2001-2011/12-17* Honda Gold Wing LED Projection Head Light

Quick Install Guide

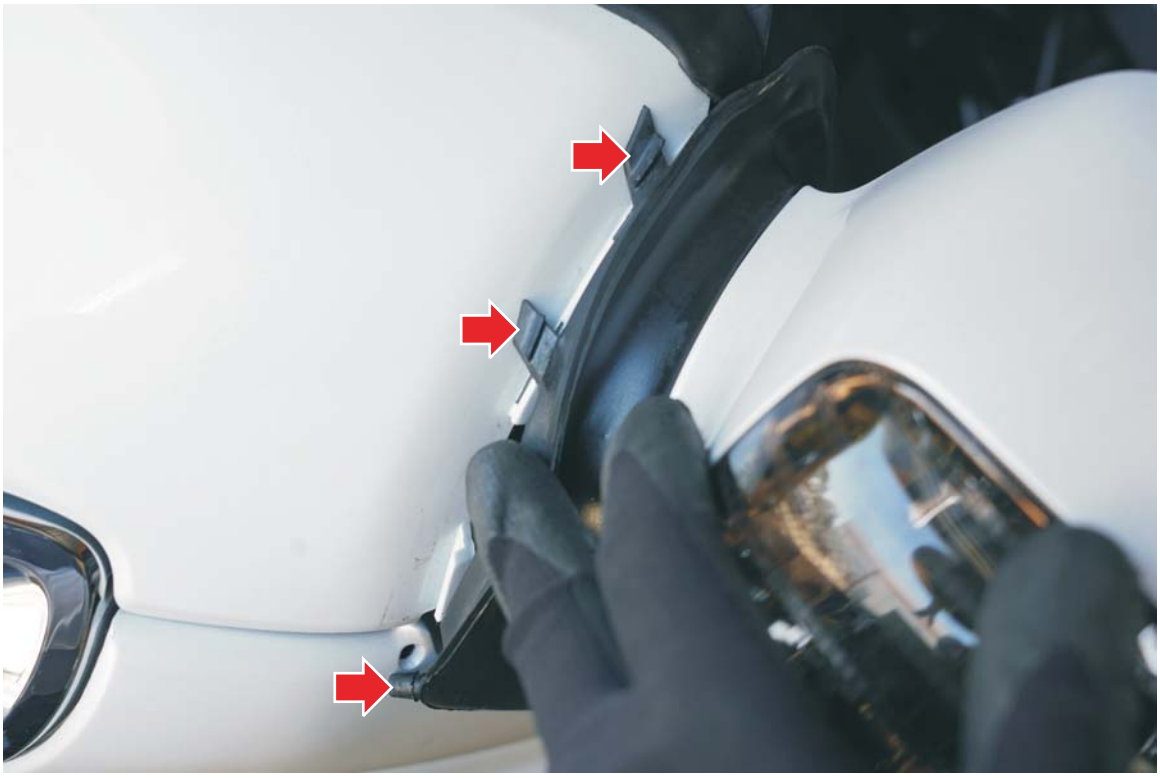
For full step-by-step comprehensive installation guide please visit our YouTube channel:
www.youtube.com/motodynamic
or by visiting this link:
https://youtu.be/9B6xIceCm1o

Parts List:
x1 LED projection head light assembly (L+R)
x2 Low/high beam main harness
x2 Turn signal splitter harness
x6 cable ties

Tools used for this installation:
5mm allen (hex) tool
Stubby and regular flat head screwdriver
Stubby and regular Philips screwdriver
Needle nose pliers
8mm and 10mm socket with ratchet
10mm box/open ended wrench

*for 2012-2017 models additional steps required to loosen and remove fairing/headlight assembly - see step 9

1. Remove upper front nose fairing - carefully peel back the mirror seals and pull out the 3 inserts that secure it to the fairing, then pivot the mirrors forward and remove 1 bolt/washer from each side (10mm box wrench), careful not to drop the rubber grommet. Suggestion to pull out the rubber grommet now. Pull forward on the lower section it is held on by 4 friction fastners, 2 at the upper outer edge (pull upwards), 2 on the center bottom (pull forward), and still clipped on where the 2 rubber grommets were removed. Repeat on other side.



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Step 1 continued (remove bolt/washer - 10mm box wrench, remove the rubber grommet underneath with needle nose pliers)

Step 1 continued (pull up on the 2 upper friction fasteners, then sightly bend outwards at the clips where the grommets where removed, then pull forward to release the bottom 2 friction fasteners)

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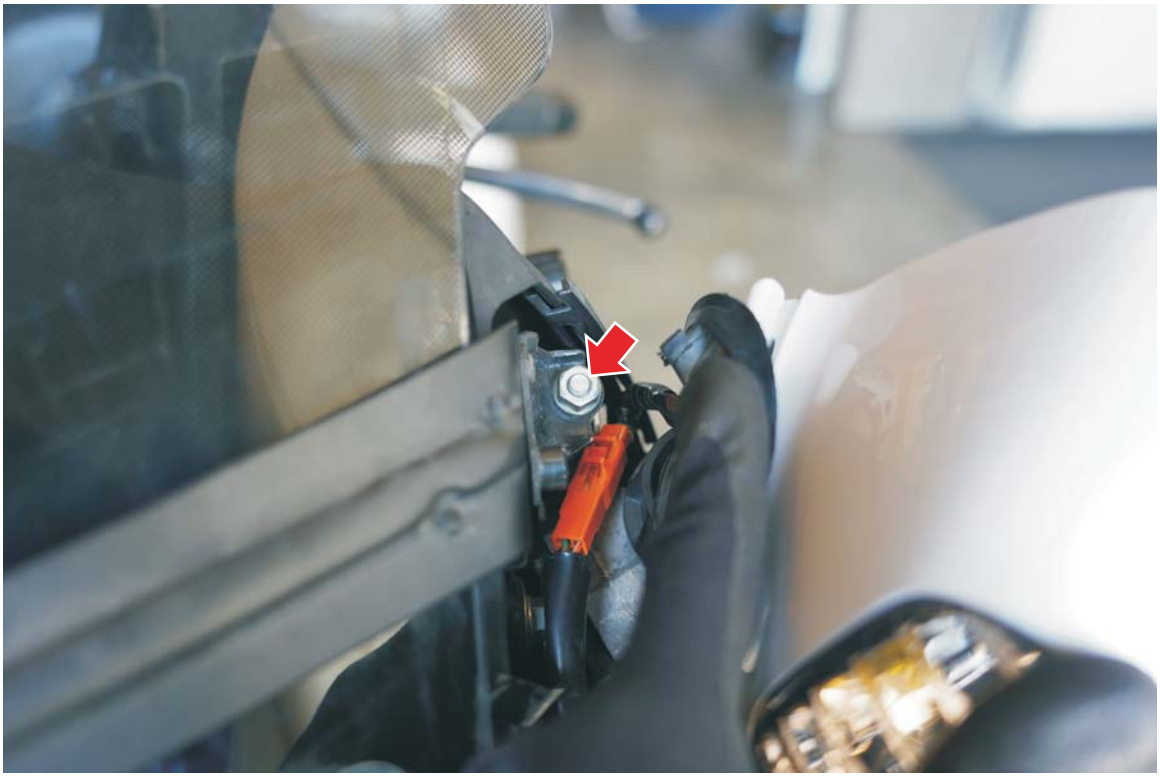
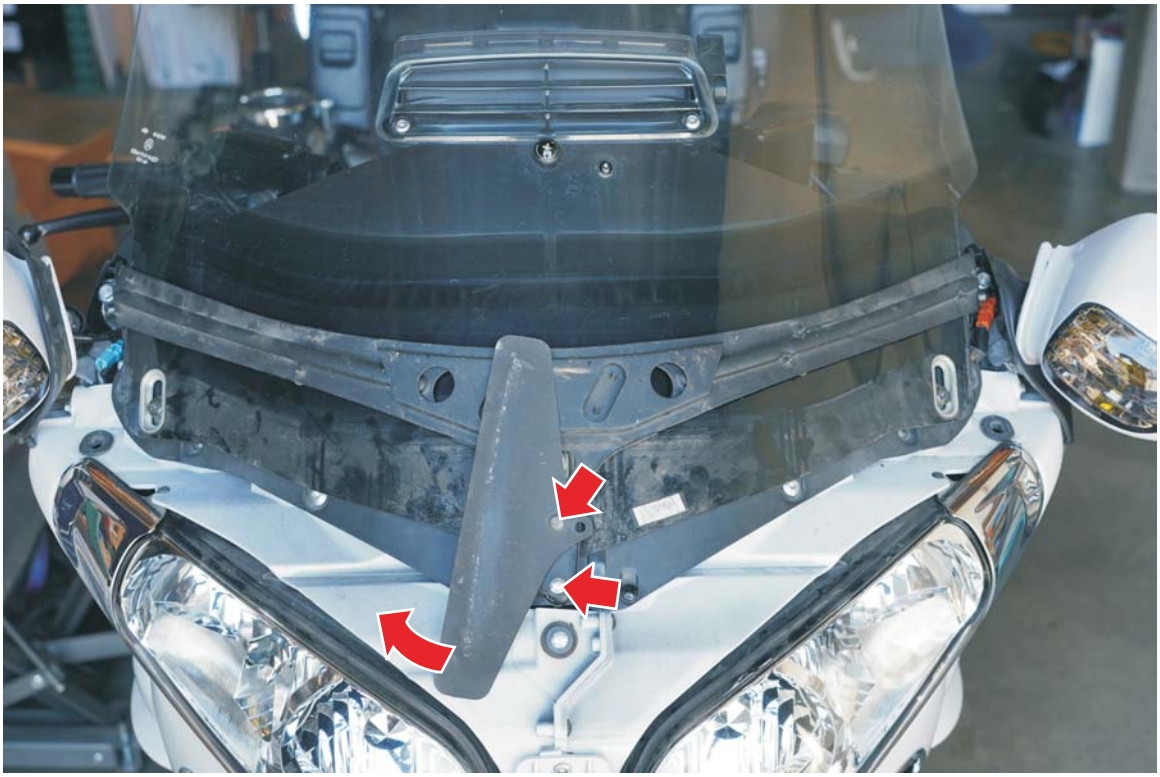
2. Remove windscreen bracket - Flip the windscreen release lever up. 1 nut from each side under the side mirror rubber seal (10mm socket) repeat other side, then 1 bolt hidden under the plastic then flap, from the center of the bracket (8mm socket). Loosen the flap (philips screw) then rotate out of the way to access the bolt.

