KATDASH Slash 5 led kit
Installation Instructions

Additional information and photos available on our website at www.katdash.com
On the "Slash 5" page

PRELIMINARY INFORMATION:

ALL CONNECTORS AND TERMINALS should be cleaned with 200 grit sandpaper or a 3m scuff pad (not steel wool which encourages rust) AND a quality electrical contact cleaner like **DeoxIT.** Female connectors can be cleaned with DeoxIT and a dental brush. DeoxIT kits are available on our website. Do NOT use Di-electric grease.

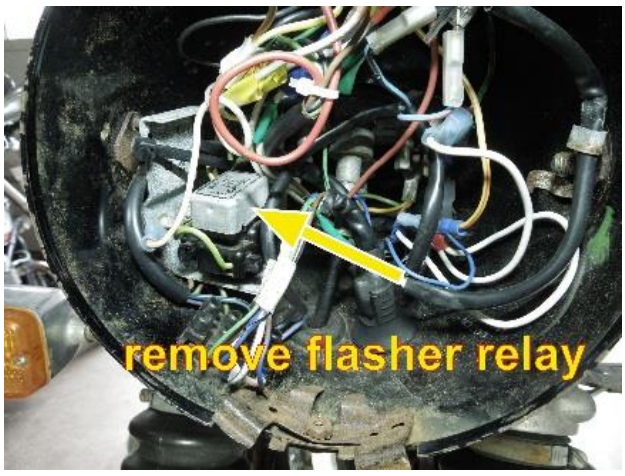
ALL wires, bulb sockets, and circuits MUST be in good operating condition. Changing a bulb will not fix an electrical problem. *BEFORE you open up your headlight bucket, check ALL light indicators- including the parking bulb- to see what is working and what is not.*

There are 3 types of bulb sockets: smaller BA7 insulated (black housing) with 2 connectors; larger BA9 insulated (black housing) with 2 connectors; and BA7 un-insulated with 1 connector. These are brass and ground to the metal instrument body.

Left & Right side indications in these directions are facing the rear of the bike, as you look into the headlight bucket.

1. **DISCONNECT YOUR BATTERY GROUND TERMINAL.** This will prevent any accidental shorts while you are rooting around in the headlight bucket.

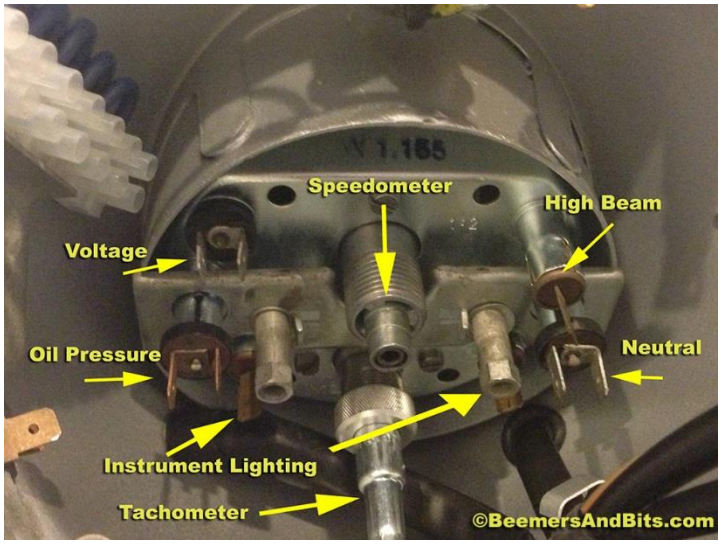
2. Remove your headlight: disconnect the plug to the headlight assembly and set the headlight assembly carefully aside.



3. Starting on the left side, remove the flasher relay; noting the orientation for when you re-install it. Removing the flasher relay gives you a little more room to work.

4. Gently Pull out the charge light/ GEN socket and disconnect the wires. (labeled "voltage" below) They should be green and blue. See photos below to identify socket & bulb locations. (photos used with permission from Josh Withers)

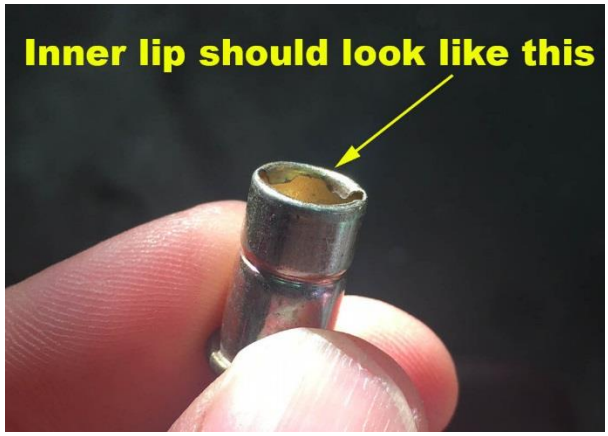
5. Remove the oem bulb by pushing and turning counterclockwise a 1/4 turn. Clean & deoxit the socket terminals, and set aside.



