

Before you	STOP! THIS KIT IS COMPATIBLE V	WITH							
begin	Polaris RZR Pro R / 4, all years								
Dog	Polaris RZR Pro XP / 4, all years								
	Polaris RZR Turbo R, all years								
	IF YOUR VEHICLE IS NOT ONE OF THESE MODELS, DO NOT PROCEED.  Contact Ryco Motorsports or your Ryco Moto dealer for the correct kit.								
Digital Copy		al copy of these instructions, sco							
		il.com and specify the kit numb							
	HINT: The text and photos can then be enlarged digitally if needed.								
		<u> </u>	algitally if needed.						
Where do I	Please read and follow the ins								
start?	If you are a guy and, like most of us, feel you can install this without taking the time to rec								
	the instructions, then you should ask your significant other to read them to you.								
	I put a lot of effort into creating the instructions, and I feel bad when no one reads them.  Answers to all your questions should be covered in the installation instructions.								
		os for those of you who are visua							
What tools do	• 10 mm or 5/16" socket/nut	driver or flat blade screwdriver							
I need?	<ul> <li>Polaris pliers or flat blade s</li> </ul>		<ul> <li>10 mm wrench</li> </ul>						
	• 1/4", 9/32" and 1/2" diame	eter drill bit	• 3/4" step drill bit						
	Center punch								
	<ul><li>Wire stripper</li><li>Wire cutter</li></ul>								
	T30 Torx bit								
	Drill motor		9						
What's in the		e items you will be installing on y	our vehicle, listed in order.						
box?	NOTE: Not all items will be used	d in each installation, which vari	es hy vehicle model						
	TURN SIGNAL/HORN SWITCH	SHOULDER BOLTS	SCREW CLAMP COVER						
	TORIT GIOTAL PITORITORI		JOREN GEFANN GOVER						
	-	A	_						
	C16-	<i>F L L L L L L L L L L</i>							
		The same of the sa							
			View						
	The connectors interface with	Use on model NOT equipped							
	the various kit components.	with push button controls							
	SCREW CLAMP	7104 SWITCH BRACKET	SELF-CANCELING						
			FLASHER RELAY						
			-						
		-							
		Use on models without a							
		telescoping steering wheel (i.e.	- 3 pin connector						
		Sport).	- No marking tape						



### **RYCO POWER, GROUND & CABLE TIES HORN FUSE HARNESS** - 4 pin connector - GREEN marking tape **FLANGE BOLT and LOCK NUT INSTRUMENT CLUSTER** SIGNAL HEADLIGHTS **INDICATOR HARNESS** - 4 pin connector - 3 pin connector - **RED** marking tape - BLUE marking tape NOTE: These items are boxed separate from the 7104 kit **FRONT TURN SIGNAL HARNESS REAR TURN SIGNAL HARNESS BRAKE STROBE INTERFACE** - 3 pin connector - 2 pin connector - 4 pin connector - RED marking tape - No marking tape - RED marking tape NOTE: The 3 pin connector for the REAR TURN SIGNAL HARNESS is provided uninstalled. LICENSE PLATE LIGHT **PLATE HOLDER SELF TAPPING SCREWS POWER & GROUND ADAPTER**

#### Installation Steps

**NOTE**: Where possible run new cables alongside the existing wires, and use existing cable ties/anchors where practical.

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



		•						
1. Verify Brake	With the engine running, step on the bro function correctly.	•	ake lights					
Lights	<ul> <li>If yes, turn off the engine and then continue to Step 2.</li> <li>If no, troubleshoot the vehicle brake switch/lights until the brake lights function, and then turn off and continue to Step 2.</li> </ul>							
2.	Open the front center dash access cover and remove the tray.							
3. Mount the TURN SIGNAL/	<b>RECOMMENDATION</b> : 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.							
HORN SWITCH	<b>NOTE</b> : 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.							
	<ul><li>Extend the steering column for ease</li><li>Determine the next step for installati</li></ul>							
	Does the vehicle have a telescoping steering wheel?	Does the vehicle have push button controls on the steering wheel?	Then go to					
	Yes (i.e., Premium or Ultimate model),	Yes (i.e., Ultimate model), No (i.e., Premium model),	Step 4. Step 5.					
	No (i.e., Sport model),	Yes or No,	Step 7.					
4. Mount the TURN SIGNAL/ HORN SWITCH on a Telescoping Steering Wheel with Push Button Controls	explanation: The vehicle IS equipped vehicle also has SHOULDER BOLTS in pla SHOULDER BOLTS are referenced.  Go to Step 6.	•	,					

