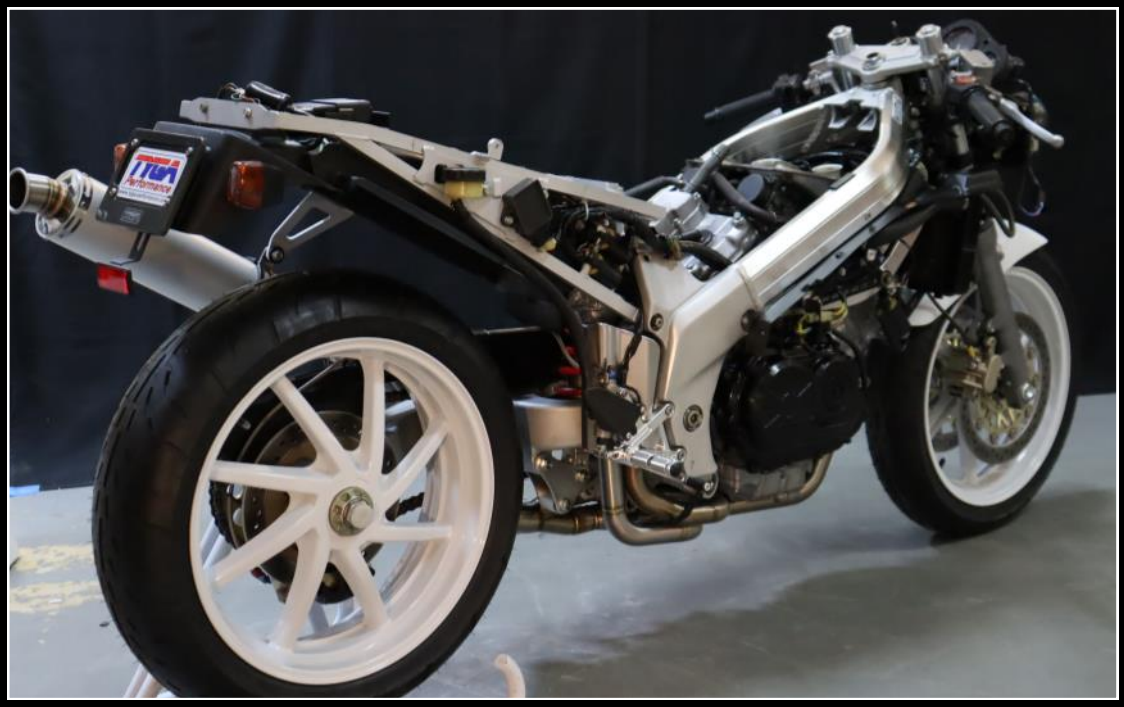
MAKING YOUR DREAMS A REALITY

FITTING INSTRUCTIONS

Wire Harness routing on your RC36-2 Project



The conversion from the RC36-2 to the RC30 style requires quite extensive changes to the wiring harness routing compared to the original RC36-2.

There are some electrical connections that need to be modified from the original setup, so some very basic knowledge of electrics is useful, although not essential.

In step 1 of the build Instructions, we worked through the wiring on the subframe. This should all be OK, and no more modifications are required at that end.

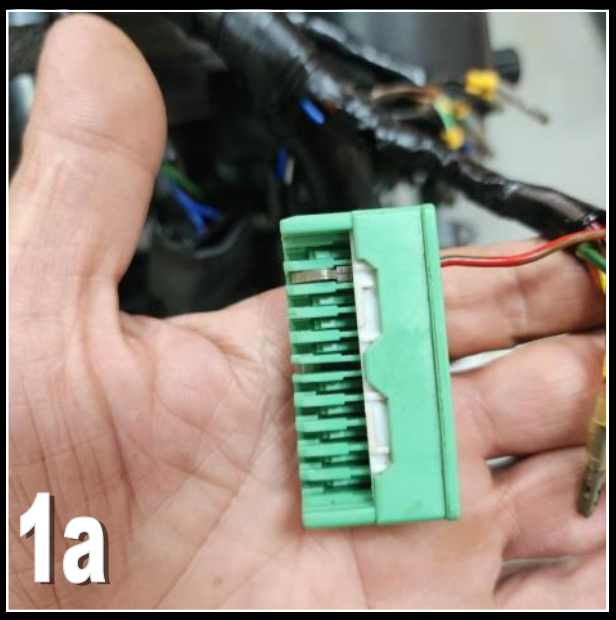
Before starting any electrical work, please make sure that the battery is disconnected to avoid short circuits and sparks.

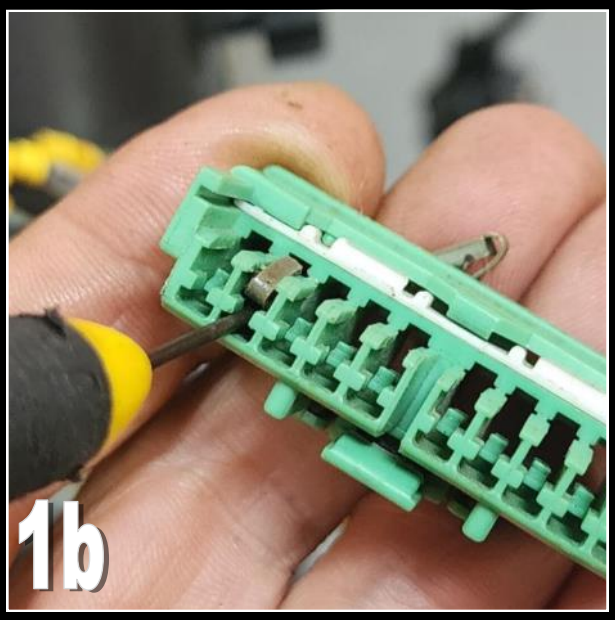
So, let’s start.

