

M2 CYCLONE TACHOMETER KIT

General

This Tachometer Kit is designed to fit Buell 1999 and 2000 Cyclone M2 motorcycles.

NOTE

A Service Manual for your motorcycle is available from your Buell Dealer.

See Service Parts Illustration for kit contents.

⚠ WARNING

The rider's safety depends on the correct installation of this kit. If the following installation procedures are not within your capabilities, or if you do not have the correct tools, have your Buell dealer perform this installation. Failure to do the installation correctly could result in death or serious injury.

Remove Speedometer.

⚠ WARNING

To avoid accidental start-up of motorcycle and possible personal injury, disconnect the negative battery cable before performing any of the following procedures. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion which could result in death or serious injury.

⚠ WARNING

Always disconnect the negative battery cable first. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion which could result in death or serious injury.

1. Disconnect the negative battery cable.
2. Follow instructions in applicable Service Manual and remove seat.
3. See Figure 1. Gain access to the back side of the dash panel by removing the two screws and nylon washers on each side of the windscreen and detaching windscreen from brackets. Save screws and nylon washers for re-installation.
4. See Figure 2. Remove the fuel tank as follows:
 - a. Remove screw, mounting plate and top retention plate. Lift tank and remove lower retention plate. Save all mounting hardware.
 - b. Remove hose clamp and disconnect hose from vapor vent valve. Discard hose clamp.

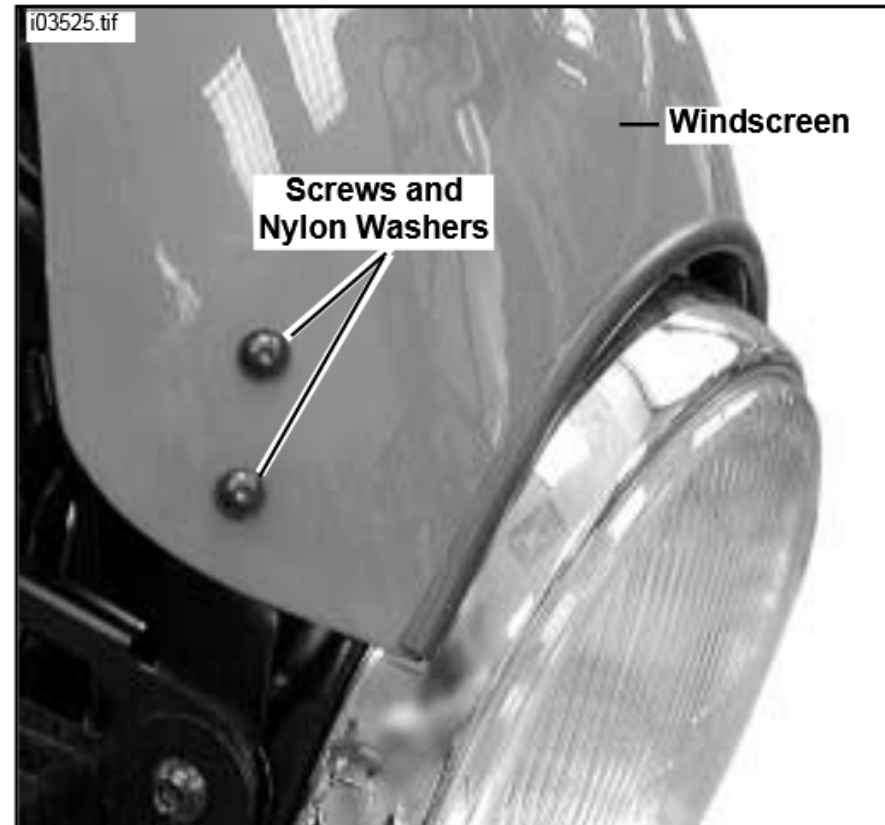


Figure 1. Windscreen, Right Side

5. Remove fuel line clamp from fuel hose at bottom of tank and remove fuel tank. Discard fuel line clamp. Place fuel tank in safe place.