5. Mount the TURN SIGNAL/ HORN SWITCH on a Telescoping

on a
Telescoping
Steering
Wheel without
Push Button
Controls

**EXPLANATION**: For a vehicle that is NOT equipped with push button controls (i.e., Premium model), use the two **SHOULDER BOLTS** provided in the kit, and install those on the left side of the steering wheel as shown.

• Go to Step 6.







6.

- Shorten the decorative **SCREW CLAMP COVER** by cutting it to approximately 1 1/2" long.
- Route the SCREW CLAMP up through the TURN SIGNAL/HORN SWITCH mounting bracket with the screw mechanism on the bottom, facing outboard and install the decorative SCREW CLAMP COVER on the portion of the SCREW CLAMP that is protruding from the mounting bracket.
- Does the steering column have a shroud covering?
  - If yes, route the SCREW CLAMP down into the vertical opening on the left side of the steering column between the two existing shoulder bolts and the main steering column.
  - If no, route the SCREW CLAMP down into the area on the left side of the steering column between the two SHOULDER BOLTS provided in the kit and the steering column.

**NOTE:** Push the **TURN SIGNAL/HORN SWITCH** down slightly off center when tightening the **SCREW CLAMP** to ensure the **TURN SIGNAL/HORN SWITCH** does not interfere with the instrument cluster housing.

- Secure the TURN SIGNAL/HORN SWITCH to the vehicle using a 10mm or 5/16" socket/nut driver or flat blade screwdriver.
- Push the steering column all the way to the fully retracted position before tightening the screw clamp, and ensure the

TURN SIGNAL/HORN SWITCH clears the instrument cluster housing.

Route the TURN SIGNAL/HORN
SWITCH harness between the
steering column and the tilt
mechanism, and then up under
the dash towards the center
dash access opening.





Go to Step 8 "Connect the Components to the TURN SIGNAL/HORN SWITCH Harness."



7.
Mount the
TURN SIGNAL/
HORN SWITCH
on a Model
without a
Telescoping
Steering
Wheel

NOTE: Do not remove the shoulder bolt.

**NOTE**: You may need to put some pressure on the bracket to force it over the steering column, and again to align the hole with the shoulder bolt.







- Remove and discard the **TURN SIGNAL/HORN SWITCH** existing mounting bracket and two screws.
- Install the inverted U-shaped 7104 SWITCH BRACKET to the switch assembly, using the provided FLAT HEAD SCREWS.
- Using the tilt feature, lower the steering wheel to the lowest position.
- Remove the nut on the existing tilt wheel mechanism.
- Push the shoulder bolt so that the threaded end is flush with the steering wheel column bracket.
- Slip the U-shaped 7104 SWITCH BRACKET on the TURN SIGNAL/HORN SWITCH over the steering column.
- Reinstall the nut on the vehicle shoulder bolt.
- Route the TURN SIGNAL/HORN
  SWITCH wires between the
  steering column and the tilt
  mechanism, and then up under
  the dash towards the center dash
  access opening.





8.
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.

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

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

- SELF-CANCELING FLASHER RELAY (3 pin connector with NO marking tape), and
- RYCO POWER, GROUND & HORN HARNESS (4 pin GREEN marking).
- Secure the TURN
   SIGNAL/HORN
   SWITCH HARNESS to a
   cross member using
   a CABLE TIE.







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

**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.



#### 9. 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 the support frame behind the radiator using one each FLANGE BOLT and LOCK NUT.
- Use a 10mm wrench and 10mm socket to secure the HORN.
- Route the RYCO POWER. GROUND & HORN HARNESS from the TURN SIGNAL/HORN SWITCH assembly, through the firewall grommet to the HORN.
- Install the two flat spade connectors to the **HORN** terminals.

NOTE: Either connector can be installed on either HORN terminal.



