If you are reading this, you likely own one or more LessLoss products already, and perhaps you are the happy owner of C-MARC power cords, C-MARC speaker cables, or C-MARC interconnects.

But did you know about the LessLoss hook-up wire - which incorporates the C-MARC technology?

Perhaps you read or heard about it, but you probably did not know that it can be used to build fabulous DC cables! Until a few weeks ago, I didn't know that either.

The story is this: I recently purchased a very good 12V DC power supply to power my internet router and ordered a good, handmade DC cable offered by the power supply manufacturer at the same time. Believe it or not, this combo improved the streaming sound quality in my system considerably! As good as it sounded, I thought: "There's more to be had here!". I had used LessLoss Hookup Wire Large for other wiring upgrades previously with great success, so why not try it out for a DC cable as well?

I built the cable - and it completely **obliterated** the cable that I got from the power supply manufacturer, which was neither cheap nor bad at all, but the cable I built using LessLoss Hookup Wire Large simply sounds a lot better in all aspects! And what's more, the cable I built cost less!

A lot of gear uses external DC power supplies with DC cables that have plugs at both ends. My power supply uses a GX-16 two-pole plug and my router uses a 2.5 mm round DC plug. This seems to be fairly common, so here is how to build such a cable:

1. Buy two lengths of LessLoss Hookup Wire Large. Make sure that they are long enough to lay out the cable without sharp bends. And make sure to get them end prepped!
2. Buy the best plugs you can get! I initially used a 2.5 mm plug made of brass (often called 'copper alloy'!). However, this was later replaced with a copper plug (with direct gold plating) from ELECAUDIO, which improved the sound quality considerably (in fact, the difference was quite big!).

The GX-16 plugs are difficult to get in good quality, and the best ones I could find were some with silver plated connectors at Audiophonics. The silver plating makes soldering easier.

3. Take the GX-16 plug apart and remove the cable clamp. Please note that this plug has a bayonet lock, requiring it to be turned slightly counterclockwise (seen from the back) to take it apart.


4. At one end of the *first* wire, remove the outer layer of heat shrink. This is easiest done by making a longitudinal cut in the heat shrink with a very sharp knife and then peeling the heat shrink off.

Do **not** remove the inner layer of heat shrink, as this will expose the slightly frayed ends of the wire's outer cover, which will make it quite difficult to get the wire through the rear end of the plug.

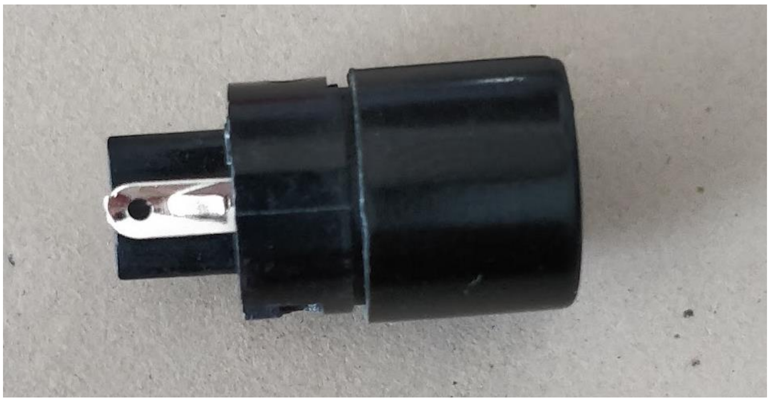
5. Thread the *second* wire through the rear part of the GX-16 plug, making sure that the heat shrink is free of the plug. Then squeeze in the *first* wire's end that now only has a single layer of heat shrink and pull at both wires simultaneously until the heat shrink is free of the plug. Depending on the plug, this may require a bit of wiggling and gentle pulling.
NB! Make sure that the thin plastic liner inside the rear part of the plug does not come out.

6. Align the wire ends. Then remove all heat shrink on both the wire ends that have been pulled through, cutting and peeling as described above. Take care not to cut through the cotton cover.

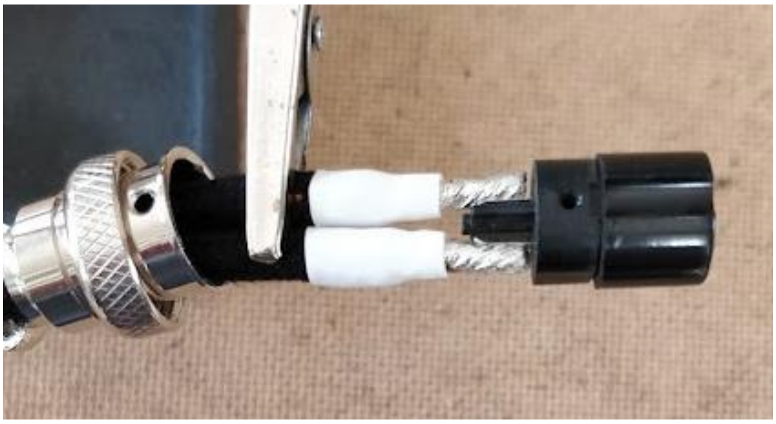
7. Cut two 10 mm/0.4" pieces of heat shrink and shrink one onto each exposed wire end to ensure that the slightly frayed outer cover ends are being held in place.