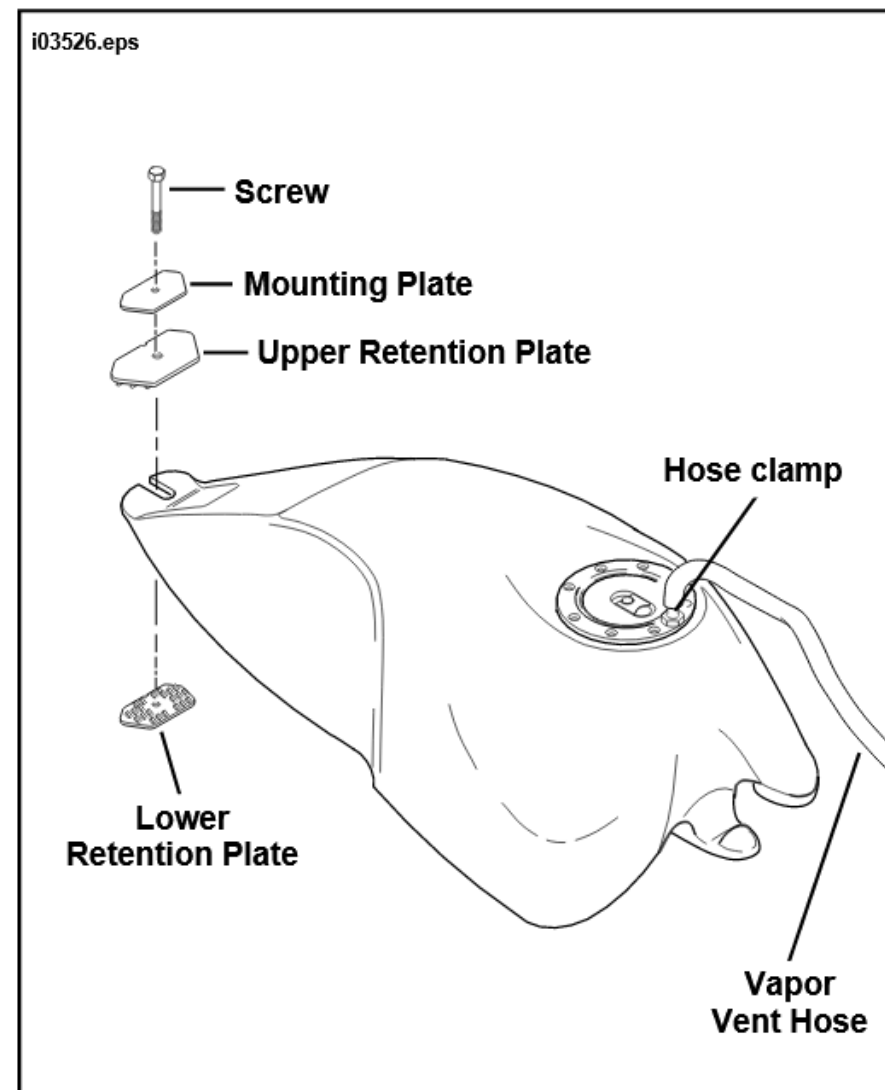


Figure 2. M2 Fuel Tank Mounting Components

- See Figure 3. Pry grommet surrounding odometer reset button from front of dash panel. See Figures 4 and 5. Back out odometer reset button from back side of dash panel. Save grommet and button for re-installation.
- See Figures 3 and 5. Remove face nut from ignition key switch.

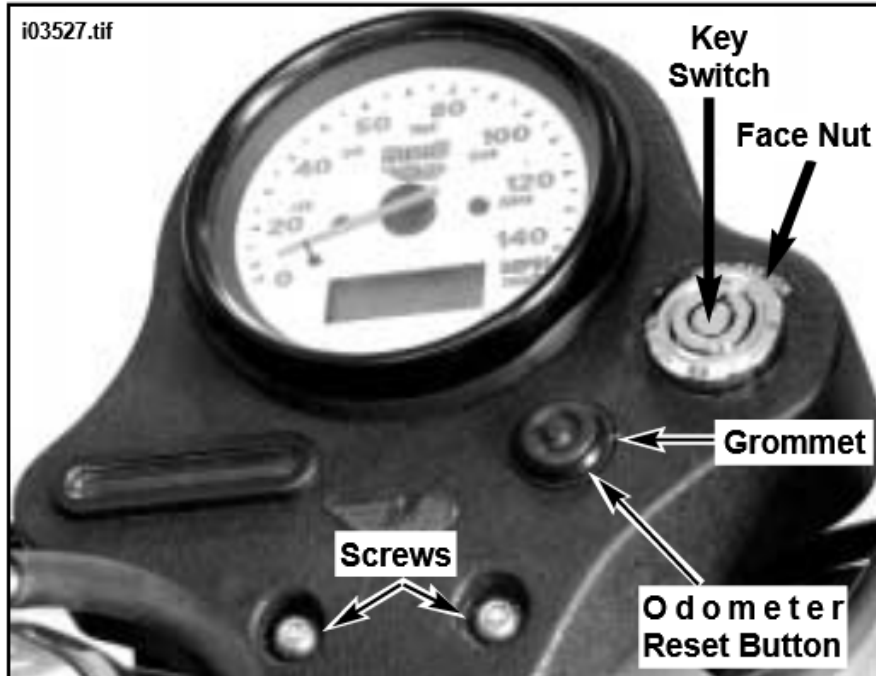


Figure 3. Stock Dash Panel (Front)

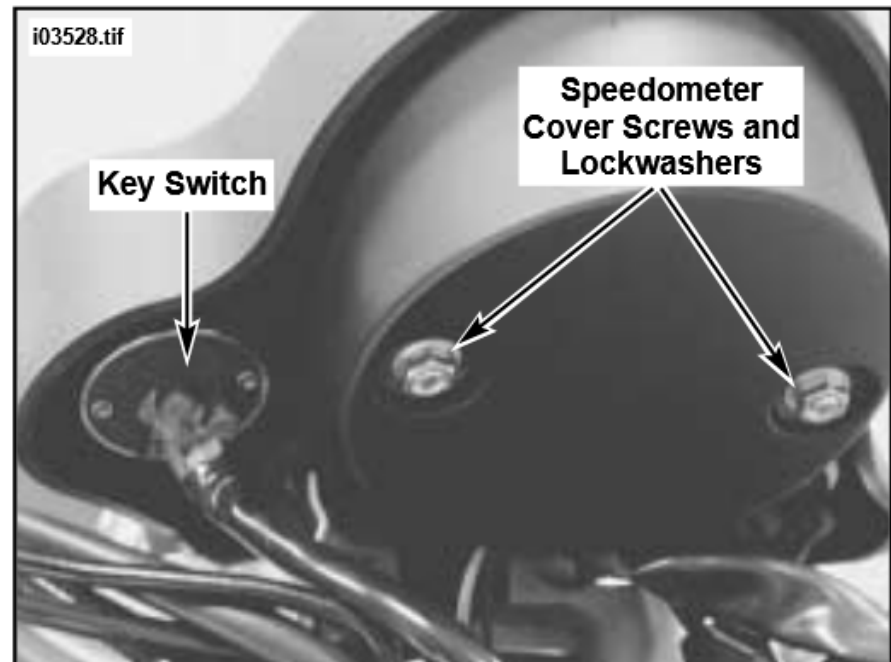


Figure 4. Stock Dash Panel (Back)

- See Figures 4 and 5. Back out key switch from back side of dash panel.
- See Figures 4 and 5. Remove the two nuts and lockwashers securing speedometer to speedometer cover. Discard nuts and lockwashers.
- See Figure 5. Release the four tabs on the indicator light bezel holding indicator light assembly in place.

- Remove indicator light assembly assembly from back of dash panel. Pull indicator light bezel and graphics panel from front of dash panel. Save bezel and graphics panel.
- See Figure 5. Trace speedometer wires back to the speedometer connector and disconnect connector halves. Note location of cable ties and cut to allow removal of wires.
- Slide (Pull) speedometer with attached odometer reset button, indicator lamp assembly and AMP Multilock connector out of speedometer cover and dash panel, through rubber cushion. Be careful not to damage wiring when pulling connector and indicator lamp assembly through cover. Discard speedometer cover, dash panel and rubber cushion.
- See Figure 3. Remove two screws securing dash panel to handlebar clamp and remove panel. Discard screws.

