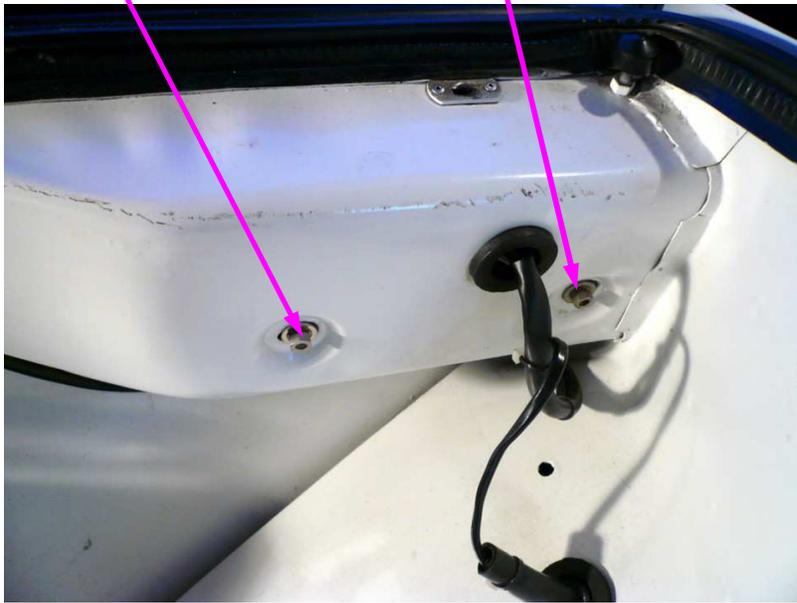
4) Insert the BRAKE LED Array into the red brake light position, centering the BRAKE LED Array in the housing with the 3 wires behind the array through the lamp socket. The BRAKE LED Array can be identified by the color of the wires that are connected to it. The BRAKE LED Array has a black, yellow and red wire. The arrays are positioned in the center and the tape should rest against the reflector.

12) The LED array's are NOT designed to tolerate water ingress, make sure the lens seal properly. Take the necessary steps to improve the sealing surfaces to maintain a water-tight housing. Use silicon sealant if the gaskets are cracked or distorted.

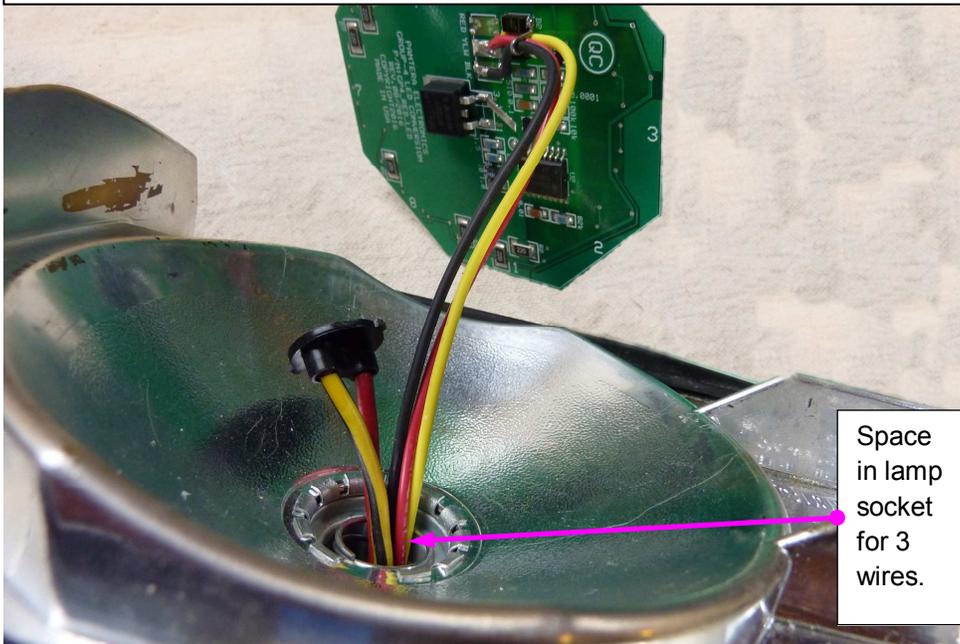
13) Install the lens, DO NOT OVER-TIGHTEN the 4 Philips head screws, equally tighten the screws in a pattern. The lenses are more than 40 years old and the plastic is brittle, over-tightening or uneven tightening will crack or break the lens.

