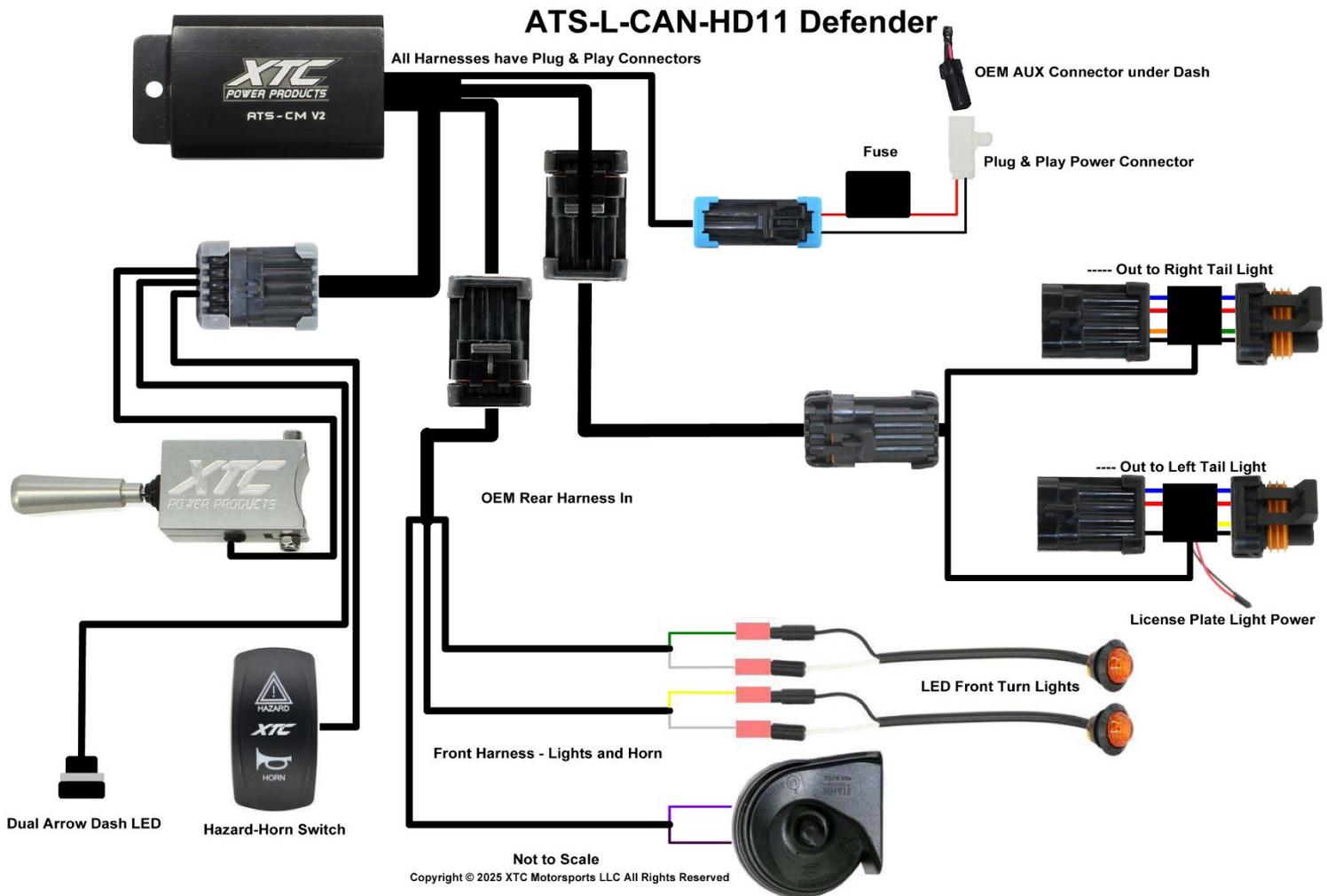# DEFENDER TURN SIGNAL SYSTEM

Thank you for purchasing XTC Power Products ATS-CAN-HD11 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 plug and plug it into the OEM rear lights. 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.
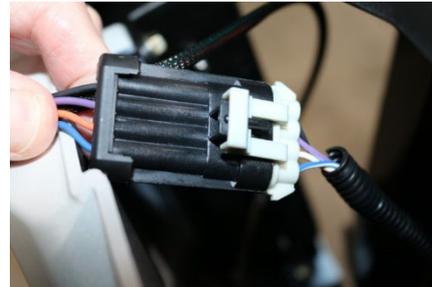
ATS-L-CAN-HD11 Defender

