Before you begin	<ul> <li>STOP! THIS KIT IS DESIGNED SPECIFICALLY FOR</li> <li>Can-Am COMMANDER, including MAX, 2021 and newer</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>				
		el years 2020 and earlier use a c			
		OF THESE MODELS, DO NOT PROC your local dealer for the correct			
Digital Copy		digital copy of these instruction			
Where do I start?	the instructions, then you shou I put a lot of effort into creatin Answers to all your questions s	tructions.  To fus, feel you can install this will ask your significant other to reg the instructions, and I feel backhould be covered in the installabs for those of you who are visuals.	ead them to you. I when no one reads them. tion instructions.		
What tools do I need?	<ul> <li>9/32" and ¾" diameter dri</li> <li>10 mm or 5/16" socket/nut</li> <li>Test light or ohmmeter</li> <li>Phillips screwdriver</li> <li>10 mm wrench</li> </ul>	Il bits NOTE: A stepped drill bit vertice to driver or flat blade screwdriver center punch drill motor	works best for the ¾" holes.		
What's in the box?		e items you will be installing on you do in each installation, which vari			
	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 PARALLEL TAP** NOTE: This photo shows one PARALLEL TAP open, and another PARALLEL TAP folded closed. **INSTRUMENT CLUSTER INDICATOR** 8001 or 8003 MAVERICK **8002 COMMANDER HARNESS - TWO PIN ACCENT/SIGNAL LIGHTS and ACCENT/SIGNAL LIGHTS and** FRONT TURN SIGNAL HARNESS FRONT TURN SIGNAL HARNESS - 4 pin connector - 3 pin connector - RED marking tape - BLUE marking tape - 4 pin connector NOTE: These items are boxed - RED marking tape together, separate from the NOTE: These items are boxed 8103A kit. together, separate from the 8103A kit. **INSTRUMENT CLUSTER INDICATOR REAR TURN SIGNAL HARNESS** LICENSE PLATE LIGHT **HARNESS - ONE PIN** - 3 pin connector - 3 pin connector - RED marking tape - BLUE marking tape FLANGE BOLT and LOCK NUT TWO HOLE ADAPTER **PLATE HOLDER TERMINAL BLOCK ADAPTER** Installation NOTE: Where possible run new cables alongside the existing wires, and use existing cable Steps ties/anchors where practical. IMPORTANT: Ensure that the wiring and installed hardware do not contact moving components or hot surfaces.

### 1. Determine if the Vehicle Has Indicator Lights

Determine whether the vehicle has indicator lights in the instrument cluster/digital display.

**EXPLANATION:** Can-Am did NOT include factory turn signal indicators on some models. During the first seconds of start-up, all segments of the instrument panel/display will light up briefly, including indicator lights, if present.







- Start-up the vehicle and determine whether the vehicle has indicator lights.
  - If yes, the vehicle has indicator lights, then install the applicable INSTRUMENT CLUSTER INDICATOR HARNESS in a later step.
  - 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. Verify Brake Lights

- With the engine running, step on the brake pedal, and verify that the brake lights function correctly.
  - 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.
  - o If no, it is a model year 2019 or older, remove the access panel in front of the instrument cluster, and then go to Step 4.



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

**NOTE**: The TURN SIGNAL/HORN SWITCH should NOT have any components installed on 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.
- 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.





**MAVERICK TRAIL** 

X3

**RECOMMENDATION**: The TURN SIGNAL/HORN SWITCH is water-resistant. When washing the vehicle, take care not to directly spray the switch. Ryco Moto recommends covering the switch with a plastic bag while washing.

# 5. Connect the COMPONENTS to the TURN SIGNAL/ HORN SWITCH Harness

**IMPORTANT**: When connecting the components match the color of the <u>marking tape</u> by the connectors (e.g., <u>RED</u> marking tape to <u>RED</u> marking tape, <u>GREEN</u> to <u>GREEN</u>, <u>BLUE</u> to <u>BLUE</u>), 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:

- SELF-CANCELING FLASHER RELAY (3 pin connector with NO marking tape),
- 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.
- Route the RYCO POWER, GROUND & HORN HARNESS from the TURN SIGNAL/HORN SWITCH assembly 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

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

an X3,  • Remove the	
a MAVERICK SPORT, a MAVERICK TRAIL,  main vehicle wire bundle that runs from the front to rear of the vehicle. Locate the V  an X3,  Remove the	
an X3,  • Remove the	ele wire le that rom ont to of the
Locate the n	ove the kick plate and lower center cover on the center ole/tunnel. the the main vehicle wire bundle that runs from the front to of the vehicle.

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.



- Install a **PARALLEL TAP** on the WHITE/ORANGE wire.
- Plug the BRAKE SWITCH INTERFACE RED harness into the PARALLEL TAP on the WHITE/ORANGE wire.

## 8. Install the ACCENT/ SIGNAL LIGHTS AND HARNESS

**EXPLANATION**: The ACCENT LIGHTS function as white running lights, and then the applicable side flashes amber when the turn signal is activated.