Step 2 continued (remove nut - 10mm socket)

Step 2 continued (nut removal on other side, 10mm socket)



Step 2 continued - loosen philips screw then rotate flap out of the way, remove bolt underneath 8mm socket. Completely remove the windscreen retaining bracket



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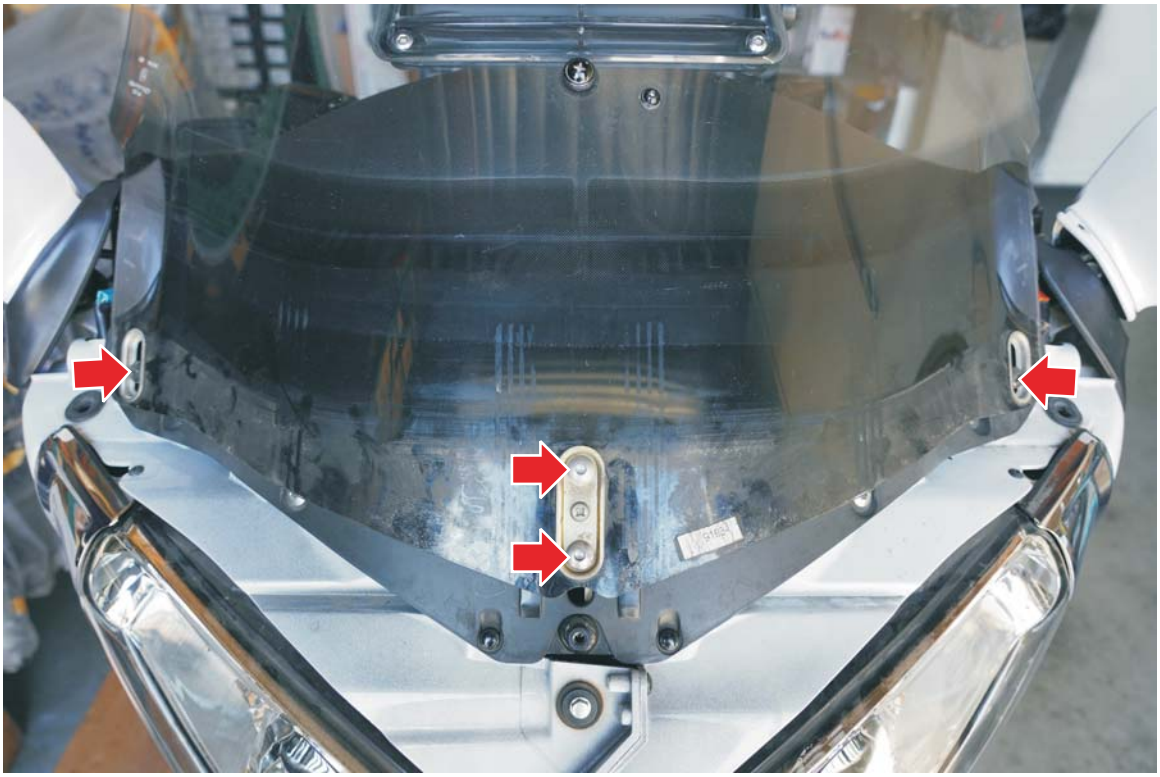
3. Remove windscreen - 1 philips screw + sliding adapter from each side followed by 2 bolts in the center (5mm allen)



4. Remove lower front nose fairing - 1 bolt from the top center (5mm allen) and 2 philips screws from underneath (Philips screwdriver)

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5. Remove the painted plastic side trims (carefully unclip starting at the bottom, 13 plastic tabs holding it in place). The 2012-2017 models have a slightly different trim where it is larger at the bottom but the removal process is the same.

Step 5 continued (carefully lifting up the trim starting at the bottom and working your way up)

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Step 5 continued (trim fully removed location of each locking clip shown)

6. Loosen side front fairing assembly - 4 bolts from underneath the plastic side trims each side (upper 3 are M5 bolts and bottom bolt is M6 bolt using 5mm allen). Then 8 bolts (5mm allen tool - center bolts have larger shoulders - see illustration) + 4 screws (philips screwdriver) + 2 plastic rivet from under the windscreen.

