

Before you begin	<ul> <li>STOP! THIS KIT IS DESIGNED SPECIFICALLY FOR</li> <li>Can-Am COMMANDER, including MAX, 2021</li> <li>Can-Am MAVERICK SPORT, including MAX, all years,</li> <li>Can-Am MAVERICK TRAIL, all years,</li> <li>Can-Am MAVERICK X3, including MAX, all years</li> </ul>					
	IF YOUR VEHICLE IS NOT ONE OF THESE MODELS, DO NOT PROCEED.  Contact Ryco Motorsports or your local dealer for the correct kit.					
Digital Copy	Scan to access a	digital copy of these instruction	ns.			
Where do I start?	the instructions, then you shoul I put a lot of effort into creating Answers to all your questions sh	of us, feel you can install this wild ask your significant other to reg the instructions, and I feel bachould be covered in the installa	ead them to you. I when no one reads them. tion instructions.			
What tools do I need?	<ul> <li>We've included a lot of photos for those of you who are visual and don't enjoy words.</li> <li>9/32" and ¾" diameter drill bits NOTE: A stepped drill bit works best for the ¾" holes.</li> <li>10 mm or 5/16" socket/nut driver or flat blade screwdriver</li> <li>Test light or ohmmeter • Electrical tape</li> <li>Phillips screwdriver • center punch</li> <li>10 mm wrench • drill motor</li> </ul>					
What's in the box?		items you will be installing on your in each installation, which vari				
	- 4 pin connector - RED marking tape	SELF-CANCELING FLASHER RELAY  - 3 pin connector - No marking tape	RYCO POWER, GROUND & HORN HARNESS  - 4 pin connector - GREEN marking tape			
	- 2 pin connector - No marking tape	CABLE TIE	HORN  TOTAL DEPT STATEMENT OF THE PROPERTY OF			

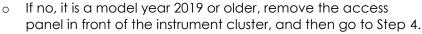
# **PARALLEL TAP** TWO HOLE ADAPTER **PLATE HOLDER** INSTRUMENT CLUSTER INDICATOR **INSTRUMENT CLUSTER INDICATOR REAR TURN SIGNAL HARNESS HARNESS - TWO PIN HARNESS - ONE PIN** - 3 pin connector - 3 pin connector - 3 pin connector - RED marking tape - BLUE marking tape - BLUE marking tape **FRONT TURN SIGNAL LEDS** LICENSE PLATE LIGHT **NOTE**: Where possible run new cables alongside the existing wires, and use existing cable Installation Steps ties/anchors where practical. **IMPORTANT**: Ensure that the wiring and installed hardware do not contact moving components or hot surfaces. Determine whether the vehicle has indicator lights in the instrument cluster/digital display. 1. **Determine if EXPLANATION:** Can-Am did NOT include factory turn signal indicators on some models, the Vehicle typically those with the 4.5" digital display. During the first seconds of start-up, all segments **Has Indicator** of the instrument panel/display will light up briefly, including the indicators if present. Lights Start-up the vehicle and determine whether the vehicle has indicator lights. o If yes, the vehicle has indicator lights, then you will install the applicable INSTRUMENT CLUSTER INDICATOR HARNESS in a later step. o If no, the vehicle does not have indicator lights, then you can request a DASH INDICATORS HARNESS if you prefer. NOTE: The DASH INDICATORS HARNESS is NOT included in this kit and is not required for the installation or operation of the kit. Contact your local dealer or Ryco Motorsports if

you want this part, and it will be provided at no charge. The DASH INDICATORS HARNESS has two 9/32" LEDs that flash green when the turn signals are activated. Installation of

this part is shown in a later step.



#### 2. With the engine running, step on the brake pedal, and verify that the brake lights **Verify Brake** function correctly. Lights o If yes, turn off the engine and then continue to Step 3. o If no, adjust the vehicle brake switch until the brake lights function, and then turn off and continue to Step 3. 3. Is the vehicle a model year 2020 or newer? o If yes, it is a model year 2020 or newer, go to Step 4.





# 4. Mount the **TURN SIGNAL/ HORN SWITCH**

NOTE: The TURN SIGNAL/HORN SWITCH should NOT have any components connected to the harness until after the switch is installed, and the switch harness is routed behind the dash.

Trim the **SCREW CLAMP COVER** by about 1" to fit around the vehicle steering column as shown.