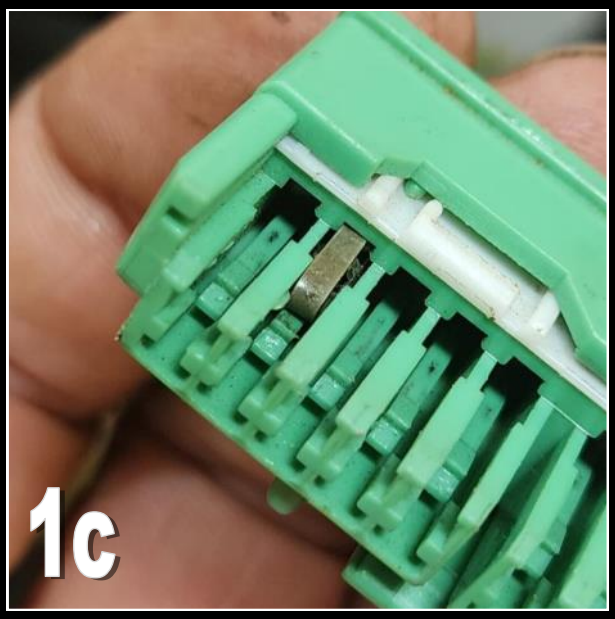
1) The first thing that we need to do is to make some changes to the part of the harness that plugs into the RC36-2 meter assembly. We need to remove the pin terminals from the blue and green 10P connectors. This is because we need a way to connect our extension harnesses so that we can drive the alternative meter that we will use instead of the RC36-2 standard meter assembly.

To remove the terminals is quite easy. You need to use a small screwdriver (or similar) and push it in under the terminal to push the locking tab down and release the terminal.

The pictures show just one terminal remaining for clarity. Follow this procedure for all the terminals in both the blue and the green 10P connectors.





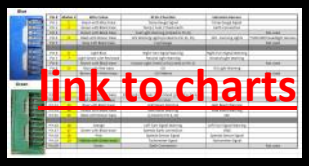


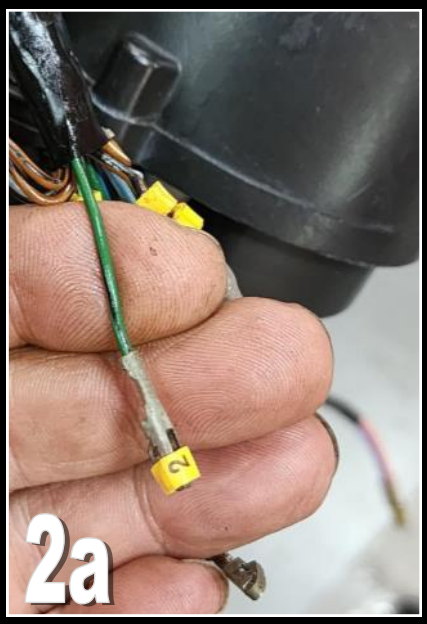
2) Next, we need to add ‘markers’ to the individual wires so that we know how to plug the extension wires.

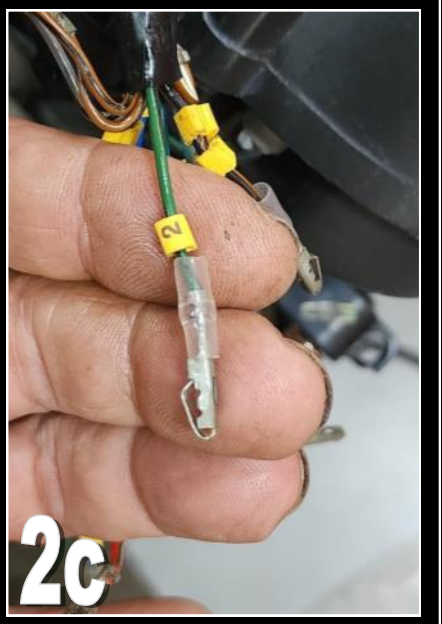
The small yellow markers can be slipped over the terminals on the wires. Then the sheath can also be slipped over the terminal.

The number of the markers is specific to each wire. Please follow the chart at the end of this instruction set to see which number markers should be placed on which colour wire.

Put the markers and sheaths on each of the wires as shown in the chart.

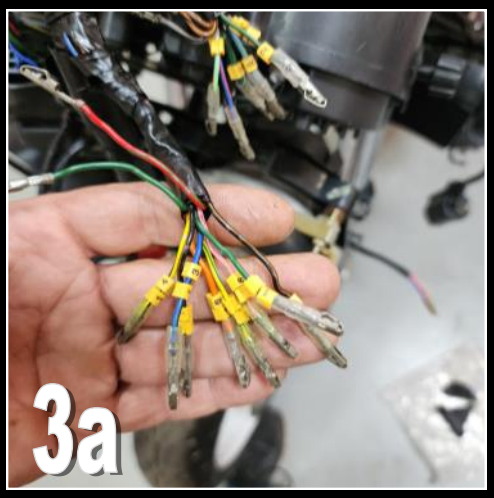


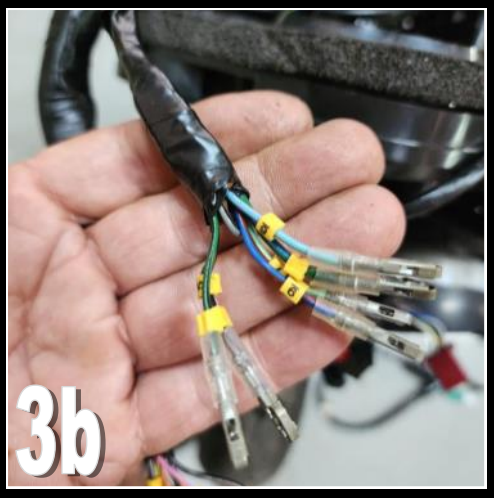




3) After the markers are fitted, you will have some unused wires.

These should be individually isolated and can be turned back against the harness and wrapped in insulating tape as shown.