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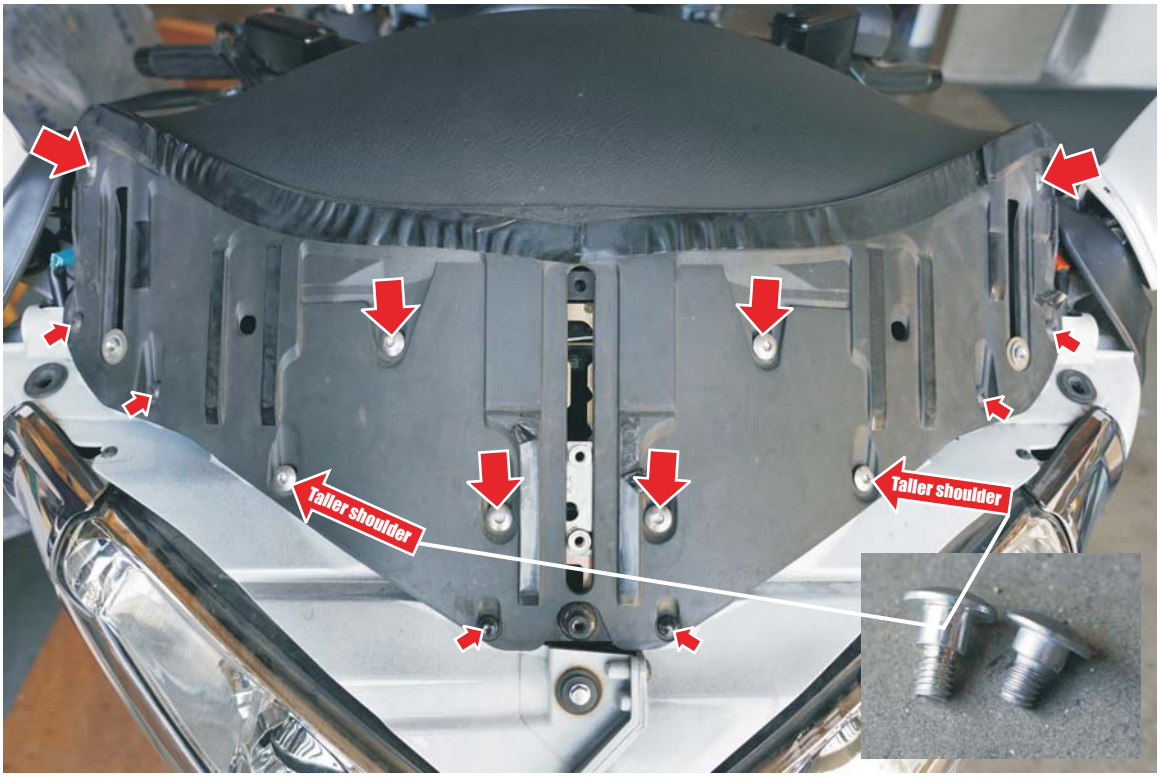
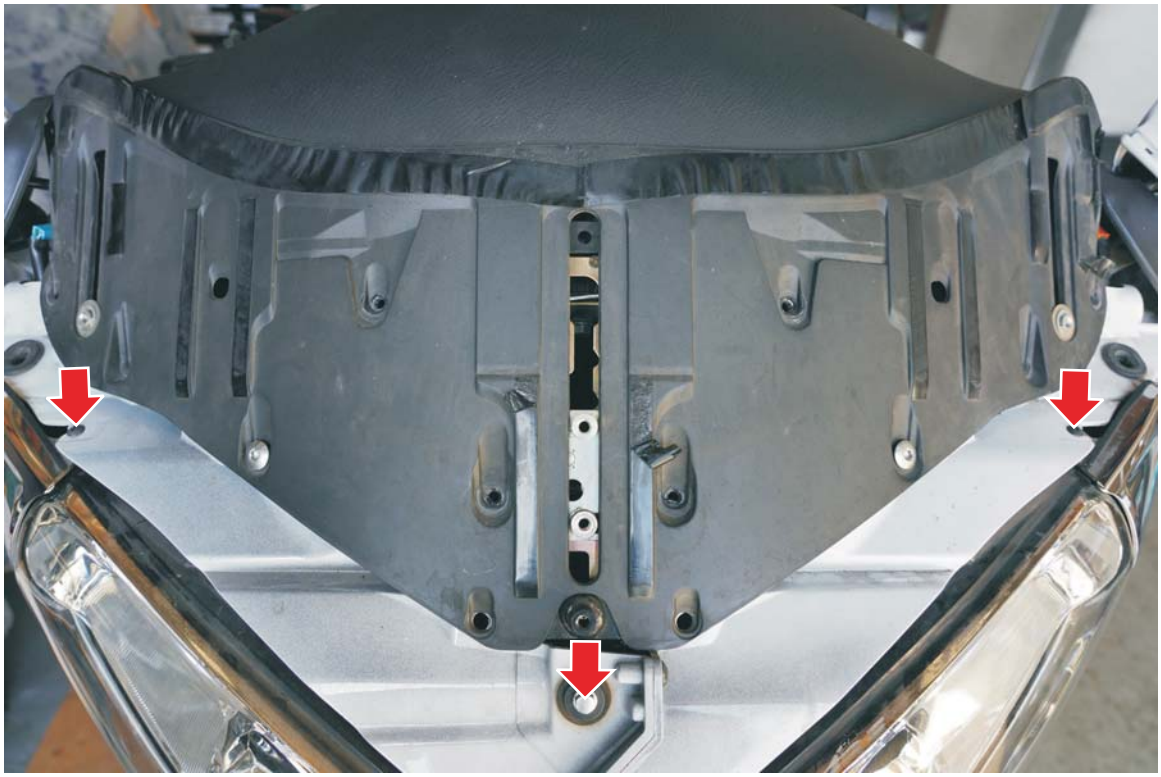
Step 6 continued (8 bolts - 5mm allen - Note: lower center bolt has a taller shoulder, 4 philips screws and 2 plastic rivets)



7. Remove 1 philips screw on each side securing the chrome plastic trim piece, then remove 1 bolt (8mm socket) at the front center of fairing. Do NOT remove the chrome plastic trim pieces.



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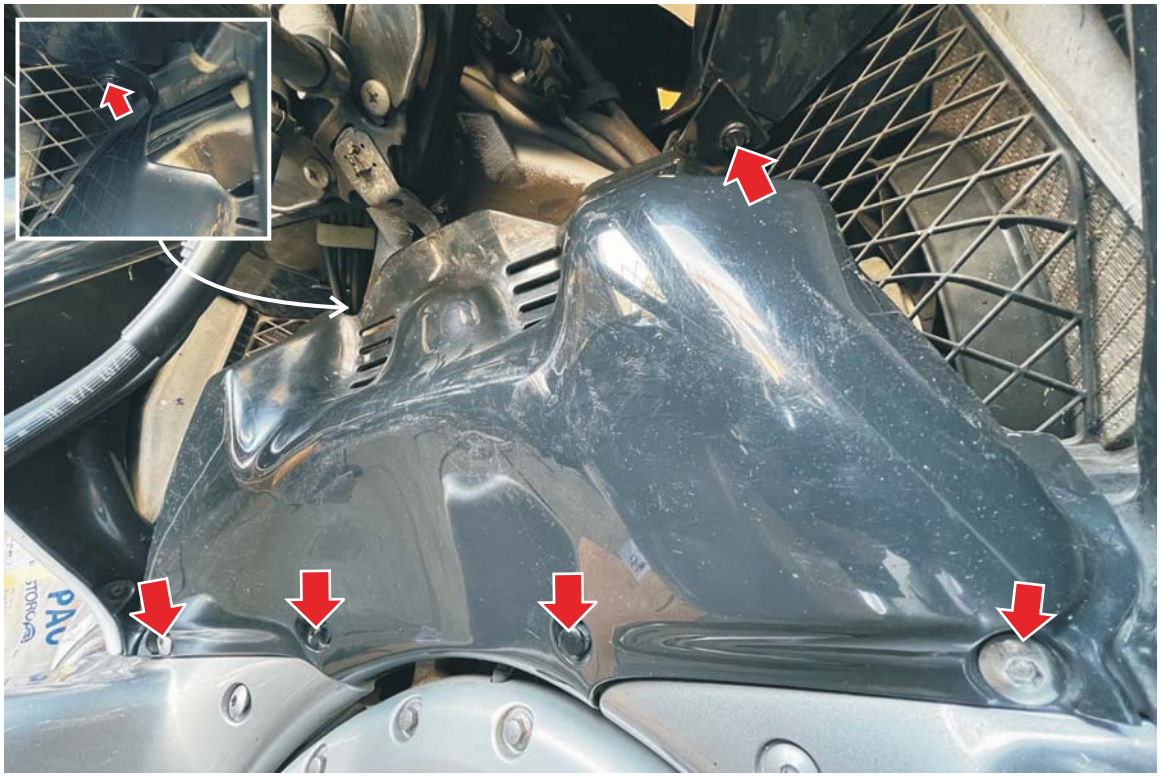
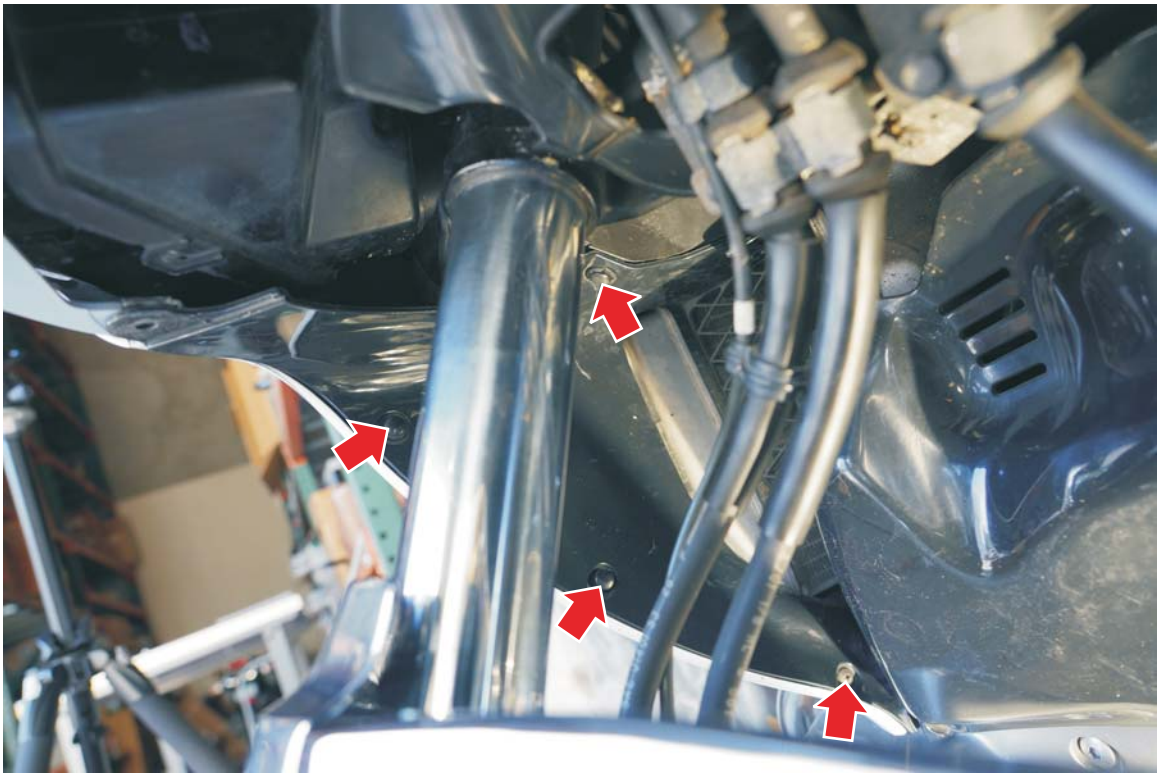
8. Loosen but do not remove the wheel well center plastic panel (2 bolts at the bottom 5mm allen, 2 plastic rivets at the bottom, and 2 plastic rivets at top). Then remove the left/right wheel well plastic panels (1 philips screw + 3 plastic rivets each side). Shift the center panel around to fully remove the left and right panels, then can use 1 of the bolts to secure the center panel back so that it does not get in the way.