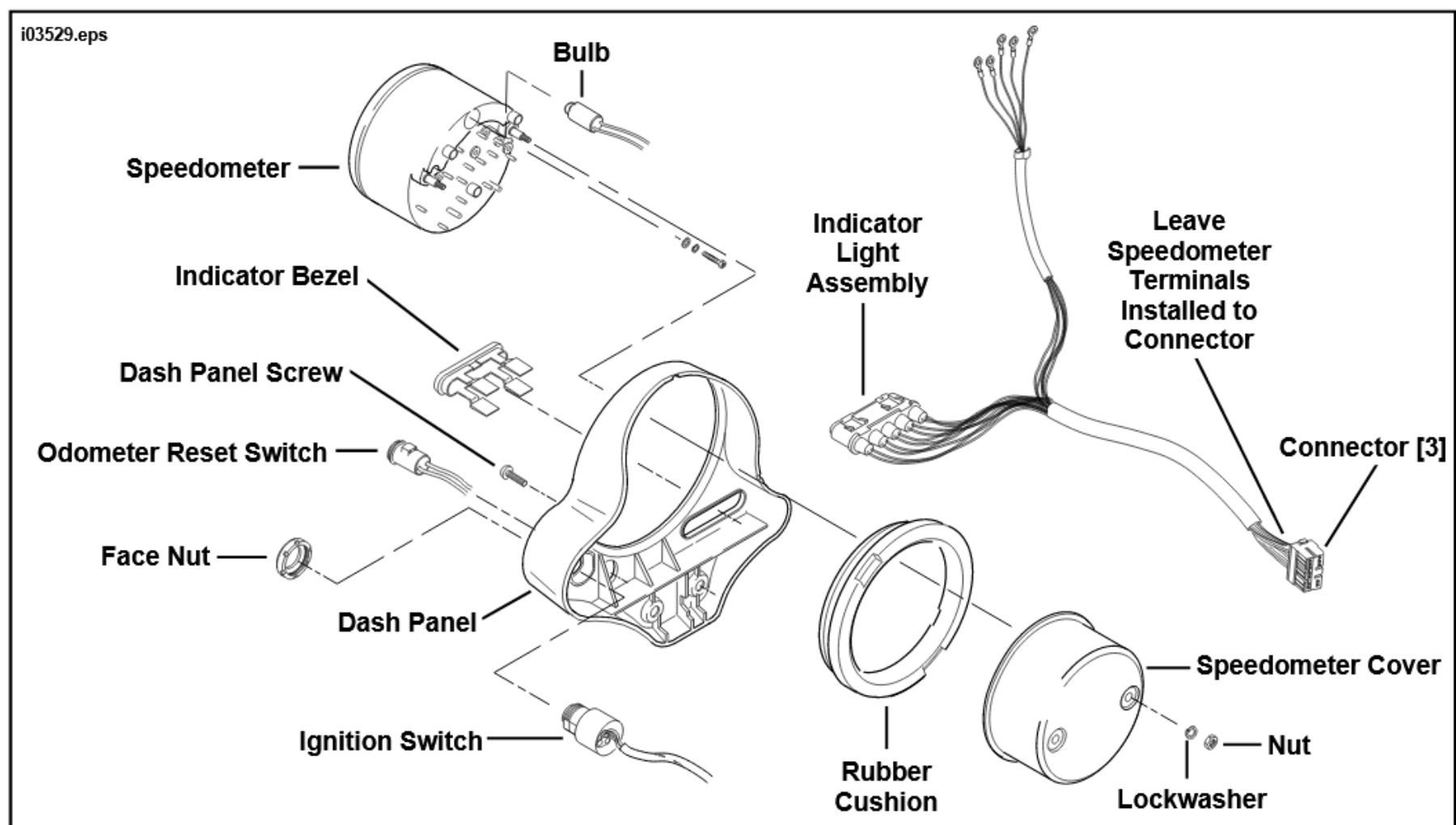


Figure 5. Stock Speedometer Assembly

Installation

15. Obtain new dash panel (Part Number M0660.01A3) and four rubber grommets (Part Number M0649.01A3) from kit.
16. See Figure 6. Install grommets into holes present in the recessed (gauge) areas of the panel as shown.
17. Obtain two new dash panel screws (Part Number AA0406.3CZ) from kit. Align new dash panel on handlebar clamp and install screws. Tighten screws to 7-9 ft-lbs (9.5-12.2 Nm).
18. Apply LOCTITE THREADLOCKER 243 (blue) to the threads of the ignition key switch.
19. From the back of the dash, insert the ignition switch into the switch opening with the word "TOP" stamped on the switch body facing upward.
20. Place ignition switch label in position over the ignition switch and install face nut. Tighten securely.

