KawiForums - Kawasaki Motorcycle Forums > Super Sport > How-Tos and FAQs > **How To: 03-06 636 gauges on a G and J model 600**

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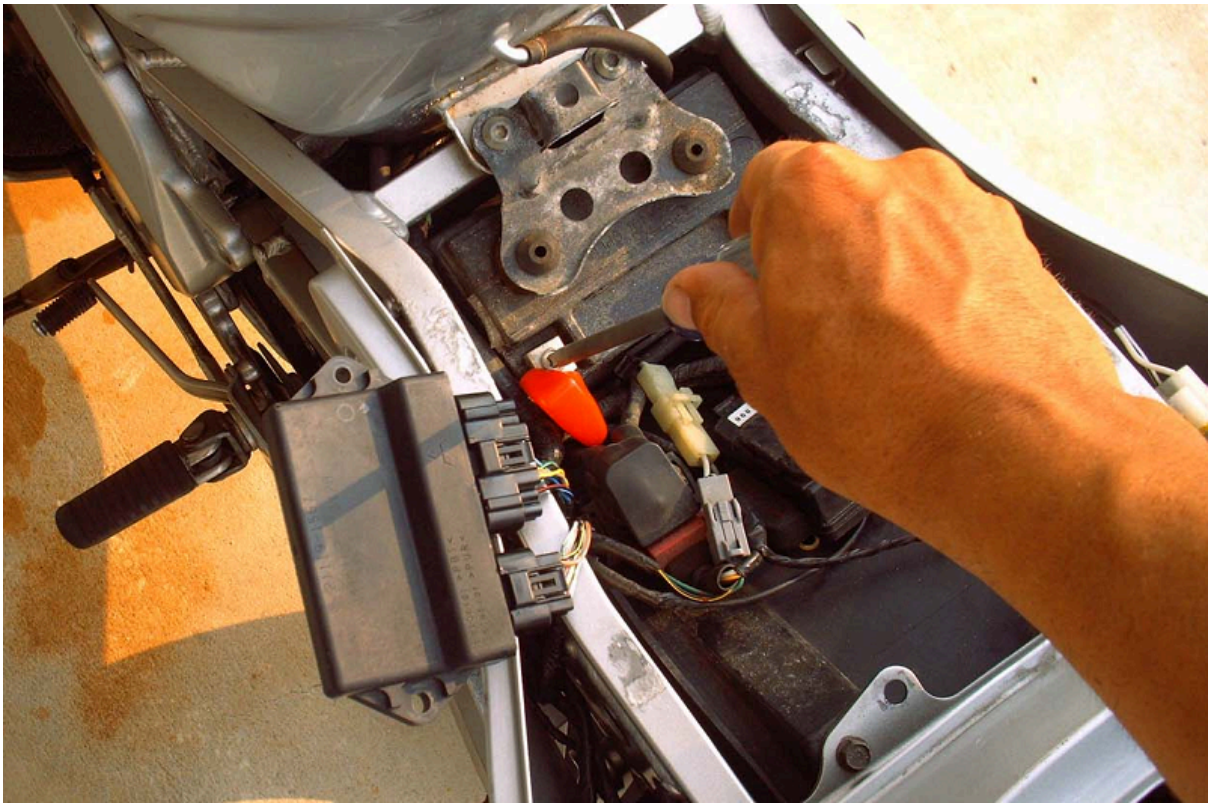
How To: 03-06 636 gauges on a G and J model 600

DISCLAIMER! Anything YOU do to YOUR bike is YOUR responsibility! I hear by absolve KawiForums, myself and any other person I received input from to do this. If you do follow this and decide to do this to YOUR bike, it is of YOUR own free will. If YOUR bike catches fire because YOU wired it wrong, YOU are on YOUR own.

Step 1:

Disconnect the battery using a #3 Phillips head screwdriver, or the appropriate socket with a ratchet. (Please ignore the CDI placement, it's temporary. I apologize for the filthy bike.)
If you do not disconnect the battery, you risk shorting out your electrical system. This step is a MUST.

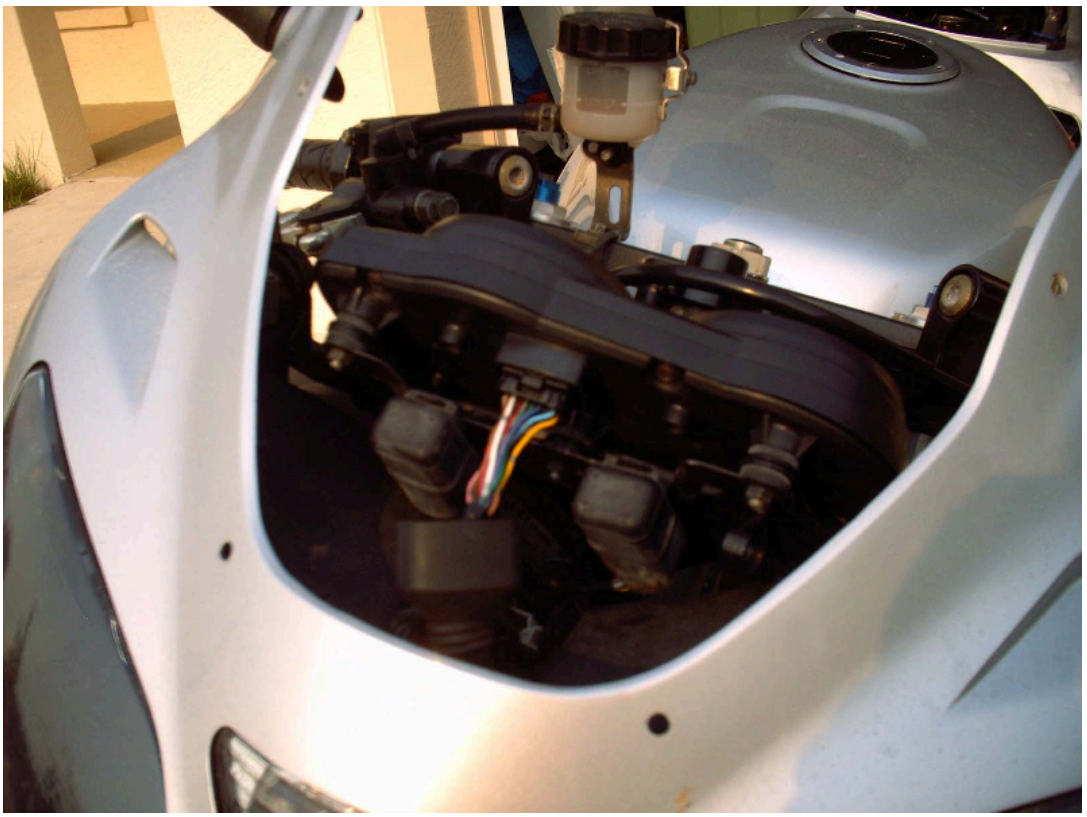


Step 2:

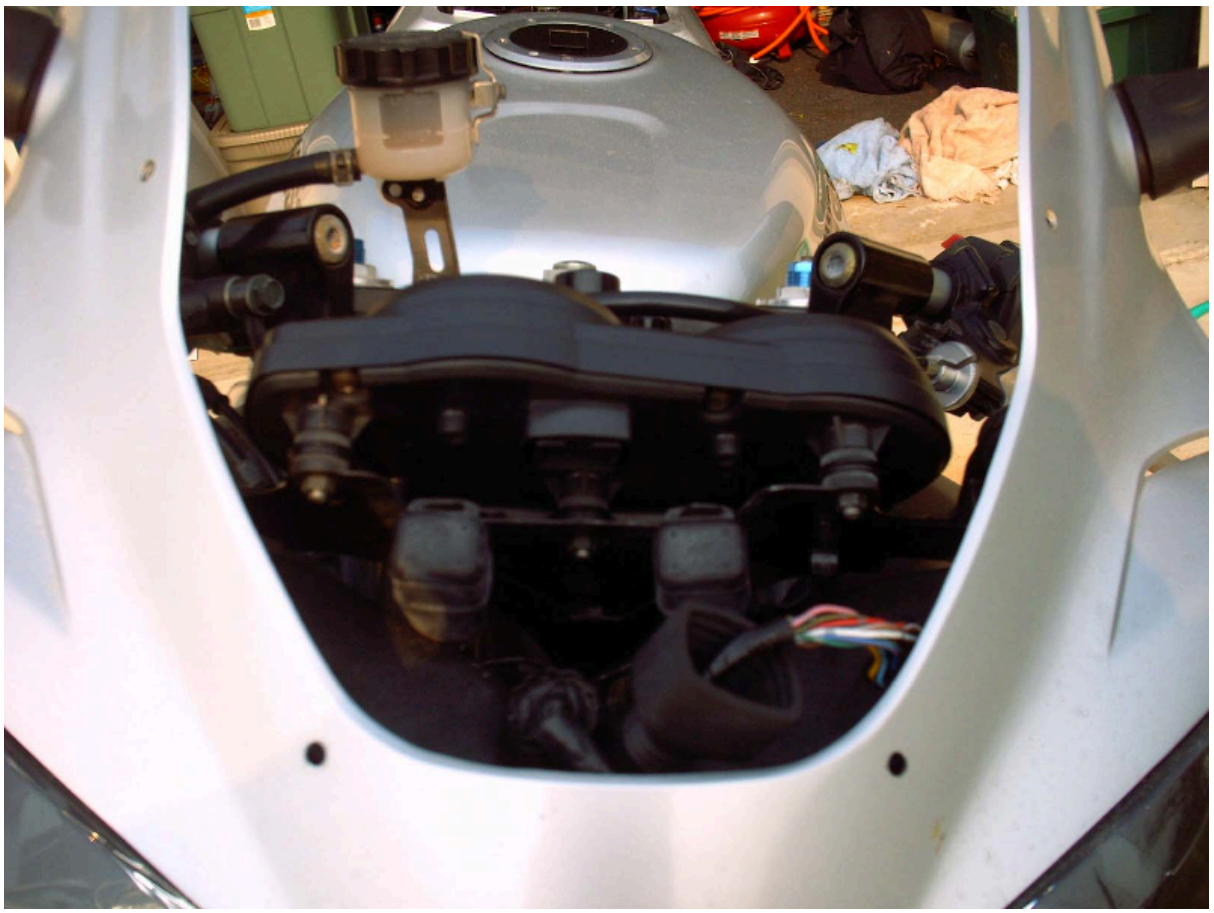
Remove Windscreen. This will allow all the access you need to perform the whole swap, start to finish.

Step 3:

Pull rubber cover off of Gauge's back to reveal the gauge wiring harness.



Push down on holding clip located on top of the connector. Gently pull back and wiggle left to right to remove.



Step 4:

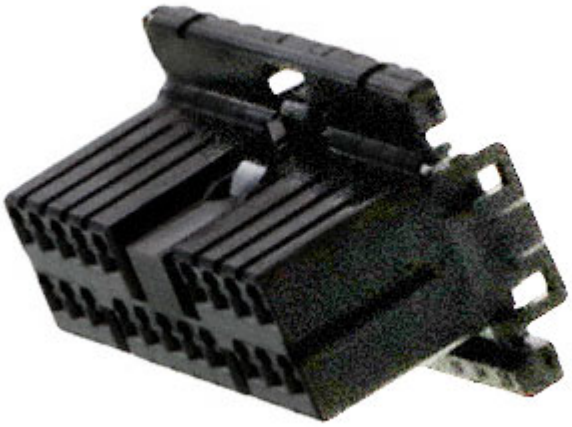
Using an 8mm open end wrench, remove the three nuts holding the gauge cluster securely in place.