Step 8 continued (Left/right wheel well plastic panel removal - 1 philips screw and 3 plastic rivets each side)



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9. Pop loose the left and right side fairings from each side, reach in with a flat head screw driver and remove 1 plastic rivet connecting the air duct tubes for the side vents. **for 2012-2017 models, seat removal and left/right shelter loosening/unplugging required to reach the 1 hidden bolt.

10. Reach in from underneath and unplug the left and right leveling motors (grey plugs)

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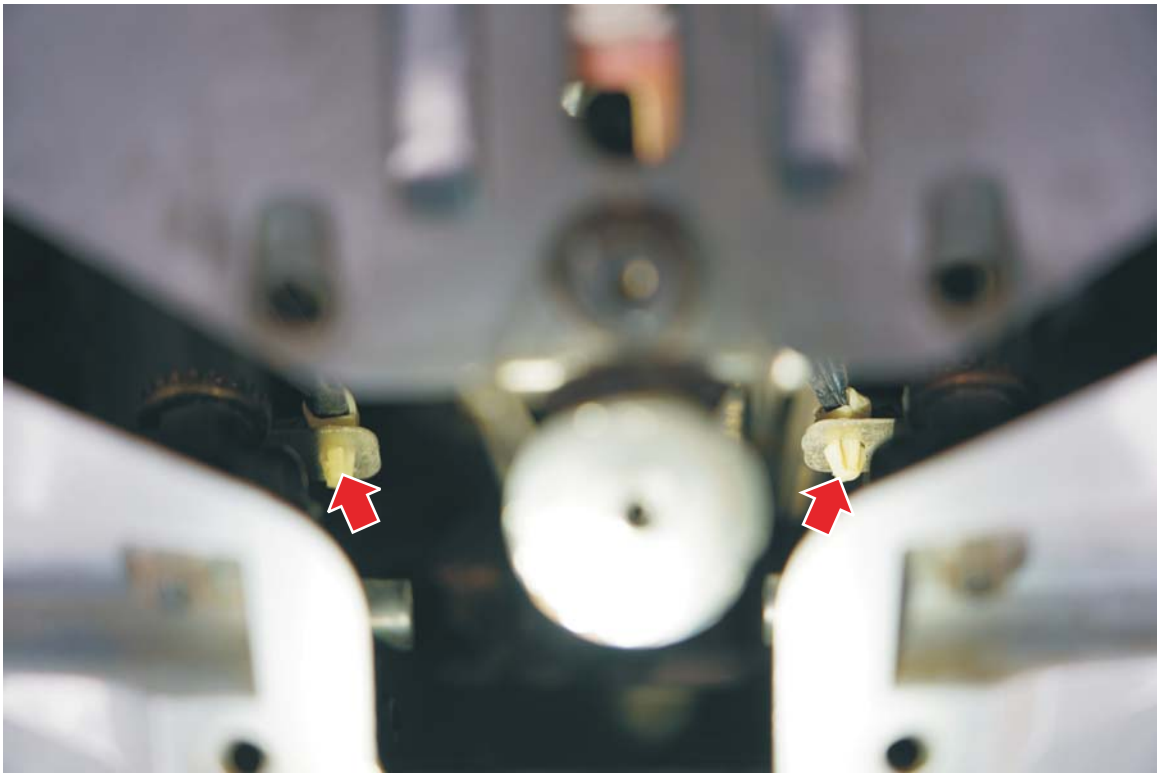
11. Remove 1 bolt on each side fairing right below the side mirrors (8mm socket)

12. Front fairing/headlight assembly removal - slightly pull the rear end of the fairing outwards while at the same time slide forward the assembly, then undo the 2 wire clips on the high beam harnesses that is secured to the back of the head light. These wire clips have almost no slack so reach in with needle nose pliers. Disconnect the 2 low beams, 2 high beams, 1 bank angle sensor (green), and 1 air inlet temperature sensor(off white). Bank angle and air temperature sensor on the right side.