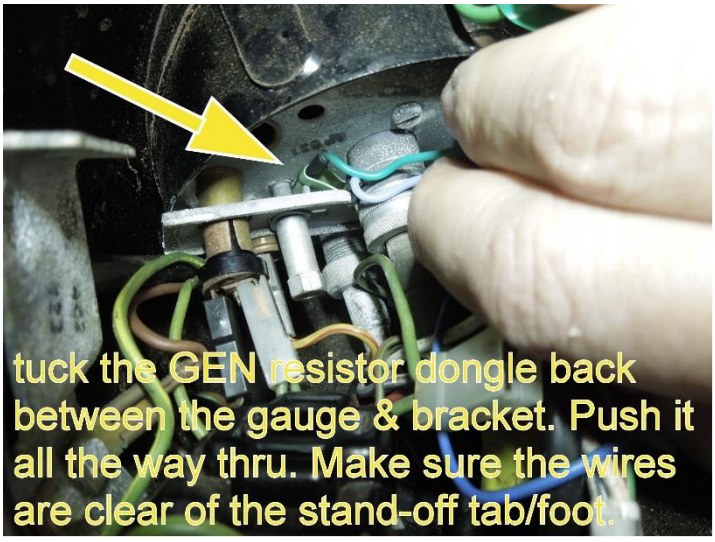
6. Pull out the OIL pressure bulb socket and disconnect the wires- green & brown w/gr. This is the small black insulated socket. Remove the bulb. Clean the terminals and set aside.

7. Pull out the single terminal, un-insulated instrument light socket all the way in the back, disconnect the wire- yellow w/ red. (or grey w/ black on earlier bikes) Remove the oem bulb.

INSPECT THE BRASS SOCKET !!
If the new bulb does not set in square and solid, it can *pop out* inside your gauge where it is nearly impossible to retrieve. Don't ask me how we found this out.



Install the new WHITE led bulb by pushing in and turning clockwise 1/4 turn. Clean the terminal and deoxit both the terminal & outside of bulb socket. RE-connect the yellow and red wire, but do not insert the socket into the instrument- yet.



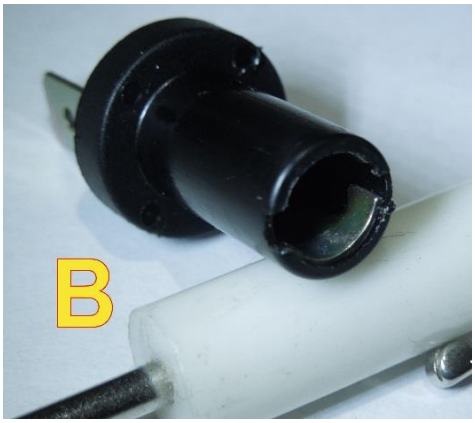
8. NOW you need to set the GEN resistor dongle into place. Loosen the 2 nuts that hold the instrument locking bar. A 8mm ratchet wrench works well for this. Slide the locking bar down enough to fit the new dongle between the instrument case and the bar. Push the resistor pack of the dongle through, and let it hang down the back of the headlight bucket, with the blue and green wires & connectors out front.

9. Re-tighten JUST the LEFT NUT. *MAKE SURE THE WIRES ARE NOT CRUSHED OR DAMAGED UNDER THE BAR STAND OFF.* Don't connect the bulb socket to the dongle wire yet.

10. Install the single terminal instrument light in its socket all the way in the back of the instrument. Yellow w/ red wire.

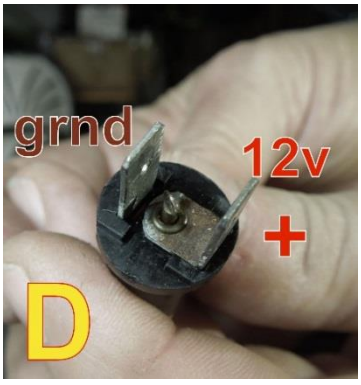
Connecting the wires to the socket terminals: the green wire **MUST** be connected to the 12v terminal. See photo **D.** *Leds only flow current one way- the ground AND 12v must be connected with the correct polarity.*