14) Use the above procedure for either passenger or driver side taillight housings.

Two M10 nuts (or screws) on studs that retain the tail light housings.

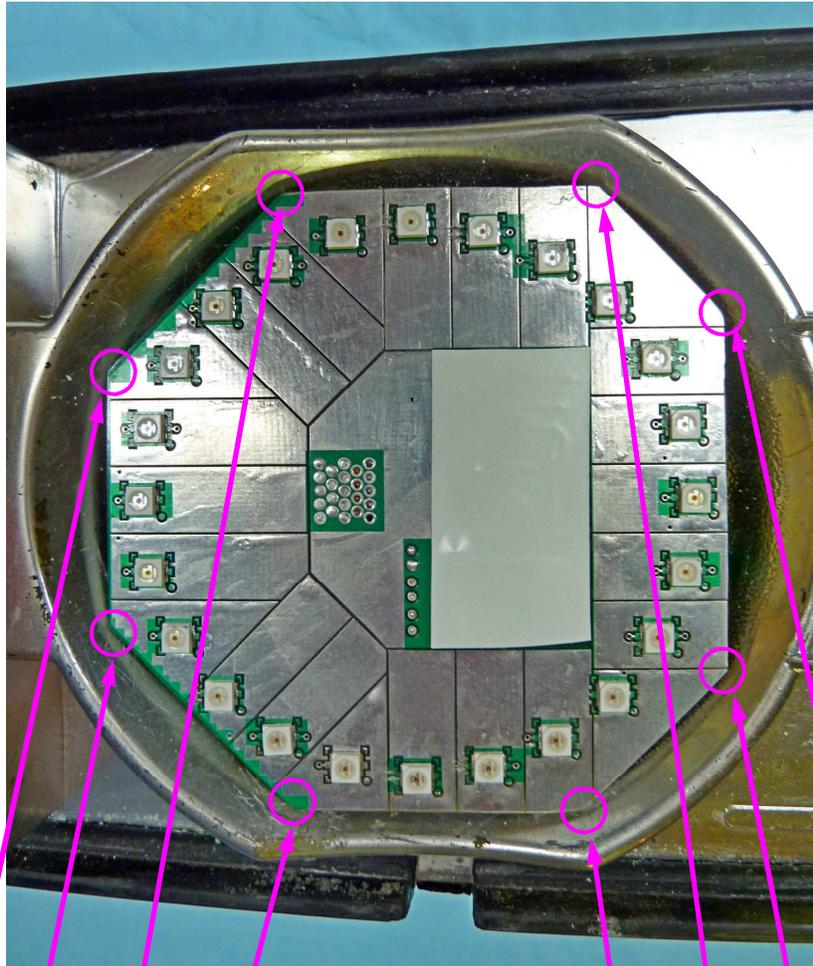


The space in the lamp sockets is enough to push the 3 wires of the brake LED Array and the turn signal LED array through.