10. Install the **INSTRUMENT CLUSTER INDICATOR HARNESS** 







- Disconnect the multi-pin connector from the back of the digital display by depressing the single locking tap on the connector, and pulling the connector away from the matina part.
- Open the multi-pin connector to expose the pins.

**CAUTION**: Do not use a metal object to remove the plastic plug covering positions 6 and 7.

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

Open the connector cover, and then remove and discard the plastic plugs in positions 6 and 7.

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 RED pin/wire in position 6.
- Install the **INSTRUMENT CLUSTER INDICATOR HARNESS** GREEN harness pin/wire in position 7.

**IMPORTANT**: The pins must be seated completely.

This is IMPORTANT! That's why it's underlined:

- Verify the new pins match 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** to the 3 pin connector on the **TURN SIGNAL/HORN SWITCH** harness, matching the **BLUE** marking.
- Reinstall the connector to the interactive digital display or the speedometer assembly.







#### 11. Install the SIGNAL HEADLIGHTS

**IMPORTANT:** Before removing the existing headlights, note the position of the headlight adjusting screw, or project the headlights on a wall and then later adjust the new headlights to match the position of the original headlights.

- Remove the existing vehicle headlights.
- Install the **SIGNAL HEADLIGHTS** using the existing hardware.
- Connect the existing headlight wire harness to each SIGNAL HEADLIGHT.
   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**: The tags on the FRONT TURN SIGNAL HARNESS are marked "L" for the driver side, and "R" for the passenger side.

**CAUTION:** When connecting the FRONT TURN SIGNAL/HORN SWITCH harness to the connector on the LIGHTS, 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.

- Route the FRONT TURN SIGNAL HARNESS to the SIGNAL HEADLIGHTS.
- Install the **FRONT TURN SIGNAL HARNESS** three pin connectors into the mating connectors on the **SIGNAL HEADLIGHTS**.

#### 12. Install the REAR TURN SIGNAL HARNESS

- Remove the seats.
- Remove the plastic push pins and screws securing the center tunnel.

**HINT**: You don't need to remove the center tunnel, but simply lift it enough to route the rear cable from the front to the rear of the vehicle.

**EXPLANATION:** The REAR TURN SIGNAL HARNESS interfaces directly with the two taillight assemblies. It does **NOT** use the 4 pin rear connector on the driver side rear above the clutch cover, unlike previous kit versions.

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

**EXPLANATION**: The 3 pin connector for the REAR TURN SIGNAL HARNESS is provided uninstalled. The instructions advise how the 3 pin connector should be installed, depending on the vehicle model. Only two pins of the REAR TURN SIGNAL HARNESS 3 pin connector is used. The rear turn signal circuit utilizes the existing vehicle ground.

**EXPLANATION:** The engine exhaust pipes are on the passenger side of the vehicle on all models EXCEPT the PRO R, which has the exhaust pipes on the driver side of the vehicle. The REAR TURN SIGNAL HARNESS is designed to be used on all models including the R model. You will install the two pins in the three pin connector on the REAR TURN SIGNAL HARNESS and route the REAR TURN SIGNAL HARNESS around the engine depending on your model.

Are you installing on a PRO R model?

- If yes, you are installing on a PRO R model, go to Step 13.
- If no, it is not a PRO R model, go to Step 14.



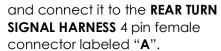
13. Install the **REAR TURN** SIGNAL HARNESS on a **PRO R Model** 

On the **REAR TURN SIGNAL HARNESS** install the two pins into the three pin connector as shown and described:

- With the locking tab up, insert the pin on the RED wire in position 1 (left).
- Insert the pin on the BLACK wire in position 3 (right).

