AIRLITE 62

MAKING THESE WORK FOR YOUR AMATEUR RADIO TRANSCEIVER

By

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Got a question?....Drop me an email: gm0obx@yahoo.co.uk

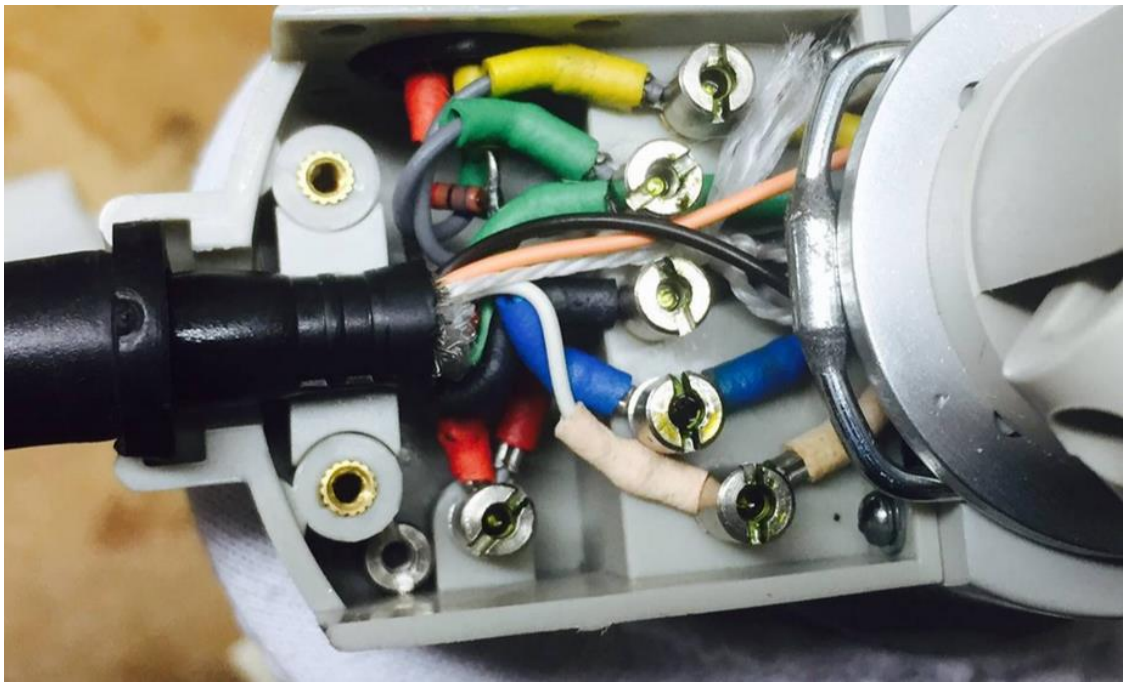
If you have managed to secure yourself a set of Airlite 62 Headsets you have done well. These appear on various sites all the time but getting one which is as new or in new condition cheap is hard. I waited for around 3 months where I finally purchased a set from EBay – seller was Dropzonemilitary. These arrived brand new posted within the UK for a total cost of £25!!! Brilliant.

They are around 6 or so versions of these around (there may be more but I have seen 6 versions so far) each all have a military / NATO marking system. The version that I purchased has a 19 pin connector attached to it.

This of course will not fit any amateur radio transceiver without being re-wired. The cable on these radios are very stiff and can be awkward. They are that rigid if you move on your seat they can rise off your head. So the best option is to rewire with a new cable. Shielded USB cable will do the trick for this and then connect it to plug that will fit your transceiver such as an 8 pin plug:

Remove the black cable is the first step. To do this you will need to unscrew the plastic slide where the cable enters the headset.

Once opened you will see the cable is connected via terminal posts.