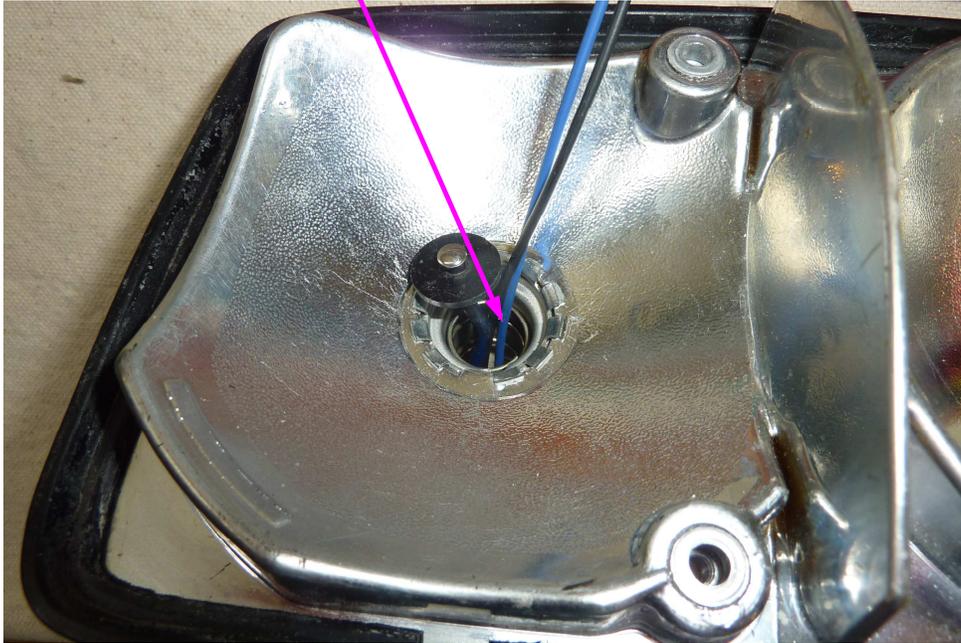
Space in lamp socket for 3 wires.

Fit the brake LED array into the brake light reflector. Use the orientation as in the picture. If the LED array will not stay in position use several pieces of masking tape to retain it in position as in the picture.

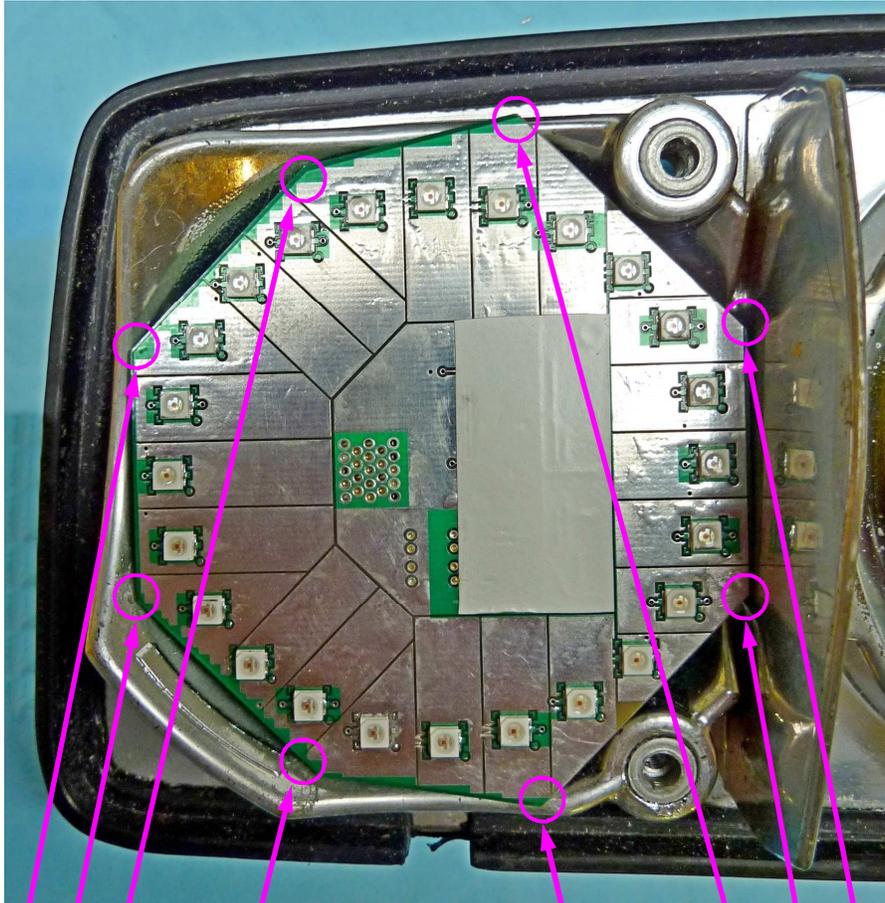


Apply clear RTV to the corners of the LED array that sit on the reflector.

The space in the lamp sockets is enough to push the 2 wires of the turn signal LED array through.