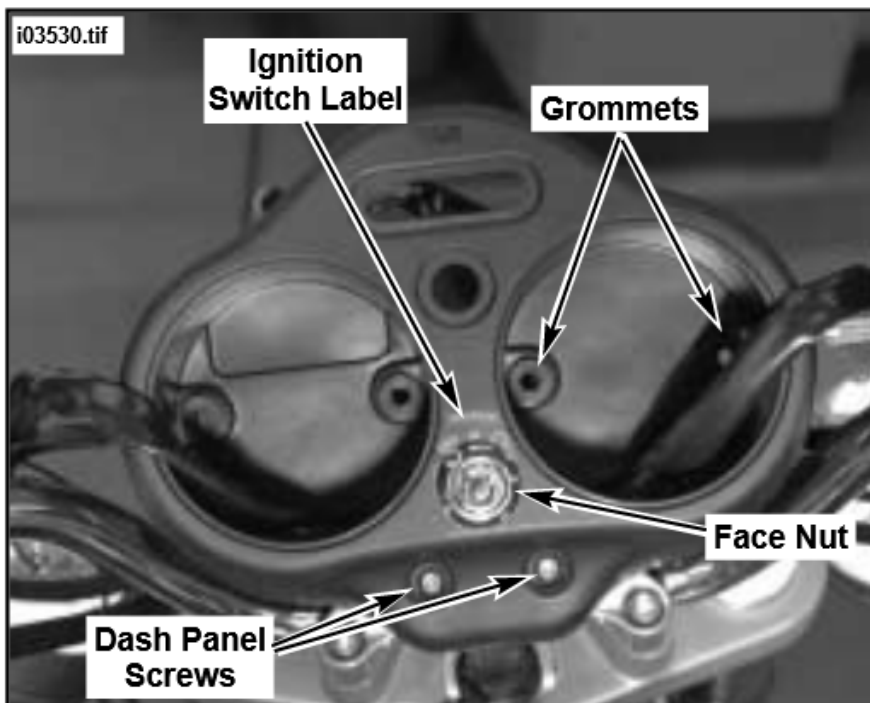


Figure 6. New Dash Panel

21. Install tachometer by performing the following:
 - a. See Figure 7. Obtain new cushion (Part Number Y0604.01A3) from kit. Route wiring from tachometer through cushion and slide the cushion onto the gauge with the collar (ridged portion of cushion) facing the top of the gauge.
 - b. Route tachometer wiring with conduit through cutout opening in panel and out to the back of the panel.
 - c. Make sure posts on back of tachometer align with holes in cover. Align and push tachometer into cushion and cover. Be careful not to pinch wiring between tachometer and cover.

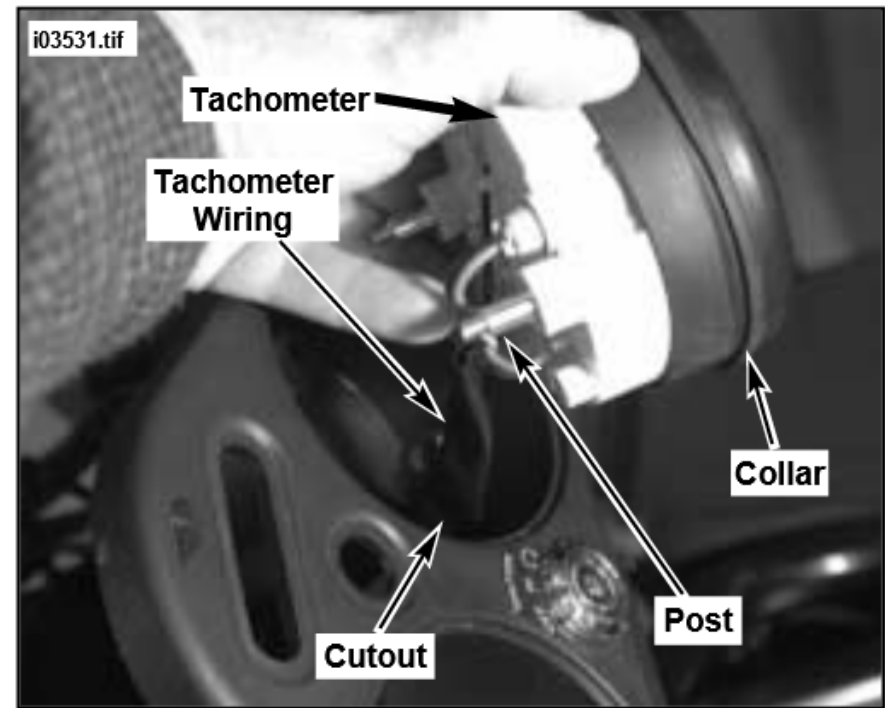


Figure 7. Install Tachometer

22. Install the speedometer by performing the following:

NOTE

When performing the next step, note that due to the wiring installed, it may be easier to slightly stretch the cushion and install to gauge from the top (readout side).

- a. See Figure 8. Obtain new cushion (Part Number Y0604.01A3) from kit. Slide the cushion onto the gauge with the collar (ridged portion of cushion) facing the top of the gauge.
- b. Route wiring with AMP Multilock Connector, odometer reset button and indicator lamp assembly through cutout opening in speedometer cover. **NOTE:** If opening in cover is not large enough for indicator lamp assembly to pass through, it may be necessary to make note of individual lamp locations and remove each of the lamps from assembly. Pass indicator lamp wiring with lamps through cover and re-install each of the lamps to the indicator assembly.
- c. Make sure posts on back of speedometer align with holes in cover. Align and push speedometer into cushion and cover. Be careful not to pinch wiring between speedometer and cover.