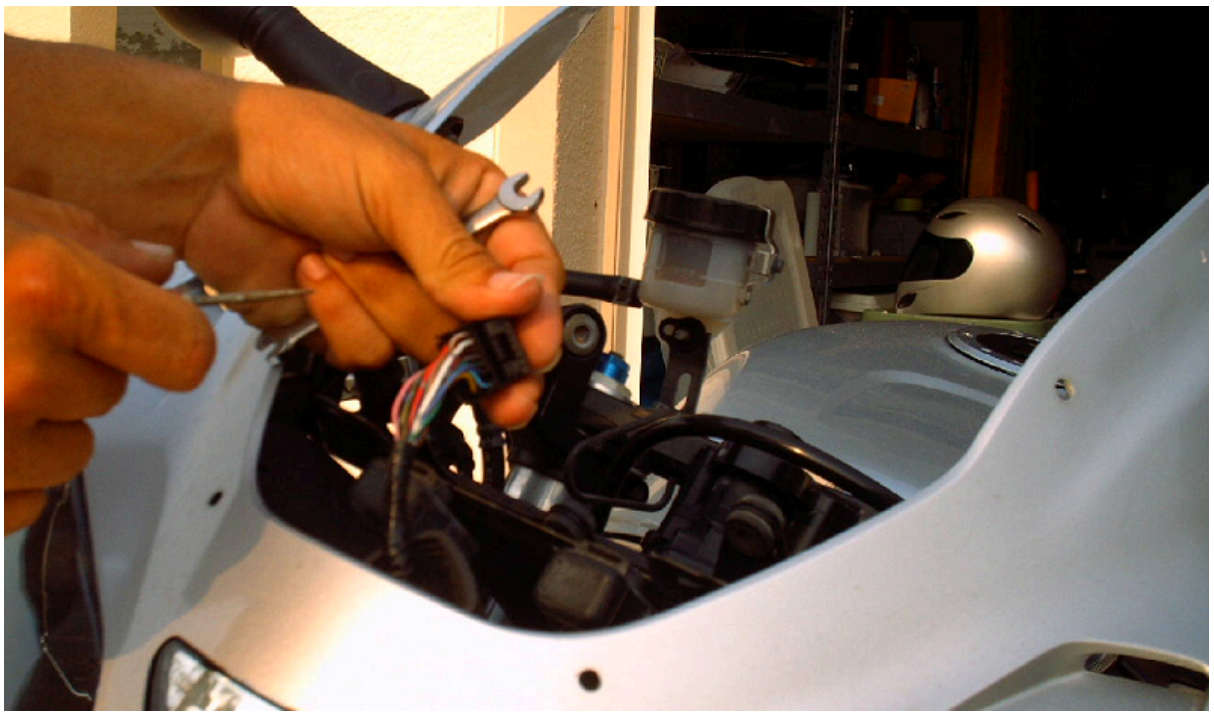
Step 5:

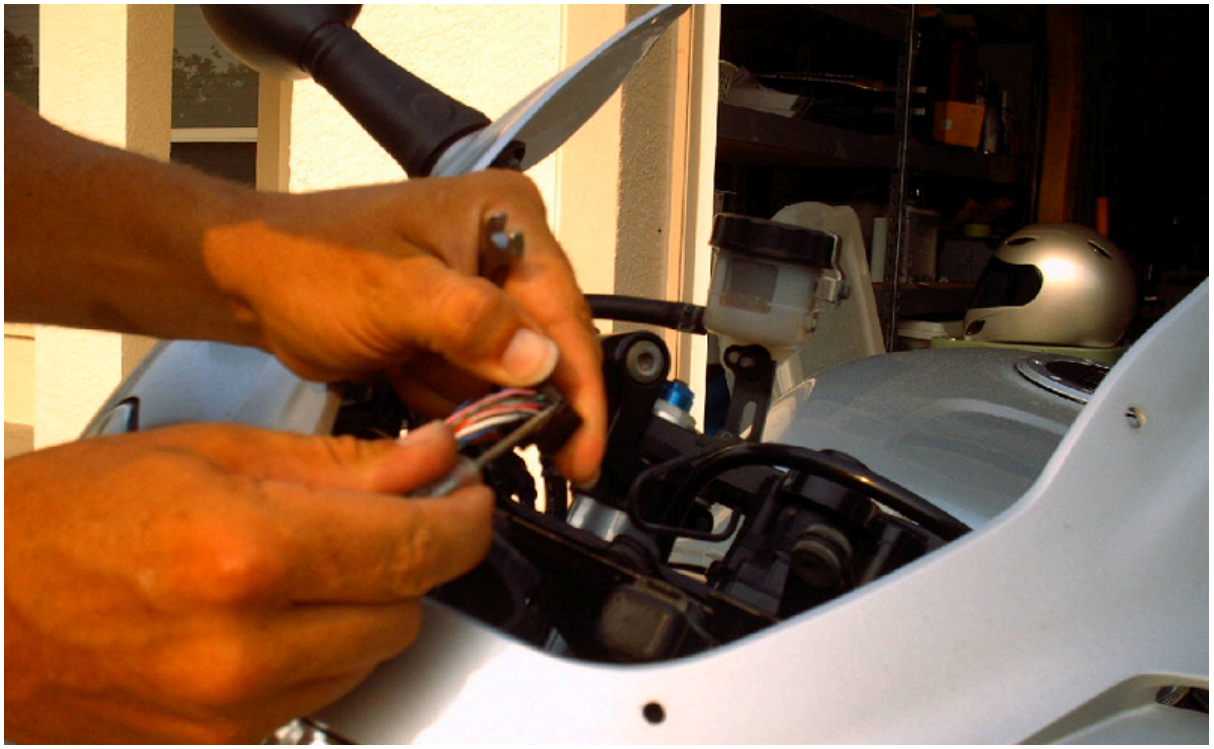
Now for re-pin the connector - opening up the strain relief flaps:

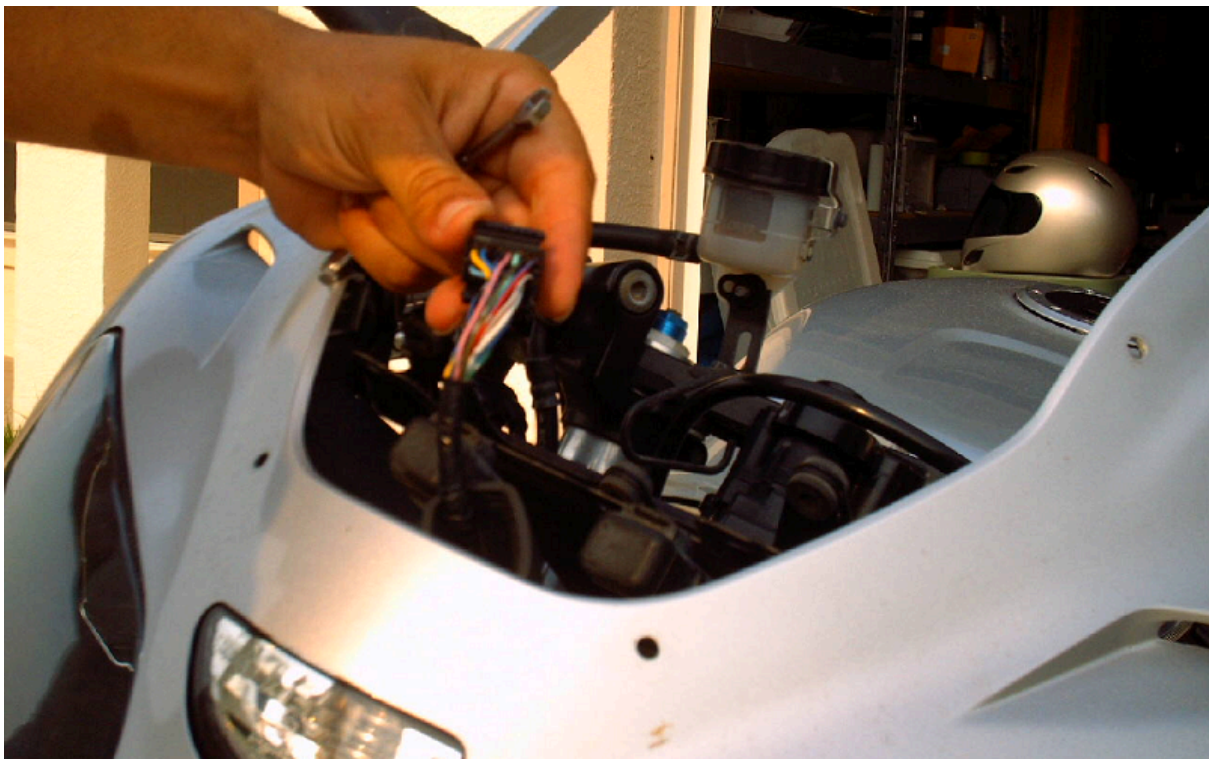
Using a small flat head screwdriver, gently pry the back outside walls of the connector. This will allow you to lift both of the retaining flaps on the connector.