The reason for doing this is that it is virtually impossible to get the fairly long pieces of original heat shrink through the rear part of the plug during assembly. The heat shrink pieces shown in the photo are actually a bit too long, hence the recommendation to keep them as short as possible!

8. Find the front part of the plug and put a small amount of solder into the hollow of each connector, using a fairly hot soldering iron and some good solder. This will make it easier to solder the fairly thick wire ends to the connectors.



9. Again making sure that you have a fairly hot iron, solder each wire end to the appropriate connector. Apply a little extra solder, if required to make a good joint.
Some kind of third hand tool is very handy for doing this!



10. If your DC cable uses GX-16 connectors at both ends, simply repeat the above instructions for the other end. NB! Make sure to connect pin 1 at one end with pin 1 with at the other end (and the same for pin 2 to pin 2)!
    As can be seen, pins are clearly marked on the front of the plug.
    

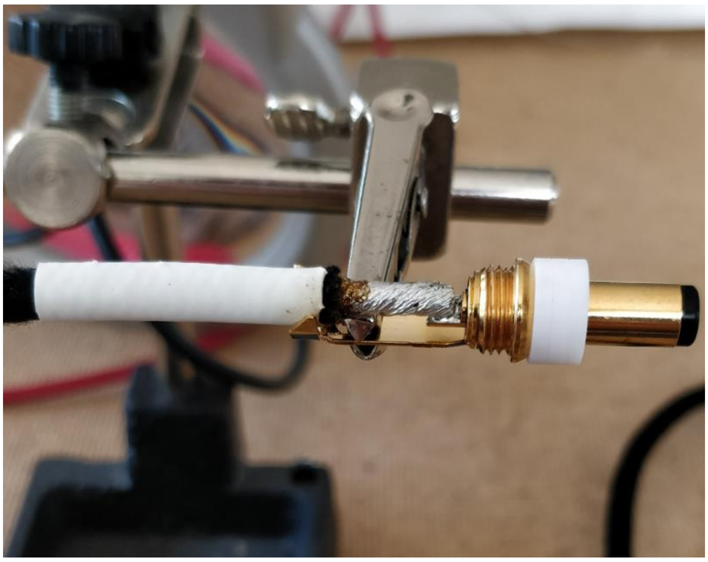
11. If your DC cable uses a round DC plug at the other end (either 2.1 mm or 2.5 mm), you will need to start by discarding the barrel. There is no way that two parallel LessLoss Hookup Wire Large will fit inside any of the barrels I have seen on this type of DC plug.

12. Start by removing the outer layer of heat shrink on both wires in the same manner as described previously. This is to make room for new heat shrink covering the soldering joints and ensuring against short circuits!

13. Cut two lengths of fresh heat shrink that are sufficiently long to cover the terminals and the bare wire. The photo shows how to determine the length of the heat shrink.
    
    Put the pieces of heat shrink on the wires and make sure to slide them well away from the end where you are going to solder to prevent them from starting to shrink when heat is applied.

14. Nearly all equipment using 2.1 mm or 2.5 mm DC plugs has the centre pin as positive, so we are going to assume that this is so here (but please do check this before assembling your cable, e.g. by checking your current cable with a multimeter).

15. Take the wire coming from pin 1 on the GX-16 plug and solder it onto the centre pin of the DC plug. A third hand tool can be very handy for doing this.



16. Slide the heat shrink on this wire all the way down so that it completely covers the wire end and the centre pin (also see photo in step 13). Shrink the heat shrink and ensure that it sits snugly.

17. Take the tinned end of the other wire and fasten it to the negative terminal by bending the small ears on each side of the terminal with a pair of pliers. You may have to bend out the long terminal blade a bit to be able to do this - do so carefully, as this is often the most fragile part of this type of plug.

18. Solder the wire end to the terminal.

Make sure to fill the joint, but do not create a lump of solder.

19. Slide the heat shrink down and shrink it, ensuring that it covers the solder joint, the bare wire end, and a bit of the existing heat shrink (it does not necessarily have to go all the way down as shown in the photo).

20. Cut a piece of heat shrink with a larger diameter and put it on the cable. It should be long enough to cover the plug thread and the small pieces of heat shrink, and the diameter should be no larger than necessary to slide it into position.
Shrink the heat shrink - and you are done!

21. CONGRATULATIONS! You now have one of the best DC cables money can buy (my opinion, of course 😊)!