

RYCOMOTO HONDA Pioneer and Pioneer-4 PN 3101

**Turn signal / horn kit rev nc
BY RYCO MOTORSPORTS INC.**

All years Honda Pioneer and Pioneer-4

STOP - THIS KIT IS DESIGNED SPECIFICALLY FOR ALL YEAR HONDA 700 PIONEER AND PIONEER-4. ALSO KYMCO 500. IF YOUR MACHINE IS NOT ONE OF THESE MODELS DO NOT PROCEED. THIS KIT DOES NOT WORK ON THE PIONEER-500 NOR THE PIONEER-1000. 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?



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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", 1/2", 3/4" and 7/8" diameter drills (stepped bit works well) and Polaris pliers (or flat blade screwdriver) to pull plastic push rivets. Scissor to cut grommet.



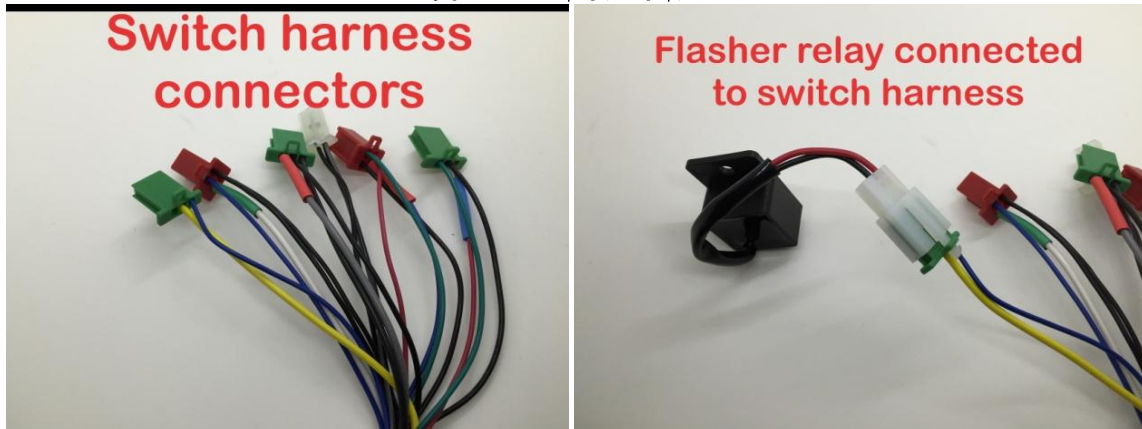
Let's get started.

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.

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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.**



The rear turn signal harness interface is a 3 pin connector with **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.

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

Installation

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

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 dash.

1. Open the vehicle front access cover.
2. Position the turn signal switch and mounting bracket on the steering wheel housing and locate the bracket such that the holes are centered in the housing. Mark the location of the two mounting holes.
3. Drill two ½" diameter holes and install the two expandable nuts in the holes.



4. Temporarily mount the turn signal switch and mark the required location for the access hole for the switch harness.
5. Remove the switch and drill a 7/8" diameter hole in the plastic on the side of the housing where the cabling will enter the housing.
6. Install the grommet over the switch wires. Insert the wire harness connectors through the grommet one at a time starting with the two red 4 pin connectors, then the three green 3 pin connectors and finally the white 2 pin connector. Slide the grommet towards the switch.

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7. Reinstall the turn signal switch and mounting bracket on the steering wheel housing.
8. Insert the wire harness connectors through the hole one at a time starting with the two red 4 pin connectors, then the three green 3 pin connectors and finally the white 2 pin connector.
9. Route the wires towards the center of the vehicle.
- 10. Install the flasher relay, horn and power (fuse) / ground harness, turn signal indicator harness and brake light module harness to the switch harness.**