Select the turn signal LED array for the **left** hand lens, it will be marked "L" .
Fit the turn signal LED array into the turn signal light reflector. Use the orientation as in the picture. If the LED array will not stay in position use several pieces of masking tape to retain it in position as in the picture.



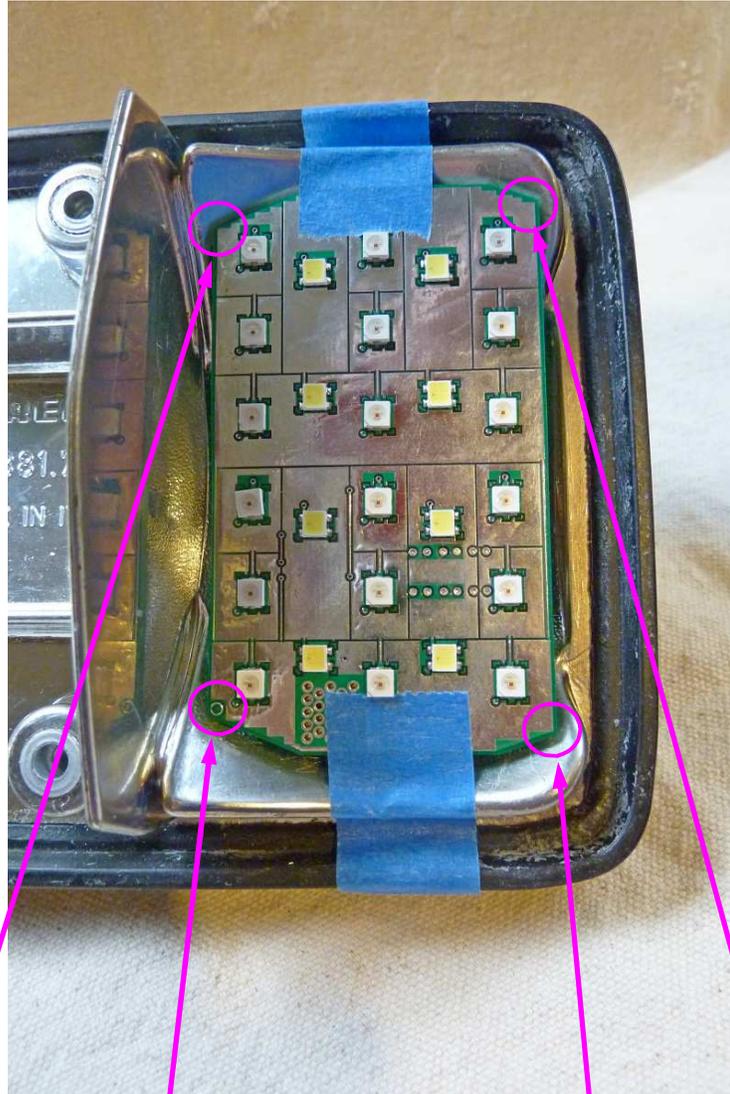
Apply clear RTV to the corners of the LED array that sit on the reflector.

Select the turn signal LED array for the **right** hand lens, it will be marked "R" .
Fit the turn signal LED array into the turn signal light reflector. Follow the instructions above to complete the installation for the right hand side.

The space in the lamp sockets is enough to push the 3 wires of the reverse LED array through.



Fit the reverse LED array into the reverse light reflector. Use the orientation as in the picture. If the LED array will not stay in position use several pieces of masking tape to retain it in position as in the picture.