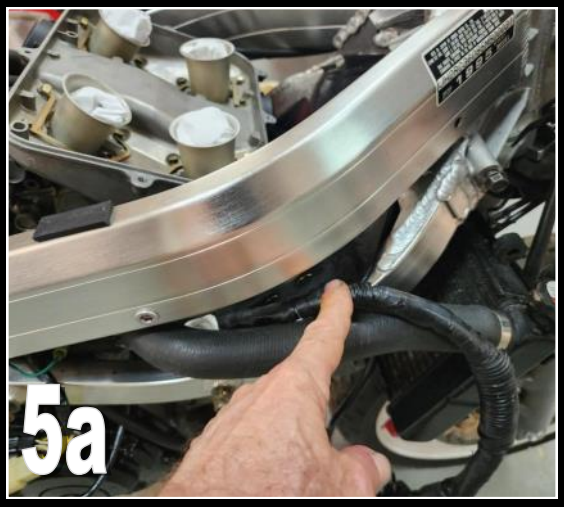
4) The exposed terminals from the blue and green 10P connectors will be directly connected to the extension harness that drives the meter and the running lights. This is described later in this document, but we would like to say that we recommend cutting off the original terminals and fitting normal bullet terminals, as the bullet terminals will be 100% compatible with the terminals on the extension harness and will provide a more secure and reliable connection.

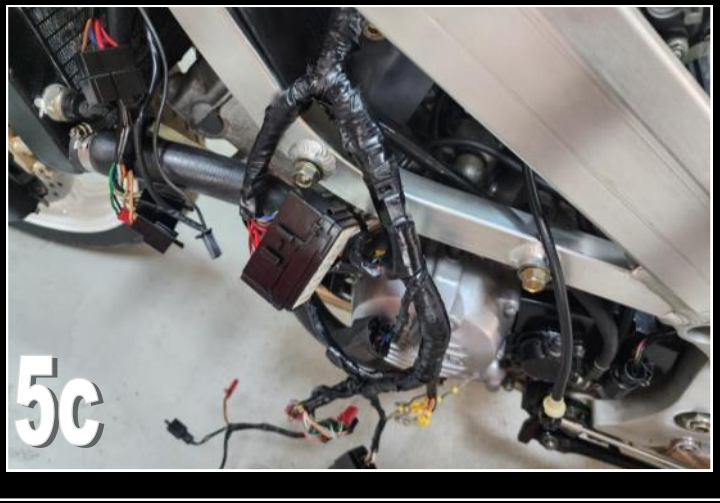
Bullet terminals are provided together with wire markers and sheaths with the extension harnesses and the headlight harness if you wish to do this more permanent modifications.

For ease of assembly, we chose to keep the original terminals and did not change them to the bullet terminals.

5) The next step should be to start routing the harness.

The harness should go through the gap between the frame spars on the right hand side and then run around the top of the space in front of the carbs, and then out of the gap between the frame spars on the left hand side.

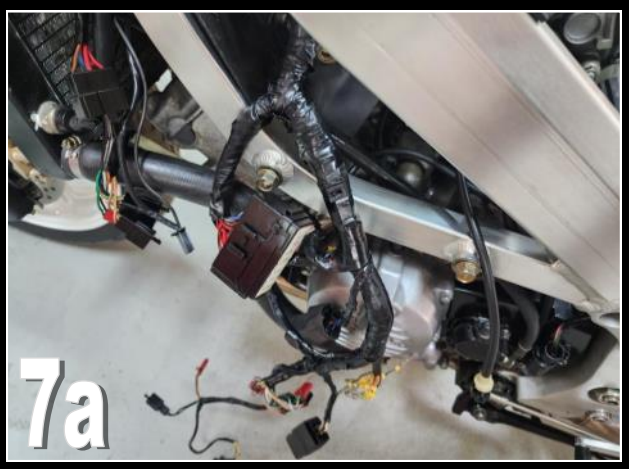


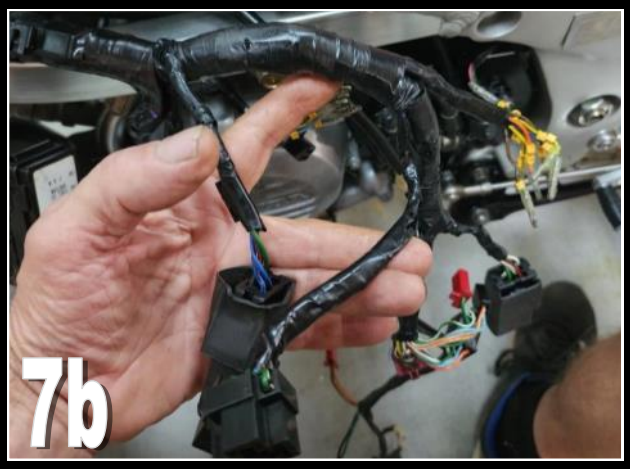


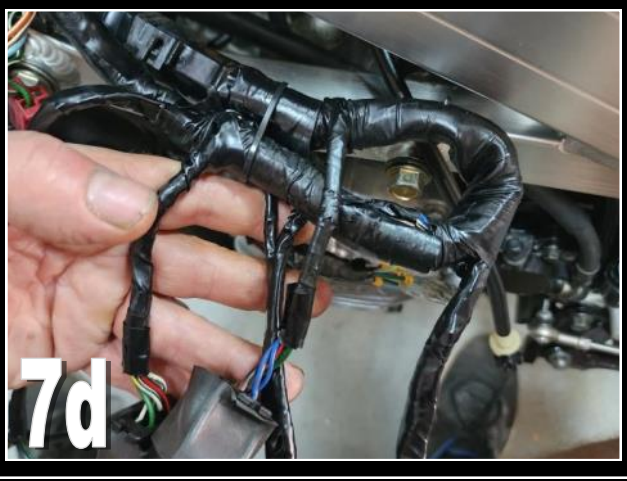
6) For wire management, wrap a small cable tie around the front of the plastic shield, and then with a salvaged reusable tie, hold the main harness on position. We will be adding wires here in later steps.

