



RADIAL VALVE COVERS

## RADIAL VALVE COVERS

2010-UP BOXER MODELS

61601

### NOTICE

These installation instructions contain important information. Ensure that the end user receives this copy and is aware of its importance for future reference.

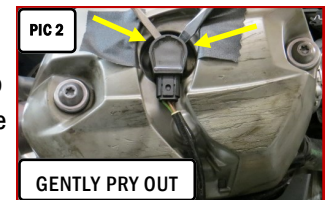
### NOTICE

It is the end user's responsibility to ensure that all of the fasteners (including pre-assembled) are tightened before operation of the motorcycle. Roland Sands Design will not provide warranty coverage on products or components lost or damaged due to improper installation or lack of maintenance. Periodic inspection and maintenance are required on all fasteners.

### WARNING

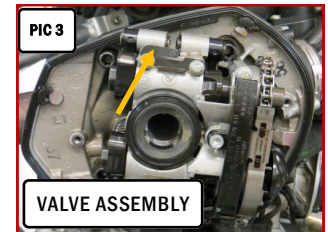
**INSTALLATION REQUIRES CONTACT WITH THE ENGINE. ENSURE THAT THE ENGINE HAS FULLY COOLED BEFORE BEGINNING TO PREVENT INJURY.**

1. Read and understand all steps in the instructions before starting the installation. Park the motorcycle on a hard, level surface and turn **OFF** the ignition. Allow the engine and exhaust system to cool.
2. Remove any dirt and debris from both of the cylinder head/valve cover areas.
3. Refer to **PIC 1**. Remove the spark plug covers; set them aside, they will not be reused.
4. Refer to **PIC 2**. Using the special tool (or two flat-blade screwdrivers), disconnect both spark plug boots. Gently and evenly pry the boot **STRAIGHT** out.
5. Place an oil catch-pan underneath the valve covers.



Refer to **PIC 3**. Unscrew the two T40 Torx screws in the existing valve covers; gently lift up and over the valve assembly to remove the covers; set them aside for now, the screws will be reused, the covers will not be reused.

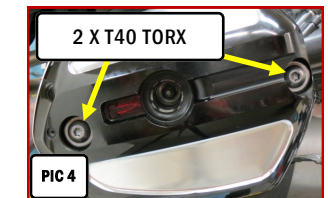
**NOTE:** If needed, replace the valve cover gaskets, if worn or damaged (sold separately) according to the procedure in the service manual.



6. Refer to **PICS 3 AND 4**. Remove the three small screws from each of the Wire Covers on the Radial Valve Covers. Note that there are two long screws (rear) and one short screw (front); set the Wire Cover and three screws aside for now.

Ensure that the gasket remains in place; "hook" the Cover over the top of the valve assembly.

7. Insert the two screws (with grommets) from STEP 5 into the mounting holes in the Valve Covers. Press the grommets in until they fully seat in the mounting hole.



**NOTE:** The grommets may get damaged if they are not properly seated properly prior to tightening.



Align the holes in the Cover with the threaded holes in the head; secure the Cover with the two T40 screws removed in STEP 5. Repeat for the other side.

8. Torque the T40 screws to **7.4 ft-lbs (10 Nm)**.

9. Refer to **PIC 5**. Disconnect the spark plug boot from the wiring; lift up on the release tab, then pull the connector straight out.

**NOTE:** Dielectric grease inhibits moisture and prevents corrosion. It is recommended to use dielectric grease on ALL electrical connections. Apply dielectric grease directly to mating surfaces.

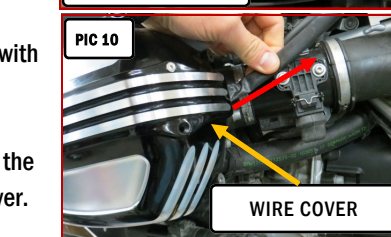
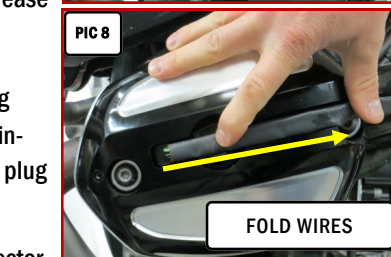
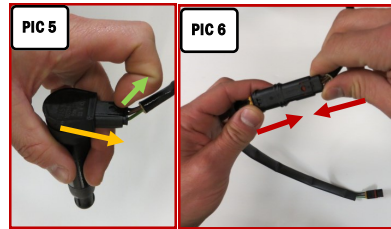
10. Refer to **PIC 6**. Apply dielectric grease to the mating surfaces of the connectors and connect one of the included wiring extensions in-line between the spark plug boot and existing wiring; repeat for the other side.

11. Refer to **PIC 7**. Reinstall the spark plug boot (connector facing forward); ensure that it “clicks” into place; repeat for the other side.

12. Refer to **PIC 8**. Carefully fold the spark plug wiring back over the top of the boot; route it in the channel in the Cover towards the rear of the bike.

13. Refer to **PIC 9**. Align the three Wiring Cover holes with the threaded holes in the Valve Cover.

Refer to **PIC 10**. Ensure that the wiring remains in the channel and routes directly out the rear of the Cover.



14. Secure the Wire Cover to the Valve Cover with the three included Screws; one short (front) and two long (rear).

**DO NOT OVER TIGHTEN THE SCREWS.** Repeat for the other side.

15. Secure extra wiring away from any moving parts, pinch points or extreme heat.

**TIP:** Remove the three small Torx screws from the plastic covers underneath the cylinder heads; secure the wiring behind the covers; reinstall the cover and three screws.

**NOTE:** Roland Sands Design will not provide warranty coverage on any electrical component that fails due to pinched, crimped, broken, abraded, melted or frayed wires.

**NOTE:** Threadlocker has been pre-applied to the screws. Threadlocker (Loctite 242 or equivalent) must be re-applied if the Swing Arm Pivot Plugs are removed, then reinstalled. Follow the manufacturer’s recommendations for proper thread preparation and application.

16. Check for oil leaks after operating the motorcycle.

### TIPS FOR PROPER CARE:

- 1 Your new product is made out of anodized aluminum. Anodized aluminum requires special attention when cleaning. Some cleaning products or procedures can actually remove the anodized treatment which will lead to pitting in the aluminum.
- 2 Thoroughly clean the product often with a soft cloth, mild soap and water. Regular cleaning keeps contaminates from building up.
- 3 Rinse thoroughly with FRESH water.
- 4 Use only metal protection products that are formulated for anodized aluminum.
- 5 **DO NOT USE** bleach or chlorides to clean the product.
- 6 **DO NOT USE** products containing abrasives to clean the product. **Never** use steel or brass wool, wire brushes, polishing wheels, rubbing or polishing compounds on the product.
- 7 **DO NOT USE** concentrated alkaline based solutions to clean the product. Many detergents are alkaline based.