**NOTE**: Position 2 (center) is not used.

At the passenger taillight, unplug the existing male 4 pin taillight connector from the taillight



- Plug the **REAR TURN SIGNAL HARNESS** male 4 pin connector into the passenger taillight.
- Route the **REAR TURN SIGNAL HARNESS** short leg labeled "B" to the driver taillight.
- At the driver taillight, unplug the existing male 4 pin taillight connector from the taillight and connect it to the **REAR TURN SIGNAL HARNESS 4** pin female connector labeled "B".
- connector Plug the **REAR TURN SIGNAL HARNESS** male 4 pin connector into the driver taillight.
- From the passenger taillight route the long leg of the REAR TURN SIGNAL HARNESS cable on the passenger side of the engine, alongside the existing wires where practical, to the front of the vehicle.

taillight

- From the tunnel route the REAR TURN SIGNAL HARNESS 3 pin connector up into the area behind the dash.
- Connect the REAR TURN SIGNAL HARNESS (3 pin RED marking) to the TURN SIGNAL/HORN **SWITCH** harness.
- Bundle any excess cable and secure with CABLE TIEs.

14. Install the **REAR TURN** SIGNAL HARNESS on a **PRO XP Model** 

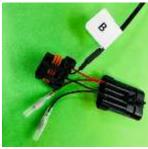
On the **REAR TURN SIGNAL HARNESS** install the two pins into the three pin connector as shown and described:

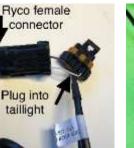
- With the locking tab up, insert the pin on the BLACK wire in position 1 (left).
- Insert the pin on the RED wire in position 3 (right).

**NOTE**: Position 2 (center) is not used.

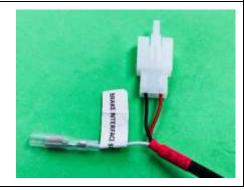














- At the driver taillight, unplug the existing male 4 pin taillight connector from the taillight and connect it to the REAR TURN SIGNAL HARNESS 4 pin female connector labeled "A".
- Plug the REAR TURN SIGNAL HARNESS male 4 pin connector into the driver taillight.



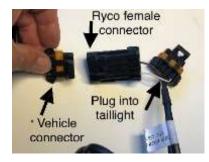


- Route the REAR TURN SIGNAL HARNESS short leg labeled "B" to the passenger taillight.
- At the passenger taillight, unplug the existing male 4 pin taillight connector from the

taillight and connect it to the **REAR TURN SIGNAL HARNESS** 4 pin female connector labeled "B".

 Plug the REAR TURN SIGNAL HARNESS male 4 pin connector into the passenger taillight.

 From the driver taillight route the long leg of the





**REAR TURN SIGNAL HARNESS** cable on the driver side of the engine, alongside the existing wires where practical, to the front of the vehicle.

- From the tunnel route the **REAR TURN SIGNAL HARNESS** 3 pin connector up into the area behind the dash.
- Connect the REAR TURN SIGNAL HARNESS (3 pin RED marking) to the TURN SIGNAL/HORN SWITCH harness.
- Bundle any excess cable and secure with CABLE TIEs.

#### 15. Install the BRAKE STROBE INTERFACE

**EXPLANATION:** The Ryco Moto kit utilizes the vehicle brake lights for the turn signal function. The brake light circuit is disrupted with the installation of the Ryco Moto kit and the BRAKE INTERFACE must be connected in order for the brake lights to function on the vehicle. The brake strobe feature can be disabled per preference as described in "Brake Strobe Feature," but the BRAKE INTERFACE must be installed regardless.

**Brake Strobe Feature**: Whenever the service brake is applied, the brake lights strobe six times in the first second, and then remain on at full intensity until the brake pedal is released.

If you wish to disable the strobe feature, remove the brake strobe module (the black rectangular box) from the BRAKE STROBE INTERFACE before installation:

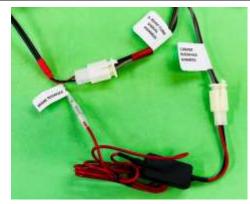
- Cut the two RED wires at each end of the black retangular box.
- Either cut the BLACK ground wire or remove the BLACK ground wire from the 2 pin connector.
- Splice the two RED wires together.





**EXPLANATION**: The brake applied signal is picked up from the rear harness at the taillight connector.

- Connect the BRAKE STROBE INTERFACE (2 pin with NO marking) to the TURN SIGNAL/HORN SWITCH harness only 2 pin connector.
- Route the BRAKE STROBE INTERFACE wire to the female bullet connector on the REAR TURN SIGNAL HARNESS where the REAR TURN SIGNAL HARNESS connects to the TURN SIGNAL/HORN SWITCH harness.
- Plug the BRAKE STROBE INTERFACE male bullet connector on the RED wire into the female bullet connector on the WHITE wire on the REAR TURN SIGNAL HARNESS.