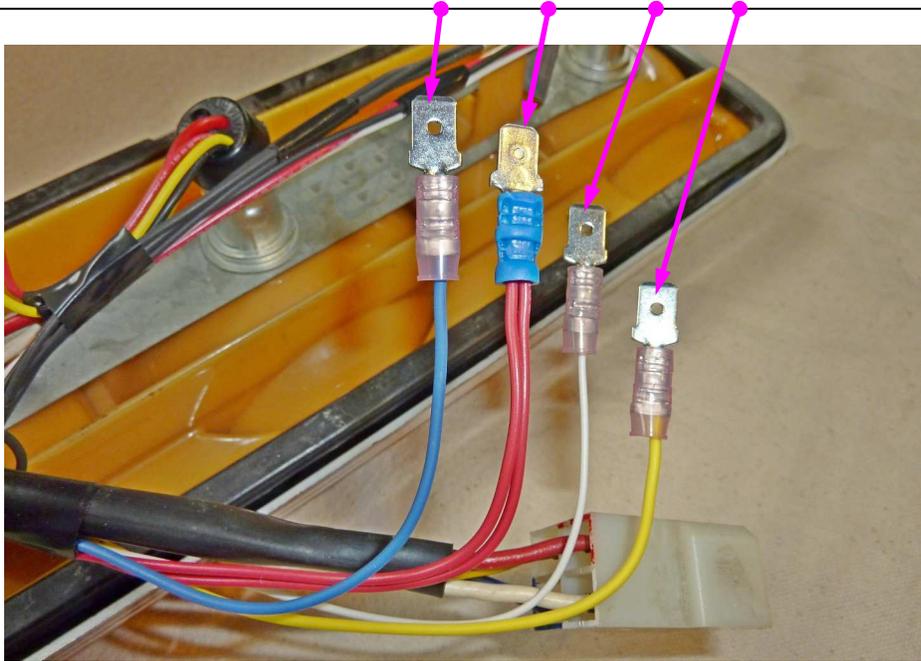


Apply clear RTV to the corners of the LED array that sit on the reflector.

Insert the LED array wires through the grommets of each lamp socket.



Crimp the male quick disconnect terminals to match the wire colors in the Pantera wire harness. Group the red wires together in one terminal.



Connect the wires matching the colors of the LED arrays to the wire harness.



Crimp an “eye” terminal to all of the black wires together and assemble the terminal on the mounting stud. Include the factory black ground wire from the wire harness on the stud as well.



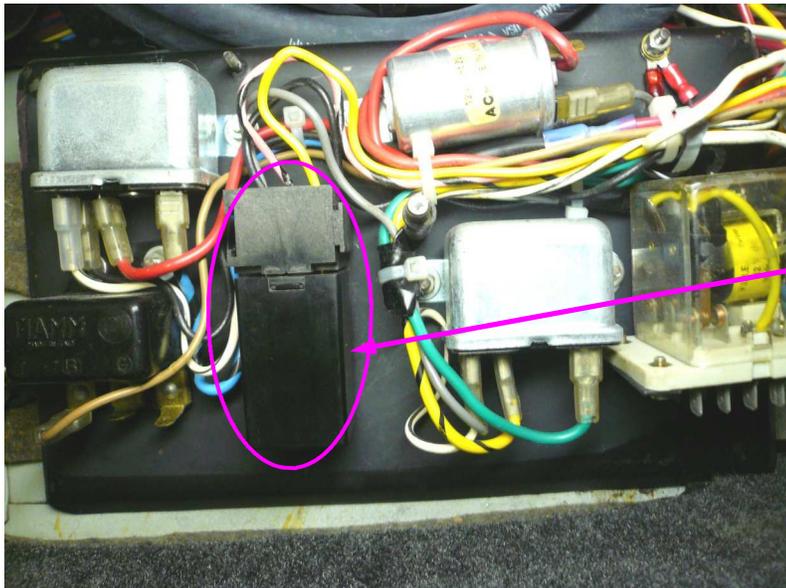
With the ground wire from chassis installed with nut, replace lamp housing in Pantera with (2) 10 mm nuts or bolts.



Note: If both front signal and taillights are LED conversions then a flasher designed for LED lights is necessary.

Replacing 3 Terminal Turn Signal Flashers

Locate the signal flasher in the Pantera, 1971/1972 (Pre-L) look for a metal box suspended above the passenger's side floor. Unscrew the wing nut and lower the metal box. 1973-1974 look for the signal flasher behind a door in a compartment next to the drivers side door. The original factory signal flasher is a rectangular black box about 2 inches (51 mm) long, it plugs into a socket with 3 wires, BLACK, YELLOW and PINK. Remove by unplugging the signal flasher, the socket will stay mounted on the plate. Connect the Pantera Electronics signal flasher by plugging it into the socket. Replace the metal box and tighten the wing nut.

