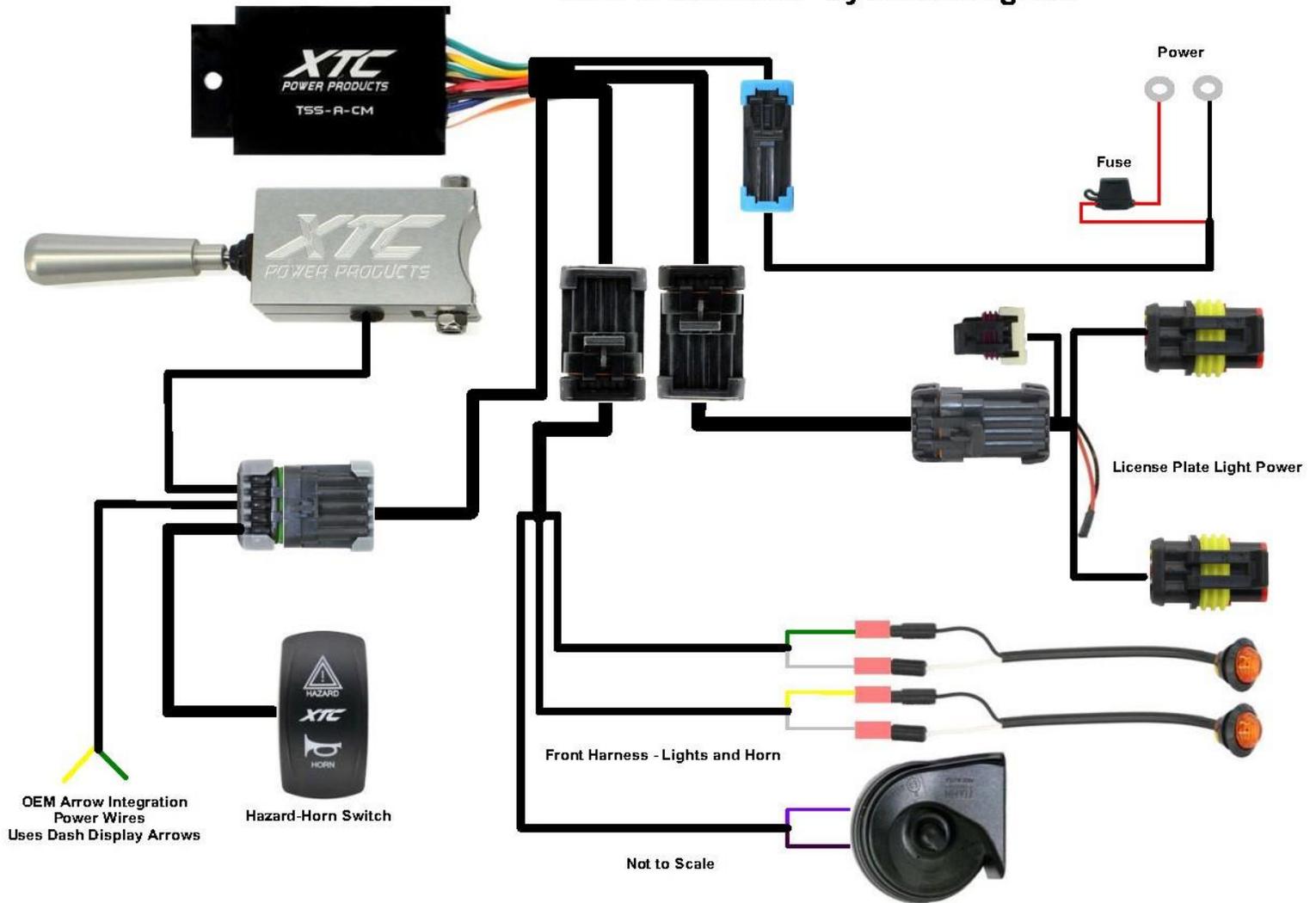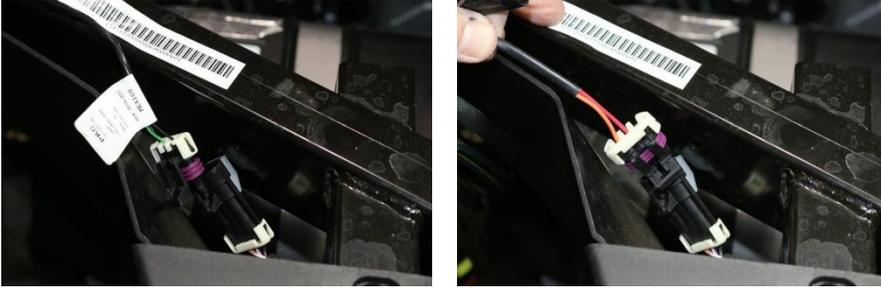# DEFENDER TURN SIGNAL SYSTEM

Thank you for purchasing XTC Power Products ATS-L-CAN-DEF Automatic Turn Signal System. Our new Easy-Install Turn System is unique from the other kits on the market. This kit is completely plug and play, no wires to cut, no crimping with only power, ground and plug it into the OEM harness. Like many cars on the road today, our kit uses the factory brake lights as turn indicators.