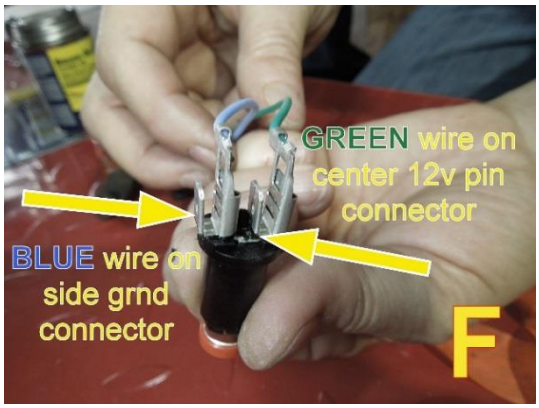
11. Install an amber led in the OIL pressure insulated bulb socket. Because of the led bulb top deck [A] - you can't push the bulb far enough into the insulated socket [B] to turn and catch in the inner notch.
See photos on the next page



You will need to file, or trim (with a utility knife) off the top plastic rim of the insulated socket, to get the led bulb to insert deep enough in the bulb socket. [C] Trim down to the metal socket top edge. This does not affect the socket function in any way.

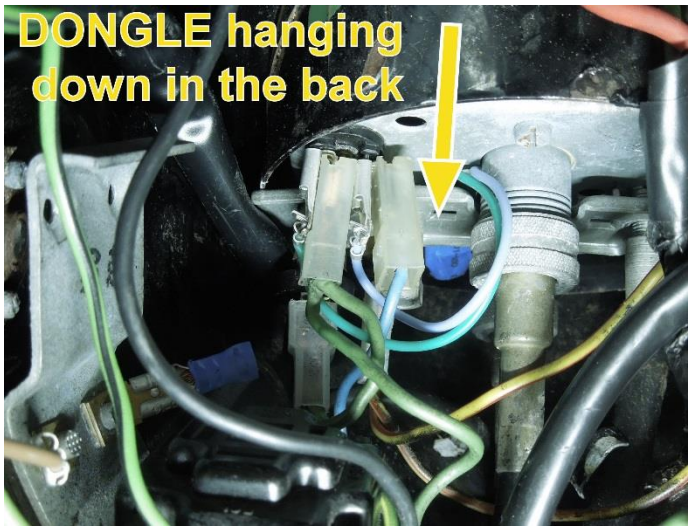
Now you can insert the AMBER oil led. Push in, and turn 1/8 to 1/4 turn clockwise. Once you have the led bulb installed in the socket, connect the green & brown w/gr wires and install the socket back into the instrument. (You will need to modify your neutral socket this same way.)





12. In the larger insulated GEN light socket, install the large red led bulb: ***CAUTION!!*** ***DO NOT TWIST TOP DECK- it will twist right off!*** To install the larger led bulbs: Put a small vertical mark (pencil, marker, scratch) on the barrel, under the top rim. Now push the bulb all the way into the socket against the spring. ***VERY CAREFULLY*** turn the bulb clockwise, 1/4 turn- *WATCHING YOUR MARK, to make sure the bulb turns and NOT just the top deck with the led chips!!* Install ALL the larger led bulbs this way. VERY GENTLY! (GEN, Turn Indicator, Parking)
13. Now connect the dongle you've installed in the headlight bucket to the GEN bulb socket. The green wire on the dongle goes to the tab connected to the center 12v pin!! **D, E & F** Install it with the piggy-back tab towards the center as shown. Then install the blue wire connector to the other (ground) tab, facing the same direction. **F.**

The older style sockets have a spring pin in the middle that pops thru the base. Check that the blue/ground spade terminal on the bulb socket is clear of the center pin pop-out. **E**. Turn the center pin so it's parallel w/ the connectors. If necessary, gently bend the ground pin away slightly. GENTLY! Now connect the blue and green connectors on the bike wiring harness to the matching wires. Install the socket in the instrument. Check that the dongle wires are clear if the locking bar stand-off/foot and that the dongle is tucked back in behind the instrument. See photo right: for correct installation >>>>



*****Now switch to the right side*****

14. Remove the bulb sockets from front to back the same as previously: High beam- white wire; Neutral- green and brown w/ blue; and the instrument light all the way in the back- yellow w/ red. Clean & deoxit all terminals, including the harness female connectors

15. Remove the oem bulb, clean and deoxit the bulb socket terminals and the harness connectors. . Install the new led bulbs, noting that the neutral has an insulated socket as in [B] above. You will need to trim the top of socket as in step 11 above.

16. Re-install the bulb sockets with the led bulbs into the instrument. The white instrument illumination bulb is in the back, the neutral bulb in the middle, and the blue high beam indicator in the front.

*****Installing the Turn Indicator (TI) Harness*****

1. Inspect the spring holding in the clear plastic bulb socket. Rusty? Rub some WD40 or similar oil on it to protect the metal. Disconnect the blue w/bk & blue w/red wires from the terminals. If you have screw clips, remove them and save them and your original TI harness in your parts box.

