"Just Barely" Turn Signal / Horn Kit 8101 RYCO MOTORSPORTS INC.

All years Can-Am Commander and Maverick

STOP - THIS KIT IS DESIGNED SPECIFICALLY FOR ALL YEARS, ALL MODEL COMMANDER, ALL YEARS AND ALL MODELS MAVERICK. IF YOUR MACHINE IS NOT ONE OF THESE MODELS DO NOT PROCEED. Contact Ryco Motorsports or your local dealer.

Where do I start?

Step 1 – READ THE INSTRUCTIONS. If you are a guy and like most of us feel you can install this without taking the time to read the instructions then you should ask your wife or significant other to read them to you. I went to a lot of effort to create the instructions and I feel bad when no one reads them. Answers to all your questions should be covered in the installation instructions. We've included a lot of photo's for those of you who are visual and don't enjoy words.

Let's become familiar with the items you will be installing on your machine. What's in the box?







Switch

Front turn signal LED adapter

Commander license plate light extension







Rear turn signal harness

Front LED turn signal lights

License plate light



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What tools do I need?

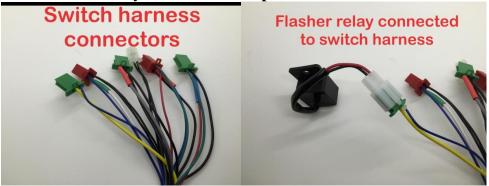
Tools needed: 10 mm or 5/16" socket/nut driver or flat blade screwdriver, Phillips screwdriver, 10 mm wrench, center punch, drill motor, 9/32", 1/4" and 1/2" diameter drills and pliers (or flat blade screwdriver) to pull plastic push rivets. Scissor to cut grommet.



Let's get started.

We'll show you how most of the items go together, then we'll show you where they go and how best to install the hardware.

Let's start at the switch. The switch harness connector interfaces with the various components. Notice the color coding on the most of the switch harness connector cables. Match the colors of the COLORED SLEEVES (red to red, green to green and blue to blue) on the cables when you install the components on the machine.



The flasher relay interface is the only 3 pin connector with no color coding.

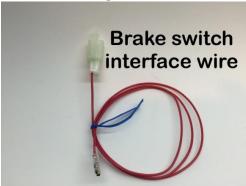
The horn, power (fuse holder) and ground wires interface is a 4 pin connector with **green** color coding. DO NOT CONFUSE THIS 4 PIN CONNECTION WITH FRONT HARNESS WHICH HAS RED COLOR CODING.

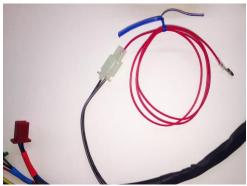
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The rear turn signal harness interface is a 3 pin connector with \boldsymbol{red} color coding.





The brake light module is the only 2 pin connector and has no color coding.





The front turn signal harness interface is a 4 pin connector with **red** color coding.



The dash mounted turn signal indicators interface is a 3 pin connector with **blue** color coding.

Installation

NOTE: Where possible run new cables alongside the existing wires and utilize existing cable tie / anchors where practical and ensure wires do not contact moving components or hot surfaces.

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NOTE: The switch should NOT have any of the cables or components installed on the harness until after the switch is installed and the switch harness is routed behind the center dash.

- 1. Remove the center dash.
- 2. Remove the steering column mounted instrument panel cover and snap out the instrument panel to allow access to the instrument panel frame mounting bolts. Remove the two bolts and position the turn signal / horn switch mounting bracket between the steering column mounting plate and the instrument panel frame. Reinstall the two mounting bolts, snap the instrument panel back in place and reinstall the cover.



- 3. Route all the wires from the turn signal / horn switch to the center of the vehicle behind the center dash.
- 4. Install the front turn signal interface connector, flasher relay, horn and power (fuse) / ground harness, dash mounted turn signal indicator harness and brake light module harness to the switch harness. Rear turn signal harness will be connected in a later step.

NOTE: Ensure the color coding is correct (Colored sleeve on the cables NOT the color of the connectors or the color of the wires).