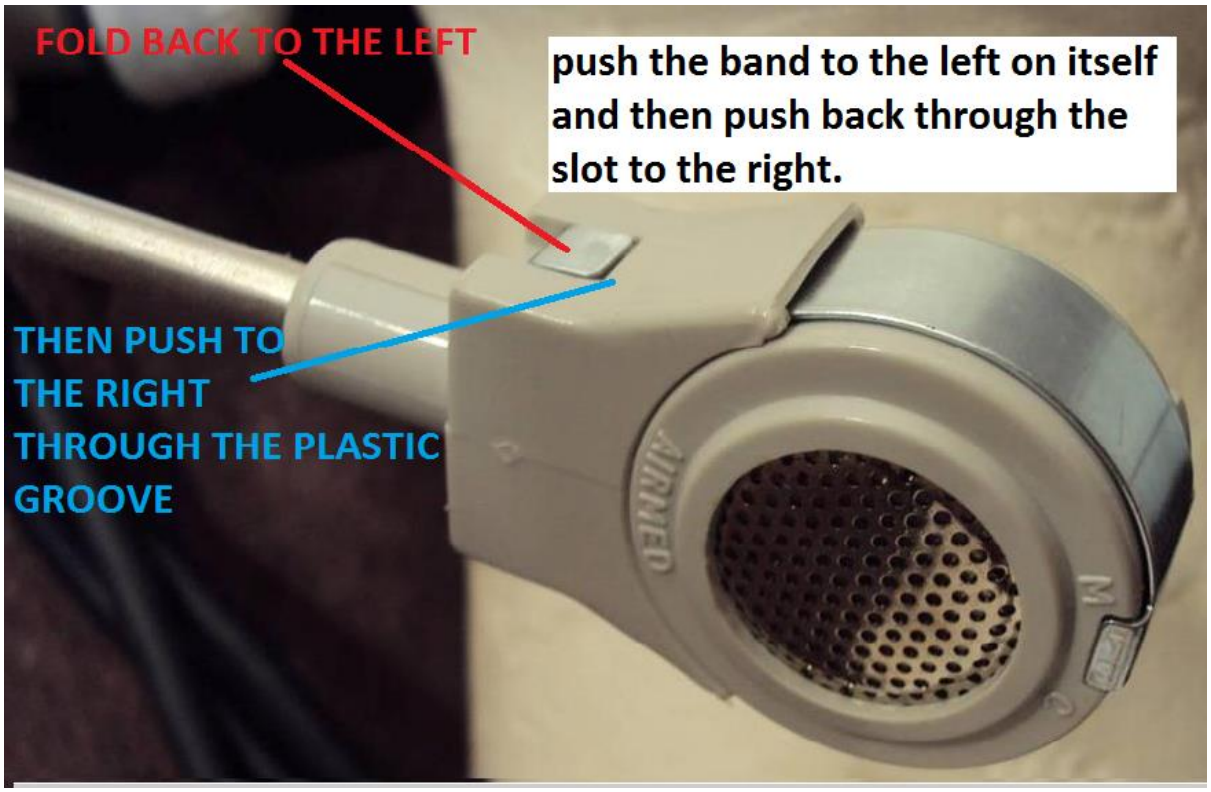
Un-screw these terminal posts and remove the ring connectors which are connected to the black cable. This will allow you to take the cable out of the housing. It's a good idea to keep the black hood.

To do this cut the black cable and pull the remaining cables through it to leave you with something which looks like this:

This will allow the USB cable to enter the headset tiddly and also securely.

You will see 6 cables connected to the terminal post. The centre one which is shielding has black heat shrink around it.

This is not connected or used so no need to worry about this. Next we need to identify what cables go where. You can see what cables go to the mic piece by removing the silver band around the mic element.

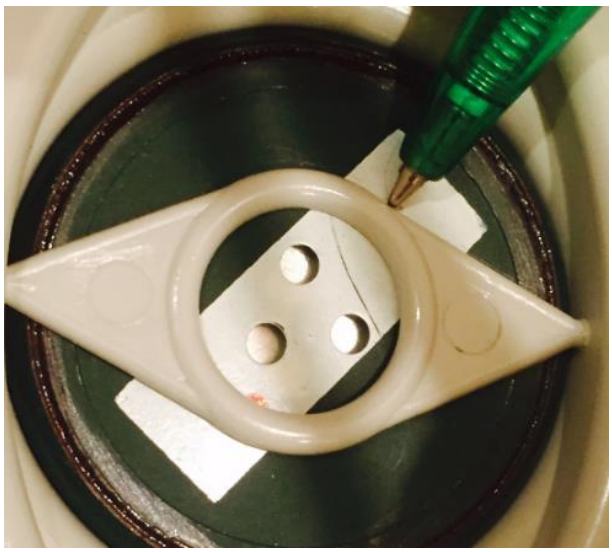


Fold the metal back on itself to the left and then push back through the plastic slot in the housing this will allow the band to become free and the circular mic element to become loose. On this version of the head set it has two wires. RED AND WHITE. The RED wire is placed inside a YELLOW sheathing and the WHITE wire is placed in a GREEN sheathing.

Ok so that's 2 of the 6 wires identified next we need to identify each of the speaker wire colours.

First remove the blue padded ear protect from the ear piece.

Once removed you need to remove the diamond shape which is located within the earpiece.