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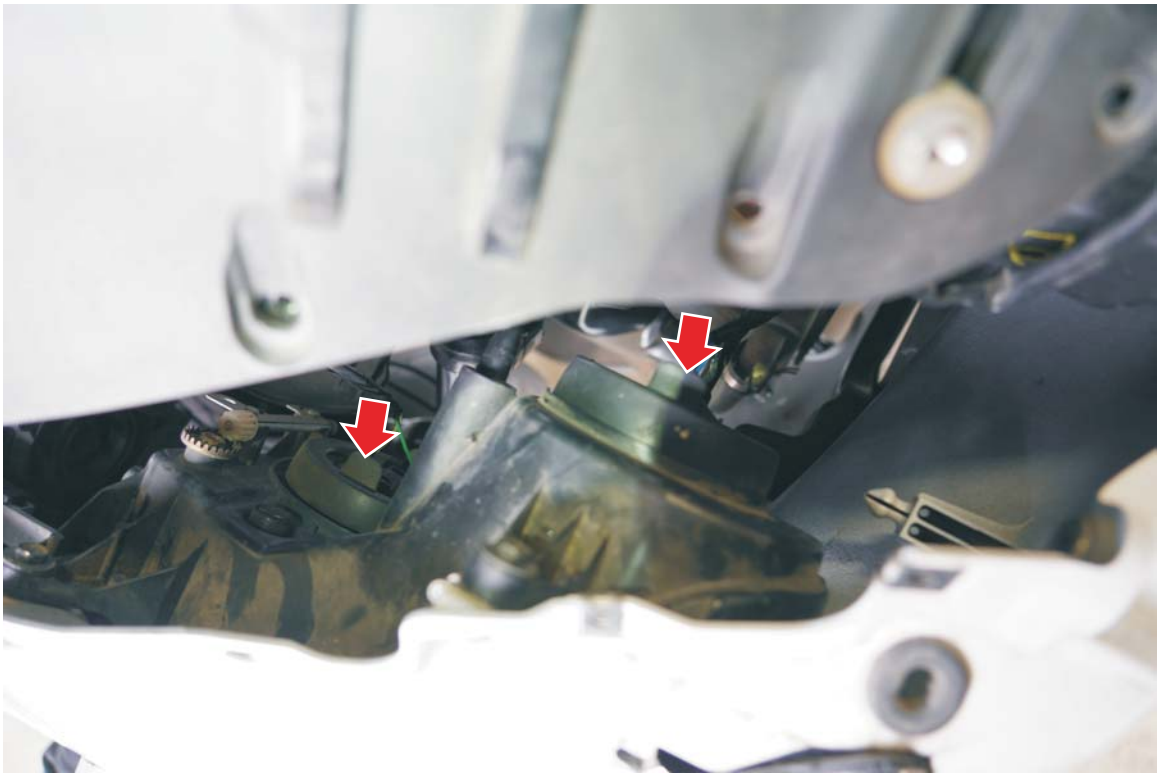
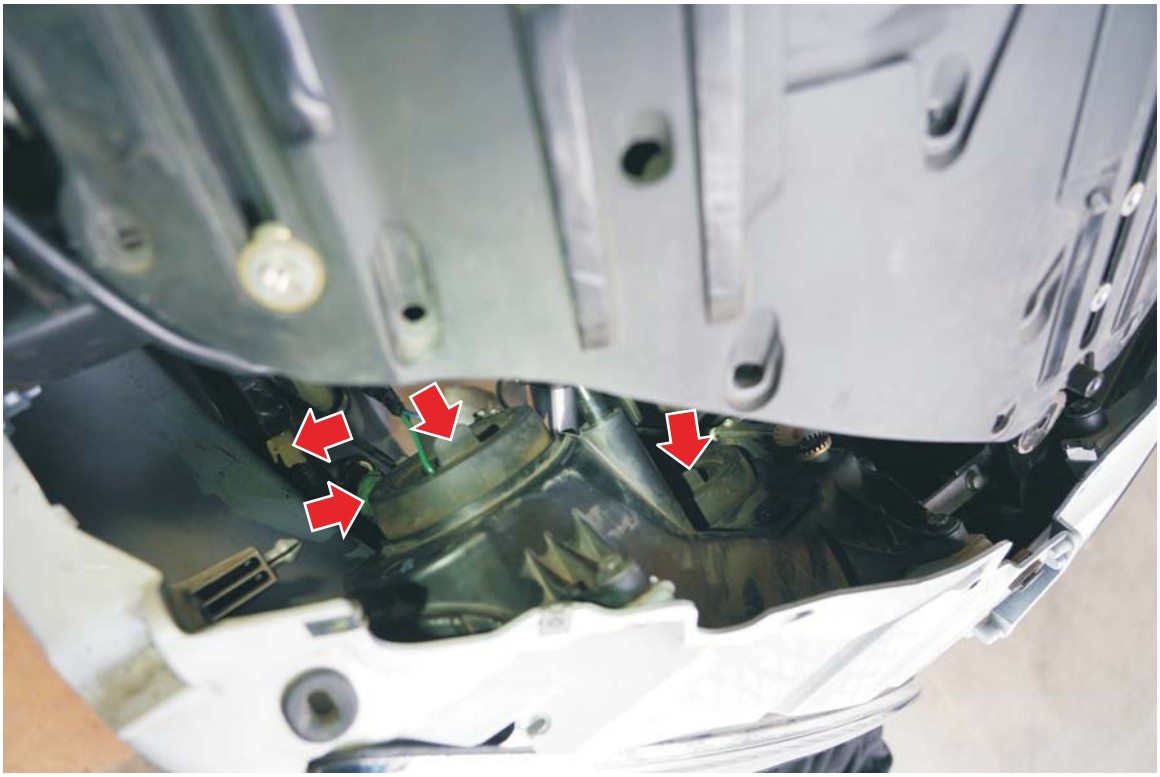
Step 12 continued (disconnect low beam and high beam plugs on left side)



Step 12 continued (disconnect low beam plug, high beam plug, bank angle sensor plug, and air inlet temperature sensor plug on right side)



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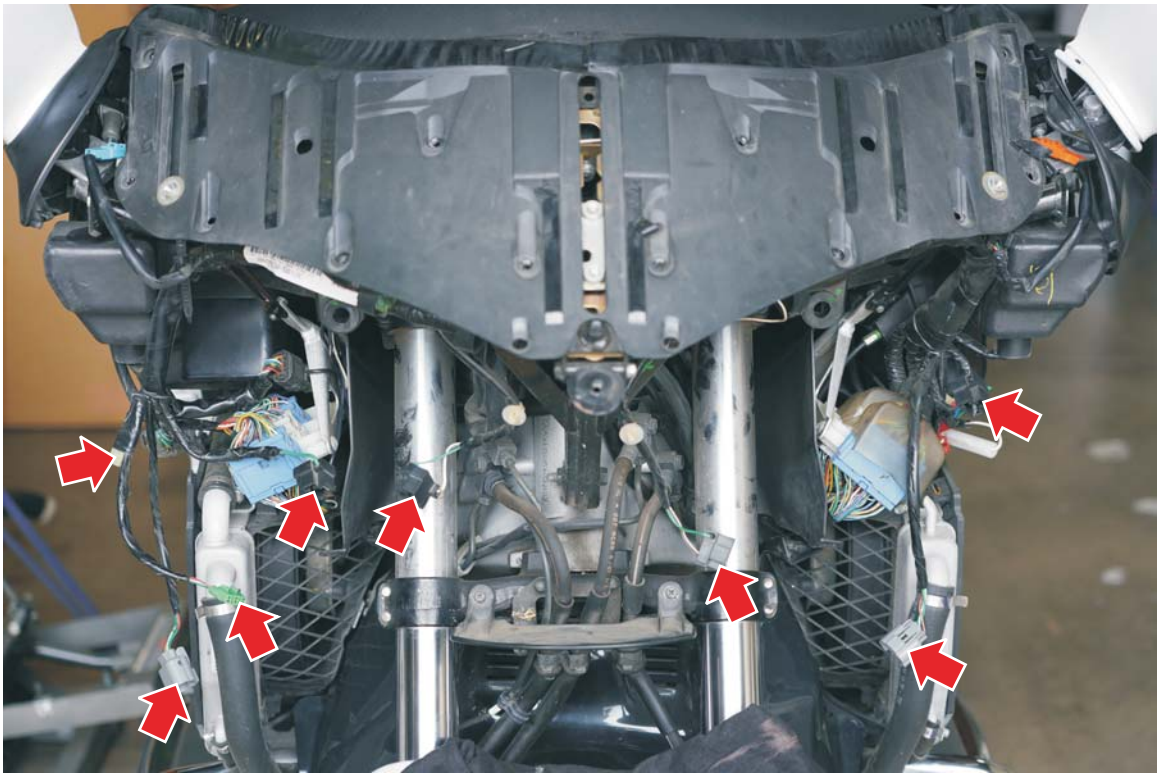
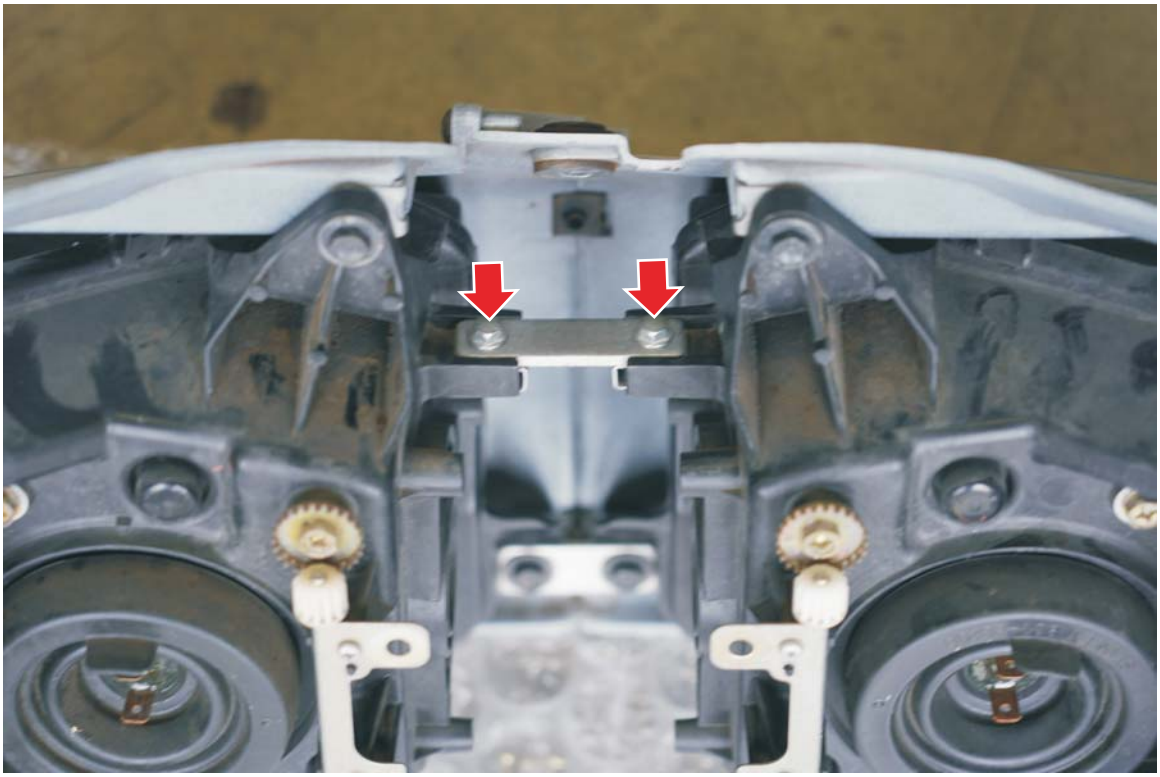
Step 12 continued - the front fairing/head light assembly should come completely off after all plugs removal. Shown below all the connectors that were unplugged