- 5. Secure the switch harness to a cross member using a cable tie. The flasher relay and can be bundled and secured with a cables tie to the switch harness.
- 6. Install the horn in the driver side wheel well utilizing an existing mounting hole, large flat washer, screw and lock nut.

DO NOT ATTEMPT TO ADJUST THE HORN OR REMOVE THE CENTER MOUNTING BOLT THAT ATTACHES THE HORN TO THE HORN MOUNTING BRACKET.

7. Route the horn cable from the switch harness to the horn and install the two flat spade connectors to the horn terminals. Either connector can be installed on either horn terminal.



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NOTE: Check orientation of parallel tap to insure access for the male connector prior to seating the parallel tap connector with pliers.



- 8. Locate the orange and red wires leading to the master brake switch located as shown near the top of the front driver side suspension spring on the Commander and on the underside of the top frame, in front of the firewall on the inboard side of the master cylinder on the Maverick. Carefully expose the wires. (It is easier to expose the wires if the connector is temporarily unplugged).
- 9. Verify the orientation of the parallel tap on the red brake switch wire and seat the parallel tap with pliers and reconnect the two pin connector.



10. Route the brake switch interface wire from the switch harness to the parallel tap installed on the red brake switch wire.



11. Mark the desired locations for the two LED dash mounted indicator lights where they are visible to the driver.

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NOTE: Carefully insert the LEDs into the grommet to prevent damage to the wires and resistor. A little warmth and moisture can be helpful when installing the LED's/grommets.

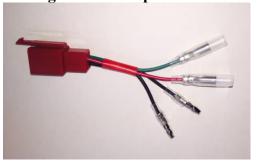
- 12. Drill two 9/32" mounting holes in the dash for the indicator LED's.
- 13. Seat the rubber grommet into the hole, then push the LED into the holder from the rear until it is slightly protruding.

NOTE: Mark the desired locations of the front turn signal LED lights and double check the location and ensure there is adequate room on the back side of the panel for the wire, washer and screw prior to drilling.

14. Position the front LED turn signal lights as desired. Recommended location is as shown. Drill two ¼" diameter holes 3/8" on center, one for the wiring and one for the mounting screw. Install the LED's using the provided 5mm flat washer and screw. Use the longer screws for the Maverick.



15. Route the turn signal light wires to the center dash area and connect to the front turn signal LED adapter.





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- 16. Install the left front (Driver side) LED harness male connector on the red wire to the female bullet connector on the 4 pin adapter green wire.
- 17. Install the right front (Passenger side) LED harness male connector on the red wire to the female bullet connector on the 4 pin adapter red wire.
- 18. Connect the two front LED harness female connectors on the black wires to the male bullet connectors on the 4 pin adapter black wires.

COMMANDER REAR TURN SIGNAL AND LICENSE PLATE INSTALLATION

- 19. Tilt the bed to expose the factory 4 pin taillight connector.
- 20. Unplug the 4 pin connector. Note the "A" "D" markings on the connector.
- 21. Cut the two wires on the tail light side of the 4 pin connector coming out of positions "C" and "D". Cut the wires approximately 2-3" behind the 4 pin connector. Strip approx. 1/8" of insulation from the wires on the taillight side NOT the 4 pin connector side of the cut.
- 22. Connect the new rear wire assembly red wire is to the left taillight wire ("D") and the right taillight ("C") wire to the black wire by removing the end cap from the red crimpless connector and slipping the cap over the stripped wires and then screw the crimpless connector back together securing the wires.
- 23. The other ends of the factory wires are abandoned and can be tucked back into the factory wire harness sleeve or taped over with electrical tape.
- 24. Remove the driver side seat and the side engine access panel and route the rear taillight wire to the center dash area.
- 25. Connect the rear turn signal harness to the 3 pin connector on the switch harness with the RED sleeve match marking.



26. Secure wires and reinstall the center dash, side cover and seat.

NOTE: Check orientation of parallel tap to insure access for the male connector prior to seating the parallel tap connector with pliers.