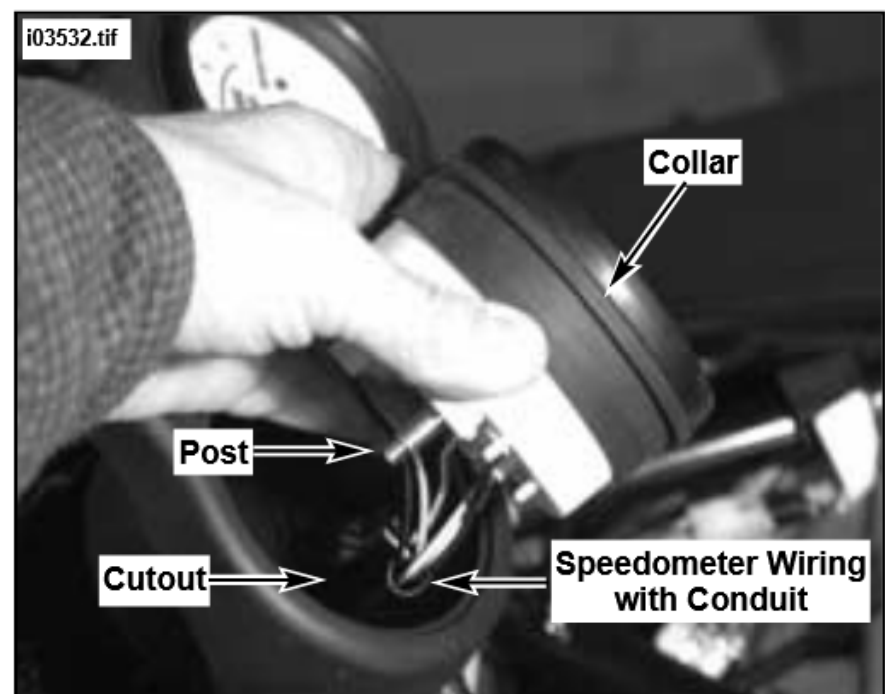


Figure 8. Install Speedometer

23. See Figure 9. Obtain two Hex Nuts (Part Number D0500.1CZ) and two Flat Washers (Part Number B0613.1Z) from kit. Fasten tachometer to cover (panel) using nuts with washers. Tighten securely. Perform the same procedure for the speedometer.
24. Install odometer reset button from back of the dash. Secure with plastic grommet.
25. Install indicator light assembly by performing the following:
 - a. Place indicator light bezel through the front of the dash.
 - b. Position indicator light assembly so that the green tab on the bulb housing is facing upward.
 - c. Insert indicator light assembly into bezel and secure with the four tabs.
26. Route wiring from speedometer and tachometer around the steering neck and back between front frame tubes.

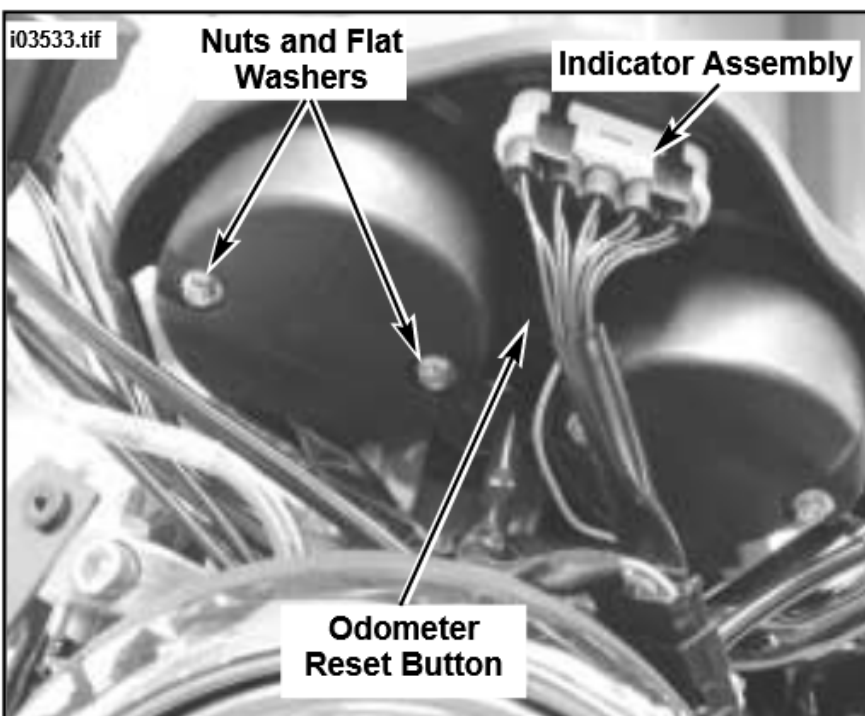


Figure 9. Install Indicator, Odometer Reset Button and Secure Tachometer/Speedometer to Panel

27. See Figure 10. Follow instructions under AMP MULTILOCK ELECTRICAL CONNECTORS in Service Manual and wiring diagram (Figure 15) on Page 5 and install the wire terminals from the tachometer to the AMP Multilock Connector [3] as follows:

Tachometer

- Orange Wire Terminal-Chamber 3
- Pink Wire Terminal-Chamber 7
- Black Wire Terminal-Chamber 9

28. See Figure 11. Connect the Speedometer/Tachometer half of the connector to the connector from main harness.
29. Install four wire ties, securing the tachometer and speedometer conduit to other wiring conduit in the same locations as noted during disassembly.
30. Using screws and nylon washers saved in Step 3, align and re-install windscreen to mounting brackets. Tighten securely.