**NOTE**: Wait until the full kit is installed and testing is completed before replacing the front body components.

- Remove the front body components as necessary.
- Remove the vehicle front accent lights or plastic inserts, depending on the model, and retain the mounting hardware.
- Install the ACCENT/SIGNAL LIGHTS using the existing mounting hardware.
- From the front side of the firewall, route the **FRONT TURN SIGNAL HARNESS** 4 pin connector and cables through the grommet in the firewall.
- Connect the FRONT TURN SIGNAL HARNESS (4 pin RED marking) to the TURN SIGNAL/ HORN SWITCH harness.

**NOTE**: Tags on the FRONT TURN SIGNAL HARNESS are marked "L" for the driver's side, and "R" for the passenger side.

- Route the FRONT TURN SIGNAL HARNESS to the ACCENT/SIGNAL LIGHTS.
- Connect the FRONT TURN SIGNAL HARNESS to the ACCENT/SIGNAL LIGHTS:

If installing on	Then		
a COMMANDER,	Connect the YELLOW wire on the ACCENT/SIGNAL LIGHTS and the		
	FRONT TURN SIGNAL HARNESS using the solderless connectors.		
a MAVERICK	Install the FRONT TURN SIGNAL HARNESS three pin connectors into		
SPORT, TRAIL, or	the mating connector on the ACCENT/SIGNAL LIGHTS.		
Х3,			

Use the...

### How to Use the Solderless Connectors:

If installing on a model with a(n)...

- 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.





### Install the Indicator Harness

Determine which indicator harness to install based on the results from Step 1:

Digital display WITH indicators,		
	C C C C C C C C C C C C C C C C C C C	
25.	- G O-60	
0		

INSTRUMENT CLUSTER INDICATOR HARNESS – TWO PIN,

- IWO PIN,

**Go to...** Step 10.

### Analog display,

NOTE: A doubleheaded indicator arrow is in the 12 o'clock position.



INSTRUMENT CLUSTER INDICATOR HARNESS – ONE PIN,



Step 11.

### Display WITHOUT indicators,

(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. Installation of this part is shown in a later step.

10.
Install the
INSTRUMENT
CLUSTER
INDICATOR
HARNESS –
TWO PIN

**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.
- Disconnect the multi-pin connector from the back of the instrument cluster assembly by pulling the RED tab out.
- Depress the black lock tab and pull 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.

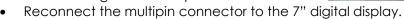


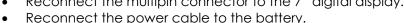
**HINT**: You may need to insert a small flat blade in the side openings and lightly pull to free the cover from the housing.

**EXPLANATION**: The pin positions are not numbered. When holding the connector as pictured, with the RED lock tab up, <u>count LEFT to RIGHT</u>, top row for position 7, continuing <u>LEFT to RIGHT</u> on the bottom row for position 17.



- Remove and discard the plastic plugs in position 7 and 17.
- Route the RED and GREEN wires/pins through the back cover.
- 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.







Go to Step 13 "Install the REAR TURN SIGNAL HARNESS".

**TROUBLESHOOTING:** 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.



11.
Install the
INSTRUMENT
CLUSTER
INDICATOR
HARNESS –
ONE PIN



**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.

- 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.

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

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

**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, 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** in position 8.

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

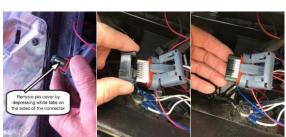
- This is IMPORTANT! That's why it's underlined: <u>Verify the new pin matches</u> the installation depth of the existing pins.
- Reinstall the clear pin cover.
- Route the new wire adjacent to the existing wires.
- Close the back cover.



 Reinstall the connector to the instrument cluster, and reinstall the instrument cluster cover.

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

Go to Step 13 "Install the REAR TURN SIGNAL HARNESS".



### 12. 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.

### 13. 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 is 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.
- Identify the wires to be used to install the **REAR TURN SIGNAL HARNESS**:

Tacinity inc wires	s to be used to install the <b>REAK TURN SIGNAL HARNESS</b> :				
If installing on a	Then				
COMMANDER	NOTE: The wire colors from the 4 pin rear connector on the driver side rear above the clutch cover, to the splice are NOT the same as after the splice. The ORANGE/WHITE wires must be cut AFTER the splice near the driver side taillight.				
	<ul> <li>Locate the rear taillight harness that runs from the driver side to passenger side at the rear of the vehicle bed.</li> <li>On the driver side where the harness goes into the bed towards the taillight, expose the wires for approximately 12"-15".</li> <li>On the driver side of the splice locate the three wires going to the taillight: <ul> <li>The PURPLE/WHITE and BLACK will be used in a later step to install the LICENSE PLATE LIGHT.</li> <li>The ORANGE/WHITE wire is to be used to install the REAR TURN SIGNAL HARNESS.</li> </ul> </li> <li>On the passenger side of the splice, locate the ORANGE/WHITE wire to be used to install the REAR TURN SIGNAL HARNESS.</li> <li>Go to Step 14.</li> </ul>				



If installing on a	Then
MAVERICK SPORT MAVERICK 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 14.</li> </ul>
MAVERICK 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 14.  Passenger side rear taillight 3 pin connector  Passenger side rear taillight 3 pin connector

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 the vehicle brake light wire to connect to the Ryco REAR TURN SIGNAL HARNESS, and is typically the ORANGE/WHITE.