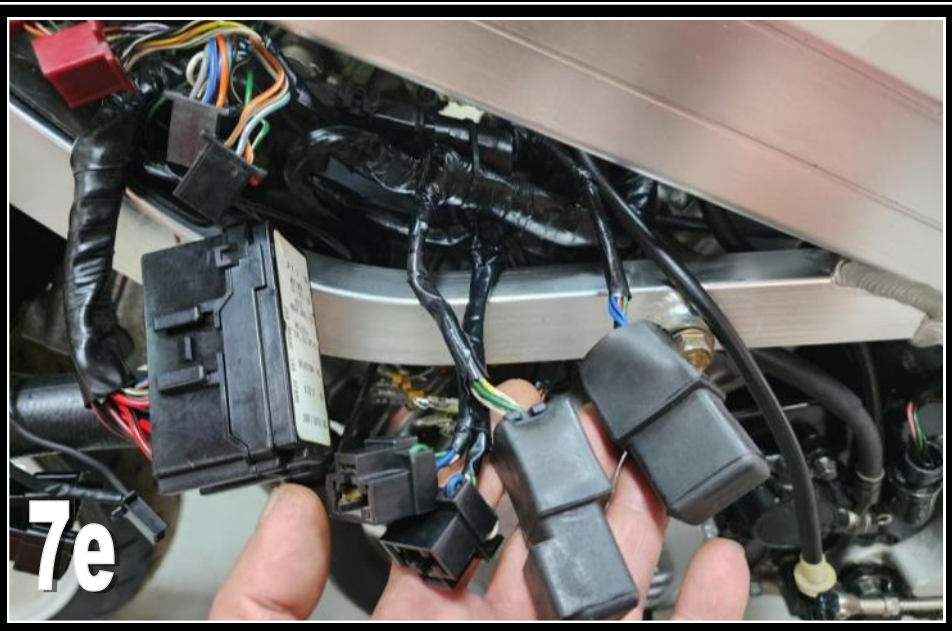
7) Now hold the harness as shown, and at an approximate point between the headlight connectors and headlight relay, fold the harness back on itself, and secure the bend with a cable tie.

Now locate the bend of the harness just inside the frame. Allow the headlight relays and headlight connectors to stay outside of the frame.



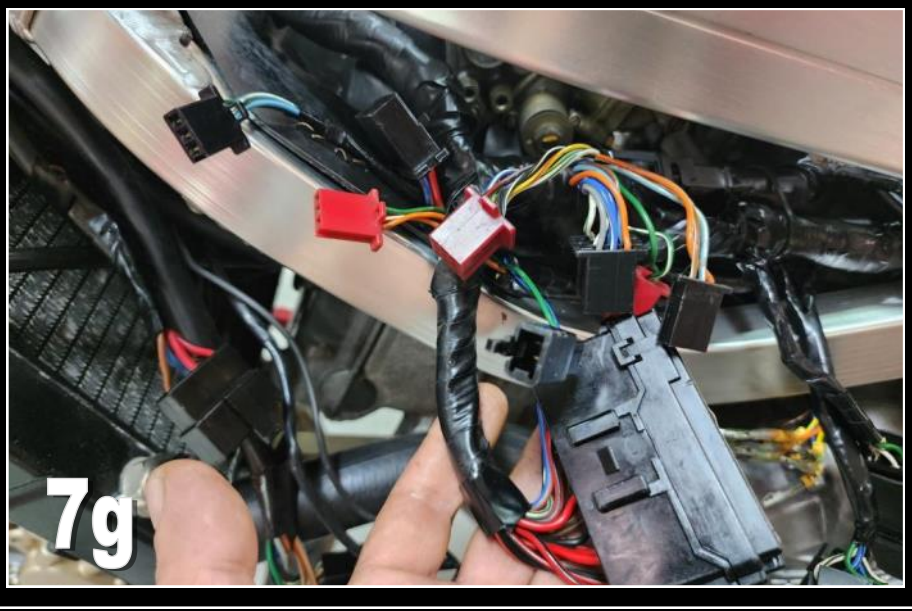




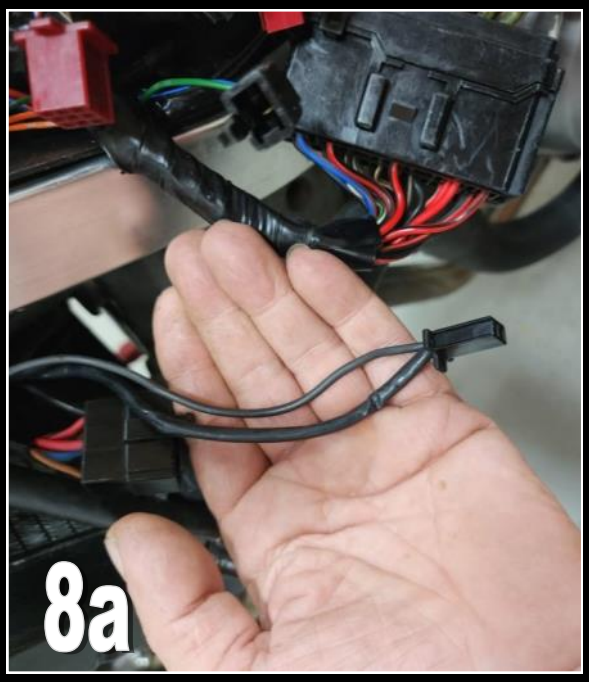


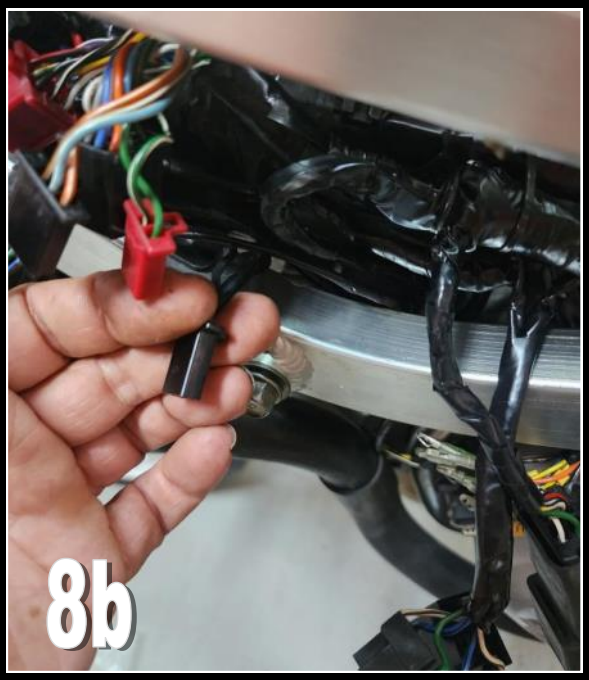
The meter wires and coil wire should be routed from the inside of the lower frame rail and exit on the underside.