(Here is a picture of the style of connector showing the retaining flaps open. This is what your trying to get to).









Step 6:

Removing the pin connector wires from the Connector Harness:

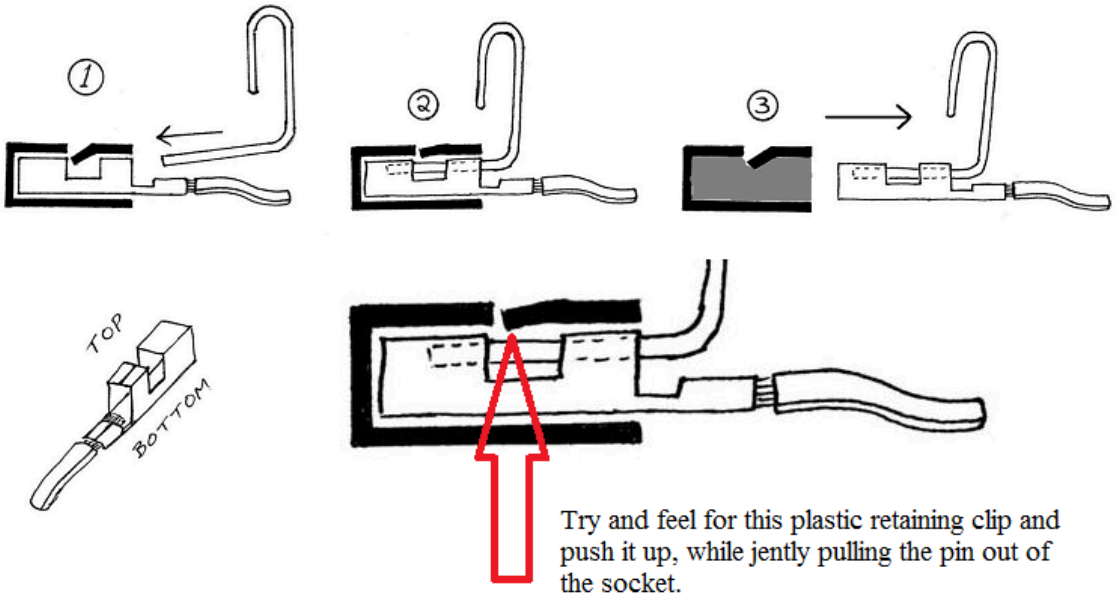
You will need a JUMBO paper clip. Bend the long outside part to a little past 45 degrees.

I will be referring to the harness as the retaining clip being on top at all times and looking at it from the wire side.

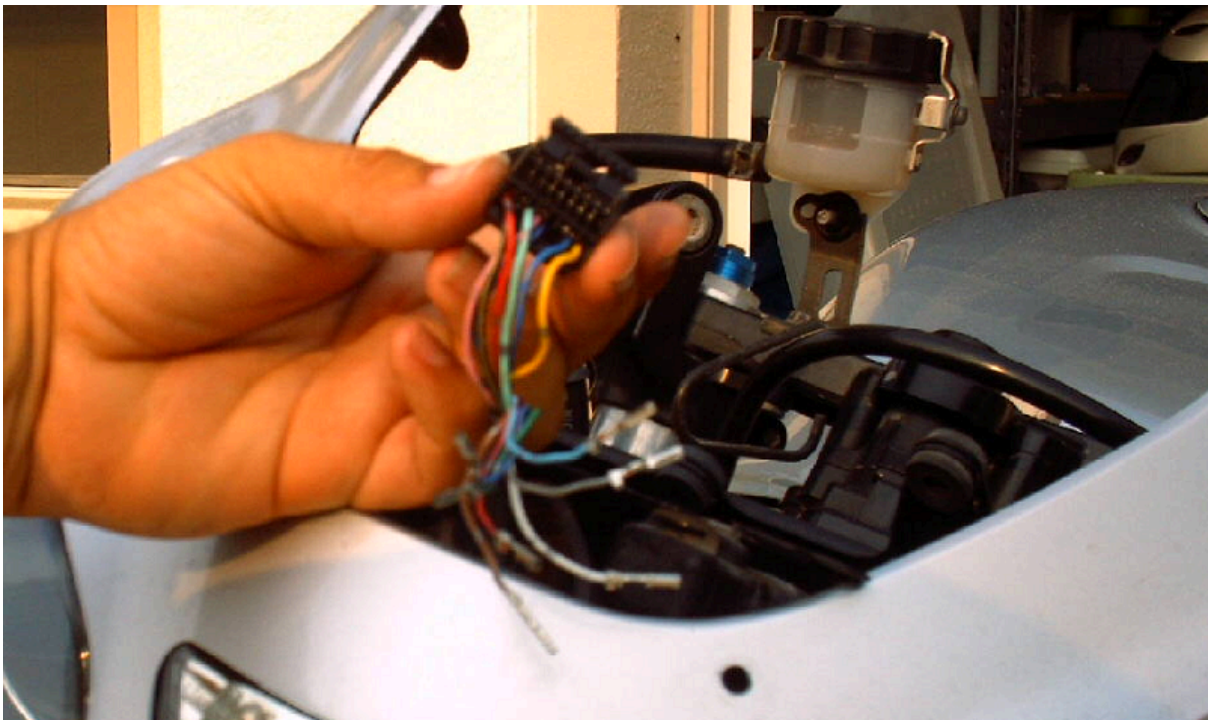
All of the wires go in one way. You will be inserting the paper clip through a "box" above the wire. The clip will go in about 3/4 of an inch. This will depress the retainer inside the slot allowing you to remove the wire. Gently pull back on the wire along with the clip at the same time.