All Harnesses have Plug & Play Connectors

OEM AUX Connector under Dash

Fuse

Plug & Play Power Connector

----- Out to Right Tail Light

----- Out to Left Tail Light

OEM Rear Harness In

License Plate Light Power

LED Front Turn Lights

Front Harness - Lights and Horn

Dual Arrow Dash LED

Hazard-Horn Switch

Not to Scale

1. **Install Rear Light Harness –** on both sides of the dump bed, remove the two top screws of the side panels, also remove the one in the tail gate track. This will give you access to the back of the taillights.

2.

Run the connector set with the green wire up through the bottom of the passenger side fender, unplug the taillight and plug the harness into the taillight and the removed plug, plug into the harness. The ATS Harness goes inline. Do the same for the driver's side with the yellow wire.

Secure the harness to the OEM light harness, remove the heat shield screws and run the wire up inside following the OEM harness.

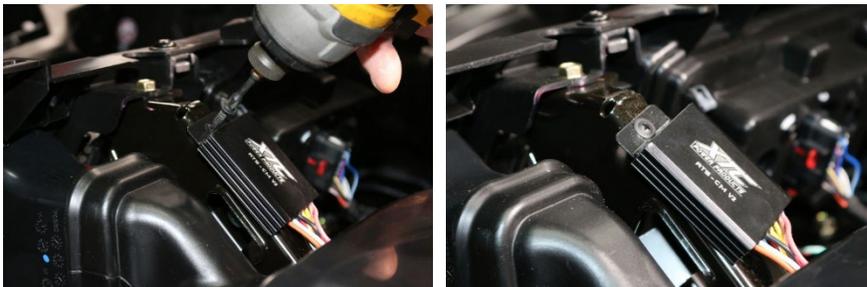3. **Remove** the side panels on the passenger side along with the right front fender.

4. **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 following the frame into the rear fender, up to the front fender. Just under the right A-Piller is an opening that leads into the dash, remove the foam insulation and push the connector in that opening, reinstall the foam to seal. Secure the harness to the inside of the frame rail using the supplied cable ties.

5. **Remove the A-Pillar covers** – To gain access to the dash cover screws the A-Piller cover need to be removed. If a windshield is installed, only remove one strut at a time, then the plastic and reinstall the strut, then remove the other side.

6. **Remove the Dash Cover** – Remove the six screws that hold the dash cover on to gain access into the dash.
7. **Install the ATS Control Module** – using the included self-tapping screw.