13. Remove head light from fairing - remove the upper and lower bridge brackets connecting the left and right side head lights together (2 bolts for upper bridge 8mm socket and 2 bolts from the lower bridge 10mm socket). Pop out the speed nut clips on the upper bridge. Then followed by 3 bolts each side to release the head lights from the fairing assembly (10mm socket)



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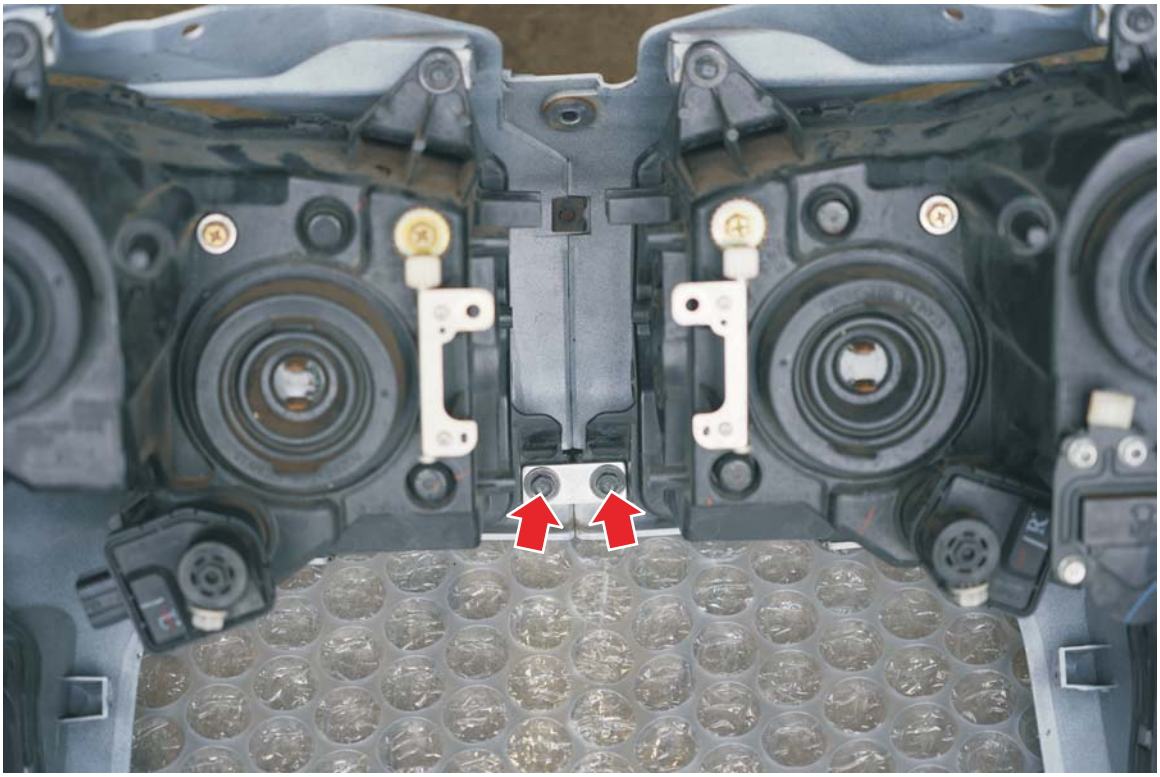
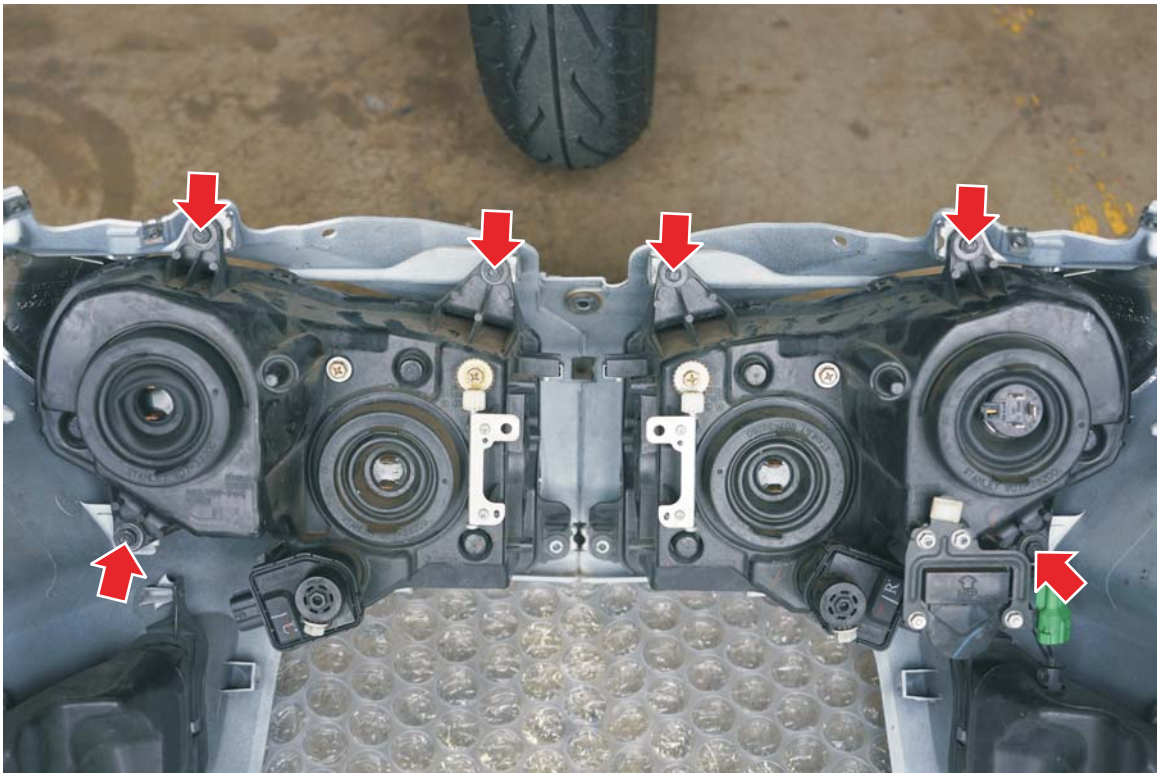
Step 13 continued (Speed nuts, bridge bracket and bolts removed ready to be installed onto the new LED head light)

Step 13 continued (removal of lower bridge bracket - 2 bolts 10mm socket)



Step 13 continued (lower bridge bracket and bolts removed ready to be installed onto the new LED head light)

Step 13 continued (remove the 3 bolts per side to completely remove the head light - 10mm socket)