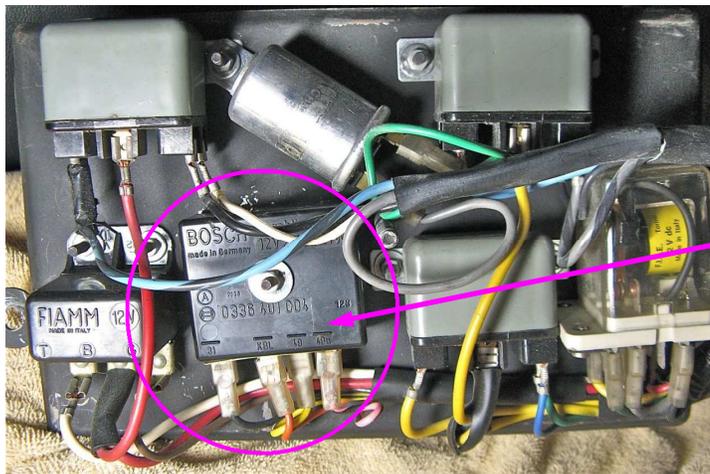


Factory 3 terminal flasher mounted in a 1971 or 1972 Pantera.

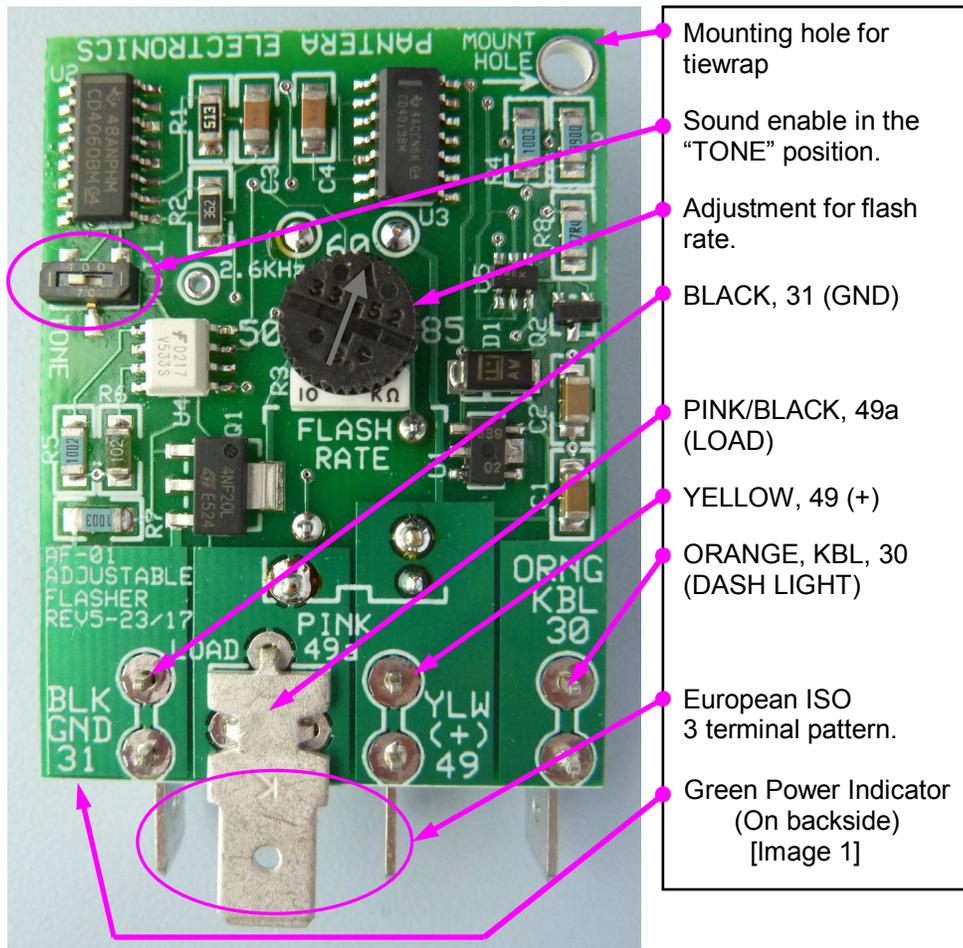
Replacing 4 Terminal Turn Signal Flashers