If the wire doesn't budge, pull out the clip and try again. BE GENTLE. I've had to try 5 times with one wire, but eventually it came out.

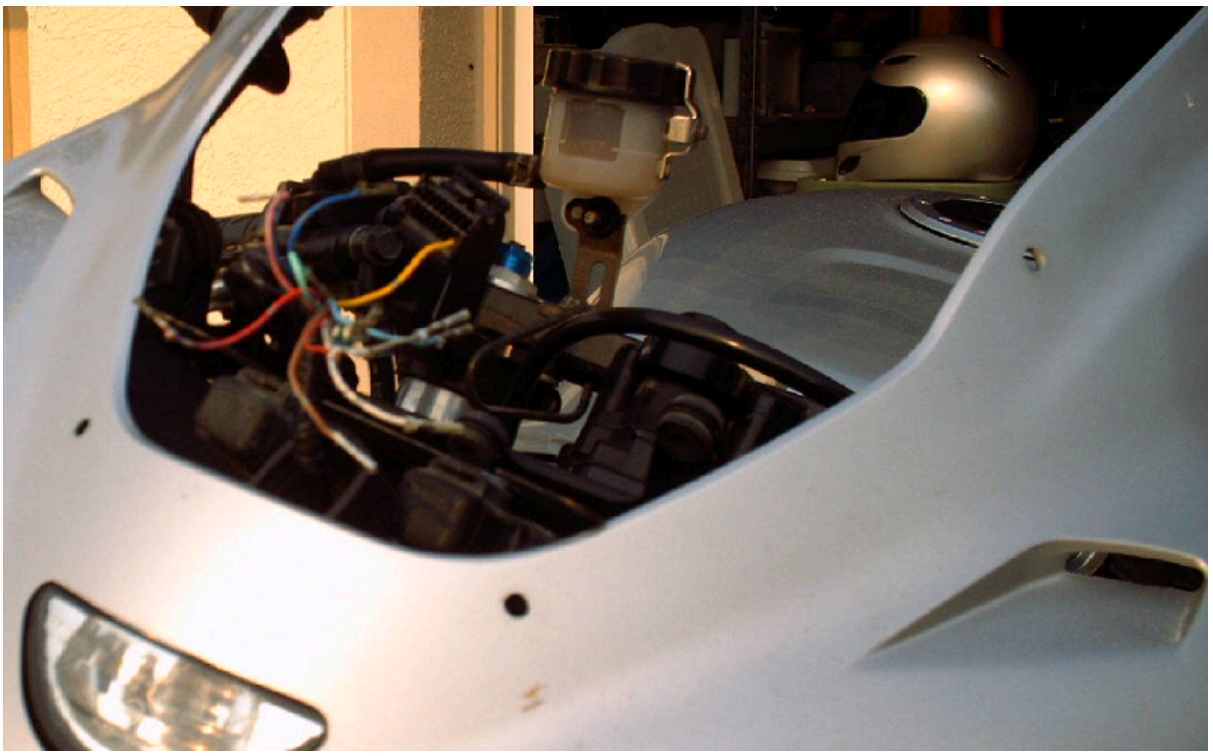
Crude cross section drawings to give you an idea of what's taking place:



I removed all the top wires first, left to right.



I then removed all the bottom wires, left to right; EXCEPT the bottom right yellow wire. This stays in the same location and is a good starting point for reattaching the wires.



Here is a diagram of the stock wires and what each wire is for:

TOP (HOLDING CLIP) view from back of connector

1	2	3	4	5	6	7	8
BROWN with WHITE STRIPE	WHITE	RED with BLACK STRIPE	GRAY	GREEN	BLUE with RED STRIPE	not used	LIGHT BLUE
RED with BLUE STRIPE	BLACK with YELLOW STRIPE	LIGHT GREEN	PINK	BLACK with BLUE STRIPE	not used	BLUE	YELLOW
9	10	11	12	13	14	15	16

1) Ignition
2) Battery (+)
3) High Beam Indicator
4) Right Turn
5) Left Turn
6) Oil Pressure Indicator
7) not used
8) Tachometer Pulse
9) 12v (+) Power to LCD displays?
10) Ground (-) Battery
11) Neutral Indicator
12) Speed Supply
13) Ground (-) Frame/Engine
14) not used
15) Water Temperature
16) Speed Pulse

Step 7: Inserting wires in new location.

I worked right to left this time, bottom to top. You must insert the wires flat side down. Going off of this diagram, start from 16 and place the RED wire with BLACK STRIPE in 15's slot, working your way counting backwards. This allows you to rearrange the wires in the electrical tape to suit their new location.
Here is the new wire location for the 03-06 gauges:

03-06 GAUGE WIRING

TOP (HOLDING CLIP) view from back of connector

1	2	3	4	5	6	7	8*
same BROWN with WHITE STRIPE	Fuel Indicator not used	Stop Watch not used	Lap Timer not used	LIGHT GREEN	FI not used	LIGHT BLUE	BLUE *(need new sending unit)*
BLACKS with BLUE & YELLOW STRIPES	WHITE	BLUE with RED STRIPE	*same* PINK	GRAY	GREEN	RED with BLACK STRIPE	*same* YELLOW
9*	10	11	12	13	14	15	16

1) Ignition
2) Fuel Reserve
3) Stop Watch
4) Lap Timer
5) Neutral Indicator (-)
6) FI Indicator Light
7) Tachometer Pulse
8) Water Temperature
9) Ground (-)
10) Battery (+)
11) Oil Pressure Indicator
12) Speed Supply
13) Right Turn
14) Left Turn
15) High Beam Indicator
16) Speed Pulse

Now when all the wires are in their new place and you've triple checked, close the upper and lower retaining flaps. The connector is now compatible with the new gauges, sans a few minor things I will address at the end.