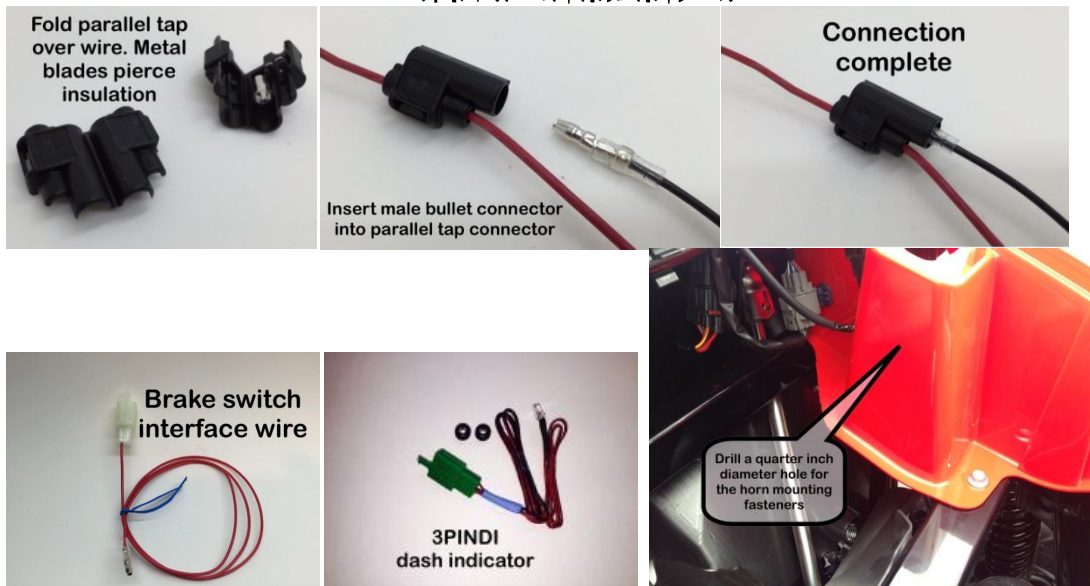
NOTE: Ensure the color coding is correct (Colored sleeve on the cables NOT the color of the connectors nor the color of the wires).

11. 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.
12. Locate the wires leading to the vehicle brake switch. Trace the wires from the brake switch to the two pin connector.

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

13. Install a parallel tap on the vehicle green/yellow wire on the switch side of the two pin connector or on the blue wire on the vehicle side of the brake switch two pin connector.
14. Plug the brake switch interface wire to the parallel tap connector on the green/yellow wire.

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15. Mark the desired locations for the two LED dash mounted indicator lights where they are visible to the driver, taking into account the length of the LED wires.

16. Drill two 9/32" mounting holes in the dash for the indicator LED's.

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.

17. Seat the rubber grommet into the hole, then push the LED into the holder from the rear until it is slightly protruding.

18. Position the horn in the desired location and drill a 6mm (1/4") diameter hole in the plastic under the hood. Utilizing the plastic spacer mount the horn using the provided fastener, flat washer and lock nut.

19. Install the two flat spade connectors onto the horn (either wire works just as well).

20. Mark the desired location of the three front LED's on the outboard side of the headlights.

CAUTION: Note the location of the headlight support on the back side of the body plastic on the outboard side of the headlight. Remove the headlight support to avoid drilling through the headlight support.

NOTE: A stepped drill works best to drill the holes in the plastic body work.

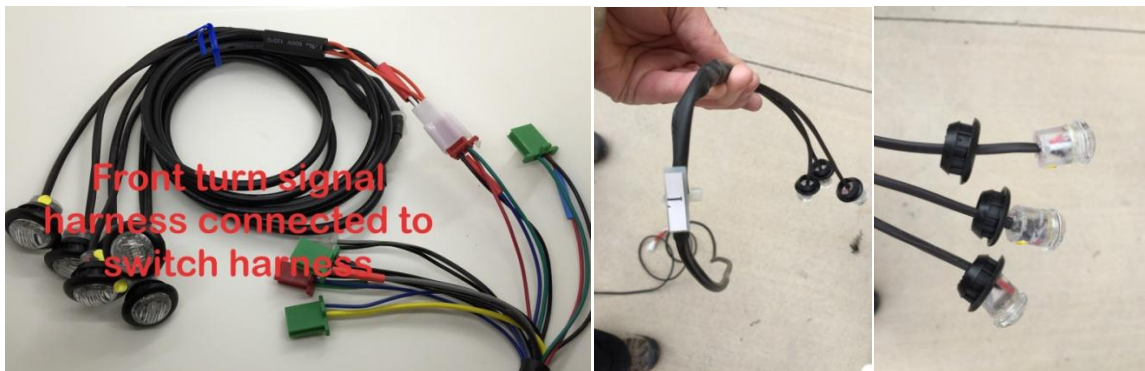
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21. Remove or loosen the headlight assembly and drill three $\frac{3}{4}$ " diameter holes for the front turn signal LEDs.
22. Connect the front turn signal harness to the 4 pin connector on the switch harness with the RED sleeve match marking.

NOTE: Tags on the front turn signal harness. "L" is the drivers side and "R" is the passenger side.

23. Route the front turn signal harness triple LED's to the front corners of the vehicle.



24. Slide the rubber flange gaskets that are on the LED's back onto the wires.
25. Slip the LED's thru the $\frac{3}{4}$ " diameter holes, fold the flange gasket and push it thru the hole. Install the flange gasket into the hole with the flange of the gasket towards the front of the vehicle. Insert the LED into the flange gasket with a gentle pulling and rocking motion, seat the LED into the gasket.