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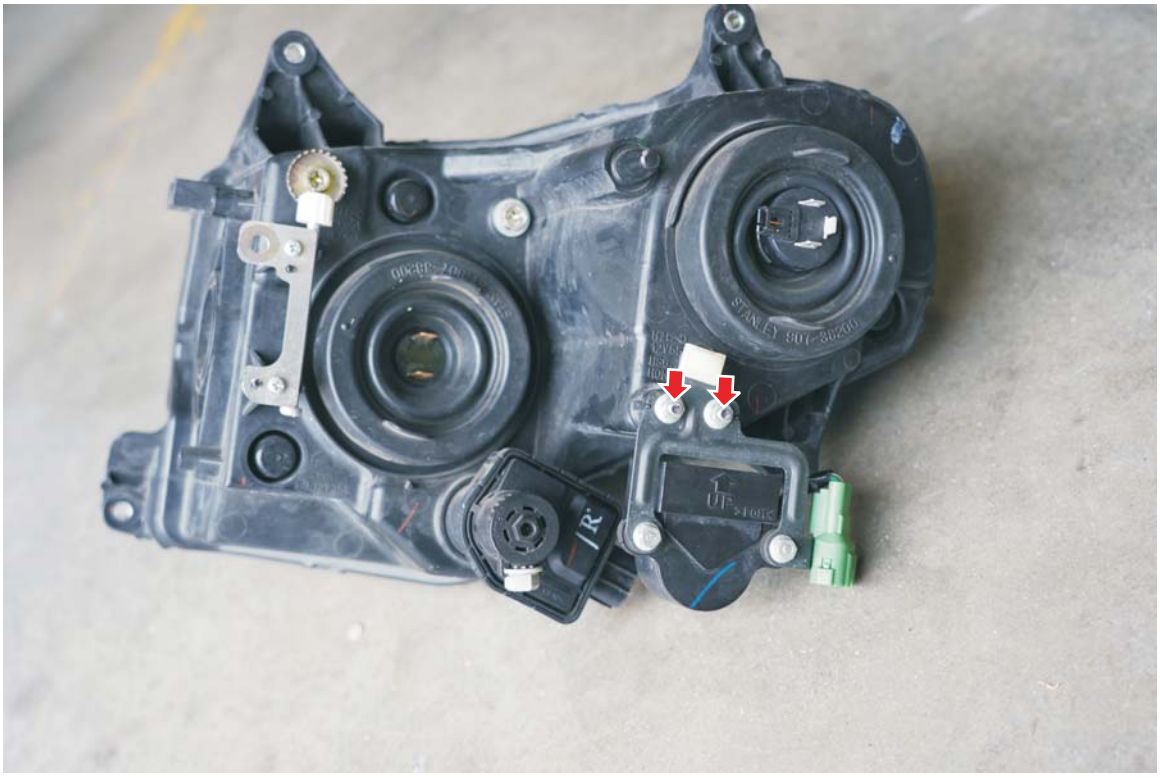
14. Swap over the metal collars from the 4 mounts to the new LED head light, they insert front to back.

15. Swap over the bank angle sensor to the new LED head light (2 nuts - 8mm socket)



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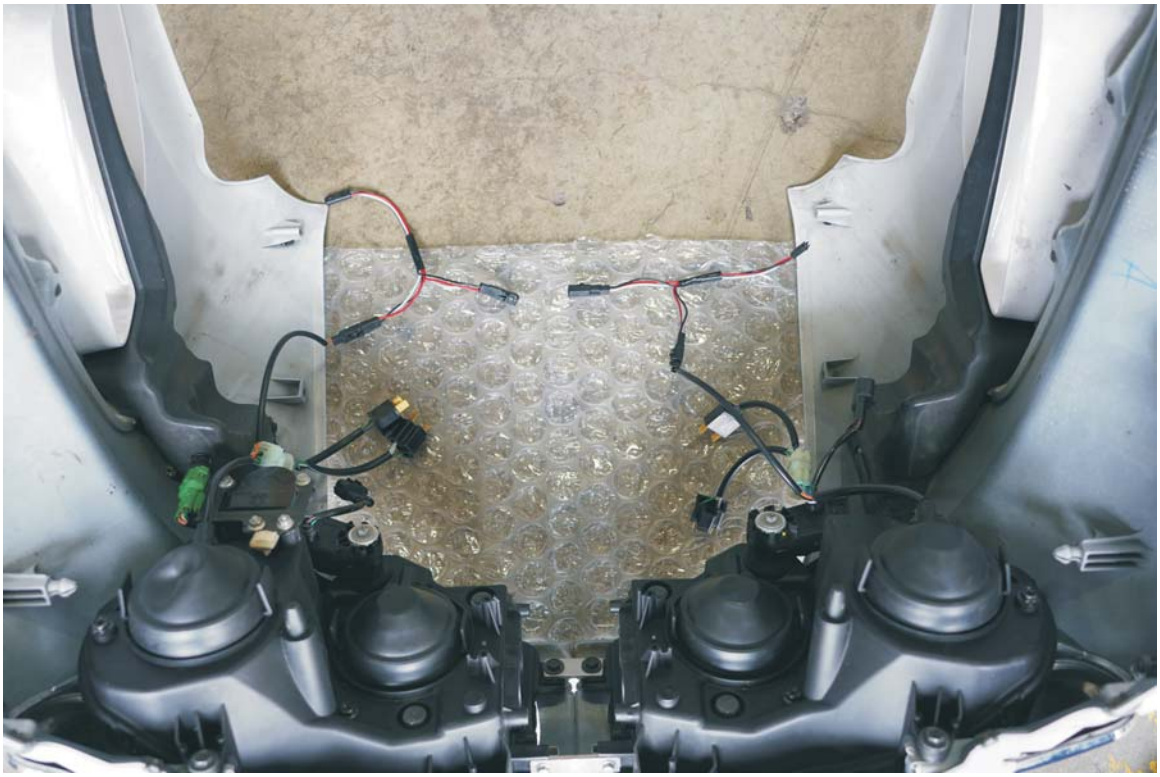
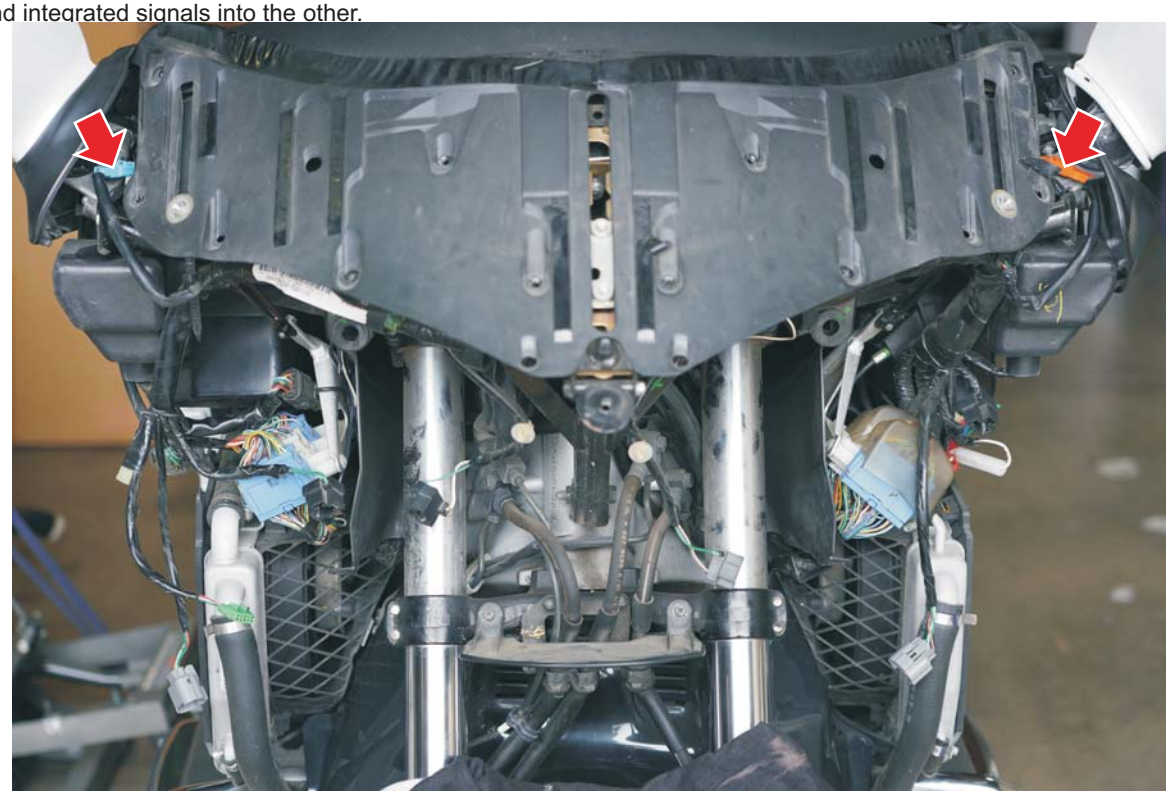
16. Reinstall the new LED head light back into the fairing using the factory hardware removed from step 12 above. Connect the low and high beam plugs to the head light and optional splitter harnesses if you decide to run the integrated turn signals.