Install the SCREW CLAMP and decorative SCREW CLAMP COVER on the TURN SIGNAL/HORN SWITCH as shown, with the screw mechanism on the bottom facing out.

- Secure the TURN SIGNAL/HORN SWITCH to the vehicle steering column as shown.
- Route the TURN SIGNAL/HORN SWITCH wiring between the steering column and above the tilt mechanism, and then up under the dash.





5. Connect the

Components to the TURN SIGNAL/ **HORN SWITCH** Harness

**IMPORTANT**: When connecting the components match the color of the marking tape by the connectors (e.g., RED marking tape to RED marking tape, GREEN to GREEN, BLUE to BLUE), rather than match the color of the connectors or the wires.

NOTE: When connecting a component harness to the TURN SIGNAL/HORN SWITCH harness, check that the pins are straight, not bent. The connectors should interface very easily; if there is resistance, it is likely due to a bent pin.

Connect the following to the TURN SIGNAL/HORN SWITCH harness:

- FRONT TURN SIGNAL ADAPTER (4 pin connector with RED marking tape),
- SELF-CANCELING FLASHER RELAY (3 pin NO marking),
- RYCO POWER, GROUND & HORN HARNESS (4 pin GREEN marking), and
- BRAKE SWITCH INTERFACE (2 pin NO marking).

**NOTE**: Only one pin of the BRAKE SWITCH INTERFACE 2 pin connector is used.

NOTE: The SELF-CANCELING FLASHER RELAY can be bundled and secured with a CABLE TIE to the TURN SIGNAL/HORN SWITCH harness.

Secure the TURN SIGNAL/HORN SWITCH harness to a cross member using a CABLE TIE.

NOTE: Do NOT connect the front or rear turn signal harness to the TURN SIGNAL/HORN SWITCH at this time.



**Self-Canceling Flasher Relay Feature**: The SELF-CANCELING FLASHER RELAY has a timing circuit that will cancel the turn signals after a few minutes. The timer is reset whenever the turn signal switch is returned to the center/off position.

### 6. Install the HORN

**IMPORTANT**: Do not attempt to adjust the HORN or remove the center mounting nut that attaches the HORN to the horn mounting bracket.

- Install the HORN on a suitable support point, using the provided FASTENER and LOCK NUT.
- Route the RYCO POWER, GROUND & HORN HARNESS from the TURN SIGNAL/HORN SWITCH harness to the HORN.
- Install the two flat spade connectors to the HORN terminals.

**NOTE**: Either connector can be installed on either horn terminal.

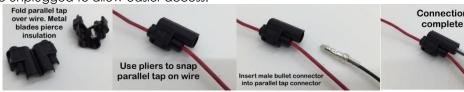


# MAVERICK TRAIL

# 7. Install the BRAKE SWITCH INTERFACE

How to Install a PARALLEL TAP: The wire colors may not match your application but are for illustration.

**NOTE**: Check the orientation of the PARALLEL TAP connectors to ensure access for the male connector, prior to seating the PARALLEL TAP connector with pliers. If applicable, the connector can be unplugged to allow easier access.



- Is the vehicle model year 2019 or newer?
  - o If yes, the vehicle model is 2019 or newer, **go to Step 8**.
  - o If no, the vehicle model is 2018 or older, **go to Step 9**.
- 8.
  Install the
  BRAKE SWITCH
  INTERFACE on
  model year
  2019 or newer

**NOTE:** The brake interface connection CANNOT be made near the vehicle brake switch and MUST be made after the vehicle brake relay.

If installing on	Then			
a COMMANDER, a MAVERICK SPORT, a MAVERICK TRAIL,	<ul> <li>Locate the main vehicle wire bundle that runs from the front to rear of the vehicle.</li> <li>Locate the WHITE/ORANGE wire.</li> </ul>			
an X3,	<ul> <li>Remove the kick plate and lower center cover on the center console/tunnel.</li> <li>Locate the main vehicle wire bundle that runs from the front to</li> </ul>			
	rear of the vehicle.  • Locate the WHITE/ORANGE wire.			

- Install a **PARALLEL TAP** on the WHITE/ORANGE wire, referring to "How to Install a PARALLEL TAP" in Step 5 as needed.
- Plug the BRAKE SWITCH INTERFACE RED harness into the PARALLEL TAP on the WHITE/ORANGE wire.
- Go to Step 10.