8. **Plug the rear Harness –** into the control module
9. **Install Billet Turn Lever –** Cut the template out following the directions on the template. Mark the plastic column housing as shown, remove the top housing. Plug the large connector into the control module and run the lever to the steering column. Mount the Turn Lever on the steering column using the Clamp as shown, follow the directions that are included with the clamp.
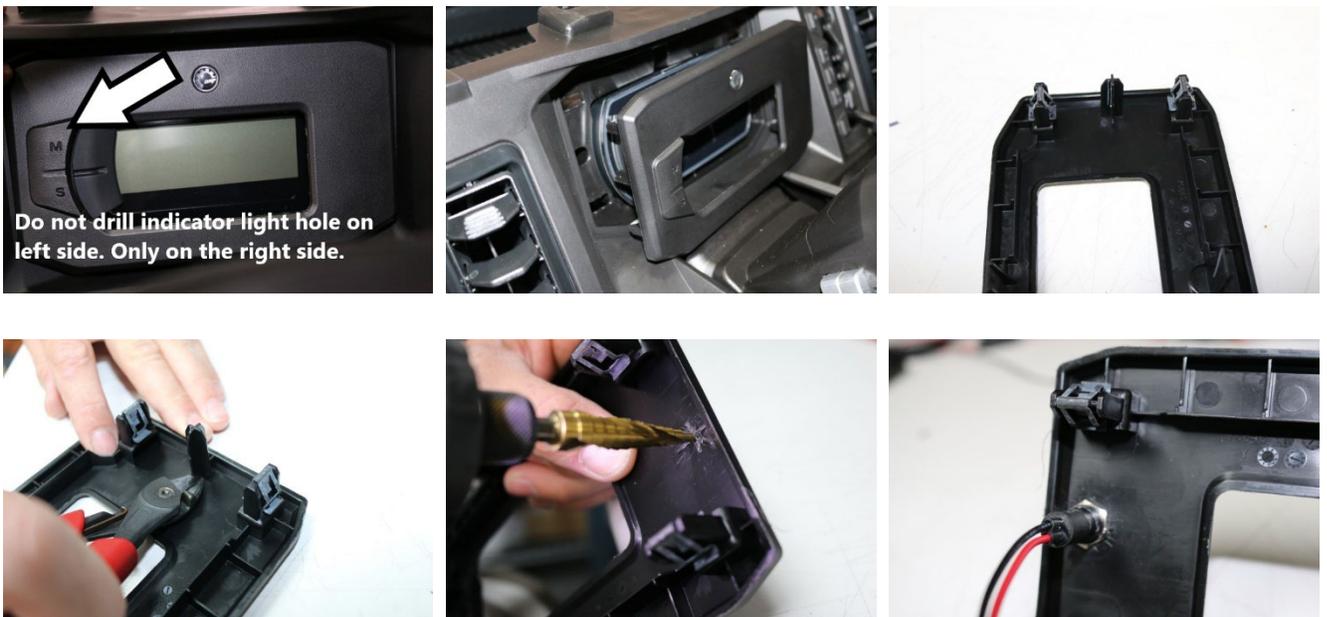
While pushing up on the plastic cover tighten the Allen screw on the lever. Reinstall the top cover

10. **Install Hazard/Horn Switch -** Install Hazard Horn Switch, using a sharp box knife, cut out the rectangle. Push the switch harness– Remove the H/H switch from the harness, run the switch connector through the rectangle switch cutout and use included grease on the terminals then connect to Hazard/Horn, slide switch into dash.

WARNING! Verify that there is clearance before drilling holes for the LED's or switches.

11. **Install Dash Indicator –** Remove the bezel around the drivers display, it snaps in. Cut the post off the right-hand guide as shown. **Warning, not the left that has writing on the front!** In the center of the removed guide, drill a ½" hole. Mount the light with the nut, make sure the arrows are horizontal. Run the wire into the hole where the guide went and snap the bezel back on. Plug the connector into the switch harness.

Do not drill indicator light hole on left side. Only on the right side.
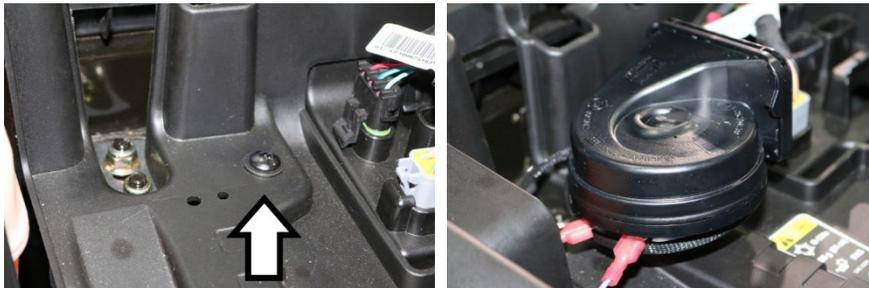
12. **Install Front Harness** – by pushing the front harness connector through a hole in the firewall that is in the center with foam in it. Run the Green and White to the right passenger side, yellow and white to the left driver's side.

13. **Install Horn –** Remove the screw shown below and use the removed screw to mount the horn. Attach violet and black wire from front harness to horn terminals, polarity does not matter.

14. **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.

15. **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.

16. **Run power wire** – Plug the power cable into the ATS Control Module. Unplug the accessory power harness from the white holder shown below in the dash, plug the ATS power cord into that cord. The White cap is not used.

17. Verify operation of all lights. Cable ties any extra harness under dash and reinstall any removed parts

Operation: The System uses momentary switches to activate. Press Right or Left Actuator accordingly. System 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.

XTC Power Products
A Division of XTC Motorsports LLC
380 E Comstock Dr.
Chandler AZ 85225
480-558-8588
www.xtcpowerproducts.com