Keep the fuse box and other connectors outside the frame for now. We will connect and tidy up later.



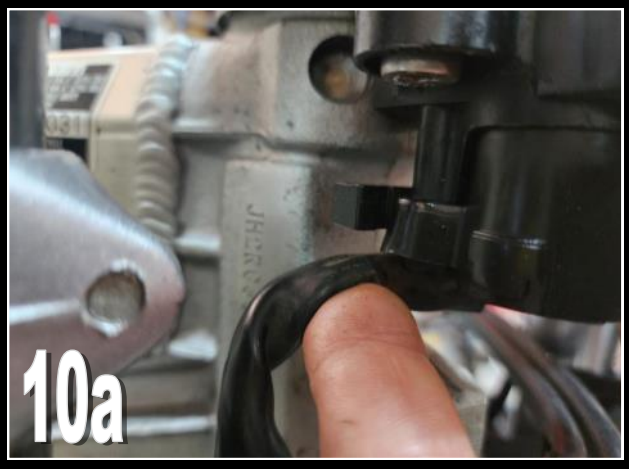
8) Locate the 2P fan connector. This needs to run on the inside of the lower frame rail and can be routed under the plastic shield and out to the left of the fame as shown.

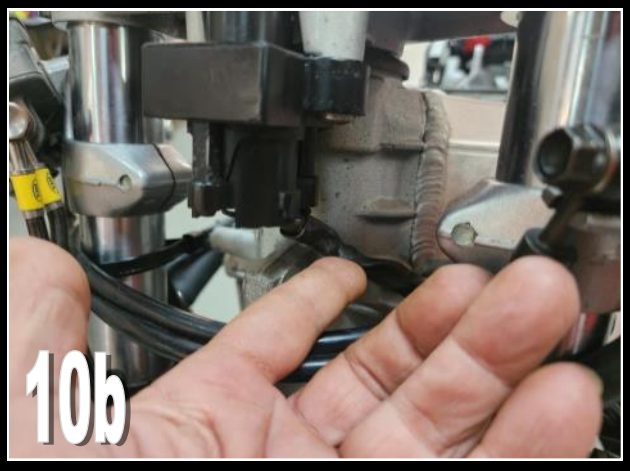




9) Moving back to the right hand side of the bike. Route the right hand switch gear wires through the gap between the frame rails and follow the route of the main harness, using the cable tie to secure. Connect the red 9P connector from the switch gear to its mating connectors.

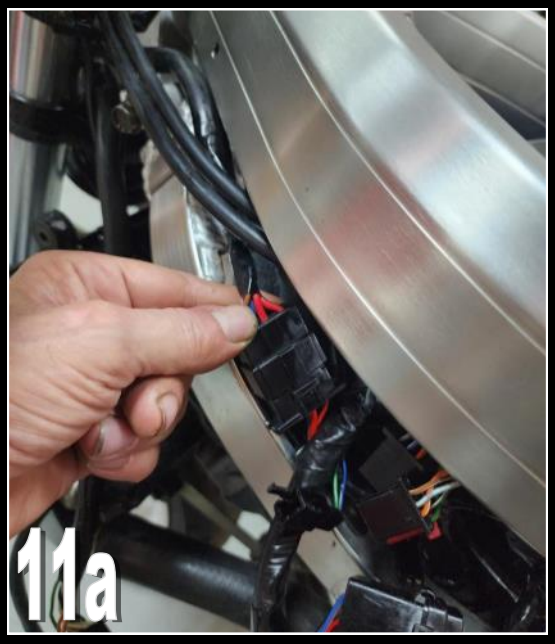
10) Now look at the ignition switch wire. For this we need to cut the cable tie that holds the wire to the switch so that we can route it to the left side of the frame and have an adequate length of wire to work with.

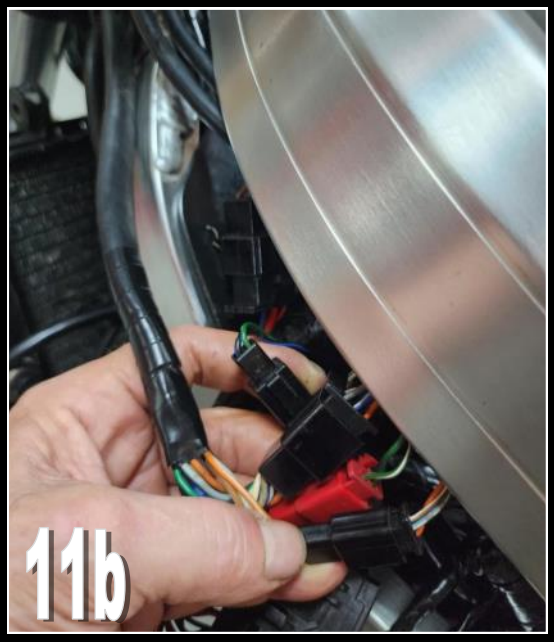




11) Route the ignition switch wire on the left side of the fame and connect the plugs as shown

At this point, it is a good idea to connect up a few wires just to keep things tidy.





12) A quick check on the throttle cable and wire routing. We found it best to have the throttle cables on the outside of the ignition switch wire.

13) Now we arrive at what is possibly the most complex part of the electrical conversion.

We need to connect the meter extension harness to the main harness.

In step two we fitted the markers to the main harness, and now it's time to one by one join these wires to the extension harness.

The original terminals that we removed from the blue and green connectors on the main harness do actually push into the female bullets fitted to the extension harness. Make sure that you push them fully together.

The extension harness shown is TYWH-0008 for the 94-95 SC28.

Note that the '94-'95 meter will need to be fitted with the speedo module from the RC36. Please see instructions HERE

The extension harness TYWH-0005 for the '92-'93 fits in exactly the same way, except that

the TYWH-0005 harness does not have the #18 wire for the electronic speedo.

It is a good idea to tape the two sets of wires together as a bit of strain relief

You will notice that wire #4 is not yet connected. This is the 12V for the running lights, so we will connect in a later step. It's advisable to isolate this terminal temporarily to avoid any short circuit during any electrical testing.