NOTE: A little warmth and moisture helps to slip everything together.

26. Rotate the LED's within the gasket as necessary to orient them in the same relative position.
27. Connect the rear turn signal harness to the 3 pin connector on the switch harness with the RED sleeve match marking.
28. Remove the seats and the center tunnel cover. Route the rear wire harness from the front of the vehicle to the rear on the passenger side.

NOTE: Insure the wiring does not contact moving components or hot surfaces.

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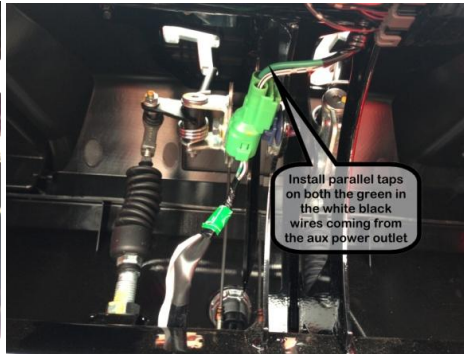
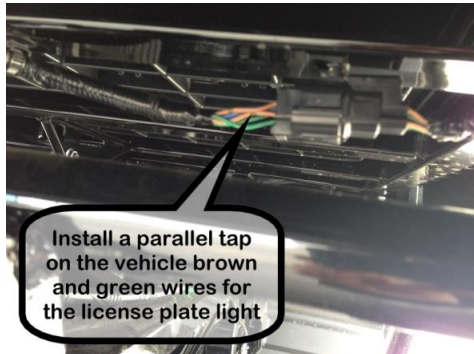
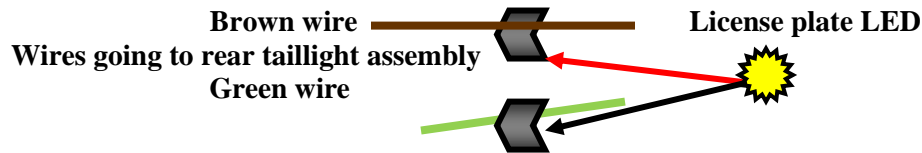
29. At the rear of the vehicle locate the factory wire harness leading to the rear taillight assemblies, locate the six pin connector and remove the tape and cover on the taillight side of the connector to expose a couple of inches of wires. Locate the two blue wires leading to the taillight assemblies and **CUT** the blue wires approximately 2-3 inches in front of or behind the connector.
30. Tuck the abandoned blue wire going to the front of the vehicle back into the wire loom cover and secure with tape or cable ties.
31. Strip approximately 1/8"- 3/16" of insulation from each of the blue wires leading to the taillights.
32. Remove the end cap from the red crimpless connector and install the blue wire from the left taillight to the red wire and the right taillight blue wire to the black wire.
33. Using two of the provided single hole loop clamps (1 1/4" diameter for the pioneer and 1 1/2" diameter for the pioneer-4) position the license plate holder at the desired location on the right side of the vehicle.
34. The plate light can be installed as one of the four license plate bolts or can be installed in the two hole adapter where the light will shine on the license plate. The plate light/2 hole adapter is secured to the license plate holder using one of the four license plate bolts.



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

35. Locate the brown (12 V DC, taillight) and green (ground) wires leading to the rear taillight assembly and install a parallel tap connector on each wire and connect the red wire from the plate LED to the brown wire and LED black wire to the vehicle green wire.

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NOTE: The LED's are polarity sensitive. The fused wire **MUST** be connected to the 12 volt DC (positive side) and the black ground wire must be connected to the ground wire. If this is not done correctly the horn will work, but the turn signals will not function. (Damage to the flasher relay may occur if wires are installed backwards.)

NOTE: Check orientation of parallel tap connectors to insure access for the male connectors on the power and ground wires when the wires are reconnected to the auxiliary power outlet terminals prior to seating the terminal with pliers.

36. At the auxiliary power outlet that is mounted on the dash, trace the wires coming from the rear of the power outlet to the two pin connector.
37. Above or below the two pin connector, remove the outer wrap enough to install a parallel tap connector on the green brown and white / black wires as shown.
38. Connect the **RYCO** switch black ground wire to the parallel tap connector on the green wire (ground), and the **RYCO** switch fused wire to the parallel tap on the white / black wire (12 Volt DC).
39. Turn the ignition key to the on position and verify the turn signals, horn and license plate lights work correctly.
40. 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.
41. Reinstall the tunnel access cover, hood and seats.

NOTE: Front turn signal LED's are running lights and illuminate at approximately 60% intensity whenever the vehicle ignition is on and flash at full intensity when the turn signals are activated.

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