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27. Locate the wires coming out of positions "A" and "B" of the factory 4 pin connector and install a parallel tap connector on each wire.



- 28. Remove the license plate wire extension from the bag labeled "Commander".
- 29. Plug the red wire into the parallel tap on the orange wire coming from the factory 4 pin connector. Plug the black wire into the parallel tap on the black wire coming from the four pin connector.
- 30. Reconnect the 4 pin connector.
- 31. Route the plate light extension wire harness adjacent to the factory taillight wires on driver's side of vehicle to the rear of the vehicle.
- 32. Open the rear storage compartment and remove the cover plate.





- 33. Route plate light extension wire through the slot in the storage compartment door as shown. Adjust the length of the wire to account for wire movement when the door is opened and closed.
- 34. Secure the wires adjacent to the factory taillight wires with provided zip ties. Place a loose knot in the wire just inside the door panel opening to prevent the extra wire from pulling back through the slot.

NOTE: Before drilling the license plate and plate light mounting holes in the exterior double check the position to verify the plate light wires will reach to the parallel tap connectors installed on the driver's side tail light wires.







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Shown is optional bling plate on storage compartment cover

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Position the license plate backing plate in the desired location and mark the location of the four corner holes and the position of the LED plate light.

- 25. Drill one ¼" diameter hole for mounting the license plate light and four ½" diameter holes for mounting the license plate holder. Install the expandable nuts into the ½" diameter holes with the flange part out. Insert the diameter fasteners through the plate holder and tighten the fasteners.
- 26. Route the two wires from the LED through the ¼" diameter hole and secure with the provided bright nut. DO NOT use a black lock nut. DO NOT over tighten the nut. Orient the light so it shines down on the plate before tightening.
- 27. Plug the plate light into the extension wires, red to red, black to black wire.
- 28. Reinstall cover plate and secure plate light wires.

MAVERICK REAR TURN SIGNAL AND LICENSE PLATE INSTALLATION

35. Locate the two 3 pin connectors. Near the vehicle battery on non turbo units.

Cut the red wires approximately 2-3" on the taillight side of the 3 pin connectors. Strip approx. 1/8" of insulation from the wires on the taillight side.



- 36. Connect the rear turn signal harness to the 3 pin connector on the switch harness with the RED sleeve match marking.
- 37. The Ryco rear wire harness RED wire is attached to the left taillight RED wire going to the rear taillight and the Ryco rear wire harness BLACK wire is attached to the right taillight RED wire going to the rear taillight.
- 38. Remove end cap from the red crimpless connector and slip it over the stripped red wire and screw the crimpless connector back together securing the wires.
- 39. The other ends of the factory wires coming from the front of the vehicle are abandoned and should be tucked back into the factory wire harness sleeve or taped over with electrical tape.

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- 40. Remove the driver side seat and the side engine access panel and route the rear taillight wire to the center dash area.
- 41. Connect the rear turn signal harness to the 3 pin connector on the switch harness with the RED sleeve match marking.



- 42. Assemble the plate holder and plate light as shown.
- 43. Install a parallel tap on the orange and black wires at either 3 pin connector.
- 44. Plug the license plate extension red wire into the parallel tap on the orange wire and the black wire into the parallel tap on the black.
- 45. Install the plate holder utilizing the factory holes in the rear bracket.

NOTE: LED lights are polarity sensitive. The positive side (red wire) must attach to the 12 volt source and the negative side (black wire) must be attached to ground. The LED will not be damaged if installed backwards, but it will not illuminate).



- 46. Locate the aux. power outlet and install a parallel tap on both wires leading to the 12 volt power outlet.
- 47. Connect the power and ground wires to the parallel tap connectors on the auxiliary power outlet wires. Red <u>Fused</u> wire to the red wire on the center terminal. (12VDC). Black ground wire harness wire to the black wire on the side terminal. (Ground)
- 48. Turn the ignition key to the on position and verify the turn signals, horn and license plate lights work correctly.
- 49. Once all the cabling is in place and functionality verified, double check the routing and secure with wire ties. Bundle any extra wire and secure with the wire ties. Reinstall covers and seats.

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