	Pin	**ZX6R 98/99**			New Pin	**ZX6R 03/06**	
	1	BR/W - Brown with White Stripe	Ignition		1	BR/W - Brown with White Stripe	R/BL -
	2	W - White	Battery (+)		2	n.c.	
	3	R/BK - Red with Black Stripe	High Beam		3	n.c.	
	4	GY - Gray	Right Turn		4	n.c.	
	5	G - Green	Left Turn		5	LG - Light Green	
	6	BL/R - Blue with Red Stripe	Oil Pressure		6	n.c.	
	7	n.c.	not used		7	LB - Light Blue	
	8	LB - Light Blue	Tacho Pulse		8	BL - Blue	
	9	R/BL - Red with Blue Stripe	12V Backlight		9	BK/Y - Black with Yellow Stripe	BK/BL Stripe
	10	BK/Y - Black with Yellow Stripe	Ground (-)		10	W - White	
	11	LG - Light Green	Neutral Indicator		11	BL/R - Blue with Red Stripe	
SAME >	12	P - Pink	Speed Supply		12	P - Pink	
	13	BK/BL - Black with Blue Stripe	Chassis Ground (-)		13	GY - Gray	
	14	n.c.	not used		14	G - Green	
	15	BL - Blue	Water Temp		15	R/BK - Red with Black Stripe	
SAME >	16	Y - Yellow	Speed Pulse		16	Y - Yellow	

	Pin	ZX6R 00/02				ZX6R 03/06	
	1	BK/Y - Black with Yellow Stripe	Ground (-)		1	BR/W - Brown with White Stripe	R/BL -
	2	LG - Light Green	Neutral Indicator		2	n.c.	
	3	R/BK - Red with Black Stripe	High Beam		3	n.c.	
	4	GY - Gray	Right Turn		4	n.c.	
	5	G - Green	Left Turn		5	LG - Light Green	
	6	BL/R - Blue with Red Stripe	Oil Pressure		6	n.c.	
	7	n.c.	not used		7	LB - Light Blue	
	8	LB - Light Blue	Tacho Pulse		8	BL - Blue	
	9	R/BL - Red with Blue Stripe	12V Backlight		9	BK/Y - Black with Yellow Stripe	BK/BL Stripe
SAME >	10	W - White	Battery (+)		10	W - White	
	11	BR/W - Brown with White Stripe	Ignition		11	BL/R - Blue with Red Stripe	
SAME >	12	P - Pink	Speed Supply		12	P - Pink	
	13	BK/BL - Black with Blue Stripe	Chassis Ground (-)		13	GY - Gray	
	14	n.c.	not used		14	G - Green	
	15	BL - Blue	Water Temp		15	R/BK - Red with Black Stripe	
SAME >	16	Y - Yellow	Speed Pulse		16	Y - Yellow	

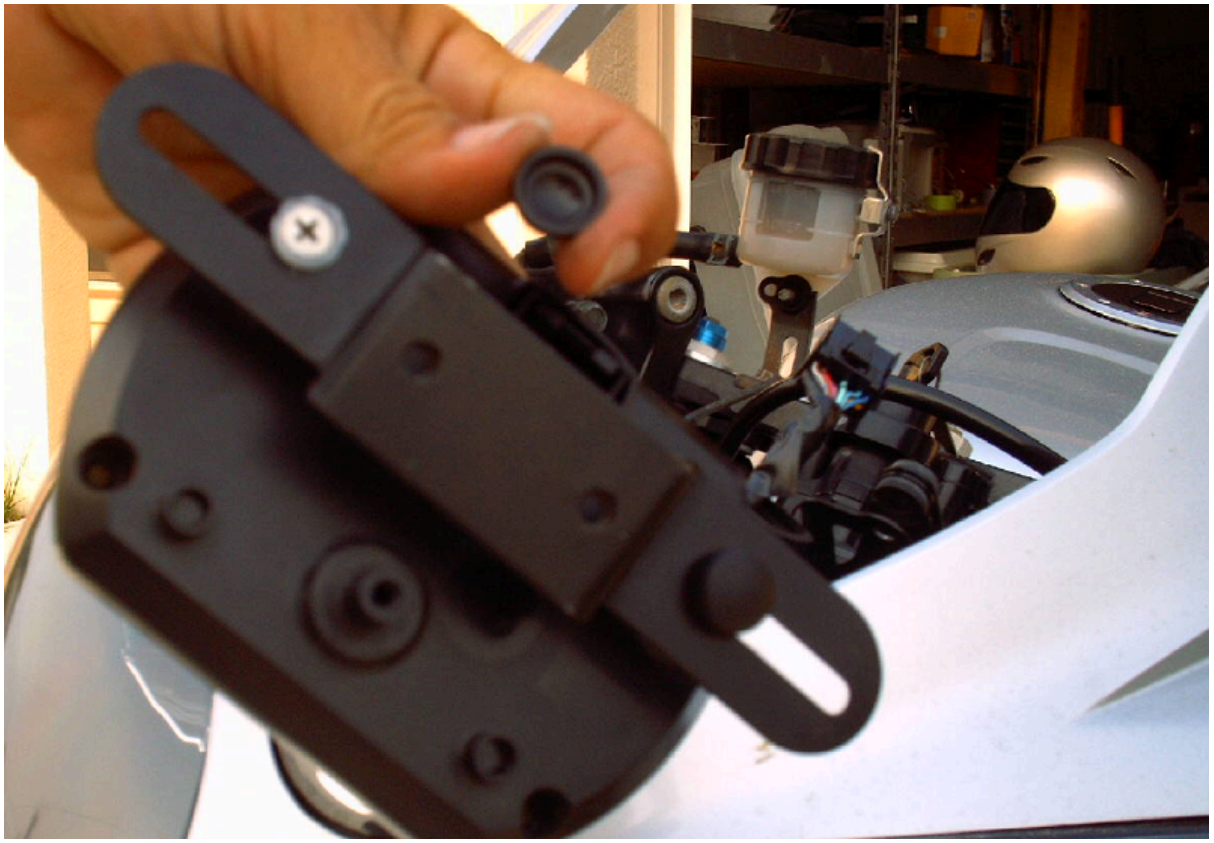
Step 8:

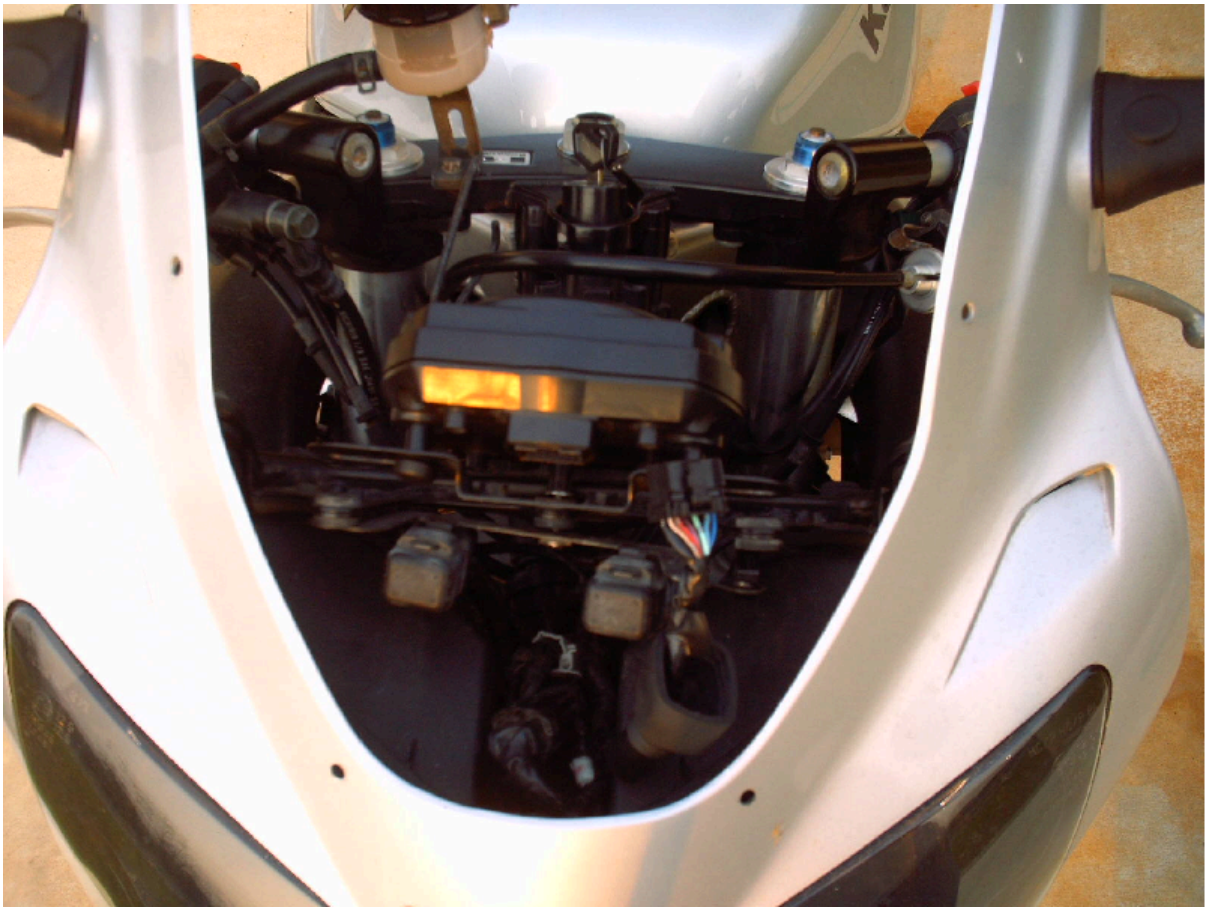
Mounting.

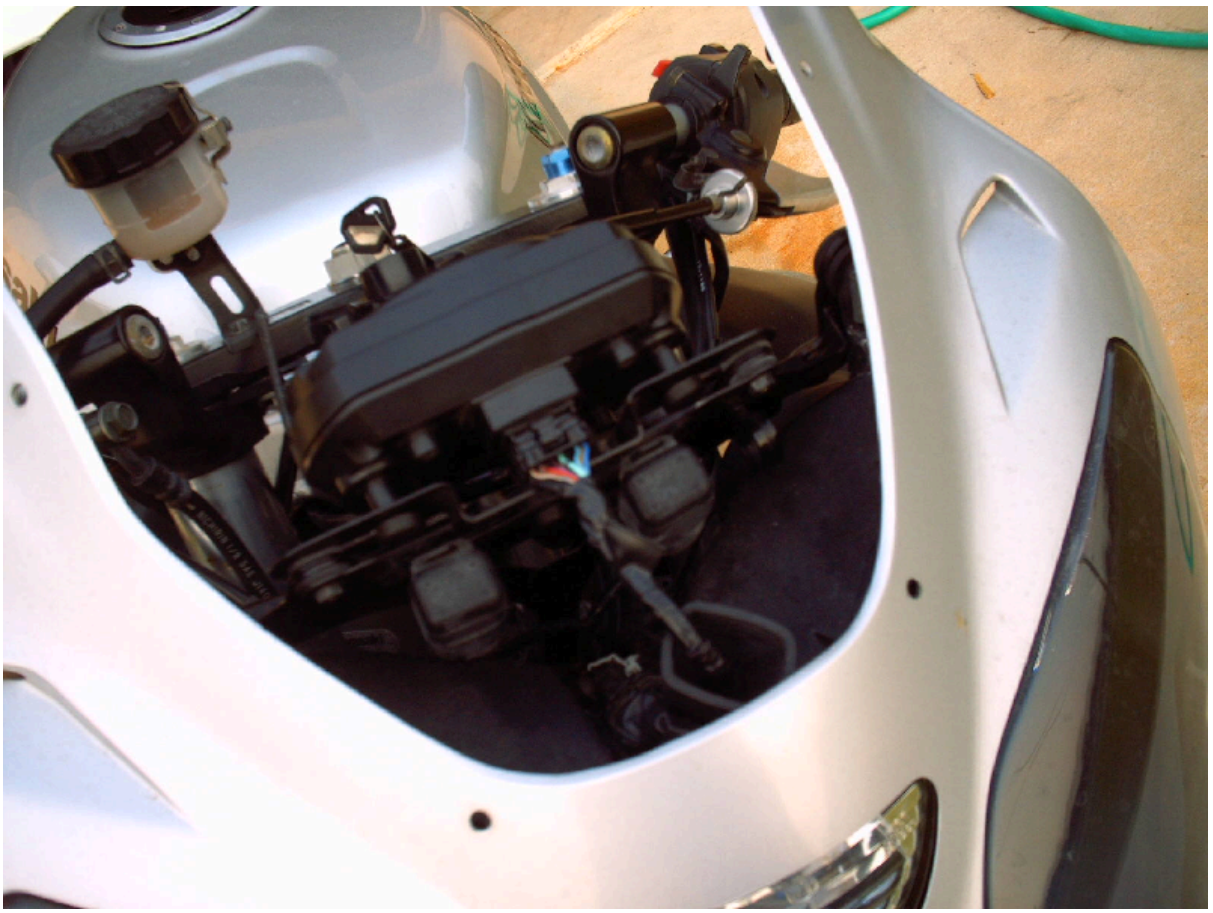
Since this is custom, you can place the gauge any way you want, at any angle.