Locate the signal flasher in the Pantera, 1971/1972 (Pre-L) look for a metal box suspended above the passenger's side floor. Unscrew the wing nut and lower the metal box. 1973-1974 look for the signal flasher behind a door in a compartment next to the drivers side door. The original factory signal flasher is a rectangular black box with 4 wires, BLACK, YELLOW, PINK and ORANGE. Remove each wire individually and connect to the Adjustable Flasher matching to the color labels. The ORANGE wire from the Pantera harness will connect to the ORNG terminal from the Adjustable Flasher. (KBL)

Replace the metal box and tighten the wing nut.



Factory 4 terminal flasher mounted in a 1971 or 1972 Pantera.



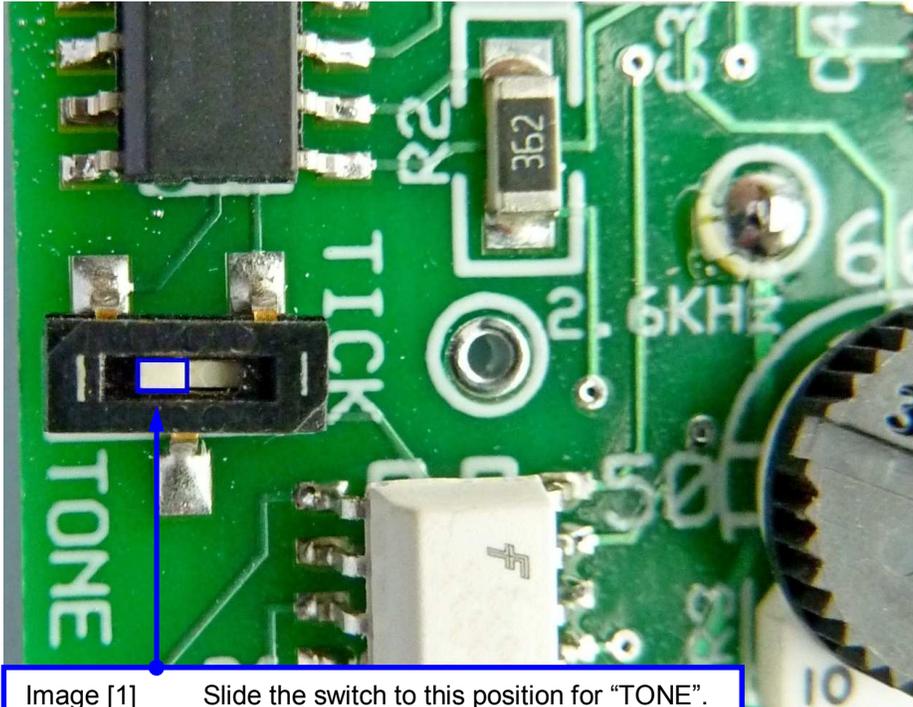


Image [1] Slide the switch to this position for "TONE".