9.
Install the
BRAKE SWITCH
INTERFACE on
model year
2018 or earlier

NOTE: The brake interface connection can be made near the vehicle brake switch.

If installing on	Then
a MAVERICK SPORT, a MAVERICK TRAIL,	Remove the guard around the vehicle brake master cylinder by removing the plastic push pins.
an X3,	Locate the vehicle brake master cylinder and brake switch under the access panel removed in Step 1.

**EXPLANATION:** Can-Am varies the color of the vehicle wires. The steps below include using a test light or ohmmeter to determine which wire in your vehicle is hot (A.K.A. the source wire) when the ignition is on. Knowing this, you can then determine which wire is hot only when the brake is activated (A.K.A. the outgoing wire to the vehicle brake light), which is typically the ORANGE/RED wire.

- Push back the outer sleeve on the vehicle brake switch harness where the switch connects to the two pin connector, to expose the wires coming out of the connector.
- Disconnect the 2 pin connector from the vehicle brake switch.
- On the wire coming from the vehicle (not the connector coming from the vehicle brake switch), use a test light or ohmmeter to determine which wire is hot when the ignition is on.
- Make note of the other, NON-hot wire; this is the wire to which to connect the BRAKE SWITCH INTERFACE, and will be referred to as the "outgoing wire," and is typically the ORANGE/RED wire.
- Install a **PARALLEL TAP** on the outgoing wire identified in the previous step (e.g. the ORANGE/RED wire), referring to "How to Install a PARALLEL TAP" in Step 5 as needed.
- Plug the **BRAKE SWITCH INTERFACE** RED harness into the **PARALLEL TAP** connector on the outgoing wire (e.g. the **ORANGE/RED** wire).

# 10. Install the FRONT TURN SIGNAL LEDS

- At each front corner of the vehicle, drill two 1/4" diameter holes, 3/8" on center, one for the **FRONT TURN SIGNAL LED** wiring and one for the mounting screw.
- Install the **FRONT TURN SIGNAL LEDS** using the provided 5mm flat washer and screw.

**NOTE**: Use the longer screws for the MAVERICK TRAIL.







- Route the FRONT TURN SIGNAL LED wires to the center dash area, to the FRONT TURN SIGNAL ADAPTER connected to the TURN SIGNAL/HORN SWITCH.
- Install the left (i.e. driver side) FRONT TURN SIGNAL LED harness male connector on the RED wire, to the FRONT TURN SIGNAL ADAPTER female bullet connector on the GREEN wire.
- Install the right (i.e. passenger side) FRONT TURN SIGNAL LED harness male connector on the RED wire, to the FRONT TURN SIGNAL ADAPTER female bullet connector on the RED wire.
- Connect the two FRONT TURN SIGNAL LED harness female connectors on the BLACK wires, to the FRONT TURN SIGNAL ADAPTER male bullet connectors on the BLACK wires.
- Connect the FRONT TURN SIGNAL ADAPTER (4 pin RED marking) to the TURN SIGNAL/
- HORN SWITCH harness.

# 11. Install the Indicator Harness

• Determine which INDICATOR HARNESS to install:

# If installing on a model with a(n)... Digital display WITH indicators INSTRUMENT CLUSTER INDICATOR HARNESS – TWO PIN, Analog display NOTE: A double-headed indicator arrow is in the 12 o'clock position. Use the... INSTRUMENT CLUSTER INDICATOR HARNESS – ONE PIN,

**Display WITHOUT indicators** 

**DASH INDICATORS HARNESS** 

Step 14.

Go to...

Step 12.

Step 13.

(e.g., 2020 X3 base model, 2019 or older Sport and Trail models)

**NOTE**: The DASH INDICATORS HARNESS is NOT included in this kit and is not required for the installation or operation of the kit. Contact your local dealer or Ryco Motorsports if you want this part, and it will be provided at no charge. The DASH INDICATORS HARNESS has two 9/32" LEDs that flash green when the turn signals are activated.

Install the INSTRUMENT CLUSTER INDICATOR

**IMPORTANT:** Disconnect the power cable from the battery. Failure to do so may result in a blown fuse and added time troubleshooting.

This is **IMPORTANT!** That's why it's in red:

• Disconnect the power cable from the battery.