17. Note: This step allows the LED light bars in the head light to flash alongside your existing turn signals. When signals are activated the white LED DRL will turn off on that side then flash amber, then will resume the white DRL when the turn signal is cancelled. If you do not wish for this option, simply disregard both the splitter harnesses, and leave the signal input plug (single orange/blue wire) disconnected. Disconnect the left and right turn signal plugs orange and light blue colored plugs, connect the splitter harness to the bikes turn signal output, then connect the factory signal into any one of the signal outputs on the splitter harness and integrated signals into the other.



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18. Place a towel on the front fender. Having a second person help hold the fairing/head light assembly reinstall back to the bike while plugging in the 2 low beams, 2 high beams, 2 leveling motors, 1 bank angle sensor, 1 air temperature sensor and optional left/right integrated turn signals plugs to the remaining plug on the splitter harness. The 2 wire clips undone from step 11 above will not be used on the new LED head light. Reinstall tips: 1) There are 2 male friction fasteners behind the head light that need to align with the corresponding female rubber grommets on the chassis before pushing in the fairing/head light assembly. 2) After seating the fairing/head light assembly, carefully pull outwards the rear end of the fairings and pull out the side air duct ends (disconnected from step 9 above) that is hidden behind the shelter. Connect them back to the duct tube, secure it with the original plastic rivet, then work your way to re-insert them back into their hidden position. Use the included cable ties to tidy up the wires accessing from underneath.

Step 18 continued - Carefully dislodge and remove the vent tube end hidden behind the vent, connect it back to the side fairing and secure it with the plastic rivet, then work your way to install it back into the original position.

19. Perform a systems check. Check the low beams, high beams, switchback turn signal (optional), and up/down leveling motors (must start engine to use leveling motors). The head lights come defaulted to the leveling in the highest position so set the dial to the corresponding highest position before starting the engine.

20. Before installing the left and right wheel well panels, use the included cable ties to organize and secure the wires, you want them all to sit behind the panels. Reinstall in reverse order the mounting hardware for the front headlight/fairing assembly, left/right and center wheel well panels, painted side trims, lower nose fairing, windscreen, windscreen bracket, upper nose fairing and mirror seals.

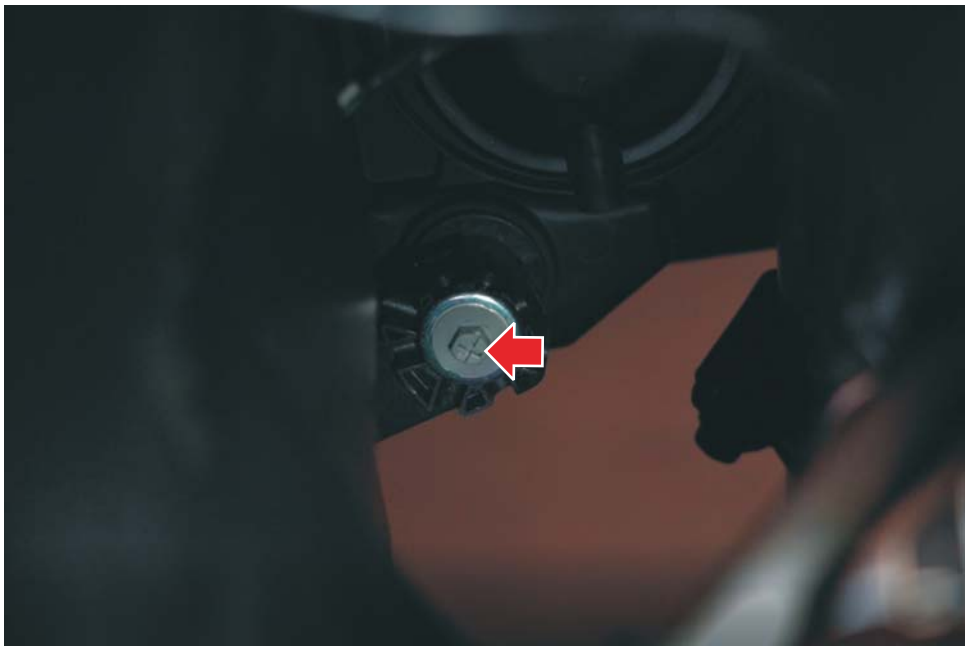
Additional leveling adjustments:
These headlights have been pre-calibrated off the bike on a jig, however there are some factors that may cause the left and right sides to be uneven during installation or if the bike is not in the original condition. You can also adjust the beams if you do not like the default levels. Using an 8mm socket you can adjust the left and right beams up/down individually by turning the adjustment screw on the leveling motors. Turning the handle bar all the way left/right will create an opening where you can reach in to get access to the screw. See illustration below. Turning clockwise will move the beam down and counter clockwise will move the beam up. Position the bike to a wall and set it up on the main stand so that you can see the beam output. If you do not have a wall you can use your own eyes by standing in front of the bike and slowly lower your eye level to the beams and you will be able to see if the left and right beams get bright at the same time. Note that the beams are very bright, we suggest to use your phone camera as the viewfinder or wear a pair of dark sunglasses.

Calibrating or setting low and high limits for the dial adjustment:
The headlights are calibrated with ballpark OEM limits for the dial adjustments but they can be altered to your preference. Locate a suitable wall with a flat road surface in front of it. Measure and mark off 10ft from the wall, this is where the bike will be parked with the head light lens being right at 10ft. Get a paper and mark off two heights from the floor up. Ball park OEM with average weight rider is 31.75" for the lower mark and 36.75" for the higher mark. Set the main stand on the bike, turn the dial to the lowest setting and start the engine. The beam will move to the lowest setting which should be around 31.75", if not adjust both left and right sides so that level reaches the first mark. Next, turn the dial to the highest setting and the beam will move to the highest setting (which is approx 5" above the lowest setting)

Checking for left/right beam level if they are even or not. Turn the handle bar to create the opening then reach in.

Left or Right adjustment screws (screw color may be black):

Clockwise: moves beam down
Counter Clockwise: moves beam up



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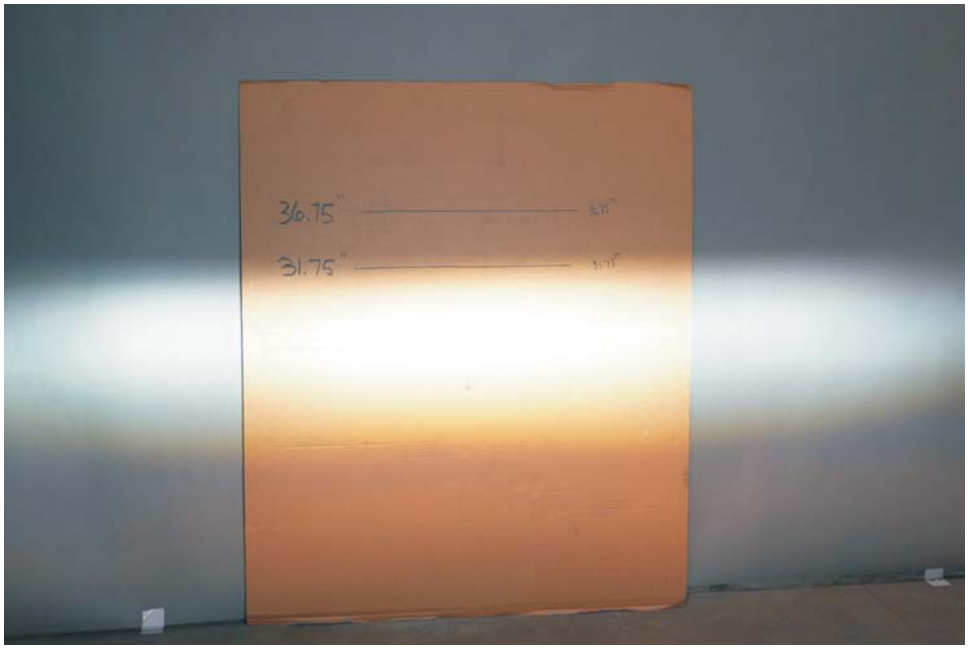
Calibrating leveling motors lower and upper limits (if needed). Park motorcycle 10ft from wall and set it up on main stand. Mark lower level 31.75” from ground up and mark upper level 36.75” from ground up. Set leveling dial to lowest setting and start engine. Motors will move the beam to lowest setting. Adjust the beam level (individually) to recommended or desired levels. Set leveling dial to highest position, beam level will move to upper mark (approx 5” above lower mark).



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