**Please read the instructions fully and familiarize yourself with the components before starting the installation. These instructions are a guideline, the system can be installed in many locations depending on other installed options.**
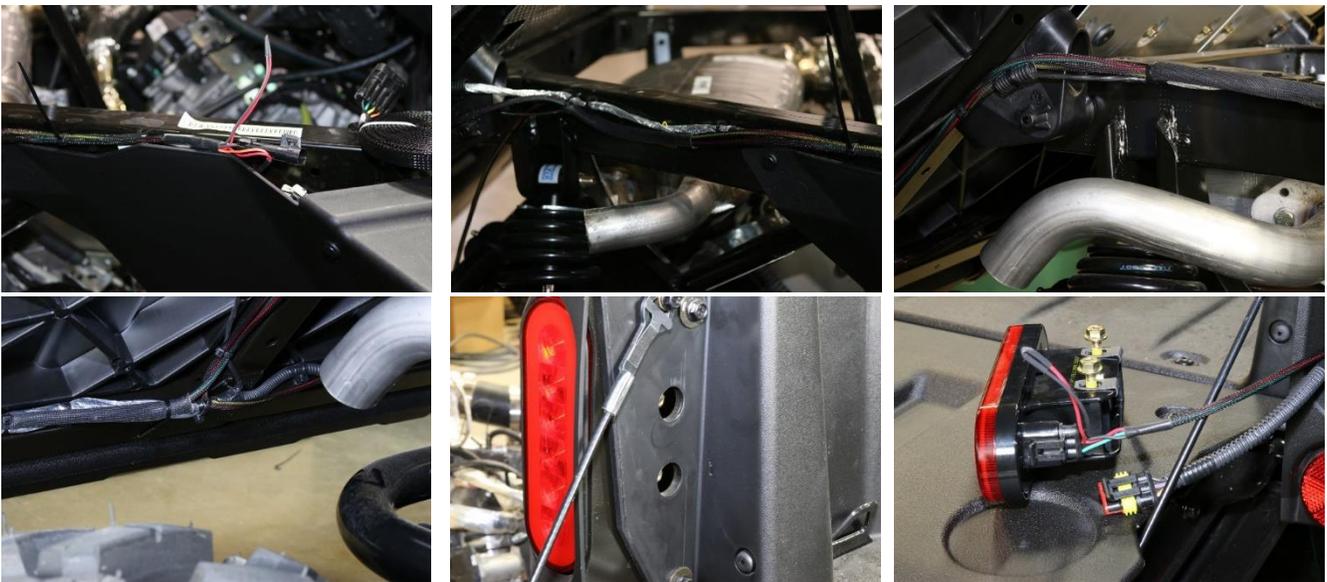


ATS-L-CAN-DEF System Diagram

1. **Install Rear Light Harness –** Under the dump bed on the passenger side there is a thin wire coming from the rear of the dump bed up to a 3-pin connector, unplug the harness and plug our rear harness with the orange wire into the car. **If your car has a different 3-pin connector use the provided 3-pin adapter to install.**



Remove both rear taillights by removing two bolts from the side of each one using a #10 Socket. Run the rear harness along the OEM harness, slide the heat tubing to the same spots as the factory reflective heat shield and cable tie in place. Continue attaching to the OEM cable, the green wire goes to the right-side light and the yellow wire goes to the left-side, cable tie at the same points as the OEM harness, plug each light in and reinstall taillights.



2. **Remove** the center panels front and rear if 4 seat.



3. **Run the Rear Extension Harness –** Unroll the Long Extension Harness and plug into the new rear harness. Make sure to keep the harness away from any **HOT** or moving parts, run the other side with the 4-pin connector down through the opening that leads into the center tunnel, unlatch the cars cable harness's and insert our harness up to the center dash opening. Secure using the supplied cable ties.
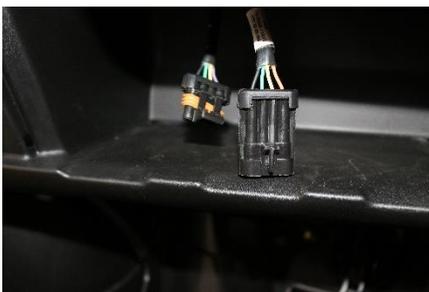
4. **Install Front Harness** – Remove the driver's side front fender**.** There is a hole leading from the inside firewall into the fender, run the front wire harness wires from inside the dash through that hole, around to the front. Run the Green and White over the radiator to the passenger side.



Run the other end with the 4-pin connector to the center cubby where the rear harness was run.