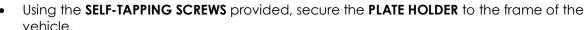


16. Install the LICENSE PLATE LIGHT and PLATE HOLDER **NOTE**: Prior to drilling the mounting holes, verify that the license PLATE HOLDER clears the supports, etc.

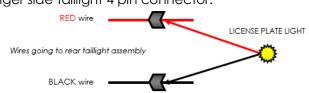
**IMPORTANT**: Use the flange nut provided with the LICENSE PLATE LIGHT. Do NOT overtighten the nut on the LICENSE PLATE LIGHT. The LICENSE PLATE LIGHT body is aluminum, and the threads can be stripped quite easily.

**EXPLANATION**: The **LICENSE PLATE LIGHT** is installed in the single hole where the light will shine down on the license plate.

- Using the PLATE HOLDER as a guide, mark the location of the two mounting holes.
- Drill two pilot holes in the metal tube under the bed to mount the PLATE HOLDER.



- Install the LICENSE PLATE LIGHT in the plate holder and secure with the provided nut.
- Route the LICENSE PLATE LIGHT wires to the two female bullet connectors on the REAR TURN SIGNAL HARNESS near the passenger side taillight 4 pin connector.
- Connect the LICENSE PLATE LIGHT RED wire to the REAR TURN SIGNAL HARNESS RED wire.
- Connect the LICENSE PLATE LIGHT BLACK wire connects to the REAR TURN SIGNAL HARNESS BLACK wire.



 Mount the license plate (when available) using the provided FLANGE BOLTS and LOCK NUTS.

17. Connect to the Main Power



**IMPORTANT**: On the POWER AND GROUND ADAPTER verify that the RED and BLACK wires are in the positions as pictured. If not, please contact Ryco Motorsports before proceeding.

**IMPORTANT**: The LED lights 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.



	<ul> <li>Locate the Polaris Pulse terminal block front center dash access cover.</li> <li>Remove and discard one of the vehicle plugs and install the POWER &amp; GROUND ADAPTER in its place.</li> <li>Route the RYCO POWER, GROUND &amp; HORN HARNESS wires.</li> <li>Connect the RYCO POWER, GROUND &amp; HORN HARNESS BLACK ground wire to the POWER &amp; GROUND ADAPTER female bullet connector on the BLACK (ground) wire.</li> <li>Connect the RYCO POWER, GROUND &amp; HORN HARNESS BLACK RED fused wire to the</li> </ul>			
18. Test	<ul> <li>POWER &amp; GROUND ADAPTER female bullet connector on the RED wire (12 volt DC).</li> <li>Double check all the connectors.</li> <li>Start the vehicle's engine.</li> <li>Verify that the turn signals, four-way flasher, indicators, horn, brake, and license plate light work correctly.</li> <li>Refer to the Troubleshooting Guide at the end of this document.</li> </ul>			
	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.			
19. Done	IMPORTANT: Ensure that the wiring and installed hardware do not contact moving components or hot surfaces.			
	<ul> <li>Once all the cabling is in place and functionality is verified, double check the routing, and secure with CABLE TIES.</li> <li>Bundle any extra cable length and secure with the CABLE TIES.</li> <li>Reinstall the dash, front access cover, center tunnel 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	<b>√</b>	<b>√</b>	<b>✓</b>	No	<b>√</b>	✓	BRAKE STROBE INTERFACE was not installed correctly.  Refer to Step 15.
Scenario 3	<b>√</b>	No	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	Ensure the clear plastic cover is removed, and the pins are seated correctly. Refer to Step 10.
Scenario 4	<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 16.
Scenario 5	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 17.
Scenario 6	No	No	No	✓	No	✓	Ensure that the RYCO POWER, GROUND & HORN HARNESS BLACK ground wire is connected to a good ground. Refer to Step 17.
Scenario 7	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 mailing address, and we will send you a replacement, at no charge, to correct the problem.
Scenario 8	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 9		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.					
Scenario 10	If a single light does not work, check for a bent pin on the connector of the affected light.						