# Turn Signal/Horn Kit 8103S

#### HARNESS – TWO PIN

- Disconnect the multi-pin connector from the back of the instrument cluster assembly by pulling the RED tab out, depressing the BLACK lock tab, and then pulling the connector away from the mating part on the instrument cluster.
- Remove the multi-pin connector back cover by depressing the locking tabs on the ends of the cover.
- Remove the WHITE colored front cover by depressing the locking tabs on the ends of the cover.



**HINT**: You may need to insert a small flat blade in the side openings and lightly pull to free the cover from the housing.

• Remove and discard the plastic plugs in position 7 and 17.

**EXPLANATION**: The pin positions are not numbered. When holding the connector as pictured, with the RED lock tab up, <u>count</u> LEFT to RIGHT, top row for position 7,

continuing LEFT to RIGHT on the bottom row for position 17.



- Install the INSTRUMENT CLUSTER INDICATOR HARNESS TWO PIN RED pin/wire in position 7.
- Install the INSTRUMENT CLUSTER INDICATOR HARNESS TWO PIN GREEN pin/wire in
- position 17.

• This is **IMPORTANT!** That's why it's underlined: <u>Use care and ensure the pins are all aligned</u> and oriented correctly before reinstalling the front cover.

- Reinstall the front cover.
- Close the back cover.
- Route the new RED and GREEN wires adjacent to the existing wires.
- Reinstall the plastic cable covering over the wires leading to the multipin connector.





- Reconnect the multipin connector to the 7" digital display.
- Reconnect the power cable to the battery.
- Connect the INSTRUMENT CLUSTER INDICATOR HARNESS to the TURN SIGNAL/HORN SWITCH harness, matching the BLUE marking.
- Go to Step 15.

**EXPLANATION:** After completing all the installation steps in this document, through Step "TEST," if there is no power to the instrument cluster, locate and replace if necessary the 10 amp "key switch" fuse behind the driver seat.



13.
Install the
INSTRUMENT
CLUSTER



**HINT**: View a short YouTube video on installing the INSTRUMENT CLUSTER INDICATOR HARNESS – ONE PIN.

Scan this QR code or go to https://youtu.be/x6lasVGkpkg, or search "Ryco Moto Can-Am dash" on YouTube.



INDICATOR HARNESS – ONE PIN

- Remove the instrument cluster cover.
- Disconnect the multi-pin connector from the back of the instrument cluster assembly by depressing the single locking tap on the connector, and then pulling





the connector away from the mating part.

**CAUTION**: Do not use a metal object to remove the plastic plug covering position 8.

• Open the connector cover, and then remove and discard the plastic plug in position 8.

**HINT**: Use your fingernail to easily remove the plastic plug.







**NOTE**: Depending on the vehicle model, there may already be a wire in position 8. This wire can be removed without affecting the vehicle functionality. Use your fingernail to get behind the lock, push the pin down, and then pull the wire pin out, and tuck it out of the way.

- This is IMPORTANT! That's why it's underlined: Remove the clear pin cover on the front side of the connector by depressing the tabs on the sides of the connector.
- Install the INSTRUMENT CLUSTER INDICATOR HARNESS ONE PIN pin/wire in position 8.

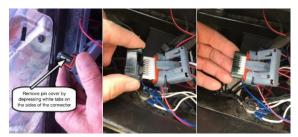
**IMPORTANT**: Pin must be seated completely.

This is **IMPORTANT**! That's why it's underlined. Verify the new pin matches the installation depth of the existing pins.

- Reinstall the clear pin cover.
- Route the new wire adjacent to the existing wires.
- Close the back cover.
- Connect the INSTRUMENT CLUSTER INDICATOR HARNESS ONE PIN to the TURN SIGNAL/ HORN SWITCH harness, matching the BLUE marking.
- Reinstall the connector to the instrument cluster, and reinstall the instrument cluster cover.

**EXPLANATION**: The standard instrument cluster turn signal indicator <u>double arrow flashes</u> regardless of the direction of the switch.

• Go to Step 15.



# 14. Install the DASH INDICATORS HARNESS

**NOTE:** Carefully insert the LEDs into the grommets to prevent damage to the wires and resistor.

**HINT**: A little warmth and moisture help when installing the grommets, and again when installing the LEDs into the grommets.