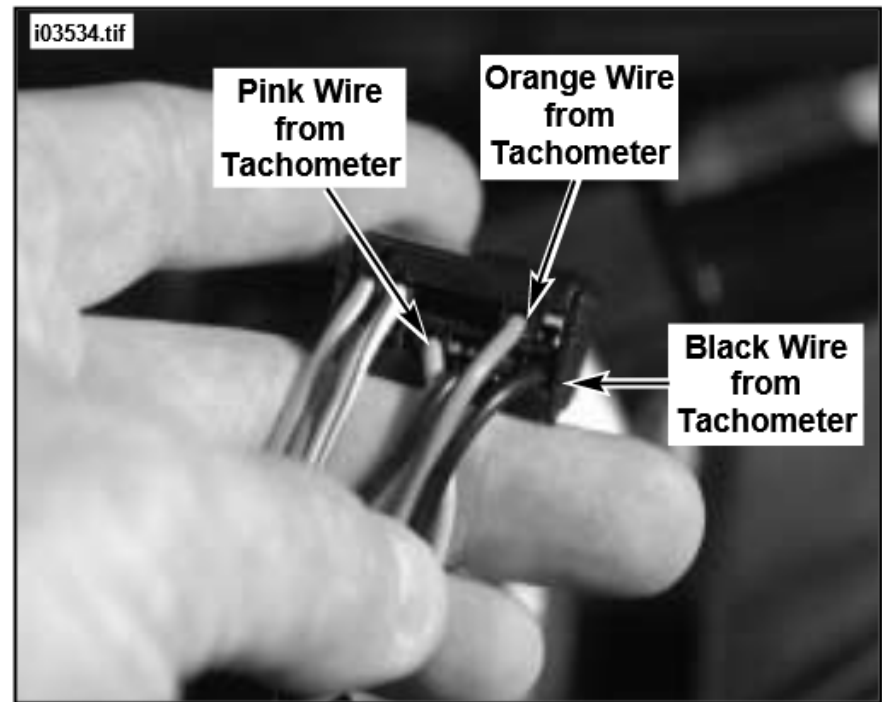


Figure 10. Install Tachometer Wiring Terminals to Connector

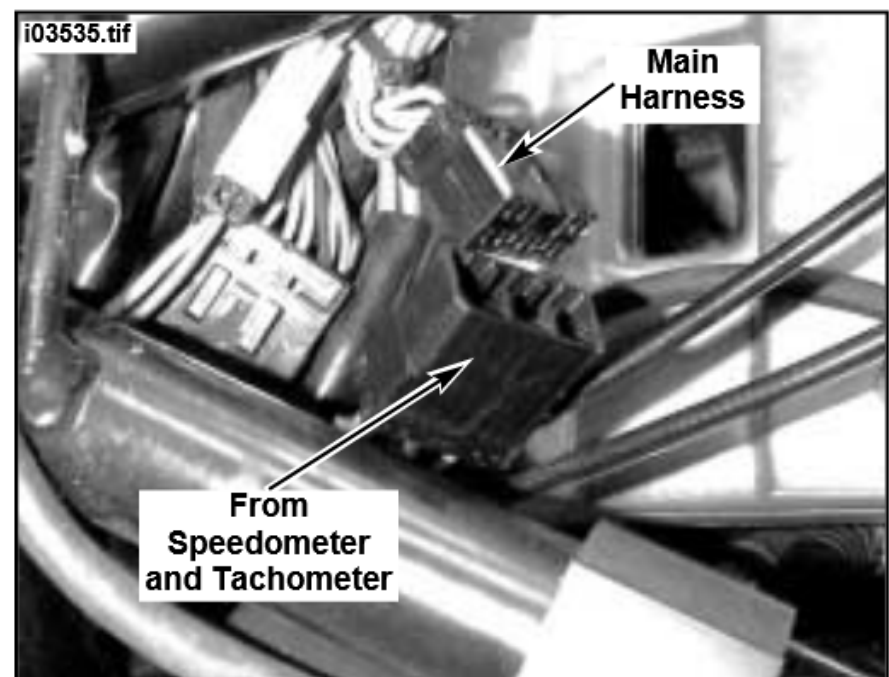


Figure 11. Speedometer/Tachometer to Main Harness

31. See Figure 12. Obtain the Teflon Wear Pad (Part Number C0146.T) from kit. Peel off adhesive backing and install to inner surface of windscreen at location shown to keep dash panel from rubbing on windscreen.

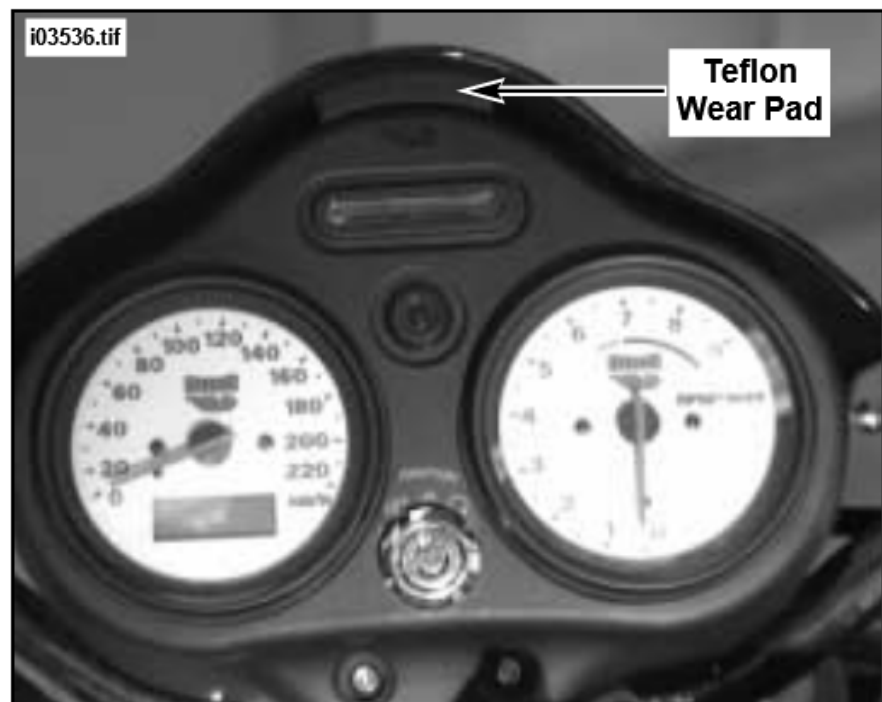


Figure 12. Install Teflon Wear Pads

32. Place the front of the fuel tank in position on frame.
33. See Figures 2 and 13. Carefully raise the back of the fuel tank and place the lower retention plate in position on the frame. **NOTE: It is important that the prongs on the retention plate face toward the rear of the vehicle and be in contact with the fuel tank. Position so the V-shaped slot side of the mounting plate faces toward the rear as shown.**
34. Carefully place the fuel tank onto the lower retention plate.
35. See Figures 2 and 15. Place the remaining retention plate and mounting plate in position on top of the fuel tank rear mounting projections. **NOTE: It is important that the prongs on the retention plate face toward the rear of the vehicle and be in contact with the fuel tank. Position so the V-shaped slot side of the mounting plate faces toward the rear as shown.**
36. Install mounting bolt and torque to 18-23 ft-lbs. (24.4-31.2 Nm). Wait five minutes and re-torque to 18-23 ft-lbs. (24.4-31.2 Nm).
37. Install fuel line at bottom of tank using new hose clamp (Part Number Q0115.0).
38. Re-install fuel tank vent hose using cable tie (Part Number Y0303.2B) and pull tight. Cut off any remaining tie.

42. Start the engine and verify that tachometer and indicator lights are working correctly. If tachometer does not function, check that all wiring connections were made correctly.
43. Test ride the motorcycle to verify that the speedometer is functioning properly.