5. **Install Horn –** (shown above right) Using the OEM wire harness clip hole, push it out and mount the horn using the factory hole with the supplied screw and nut. Secure the OEM harness to the horn bracket. Attach Violet and Black wire from front harness to horn terminals, polarity does not matter.

6. **Install Front LED Turn Lights** - Mark and drill 5/8" holes or if using the rubber grommet ¾" holes in the front corners of the fenders, remove the rubber grommet from the LED and insert into hole with the Top marking up. If using the grommet push the grommet into the ¾" hole and then insert the LED through grommet with the word TOP at the top.

7. **Attach Front Harness to lights** - The Green and white wire go to the right/passenger side LED, attach the Green to the Black and the White to the White, the Yellow and white wire go to the Left/Driver side LED, attach the yellow to the Black and the white to the White.  NOTE: Black wire is positive and goes to the Green and Yellow wire, they will not work if reversed. White is ground. Pull any excess wire back under the dash and secure the Harness using the provided cable ties.



8. **Mount Control Unit** - Mount the control box on the dash support bracket in the center cubby using the nut and screw provided.



9. **Install Billet Turn Lever –** Remove the plastic cover below the steering wheel. Mount the lever using the provided hardware.
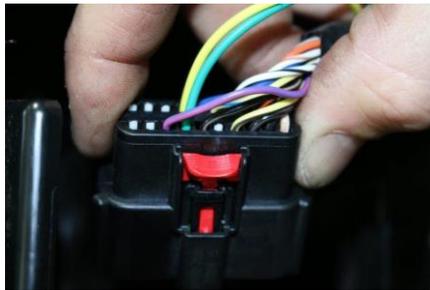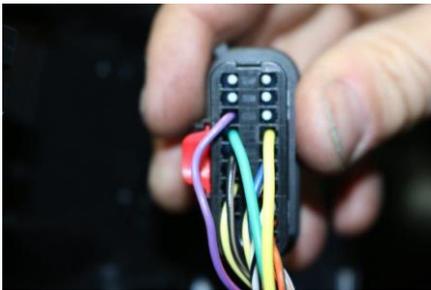


If desired, the plastic cover can be cut and re-installed so that the lever goes through.

**Connect to OEM Dash Indicators** - <span style="color:red">**Note: The connector has power in it, disconnect the battery during installation. Important Note – Cut off or cover the terminals that are not used with heat shrink, could void warranty if not done.**</span>

10. **Wire Instrument Cluster Indicators** - unplug Connector from the rear of the Instrument Cluster. Using a small screwdriver or pick, remove the White terminal lock from the connector as shown, exposing the terminals and plugs. Using a pair of needle nose pliers or pick, remove the White plugs from wire ports 7 and 17.

Insert the green connector wire into port 7, insert the yellow connector wire into port 17.



 Re-install plastic locking cover, plug connector back into the Instrument Cluster and reinstall assembly.

11. **Install Hazard/Horn Switch -** Remove one of the switch blanks and run our 10-pin switch connector through the opening, grease the terminals with the supplied grease and attach to Hazard/Horn switch and insert the switch into the opening.

12. **Run power wire** – Remove the OEM switch panel exposing the factory power Busbar. Attach the Red ATS power wire to the post with the red cover on the right with the supplied M6 nut.  The Black ground wire goes to the left stud. Plug connector into the ATS control module.

13. Verify operation of all lights. Cable ties any extra harness under dash. Reinstall center tunnel.

**Operation:** The System uses momentary switches to activate. Press Right or Left Actuator accordingly. Will cancel as follows.
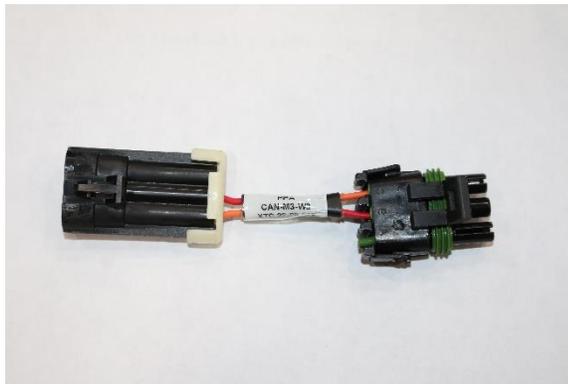
      Press 1 Second for Lane Change, will stay on approx. 8 Seconds / 10 Flashes
      Press 2 Seconds for Slowing to Turn Corners, will stay on approx. 20 Seconds / 30 Flashes
      Press 5 Seconds for Traffic Lights when stopping and waiting, will stay on approx. 75 Seconds / 110 Flashes

The Systems Automatic Self-Cancelling may be overridden/Shut Off at any time by pushing the activated switch.

Hazard Lights - press to activate and press again to deactivate, it does not self-cancel.



Pre 2023 Defender rear harness adapter.

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