2. Push up the retaining spring WITH YOUR FINGERS. Do not use the tabs on the socket. Old plastic is brittle – they will likely snap off. These sockets are becoming difficult to obtain (and expensive!) Push and turn the clear socket to remove it from the colored outer socket/indicator.

3. Remove the oem bulb and install the new led bulb ***VERY CAREFULLY as in step 12 above.***

4. Now LOOK at the clear socket: One side has the brass terminal connected full length of the socket- photo left- This is the GROUND side. Connect the brown ground wire from the kit to this terminal. Photo left.

5. Connect the slotted ring terminal on the other end of the ground wire to the instrument screw post between the locking bar and the nut. (You left the right nut loose- right?) Now tighten the right locking bar nut.

6. Connect the Red (diode) end of the new turn indicator harness (blue w/bk & blue w/red wires) to the 12v /other terminal of the turn indicator socket

Leds only flow current one way- the ground AND 12v must be connected correctly.

7. Once you have both connectors in place, install the clear plastic bulb holder in the colored lens socket- remember to push up the retaining spring with your fingers. Install the bulb holder so that the angled connector with the blue wires points back into the headlight bucket, away from the headlight assembly.

8. Locate the other end of the turn indicator wires in the connector block. At this point you may find it easier to remove the screw that holds the connector block installed. On this bike (1971) there was a sheet metal screw holding in the connector block. The turn indicator wires were connected in the back of the block, and it was easier to access them by removing the connector block mounting screw, and being able to turn the connector block to see & access the terminal slots. Your setup may differ. Loosen the turn signal wire connector screws, 1 side at a time. There will be 2 turn signal wires in the connector: one goes to the signals themselves, and one goes to the indicator. Pull out the old indicator wire, and install the new wire -matching the color code. Be sure to keep the 2nd wire to the actual signals inserted with the new indicator wire. Re-tighten the screw. Check to make sure the wires are secure.

9. RE-install the connector block and installation screw. We put a tiny dab of blue loktite on the screw. Re-install the Flasher Relay.

*****the Parking Light led bulb*****

So far, I have seen 3 different parking light bulb assemblies: the stock/original headlight bulb collar (left) which is spring mounted on 3 tabs. The Parking light is under the bakelite assembly (bottom of photo) and sticks down through a round hole in the reflector. If this is what your headlight assembly looks like: YOU WILL NEED TO MODIFY IT to get the led bulb installed. Details below.

The bulb collar is spring mounted on 3 tabs. Push and turn to remove it.

Another assembly we found was a modified original bulb collar with the original parking light assembly removed, and a stock BA9 insulated socket installed. (photo left)

And the other option I've seen is the later (1974-on) bosch assembly. (photo right) If you have this headlight assembly you will need a BA9 socket to install the parking light included in this kit. These are available from Max BMW or Stoddard. See our web page for part numbers.

The stock bulb socket pins sit on small notched posts, (left photo) and make their ground connection to the reflector shell on these posts. (clean and deoxit all connections!) The top of the led bulb is larger than the hole in the reflector, so it has to be installed from the inside-out. (Right photo) You will need to *carefully* file 2 notches for the socket pins to fit through. You may also need to enlarge the hole slightly for the bulb socket.

Or, you can just stay with your stock arrangement, if you're not comfortable filing your stock reflector.

If you do decide to file the notches: be sure to rinse the filings out of your headlight. In fact- this might be a good time to clean your glass. Simple warm soapy water and a paper towel on the end of a dowel or plastic handle. Be sure to dry it so you don't have water spots or oxidation on the reflector.

10. If you are installing the white parking led in a black insulated socket: ***REMEMBER-DO NOT TWIST TOP DECK- it will twist right off!*** To install the larger led bulbs: Put a small vertical mark (pencil, marker, scratch) on the barrel, under the top rim. Now push the bulb all the way into the socket against the spring. ***VERY CAREFULLY*** turn the bulb clockwise, 1/4 turn- *WATCHING YOUR MARK, to make sure the bulb turns and NOT just the top deck.* Be sure to connect the grey 12v wire to the terminal on the center socket **D.** Remember- leds have polarity, and only work with the current one way. The wires may have been switched on your oem bulb and it would still work.

11. Re-install your flasher relay. Reconnect your battery main ground wire. Turn the key and check that all the lights & turn signals work. If one of your leds is not lighting- pull the socket, and first check that the polarity is correct: The green main harness 12v wire MUST be on the 12v center pin terminal of the bulb socket. Check that the terminals are clean and the connections are good.

12. Tuck your wiring harness back in place and install the headlight assembly. Be sure to check that all the wires are tucked in correctly as you fit the headlight assembly back in place.