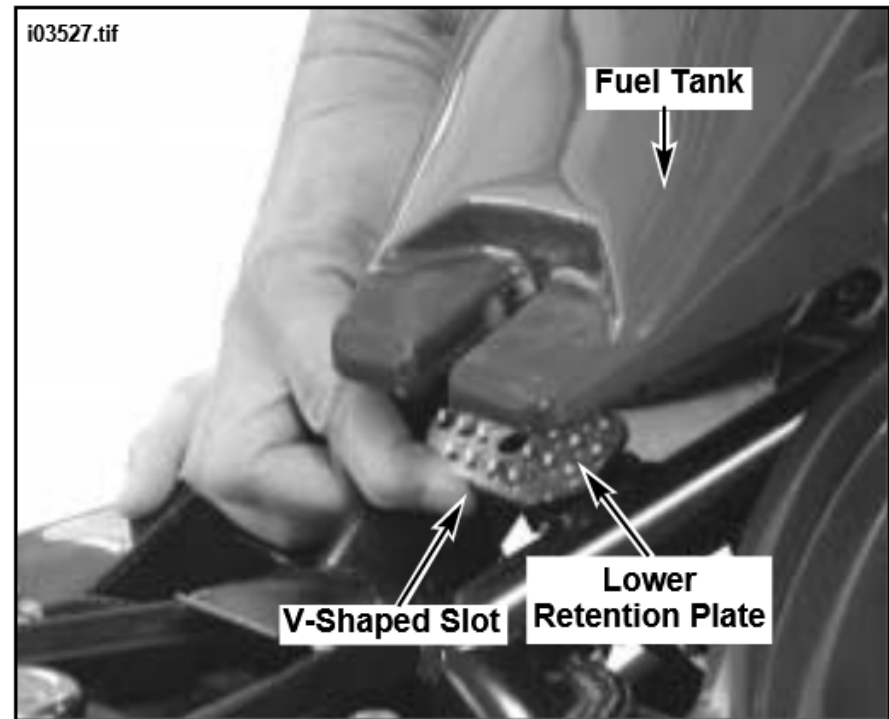


Figure 13. Install Lower Retention Plate

WARNING
 After installing seat, pull upward on front of seat to be sure it is locked in position. If seat is loose, it could shift during vehicle operation resulting in loss of control of vehicle and death or serious injury

39. Install seat.

Final Checks and Adjustments

40. Reconnect the negative battery cable.

WARNING
 Always connect the positive battery cable first. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion which could result in death or serious injury.

