



TESTING THE EdSets 2G and 3G

Modular Headsets



NOTE FOR 2G Testing: Some information and specs are the same for the 3G and the 2G headsets we manufacture. Use this section to test your 2G coiled cable and harness (aka 'dongle'):

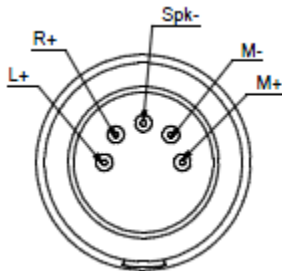
1. The wire colors in the helmet are the same for 2G and 3G.
2. The 5-pin DIN lower cable connectors for both 2G and 3G are identical and can be tested the same with respect to the colors of wires the pins terminate on inside the helmet, for example, the left speaker line(L+) is always at the leftmost pin when the center pin is at the top. The color is always Red on the internal helmet wiring on both 2G and 3G.
3. You can test the combined 2G cable and harness using the same test as the 'Entire 3G Headset at Once' method below. To test the lower 2G cable only, simply test pin for pin at both ends. To test the main 2G harness only, just reverse the pinouts for the lower 5-Pin connector (shown below for the 3G lower

5-Pin cable), and use the same colors as before. The female jack on the 2G harness is simply M+/M-/Spk-/R+/L+ where as this is reverse of the 5-Pin cable that goes into it as you look at each connector the same way with center pin at the top, like the diagrams here.

Remember: To test the whole headset, unplug from the bike first, and remove mics and speakers. You may need a small paper clip or stiff wire for small connector jacks and pins if your meter probes are 'fat'.

CHECKING THE ENTIRE 3G HEADSET AT ONCE

1. Look at the first picture below: that's the male plug on the lower cable and starting on the left the pins are: L+/R+/Spk-/M-/M+. To test the whole headset at one time using continuity setting on your meter, or zero out any 1x or 10x setting, do this:



L+ should go to Red wire in helmet: **L+**

R+ to Black wire in helmet: **R+**

Speaker Common to both White and Green wires in helmet: **L-/R-**

Mic- to Blue wire in helmet: **M-**

Mic+ to Yellow wire in helmet: **M+**

If all those pins-to-wires tests show good continuity and no 'resistance' (more than zero Ohms), then the wiring is probably ok, but there could be a short circuit. A 'short circuit' is two or more wires touching that should not be touching that route the signal to the wrong place. A 'short' is an often misused phrase while an 'open circuit' usually the culprit wherein a wire is broken and does not complete it's journey to the destination. A short can look like a continuity and is hard to detect...so a further test is needed:

Next, we need to check for shorts by testing each pin on the lower cable with all the other pins by holding a meter on a pin and moving the other to all the other pins one at a time:

L+ to all other pins one at a time, should be NO continuity to any other pin
R+ to all other pins one at a time, should be NO continuity to any other pin
Spk- to all other pins one at a time, should be NO continuity to any other pin
Mic+ to all other pins one at a time, should be NO continuity to any other pin
Mic- to all other pins one at a time, should be NO continuity to any other pin

If the continuity and 'shorts' tests are ok, we can go to the speakers and mics:

Mics should read about 600 Ohms unplugged, speakers about 75 Ohms each. Some meters will sound off or have a continuity setting that will actually send a tone into the speaker and mic, so you may simply be able to listen to the tone to make sure the mic or speaker is ok. Speakers will be louder than the mics, but you can hear both if you meter has this feature, otherwise, just look for the resistance value to be in the approximate range mentioned above.

NOTE: In the case we got this far, and things are ok, then the headset is good, and should work on a normal Goldwing or Venture, or older Voyager.

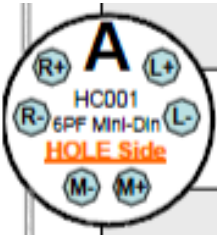
NOTE: If the either of the continuity or 'shorts' tests above are NOT ok, then we can isolate the 'BAD' part by checking each component individually:

CHECKING THE MAIN 3G MODULE

Unplug mics, speakers and cables from the 3G module. The 3g MODULE itself, can be checked using the picture below labeled "A". Probe from the 6-Pin connector to each of the 6 black molex plugs (the 6 colored wires) to check for shorts if you found a short earlier. Otherwise, check continuity as usual using the 6-Pin jack and Molex connectors with colored wires.