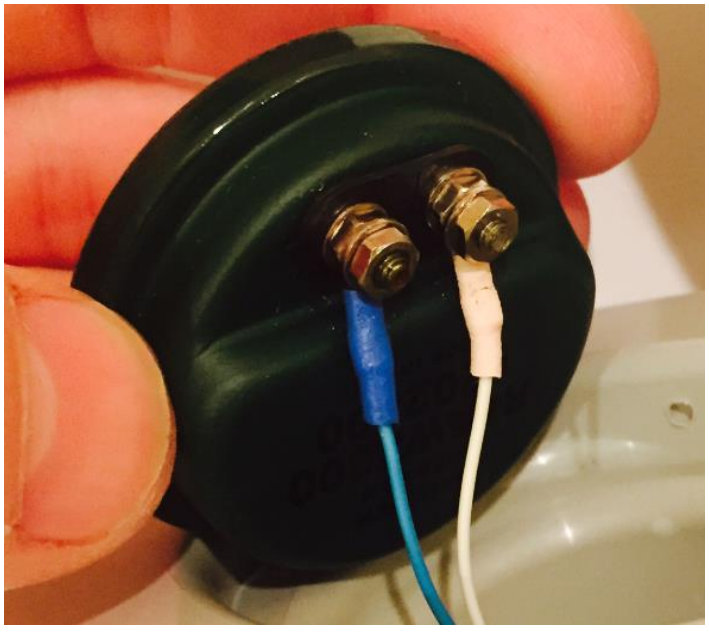


Stick a pen or similar under the plastic

Piece and pop it up – this allows it to

Be removed like so (picture to the right)

Tap the green speaker out and you can see the colour of the cables:



Do the same with the other speaker and note the colour of the wires.

So the wire I have in my head set is as follows:

SPEAKER 1 (NOT CONNECTED TO BOOM)

WHITE AND BLUE

SPEAKER 2 (CONNECTED TO BOOM)

ORANGE AND BLACK

MIC ELEMENT

YELLOW AND GREEN

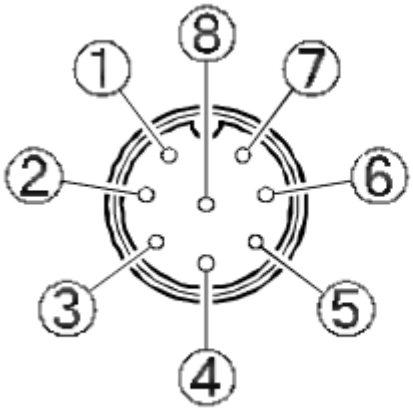
Now we need to look at how we are going to connect these to our 8 pin mic connector. A few options are available. You can connect your speakers in parallel and attached a ¼ stereo plug.

This would get plugged into the PHONES socket on the radio. The mic would get connected to the 8 pin mic connector.

Most radios have AF output on the 8 pin mic connector so we will connect all wires to the 8 pin mic connector.

Typical 8 pin mic connector PIN OUT.

Yaesu FT-920



① UP
② +5V
③ DOWN
④ FAST
⑤ GND
⑥ PTT
⑦ MIC GND
⑧ MIC

as viewed from front panel

Icom IC-7200

PIN1	MIC
PIN2	+ 8volts
PIN3	UP/DOWN
PIN4	squelch
PIN5	PTT
PIN6	PTT EARTH
PIN7	MIC SCREEN
PIN8	AUDIO OUT

Below is a brilliant website that holds lots of information regarding microphone pin outs.

http://homepage.ntlworld.com/rg4wpw/date.html

So….find the pin out for your radio.

Now we need to check the polarity of the speakers AND the microphone. This can be done with a 9v battery. To find out how to do this very simple task watch this video. In simple terms place 9v across the speaker until a click nose occurs then you will know what side is the + and what side is the -. (this also works for the mic element).

http://www.youtube.com/watch?v=xIMHGkxw72o

Using the IC-7200 pin out above. We will connect the YELLOW wire to pin 1(mic). The GREEN wire to pin 7(mic gnd).

NEED A PTT? – ok so you might want an external PTT switch. Use a 3.5mm mono female socket. Connect the centre to pin 5(ptt) and the shield side to pin 6 (gnd or ptt gnd).

The speakers will get wired in series – so once you have discovered the polarity of the speakers connect them in series. + - + - . In this case it is WHITE AND BLACK connected to pin 8 (af out) and BLUE AND ORANGE connected to pin 6 (ptt gnd or gnd)

I simply soldered these wires all to the one ring connector and thereafter screwed the ring connector to the terminal post inside the earpiece like so:

Now… Connect the wires to the 8 pin mic connector or whatever you have for your radio, so it will look like this:

Side note: some headset may have an accessory socket. Simply cut the wires away these are not needed:

This provides a basic HOW TO guide. Please if you have any questions email me:

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