41. Turn ignition switch to **ON**. Check indicator lights, signal lights and headlamp for proper function.

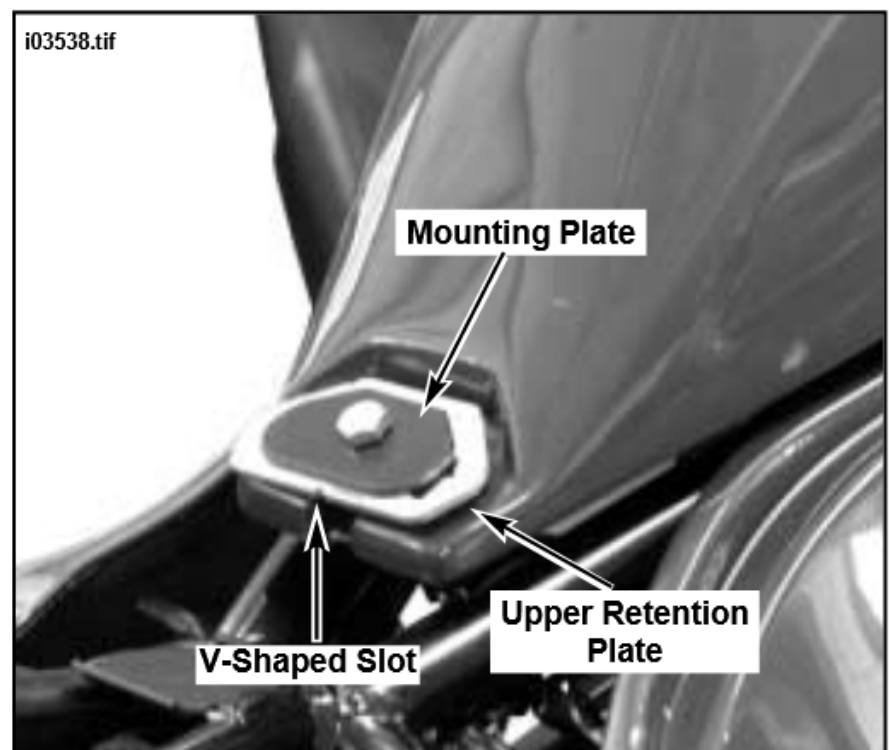


Figure 14. Upper Retention Plate and Mounting Bracket

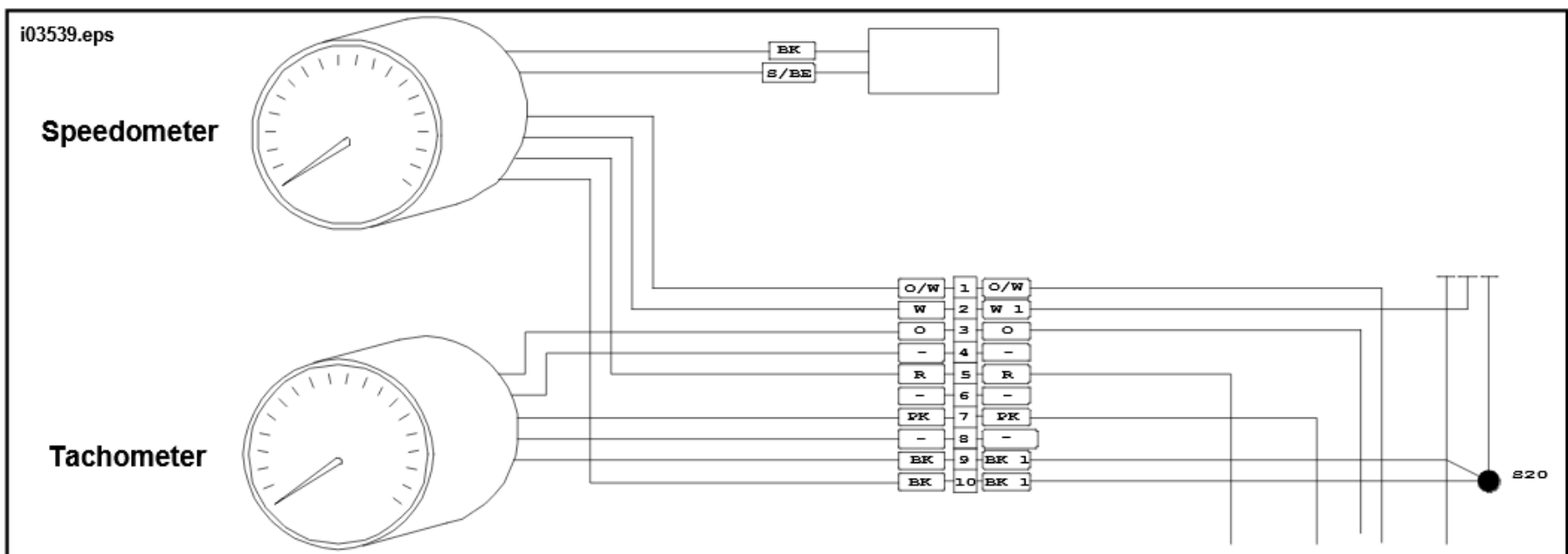
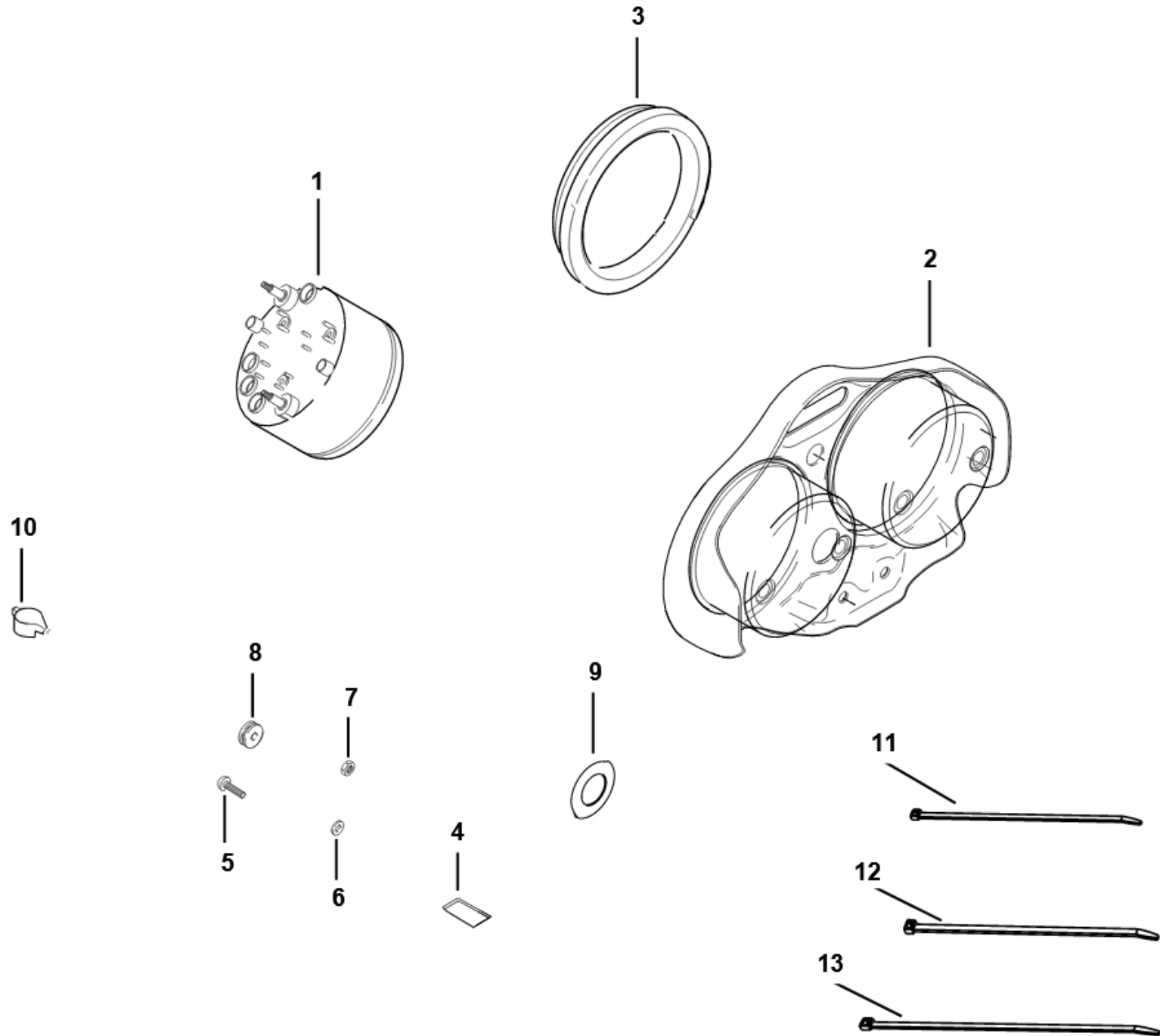


Figure 15. Speedometer/Tachometer Wiring

Buell M2 Cyclone Tachometer Kit

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Item	Description/Qty	Part Number
1	Tachometer	Y0501.K
2	Dash panel	M0660.01A3
3	Cushion, gauge (2)	Y0604.01A3
4	Wear pad, teflon	C0146.T
5	Screw, 1/4-20x3/4 (2)	AA0406.3CZ
6	Washer, flat (4)	B0613.1Z
7	Nut, hex (4)	D0500.1CZ
8	Grommet, rubber (4)	M0649.01A3
9	Label, ignition switch	Y0619.01A3
10	Hose clamp fuel (crimped)	Q0115.0
11	Wire tie (5/32, 8.5 inch) (3)	Y03032B
12	Wire tie (7/64, 8.5 inch) (4)	Y0305.8B
13	Wire tie #14, black (2)	Y0301.CB