14) Before we move on, it is a good idea to check that the connections are good and that the meter all works as planned.

I advise to just run the extension wire up to the meter and plug it in to the meter.

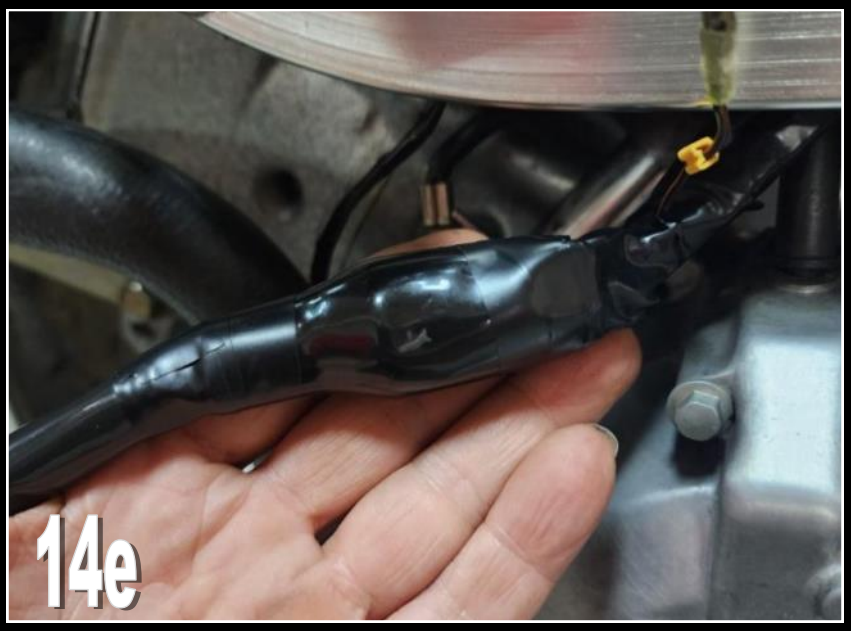
The battery should have been disconnected, so now connect the battery again, turn on the ignition switch and you can check that the warning lights on the meter illuminate correctly.

If using the electronic speedo it is also possible to check that this works by rotating the rear wheel quickly. In my case, I got a friend to spin the wheel and observed the speedometer needle moving off the stop. So all good.

As for checking the tachometer, this can also be done. You can connect the front coils to the main harness, and if you have a little fuel in the carbs, then the engine should start, and the tachometer should read the engine revolutions.

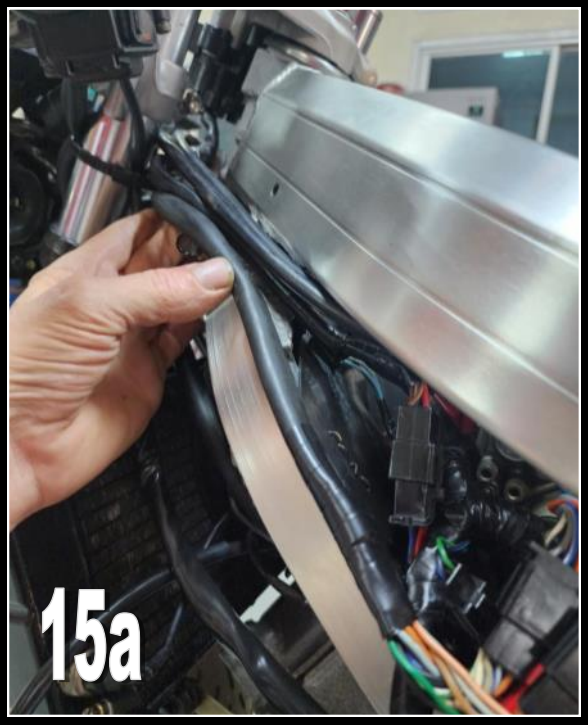
With the connections confirmed, turn off the ignition, disconnect the battery.

Now go back to where the extension harness joins with the main harness and pull the boot over the terminals. I then advise to use electrical tape over the sheath and the wires. This holds the connections together and helps to keep water and dust out of the connections. And also looks neat and tidy.



15) Routing the wires should be as shown.

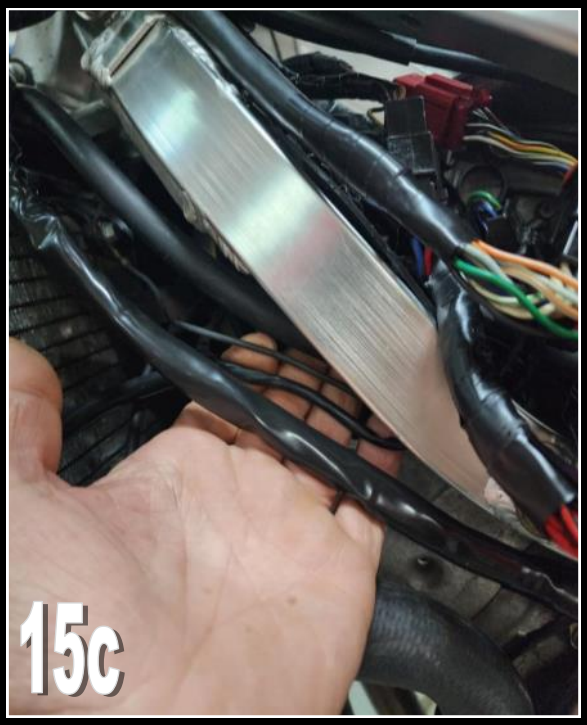
The throttle cables, ignition switch wore and left hand switch gear wires should all run together, and will run over the top of the radiator mounting boss on the frame.