I prefer a "stock" look to things and took this route-

Using a stock liscense plate bracket, I drilled the slots closer together and screwed in the top 2 mounts on the guage from behind. I picked up black screw caps at the hardware store to clean the look up. I then screwed in the bottom mount in the stock position. With this done, I used 2 extra fairing screws I had and 2 stock mounting nuts from the other gauge cluster to secure the liscense plate bracket to the top stock mounting points. It is very secure and looks almost like it came factory this way.







First I need to thank badass for his help in getting me started with the conversion. THANKS. Here is the pin conversion I found to swap the 00-03 gauge cluster to your 98-99 9's.

C Loom Pin
pin 1. move to 15. Black yellow. Chassis earth.
pin 2. move to 14. Turquoise (V Light green). Neutral Indicator light.
pin 3. move to 6. Red black. High beam indicator.
pin 4. move to 5. Grey. Right hand turn signal.
pin 5. move to 4. Green. Left hand turn signal.
pin 6. move to 3. Blue red. Oil pressure warning light.
pin 7. move to 2. Empty
pin 8. move to 1. Light blue. Tacho Pulses from IC Ignitor Unit.
pin 9. move to 16. Red blue. Tacho and Speedo illumination.
pin 10. move to 7. White. Always live
pin 11. move to 8. Brown white. 12v Oil, Neutral, Tacho, and Speedo.
pin 12. move to 13. Pink. From Speedo censor
pin 13. move to 12. Black blue. Ground for Tacho, Speedo and Coolant overheat warning LED.
pin 14. move to 11. Empty.
pin 15. move to 10. Blue. Coolant overheat warning LED.
pin 16. move to 9. Yellow. Speedo pulses, from Speedo sensor.

Thats all there is to it. Pull the pins out and swap them into there new location.

Mount Information
I fabricated a mounting bracket using a piece of sheet aluminum ($2 at home depot) that was about 190 mm wide and about 25 mm tall. (I will probably remake the bracket using a narrower piece of metal closer to 150 mm for a cleaner look.) Since the old gauge cluster has the top two mounting screws 150 mm apart, you will need to drill two holes 150 mm apart. Since the 636 gauge has the top two screws 100 mm apart, you need to drill two holes 100 mm apart and place

those two holes 25 mm from the old gauge mounting holes (refer to MS paint diagram). The bottom hole is 40 mm from the top two holes on the stock gauge and the 636 gauge, so you just want to drill 4 holes along the same level in a straight line. You do not want your bracket to be much taller than 25 mm because it is unnecessary and could block the bottom mounting hole.

You should drill the holes as close to the top of the bracket as possible or else the wiring harness will be blocked. Alternatively, you could cut out a tab about 30 mm wide and 10-20 mm deep in the middle of the bracket. I did not have tools to do this, so I just drilled the holes as close to the top as possible and it worked, but the rubber wiring harness cover doesn't fit around the bottom. Cutting a tab wouldn't have been the better way to go so that the rubber harness fit, but it still works and I don't ride in the rain anyway.

The 636 gauge uses #10 machine screws on the three mounting holes, not metric or standard, but #10 machine screws ( ??? - no idea why Kawasaki did this). An M5 screw is close, but slightly too small. Use (2) #10 1/2" long screws for the top two holes, and a #10 1" long screw for the bottom hole to clear the additional width of the old mounting bracket. For whatever reason, some of the #10 screws I tried were close but didn't fit, while screws from another packet fit perfectly. Just keep trying and you'll find a match.

You can use 3/4" or 1" long M5 screws/bolts for the top two old gauge mounting holes to attach the bracket to the existing mount. Any bigger won't fit. I used M5 wingnuts for easier removal of the mounting bracket if necessary.

You should screw the 636 gauge onto the mounting bracket first, and then screw the mounting bracket into the old 150 mm wide holes. You can then screw in the bottom hole with your #10 1" long screw.

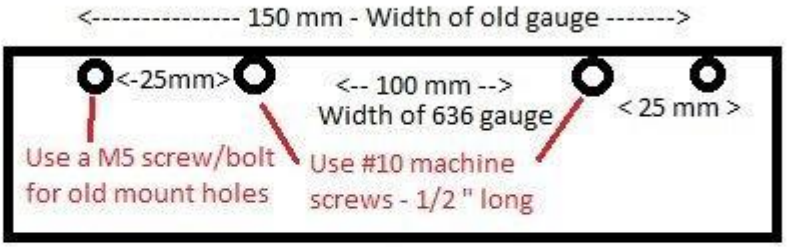
Wire removal from harness & splicing together ground wires
Per Bennsb, use finesse not force to remove the wires. I used a .050" allen wrench instead of a paperclip. The first two took about half an hour. The rest of them took about two minutes.

For the two into one ground wires, I cut off the clip/end of one of the ground wires and stripped the coating about 3/4" inch down from the end of the other wire (leaving the metal tip on to insert into the harness), then wrapped the end of the cut wire around the exposed wire, then wrapped it up with electrical tape. A little amateur, but I did not have a soldering iron and everything works.

Fuel gauge issue - plugging in extra blue/red wire didn't stop the flashing led...but can remove LED or destroy circuit pathway
I had an old gentleman solder on LEDs from Digikey since I tried and almost destroyed the board. He used a razor blade to destroy the circuit to the fuel led from underneath the board. An alternative would have been to remove the LED, but his method works, and apparently he could restore it to working status if I needed to. But he's been working with circuit boards since 1971, so it's probably easier to remove the LED since it apparently isn't part of the circuit and could safely be removed without affecting the function of the board.
Speedohealer is necessary
Also per Bennsb, on the '05 model the speedo will read about 1/10th of your actual speed.

ZZR600/00-02 ZZX6R to 03-06 ZX6R
Digital Gauge mounting bracket

Do not make your bracket too tall (> 25 mm or else it will block the bottom mounting hole) /\ 25 mm \/



Note: Not to scale. Refer to measurements. You need to drill the holes as close to the top as possible so that the harness will fit. It will be tight and the rubber harness cover will not fit completly over the bottom part of the harness. Alternatively, you could cut a recess about 15 mm deep and 30- 40 mm wide out in the middle in between the holes for the new gauge.

Total width of bracket is 190 mm. This can vary, but shouldn't be any wider or it may not fit.