Use a pin to move the slider

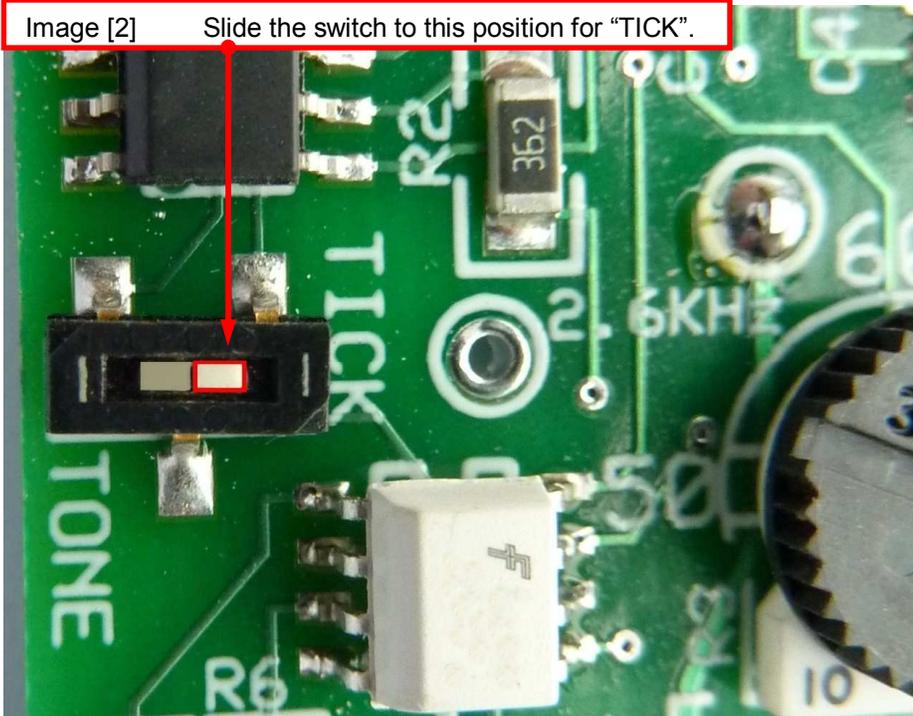


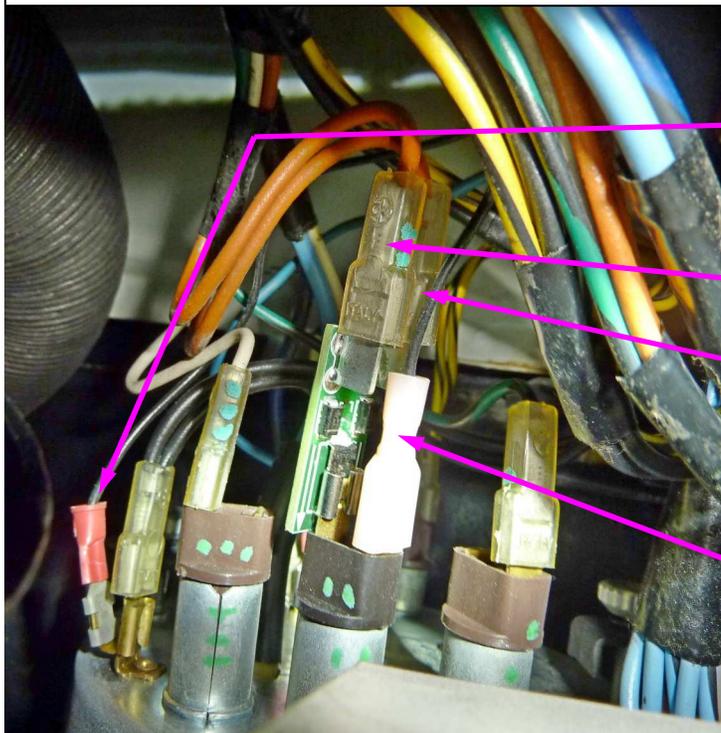
Image [2] Slide the switch to this position for "TICK".

Turn Signal Adapter (only needed with 3 terminal flashers)

The turn signal adapter is only required if all incandescent lamps, front and back are replaced with LED arrays. Behind the dash, at the bottom of the tachometer housing is the turn signal indicator, connected with 2 orange wires. Remove the lamp socket by pulling the socket straight back. Unplug the 2 ORANGE wires from the lamp socket and plug the Turn Signal Adapter on the lamp socket. Plug the 2 female ORANGE wires onto the male terminals of the Turn Signal Adapter.

Add a BLACK wire with the quick disconnect terminal to the turn signal indicator and connect to the ground connection on the back of the tachometer where other BLACK wires.

Adapter for turn signal light, connects to the orange wires from light. Add black wire from light to ground. (Tach case)



Connect black wire from light to ground.

2 Orange wires (1971-72)
or
2 Blue wires (1973-74)

Black wire connects to ground.

Disclaimer

The products from Pantera Electronics have been designed and manufactured with the best quality components known to the engineer. The installation instructions have been written to assist the owner in the proper use and installation of the products. Pantera Electronics can not be held responsible or held liable for the interpretation or incorrect implementation of the products.