This image shows the pin locations as you look into the connector that the upper cable plugs into: R+, R-, M+ and M-, and the two grounds R- and L-. The connector is buried deep in the module, so a long thin

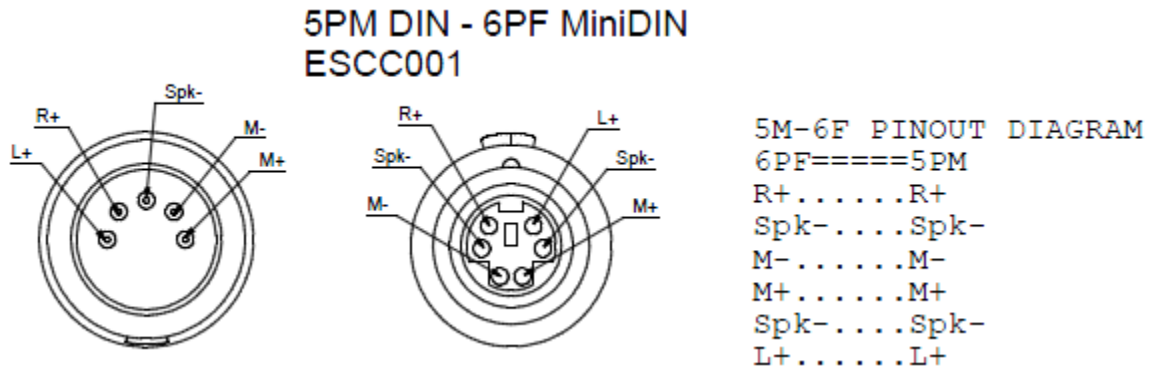
paper clip or similar will be needed to probe it, or really thin probes. The colors of the 6 wires in the headset are the same as above, so:



- L+=Red
- R+=Black
- R-=White
- L-=Green
- M+=Yellow
- M-=Blue

CHECKING THE LOWER COILED CABLE

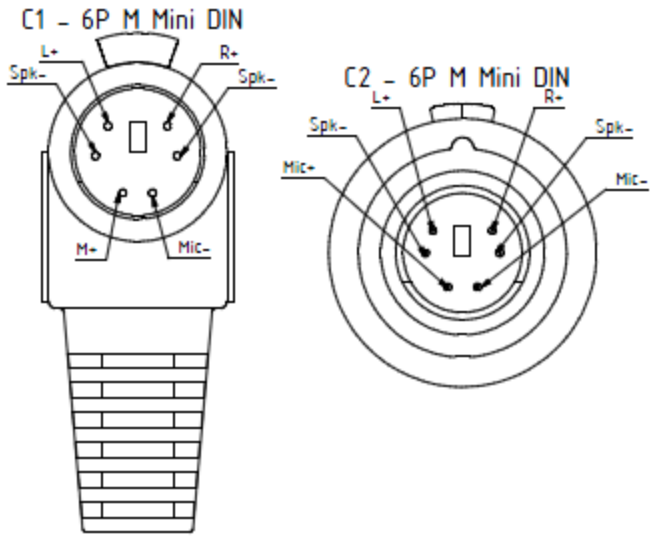
Use continuity to check each pin against it's counterpart pin on the other end.
 Note that the Spk- center pin on the left shows up on TWO of the pins labeled Spk- on the diagram on the right.



CHECKING THE UPPER STRAIGHT CABLE

On the upper cable, do the same tests as the lower cable. Due to the shared ground on the speaker lines becoming TWO lines on this cable, be sure to check both Spk- on one end to make sure both Spk- pins on the other end have continuity as well.

More...



=====END OF TEST INSTRUCTIONS=====