- Mark the desired locations in the dash for the two DASH INDICATORS HARNESS LED lights, where they are visible to the driver.
- Drill two 9/32" mounting holes in the dash for the indicator lights. Seat the rubber grommets into the drilled holes, and then carefully push the LEDs into the grommets from the rear, until the LED is flush or slightly protruding.
- Connect the DASH INDICATORS HARNESS (3 pin BLUE marking) to the TURN SIGNAL/HORN SWITCH harness.

# 15. Install the REAR TURN SIGNAL HARNESS

**EXPLANATION**: The REAR TURN SIGNAL HARNESS is a zip cord; the red and black wires pull apart easily. Separate the red and black wires as needed to complete the following steps.

**EXPLANATION**: Only two pins of the REAR TURN SIGNAL HARNESS 3 pin connector are used. The rear turn signal circuit utilizes the existing vehicle ground.

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

- Connect the REAR TURN SIGNAL HARNESS (3 pin RED marking) to the TURN SIGNAL/HORN SWITCH harness.
- Route the **REAR TURN SIGNAL HARNESS**, alongside the existing wires where practical, to the rear of the vehicle.
- Secure with CABLE TIES.
- Gain access to install the **REAR TURN SIGNAL HARNESS**:

If installing on a	Then
COMMANDER SPORT TRAIL	<ul> <li>Remove the fasteners securing the assemblies to the bed.</li> <li>Pull the cover back to expose the wire harnesses going to the taillight assemblies.</li> <li>Go to Step 16.</li> </ul>
X3	Locate the rear taillight 3 pin connectors, on each side of the vehicle in front of the rear wheels on the rear firewall      Go to Step 16.  Cocate the rear taillight 3 pin connectors  Passenger side rear taillight 3 pin connectors.

16.

**EXPLANATION:** Can-Am varies the color of the vehicle wires. The colors referenced in the following steps seem to be used on the majority of vehicles. There are three wires going to each taillight assembly: ORANGE/WHITE, PURPLE/WHITE, and BLACK. The BLACK wire is always ground. The steps below include using a test light or ohmmeter to determine which wire in your vehicle is hot (A.K.A. the taillight assembly running light wire) when the ignition is on, which is typically the PURPLE/WHITE wire. The hot wire is the 12 V DC wire to which the LICENSE PLATE LIGHT is connected. Knowing this, you can then determine which wire is hot only when the brake is activated (A.K.A. the outgoing wire to the vehicle brake light), which is typically the ORANGE/WHITE wire.

- Locate each 3 pin connector located under the bed on the support frame.
- Disconnect one of the 3 pin connectors to determine which wire is the vehicle brake light wire to connect to the Ryco **REAR TURN SIGNAL HARNESS**.
- Use a test light or ohmmeter on the wires of the 3 pin connector coming from the front of the vehicle to determine which wire is hot when the ignition is on.
- Make note of the other, NON-hot wire; this is the outgoing wire to the vehicle brake light to which to connect the REAR TURN SIGNAL HARNESS, and is typically the ORANGE/WHITE.

**NOTE**: You MUST cut the outgoing wire to the vehicle brake light, and connect to the RED and BLACK wires on the REAR TURN SIGNAL HARNESS. If you splice into the wires, rather than cut the wires, it will not function properly.

- Cut the outgoing wire to the vehicle brake light (e.g. the ORANGE/WHITE wires) approximately 2-3" on the taillight side of the 3 pin connectors.
- Abandon the cut ends of the outgoing wire to the vehicle brake light (e.g. the ORANGE/WHITE wires) COMING FROM THE FRONT OF THE VEHICLE, and tuck the ends back into the vehicle wire harness sleeve and/or tape over with electrical tape.
- Strip approximately 1/8" of insulation from the wires on the taillight side.

#### **How to Use the Solderless Connectors:**

- Unscrew the solderless connector end piece, and slip it over the wire of the component to connect.
- Start to screw the end piece back in place, and push the wire of the component being connected, so it is seated in the solderless connector.
- Tighten the end pieces.