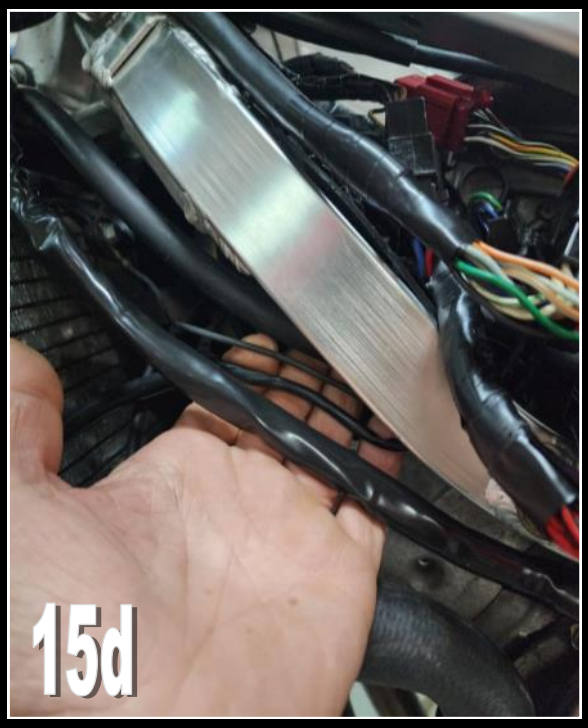


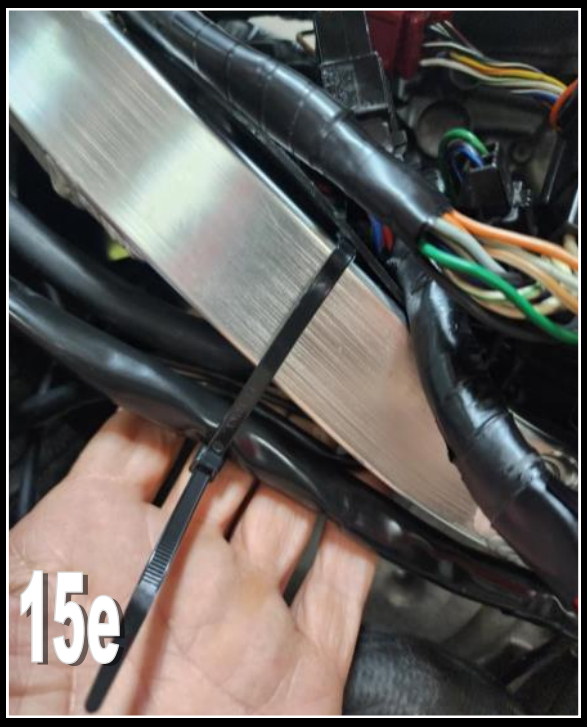
The extension harness runs on the underside of the lower frame spar.

A loosely fitted cable tie helps keep things in place. Note that the clutch hose also runs through here so also a good idea to keep that I place with the cable tie and away from the engine.

The extension wire and clutch hose will route on the underside of the radiator mounting boss and on the inside of the fork leg.







Now run the extension harness on the left side of the meter stay and route it between the meter and the meter stay. Secure to the meter stay with reusable cable tie (provided with meter stay). And finally connect the extension harness and meter stay together and cover up the connectors with the boot.

Use a cable tie to hold the extension wires to the meter plate.

If in any doubt about the connections, feel free to run another electrical check.

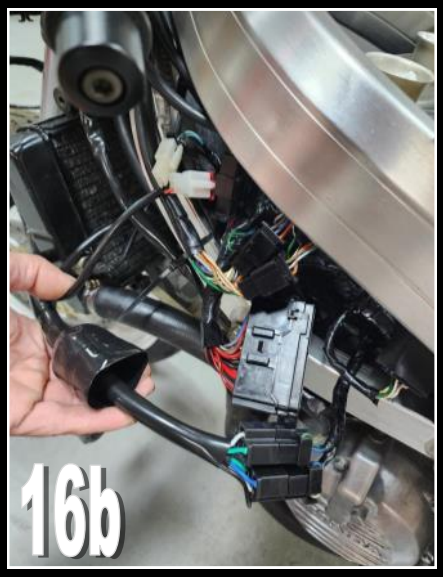
16) The final job with the electrical extensions is to fit the headlight harness extension.

Here we should start at the headlights and work backwards. However, it's a good idea again just to run a quick test to make sure that all is working.

Plug the 3P female connectors onto the headlight bulbs, then connect the running lights to the black and green wires with bullet connectors, and then bring the harness around the left side of the bike and connect the 3P male connectors on the extension harness to the headlight connectors on the main harness. Plug in the two 3P connectors for the indicators and finally connect the fly out wire with the #4 marker to the #4 wire from the main harness. This is the power for the running lights.

Connect the battery, switch on the ignition and you should have working headlights and running lights.

If



you have your turn signals to hand, connect them. On the extension harness, the left hand turn signal wires are orange and green. For the right side they are grey and green.

If all tests OK then we should do the final routing.

Again, starting from the headlight connectors, but this time the extension harness on the right hand side of the bike.

The connector for the left headlight bulb should route through the fork in the meter stay, and plug onto the bulb. Then connect the right side bulb.

The wires for the running lights and turn signals should route through the meter stay behind the meter, and then split left and right.

Use the cable tie on the meter stay to secure the wires.

The running light and turn signal wires run over the top of the headlights and down the outer edges. There are hooks on the headlights to retain the wires.

Now run the extension harness on the inside of the fork leg and on the right side of the frame, above the radiator mounting boss. Then it should be routed into the gap between the frame spars and across the front of the carbs. Use the cable tie to secure.

Push the headlight connectors on the extension harness out to the left side of the bike. We do not need to connect up at this stage.

Then back to the inside of the frame and connect the turn signal connectors. The white 3P connector with orange wire plugs onto the red 3P connector and the white 3P connector with the grey wire connects to the black 3P connector.

And that is it. The complex wiring changes are done.

