### Honda Pioneer 500

#### **Installation instructions**

STOP - THIS KIT IS DESIGNED SPECIFICALLY FOR THE HONDA PIONEER 500. IF YOUR MACHINE IS NOT A HONDA PIONEER 500 "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?





What tools do I need?

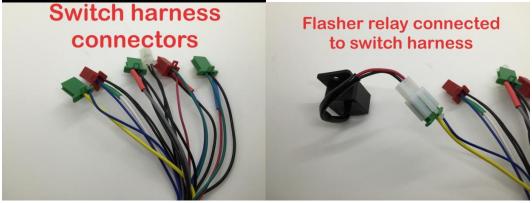
Tools needed: 10 mm or 5/16" socket/nut driver or flat blade screwdriver, Phillips screwdriver, 10 mm wrench, center punch, drill motor, 9/32", ½", ¾"and 7/8" diameter drills (stepped bit works well) and Polaris pliers (or flat blade screwdriver) to pull plastic push rivets.



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.

# "JUST BARELY" Turn Signal / Horn Kit by RY(0 MOTORSPORTS IN(.

The horn, power (fuse holder) and ground wires interface is a 4 pin connector with **green** color coding.



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

NOTE: Ensure the wiring and installed hardware does not contact moving components or hot surfaces

CAUTION: Use care not to drill into the shifting mechanism when drilling the two ½" diameter mounting holes and the 7/8" diameter hole for the wire grommet.

1. Complete the installation of the switch mounting bracket onto the switch. Position the turn signal switch with the mounting bracket on the BOTTOM of the steering wheel housing and locate the bracket such that

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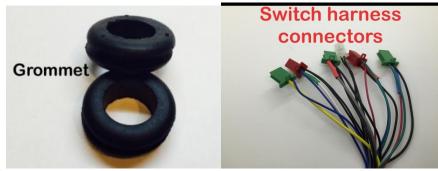
the holes are centered in the housing. Mark the location of the two mounting holes.

2. Drill two ½" diameter holes and install the two expandable nuts into the holes with the flange of the expandable nut facing down. Temporarily install the switch/ bracket with the provided fasteners.





- 3. With the switch in the operating position, determine and mark the proper location for the hole for the grommet / switch wire harness.
- 4. Remove the fasteners / switch to allow room to drill the grommet hole.
- 5. Drill a 7/8" diameter hole in the plastic.
- 6. 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.
- 7. Slip the switch harness connectors through the opening in the grommet one at a time starting with the 4 pin connectors and install the grommet into the cable access hole.



- 8. Route the wires towards the center of the vehicle.
- 9. Reinstall the turn signal switch and mounting bracket on the steering wheel housing by installing the two fasteners and washers into the expandable nuts and tighten the fasteners until the bracket/switch is secure.

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.

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

- 12. 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.
- 13. 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.

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



NOTE: Where possible run new cables adjacent existing wires, utilize existing cable anchors where practical. Insure wiring does not contact moving or hot components.

- 15. Install the horn as shown near the front driver's side support member. Install the horn wire two flat spade connectors onto the horn (either works just as well).
- 16. Position the front LED signal lights as desired below the headlight or on the outboard side of the headlight and mark the location of the mounting holes.
- 17. Remove the screw behind the headlight assembly to facilitate drilling the <sup>3</sup>/<sub>4</sub>" diameter holes for the front turn signal LED's. Push/pull the plastic cover away from the drill bit so not to damage the cover.
- 18. 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.

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



- 20. Slide the rubber flange gaskets that are on the LED's back onto the wires.
- 21. Slip the LED's thru the ¾" 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.

- 22. Rotate the LED's within the gasket as necessary to orient them in the same relative position.
- 23. Reinstall the headlight cover screw removed previously.
- 24. Connect the rear turn signal harness to the 3 pin connector on the switch harness with the RED sleeve match marking.

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

25. Route the rear wire harness from the front of the vehicle to the rear of the vehicle.

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

26. Mark the position of the rear LED signal light in the desired location.

NOTE: Verify there is no obstruction on the back side of the panel before drilling the LED mounting hole.

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Possible locations for the rear turn signal LED

27. Drill 3/4" diameter holes. (A stepped drill works well). Slide the gaskets towards the connectors. From the back side of the panel rear slip the LED's thru the hole. Fold the gasket and push it thru the hole. Install the gasket into the hole with the flange of the gasket towards the outside face of the panel. Insert the LED into the 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.

NOTE: Verify position of the license plate holder and plate light and ensure the wire reaches the taillight wire harness prior to drilling mounting holes or installing the

parallel tap connectors.





28. Install the license plate holder by drilling mounting holes in either to the rear plastic or the rear support member.





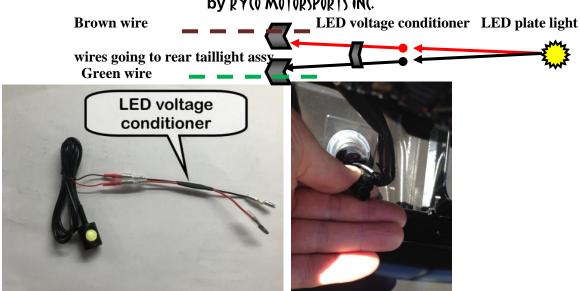


29. Locate the brown (12 V DC, taillight) and green (ground) wires leading to the rear taillight assembly and install a parallel tap connector on each wire and connect the red wire from the plate LED to the brown wire and LED black wire to the vehicle green wire.

NOTE: Install provided LED voltage conditioner wire between the plate light and the parallel taps. (This will extend the life of the plate LED.)

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PN 3105



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

- 30. At the auxiliary power outlet that is mounted on the dash on the rear of the power outlet, remove the outer wrap enough to install a parallel tap connector on the green / brown and white / black wires as shown.
- 31. Connect the RY() switch black ground wire to the parallel tap connector on the green wire (ground), and the RY() switch fused wire to the parallel tap on the white / black wire (12 Volt DC).
- 32. Turn the ignition key to the on position and verify the turn signals, horn and license plate lights work correctly.
- 33. 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.
- 34. Turn ON the ignition and verify the horn, turn signals and rear license plate light functions.
- 35. Pull the hazard switch and verify that feature functions correctly.
- 36. Ride and enjoy!

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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