Connect the **REAR TURN SIGNAL HARNESS** to the outgoing wire to the vehicle brake light (e.g. the ORANGE/WHITE wire) using the solderless connectors:

- Attach the REAR TURN SIGNAL HARNESS BLACK wire to the RIGHT taillight outgoing wire to the vehicle brake light (e.g. the ORANGE/WHITE wire).
- Attach the REAR TURN SIGNAL HARNESS RED wire to the LEFT taillight vehicle outgoing wire to the vehicle brake light (e.g. the ORANGE/WHITE wire).
- Abandon the other ends of the outgoing wire to the vehicle brake light (e.g. the ORANGE/WHITE wire) COMING FROM THE FRONT OF THE VEHICLE, and tuck the ends back into the factory wire harness sleeve and/or tape over with electrical tape

**NOTE**: If you connect the REAR TURN SIGNAL HARNESS wires to the outgoing wire to the vehicle brake light wires coming from the front of the vehicle, the rear turn signals and brake lights will not function.

# 17. Install the PLATE HOLDER and LICENSE PLATE LIGHT

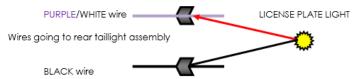
**EXPLANATION**: The LICENSE PLATE LIGHT can be installed either:

- o as one of the four license plate bolts, or
- in the TWO HOLE ADAPTER where the light will shine on the license plate, or
- o In the plastic body above the license plate.



**IMPORTANT**: Use the flange nut provided with the LICENSE PLATE LIGHT. Do NOT overtighten the nut on the LICENSE PLATE LIGHT. The LICENSE PLATE LIGHT body is aluminum, and the threads can be stripped quite easily.

- Mount the license PLATE HOLDER and license plate (when available) on the rear of the vehicle in the factory provided mounting holes, using the FLANGE BOLT and LOCK NUT (RYCO-C).
- Install a **PARALLEL TAP** on the 12 V DC wire (e.g. the PURPLE/WHITE wire), and a **PARALLEL TAP** on the BLACK (ground) wires near the driver's side taillight 3 pin connector, referring to "How to Install a PARALLEL TAP" in Step 5 as needed.
- Connect the LICENSE PLATE LIGHT RED wire into the PARALLEL TAP on the 12 V DC wire (e.g. the PURPLE/WHITE wire).
- Connect the LICENSE PLATE LIGHT BLACK wire into the PARALLEL TAP on the BLACK wire.



# 18. Connect to the Main Power

**IMPORTANT**: The LEDs and SELF-CANCELING FLASHER RELAY are polarity sensitive. The RYCO POWER, GROUND & HORN HARNESS RED fused wire MUST be connected to the 12 volt DC (positive side), and the BLACK ground wire must be connected to the vehicle ground wire. If this is not done correctly, the horn will work, but the turn signals will not function.

**WARNING:** Damage to the SELF-CANCELING FLASHER RELAY may occur if the wires are installed backwards.

• Determine how to connect to the main power:

If installing on model year	Go to Step
2017 or newer,	19.
2016 or earlier,	20.

# 19. Connect to the Main Power on 2017 or Newer

**EXPLANATION**: On the TERMINAL BLOCK ADAPTER the extra BLACK wire with the split ring terminal is not used. This extra BLACK wire can be cut and discarded, or the extra BLACK wire can be looped and the split ring terminal can be installed on the stud marked "Ground" with the other BLACK wire ring terminal.



**HINT**: If installing on an X3 model, view a short YouTube video, "Locate the Terminal Block on a Can-Am Maverick X3".

Scan this QR code or go to https://youtu.be/nTlnumxzpjA to access the video.

- Locate the terminal block under the dash between the steering column and the center of the vehicle.
- Loosen the ground and accessory terminals.
- Loosen one of the terminal block mounting screws.
- Install the TERMINAL BLOCK ADAPTER RED wire split ring terminal under the nut on the stud marked "Accessory," and one or both BLACK wire split ring terminals under the nut on the stud marked "Ground."
- Tighten the nuts and screw, without overtightening.

**IMPORTANT**: Do not attach the TERMINAL BLOCK ADAPTER RED wire to the stud marked "Battery". If this is done the running lights will stay on continually, and the turn signal/horn kit will remain powered, running the battery down.



