



Tusk Enduro Lighting Kit Instructions

The Tusk Enduro Lighting Kit is designed to be a simple way to provide front and rear turn signals, tail/brake lights, horn, and rearview mirror for your machine. The components have universal applications and will work on almost any motorcycle with minor modifications. Installation may vary with each machine.

- **Note** – *If this kit is being used to make an off-road motorcycle street legal, it is the user's responsibility to make sure the kit is compatible with local and State laws.*

Installation Instructions

1. Remove tank, seat, side plates and headlight. Layout the wiring harness along the frame so the rear connectors are positioned in front of the rear fender and the front connectors are positioned behind the headlight. It is best to route the wiring along an existing wiring path. Make sure the wiring is safe from heat or anything that could rub or pinch it.



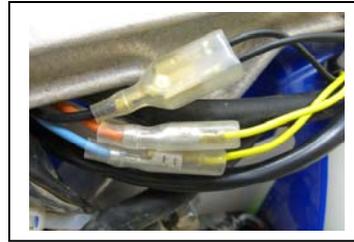
2. Install tail/brake light by positioning it under the rear fender. Mark the locations needed for drilling and mounting. If possible, use existing mounting locations and hardware, or simply secure the tail/brake light using 4 bolts, washers and nuts to the rear fender. Refer to the instructions included with the tail light.



3. Align flush mount turn signals in desired location. Drill holes for the turn signal wires. Run the wires up through the tail/brake light unit (same wire path as tail/brake light wires) to keep them protected. Make sure the desired turn signal location is clean by wiping the area with rubbing alcohol or contact cleaner. Adhere the turn signal.



4. With the rear turn signals and tail/brake light in place, plug signals and tail/brake light into the wiring harness. (Both black wires from the signals connect to the double connector black wire from harness. Yellow wires from signals connect to the orange (left) and blue (right) wires on the harness).



5. Install brake switch by removing the stock banjo bolt from the master cylinder and replacing it with the hydraulic brake switch (some machines may not have room on the master cylinder for the brake switch. In this case it can be installed on the caliper). It is best to pour brake fluid into the switch before installing. This will eliminate as much air as possible. **After the switch is installed, the rear brake must be bled to remove any air that entered when the switch was installed.** Refer to your owner's manual for brake bleeding instructions as the process will vary. Plug the wires from the brake switch into the Pink wire leads from the harness.



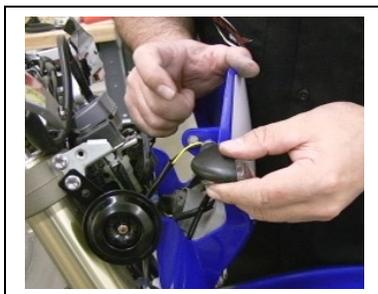
6. Install On/Off switch and control switch to the handlebars in a suitable location. Route the wires along the handlebar to the area behind the headlight.



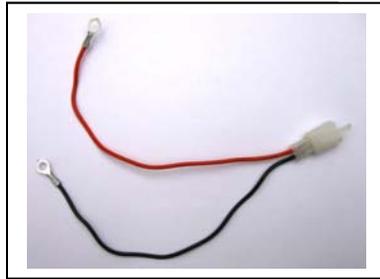
7. Install the horn and flasher relay. These can be installed in multiple locations on the front of the machine. Choose a location most suitable for your application. The mounting hole can be drilled larger if needed. Velcro with an adhesive back (not included) may be used on the flasher relay if desired.



8. Install front turn signals. If you are using the "mini stalk" turn signals, they can be installed by drilling mounting holes to the plastic headlight housing. The "handguard" signals can be installed to the handlebars with the included mounts, or can be installed directly to aluminum wrap-around style handguards (Tusk part # 1096330001 – sold separately).



9. Making sure the wire paths are clean and won't interfere with anything, go ahead and plug in horn, signals, relay, on/off switch, and control switch to the wiring harness. (refer to wiring diagram that came with the harness)
10. Connect the battery. If your bike is equipped with a battery, connect the battery leads included with the wiring harness (red +, black -). If you don't have a battery, the Tusk battery pack must be installed. Install the battery pack under the seat or in the airbox to protect it from moisture. Velcro (included with the battery) can be used to adhere the battery pack (clean surface thoroughly). Use additional ties if needed for your application.



11. Double check the wiring by referring to harness wiring diagram. Plug the battery into the harness and test the kit. Turn the On/Off switch to the "On" position. The tail light should be on. Test the turn signals, horn, and brake to make sure everything is functioning. If there are problems, double check all wiring and 5 amp fuse.
12. Secure wires. Using zip-ties, secure the wire harness and loose wires. Make certain the wiring will not interfere with steering or any other functions. Also make sure the wiring is protected from anything that could cause damage from heat, rubbing, or pinching.
13. Install the mirror. This can be installed upward or downwards depending on preference. Often times, the mirror works better downwards when it has to be mounted further inwards on the handlebar. In either position, the mirror can be folded inward when not in use.



14. Install tank, seat, side plates and headlight. Again, double check the wiring to make sure there is no interference with steering or any other functions.

Additional options

- *There is a red and black pair of wires extending from the front of the harness. These are used to plug into the brake switch used on the front brake master cylinder if desired (optional – extra switch must be purchased separately).*
- *The 3 additional wires (black, White, Blue) from the control switch are used to control the headlight if desired.*
 - Black – Headlight main
 - White – Low beam
 - Dark blue – High beam