**NOTE**: The outgoing wire to the vehicle brake light MUST BE CUT, and connected to the RED and BLACK wires on the Ryco REAR TURN SIGNAL HARNESS. If the wires are spliced, rather than cut, 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.

Connect the **REAR TURN SIGNAL HARNESS** to the outgoing wire to the vehicle brake light (e.g. the ORANGE/WHITE wire) as follows using the solderless connectors referring to "How to Use the Solderless Connectors" in Step 8 as needed.:

- 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

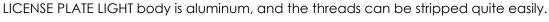
**NOTE**: If you connect the REAR TURN SIGNAL HARNESS wires to the outgoing wire to the vehicle brake light wires coming from the front of the vehicle, the rear turn signals and brake lights will not function.

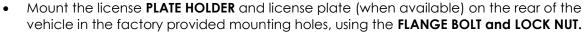
### 15. Install the PLATE HOLDER and LICENSE PLATE LIGHT

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

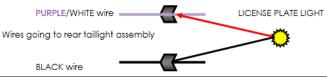
- o as one of the four license plate bolts, or
- in the TWO HOLE ADAPTER where the light will shine on the license plate, or
- o In the plastic body above the license plate.

**IMPORTANT**: Use the flange nut provided with the LICENSE PLATE LIGHT. Do NOT overtighten the nut on the LICENSE PLATE LIGHT. The





- 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 drivers side taillight 3 pin connector, referring to "How to Install a PARALLEL TAP" in Step 7 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.



### 16. 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 a model year	Go to Step
2017 or newer,	17.
2016 or older,	18.

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



**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.

**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.

- 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,"
- Install one or both of TERMINAL BLOCK ADAPTER 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.

- Route the RYCO POWER, GROUND & HORN HARNESS wires through the grommet in the firewall towards the terminal block.
- Connect the RYCO POWER, GROUND & HORN HARNESS BLACK ground wire to the TERMINAL BLOCK ADAPTER female bullet connector on the BLACK wire (ground).
- Connect the RYCO POWER, GROUND & HORN HARNESS BLACK RED fused wire to the TERMINAL BLOCK ADAPTER female bullet connector on the RED wire (12 volt DC).
- Go to Step 19 "Test".

### 18. Connect to the Main Power on 2016 or Earlier

- Ensure that the ignition key is in the "OFF" position.
- 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 7 as needed.





MAVERICK TRAIL

Х3

- Connect the RYCO POWER, GROUND & HORN HARNESS BLACK ground wire to the PARALLEL TAP connector on the vehicle BLACK ground wire
- Connect the RYCO POWER, GROUND & HORN HARNESS RED fused wire to the PARALLEL TAP on the 12 volt DC center terminal wire.

### 19. Test

- Double check all the connectors.
- Turn the ignition key to the "ON" position.
- Verify that the running lights, turn signals, four-way flasher, horn, brake, and license plate light work correctly.
- Refer to the Troubleshooting Guide at the end of this document as needed.

**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.

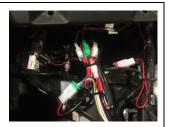
**NOTE**: The SELF-CANCELING FLASHER RELAY feature means the four-way flasher will time out after a few minutes. If the four-way flasher feature is used regularly, contact Ryco Motorsports for a different flasher relay without the self-canceling feature.



### 20. Done

**IMPORTANT**: Ensure that the wiring and installed hardware do not contact moving components or hot surfaces.

- Once all the wiring is in place and functionality is verified, double check the routing, and secure with CABLE TIES.
- Bundle any extra wire length, and secure with the CABLE TIES.
- Reinstall covers, seats and front body components.



Troubleshooting Guide							
Does It Work Correctly?	Front Turn Signals	Indicator Lights	Horn	Brake Lights	Rear Turn Signals	License Plate Light	Resolution
Scenario 1	<b>√</b>	✓	✓	✓	✓	✓	Go riding!
Scenario 2	✓	✓	✓	No	✓	✓	<b>BRAKE SWITCH INTERFACE</b> not installed correctly. Refer to Step 7.
Scenario 3	<b>✓</b>	No	<b>✓</b>	<b>✓</b>	<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> RED and BLACK wires were connected to the wrong ends of the cut vehicle taillight wires. Refer to Step 13.
Scenario 5	<b>√</b>	<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 15.
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 16.
Scenario 7	No	No	No	<b>√</b>	✓	No	Ensure that the RYCO POWER, GROUND & HORN HARNESS BLACK ground wire is connected to a good ground. Refer to Step 16.
Scenario 8	No	No	<b>√</b>	<b>√</b>	No	<b>√</b>	If the turn signal lights illuminate but do not flash, then the SELF-CANCELING FLASHER RELAY 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	<b>√</b>	No	<b>√</b>	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							neck for a bent pin on the connection between the light harness <b>TCH</b> harness.