The following charts refers to the 10P blue and green connectors that were removed from the harness at the initial stage. You need to follow this chart when fitting the markers to the main harness wires. Note that there are three charts, one for each of our extension harnesses

Wiring guide for TYWH-0005 Harness Extension, SC28 (92-93) Meter, Honda VFR750R RC36-2

Blue

Green

Pin #	Marker #	Wire Colour on RC36-2	RC36-2 Function	Extension Harness Function	Wire Colour on Meter	
Pin 1	1	Green with Blue trace	Temp Gauge Signal	Temp Gauge Signal	Green with Blue trace	
Pin 2	2	Green with Black trace	Temp / Fuel / Check Earth	Earth Connection	Green	
Pin 3		Brown with Black trace	Fuel Light Warning (Linked to Pin 8)			Not used
Pin 4		Black with Brown trace	12V Warning Lights (Linked to Pin 11, 15)			Not used
Pin 5		Gray with Black trace	Fuel Gauge			Not used
Pin 6	6	Light Blue	Right Turn Signal Warning	Right Turn Signal Warning	Light Blue	
Pin 7	7	Light Green with Red trace	Neutral Light Warning	Neutral Light Warning	Light Green with Red trace	
Pin 8		Brown with Black trace	Inicator Light Check Unit (Linked to Pin 3)			Not Used
Pin 9	9	Blue with Red trace	Oil	Oil Light Warning	Blue with Red trace	
Pin 10		Brown with White trace	12V Meters			Not Used
Pin 11	11	Black with Brown trace	12V Clock / Speedo / Side Stand (Linked to Pin 4, 15)	12V	Black with Brown trace	
Pin 12		Red with Green trace	12V Clock			Not used
Pin 13	13	Blue with Black trace	High Beam Warning	High Beam Warning	Blue	
Pin 14	14	Yellow with Black trace	Side Stand Warning	Side Stand Warning	Yellow with Black trace	
Pin 15	15	Black with Brown trace	(Linked to Pin 4, 11)	12V	Brown with White trace	
Pin 16	16	Orange	Left Turn Signal Warning	Left Turn Signal Warning	Orange	
Pin 17	17	Green with Black trace	Speedo Earth connection	Earth Connection	Green with Black trace	
Pin 18		Pink	Speedo Sensor Signal			Not used
Pin 19	19	Yellow with Green trace	Tachometer Signal	Tachometer Signal	Black	
Pin 20		Green	Earth Connection			Not used

Wiring guide for TYWH-0008 Harness Extension, SC28 (94-95) Meter, Honda VFR750R RC36-2

Blue

Green

Pin #	Marker #	Wire Colour on RC36-2	RC36-2 Function	Extension Harness Function	Wire Colour on Meter	
Pin 1	1	Green with Blue trace	Temp Gauge Signal	Temp Gauge Signal	Black with Blue trace	
Pin 2	2	Green with Black trace	Temp / Fuel / Check Earth	Earth Connection	Black with Green trace	
Pin 3		Brown with Black trace	Fuel Light Warning (Linked to Pin 8)			Not used
Pin 4		Black with Brown trace	12V Warning Lights (Linked to Pin 11, 15)			Not used
Pin 5		Gray with Black trace	Fuel Gauge			Not used
Pin 6	6	Light Blue	Right Turn Signal Warning	Right Turn Signal Warning	Light Blue	
Pin 7	7	Light Green with Red trace	Neutral Light Warning	Neutral Light Warning	Light Green with Red trace	
Pin 8		Brown with Black trace	Inicator Light Check Unit (Linked to Pin 3)			Not Used
Pin 9	9	Blue with Red trace	Oil	Oil Light Warning	Blue with Red trace	
Pin 10		Brown with White trace	12V Meters			Not Used
Pin 11	11	Black with Brown trace	12V Clock / Speedo / Side Stand (Linked to Pin 4, 15)	12V	Black with Brown trace	
Pin 12		Red with Green trace	12V Clock			Not used
Pin 13	13	Blue with Black trace	High Beam Warning	High Beam Warning	Blue	
Pin 14	14	Yellow with Black trace	Side Stand Warning	Side Stand Warning	Yellow with Black trace	
Pin 15	15	Black with Brown trace	(Linked to Pin 4, 11)	12V	Black	
Pin 16	16	Orange	Left Turn Signal Warning	Left Turn Signal Warning	Orange	
Pin 17	17	Green with Black trace	Speedo Earth connection	Earth Connection	Green with Black trace	
Pin 18	18	Pink	Speedo Sensor Signal	Speedo Sensor Signal	Black with Red trace	
Pin 19	19	Yellow with Green trace	Tachometer Signal	Tachometer Signal	Yellow with Green trace	
Pin 20		Green	Earth Connection			Not used

Wiring guide for TYWH-0007 Harness Extension, Headlights, RC36-2, RC30 Style

Blue

Green

Pin #	Marker #	Wire Colour on RC36-2	RC36-2 Function	Extension Harness Function	Wire Colour on Harness	
Pin 1		Green with Blue trace	Temp Gauge Signal	Temp Gauge Signal		Not used
Pin 2		Green with Black trace	Temp / Fuel / Check Earth	Earth Connection		Not used
Pin 3		Brown with Black trace	Fuel Light Warning (Linked to Pin 8)			Not used
Pin 4	4	Black with Brown trace	12V Warning Lights (Linked to Pin 11, 15)	Running Lights in Headlights	Black	
Pin 5		Gray with Black trace	Fuel Gauge			Not used
Pin 6		Light Blue	Right Turn Signal Warning	Right Turn Signal Warning		Not Used
Pin 7		Light Green with Red trace	Neutral Light Warning	Neutral Light Warning		Not Used
Pin 8		Brown with Black trace	Inicator Light Check Unit (Linked to Pin 3)			Not Used
Pin 9		Blue with Red trace	Oil	Oil Light Warning		Not Used
Pin 10		Brown with White trace	12V Meters			Not Used
Pin 11		Black with Brown trace	12V Clock / Speedo / Side Stand (Linked to Pin 4, 15)	12V		Not used
Pin 12		Red with Green trace	12V Clock			Not used
Pin 13		Blue with Black trace	High Beam Warning	High Beam Warning		Not used
Pin 14		Yellow with Black trace	Side Stand Warning	Side Stand Warning		Not used
Pin 15		Black with Brown trace	(Linked to Pin 4, 11)	12V		Not used
Pin 16		Orange	Left Turn Signal Warning	Left Turn Signal Warning		Not used
Pin 17		Green with Black trace	Speedo Earth connection	Earth Connection		Not used
Pin 18		Pink	Speedo Sensor Signal	Speedo Sensor Signal		Not used
Pin 19		Yellow with Green trace	Tachometer Signal	Tachometer Signal		Not used
Pin 20		Green	Earth Connection			Not used

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