20. Connect to the Main Power on 2016 or Earlier	<ul> <li>Route the RYCO POWER, GROUND &amp; HORN HARNESS wires through the grommet in the firewall towards the terminal block.</li> <li>Connect the RYCO POWER, GROUND &amp; HORN HARNESS BLACK ground wire to the TERMINAL BLOCK ADAPTER female bullet connector on the BLACK wire (ground).</li> <li>Connect the RYCO POWER, GROUND &amp; HORN HARNESS BLACK RED fused wire to the TERMINAL BLOCK ADAPTER female bullet connector on the RED wire (12 volt DC).</li> <li>Go to Step 21.</li> <li>Ensure that the ignition key is in the "OFF" position.</li> <li>Locate the auxiliary power outlet (i.e., the cigarette lighter outlet, for you ol' timers) and install a PARALLEL TAP on both wires leading to the 12 volt power outlet, referring to "How to install a PARALLEL TAP" in Step 5 as needed.</li> <li>Connect the RYCO POWER, GROUND &amp; HORN HARNESS BLACK ground wire to the PARALLEL TAP connector on the vehicle BLACK ground wire</li> <li>Connect the RYCO POWER, GROUND &amp; HORN HARNESS RED fused wire to the PARALLEL</li> </ul>
21. Test	<ul> <li>TAP on the 12 volt DC center terminal wire.</li> <li>Double check all the connectors.</li> <li>Turn the ignition key to the "ON" position.</li> <li>Verify that the turn signals, four-way flasher, horn, brake, and license plate light work correctly.</li> <li>Refer to the Troubleshooting Guide at the end of this document.</li> <li>Four-Way Flasher Feature: With either the key on or the engine running, pull the red lever on the TURN SIGNAL/HORN SWITCH to activate all four turn signal lights. To deactivate the four-way flashers move the TURN SIGNAL/HORN SWITCH black lever either direction.</li> <li>NOTE: The SELF-CANCELING FLASHER RELAY feature means the four-way flasher will time out after a few minutes. If the four-way flasher feature is used regularly, contact Ryco Motorsports for a different flasher relay without the self-canceling feature.</li> </ul>
22. Done	<ul> <li>IMPORTANT: Ensure that the wiring and installed hardware do not contact moving components or hot surfaces.</li> <li>Once all the wiring is in place and functionality is verified, double check the routing, and secure with CABLE TIES.</li> <li>Bundle any extra wire length, and secure with the CABLE TIES.</li> <li>Reinstall covers and seats.</li> </ul>

Troubleshooting Guide							
Does It Work Correctly?	Front Turn Signals	Indicator Lights	Horn	Brake Lights	Rear Turn Signals	License Plate Light	Resolution
Scenario 1	✓	✓	✓	✓	✓	✓	Go riding!
Scenario 2	✓	✓	✓	No	✓	✓	BRAKE SWITCH INTERFACE not installed correctly.  Refer to Step 7.
Scenario 3	<b>√</b>	No	<b>√</b>	✓	<b>√</b>	✓	If the <b>INSTRUMENT CLUSTER INDICATORS</b> do not illuminate, ensure that the clear plastic cover is removed, and the pin is seated correctly. Refer to Step 11.
Scenario 4	<b>√</b>	<b>√</b>	<b>√</b>	No	No	<b>√</b>	The <b>REAR TURN SIGNAL HARNESS</b> was connected incorrectly. Refer to Step 15.
Scenario 5	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓	No	Ensure that the <b>LICENSE PLATE LIGHT RED</b> power and BLACK ground wires are connected correctly (i.e. cables are not reversed). Refer to Step 17.
Scenario 6	No	No	<b>√</b>	No	No	No	Ensure that the RYCO POWER, GROUND & HORN HARNESS RED main power and BLACK ground wires are connected correctly (i.e., the cables are not reversed). Refer to Step 18.
Scenario 7	No	No	No	<b>√</b>	<b>√</b>	No	Ensure that the RYCO POWER, GROUND & HORN HARNESS BLACK ground wire is connected to a good ground. Refer to Step 18.
Scenario 8	No	No	<b>√</b>	<b>√</b>	No	<b>√</b>	If the turn signal lights illuminate but do not flash, then the <b>SELF-CANCELING FLASHER RELAY</b> is damaged or defective. Contact Ryco Motorsports by email or phone, provide your shipping address, and we will send you a replacement, at no charge, to correct the problem.
Scenario 9	No	No	No	✓	No	✓	If the vehicle blows a fuse when the key is turned on, check for a bent pin on the connection between the RYCO POWER, GROUND & HORN HARNESS and the TURN SIGNAL/HORN SWITCH harness.
Scenario 10	If a set of lights does not work, check for a bent pin on the connection between the light harness and the <b>TURN SIGNAL/HORN SWITCH</b> harness.						