

NOTES ABOUT THE TRANSFORMER FOR R-109m BATTERY REPLACEMENT SMPS

The transformer has 5 turns on each section.

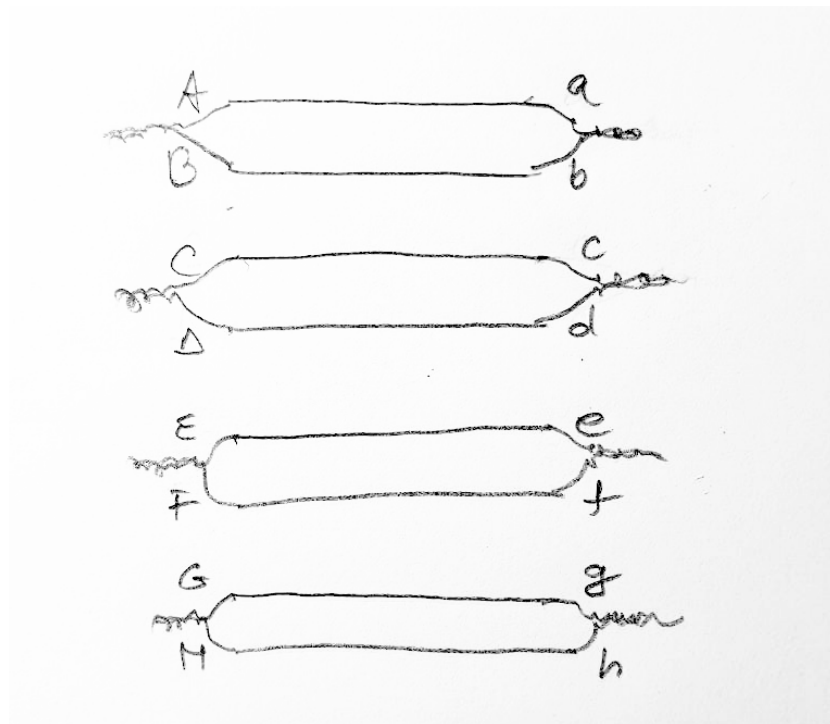
For a good symmetrization and good functioning of the assembly it will be necessary to wind the 5 turns with 8 (eight) wires at the same time.

That is, you will wind both primary and secondary windings of the transformer at the same time.

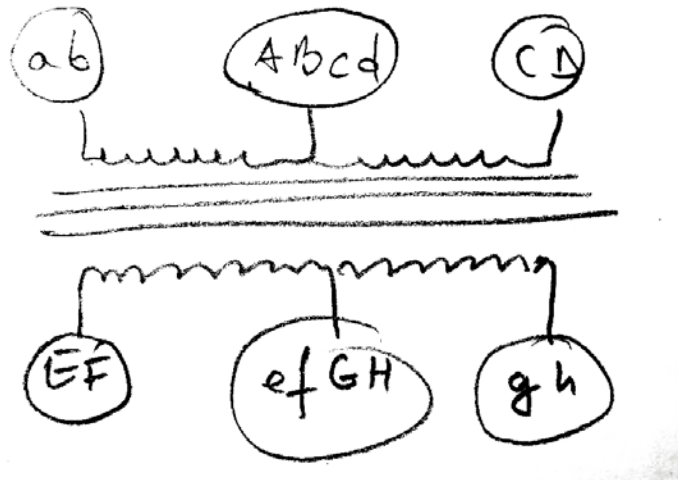
Since, at 50 KHz, the copper penetration depth is 0.6mm, we will use for each of the two windings two such wires in parallel.

For the indicated ferrite core, the length of the unfolded wire is about 45 cm; therefore, you will prepare eight pieces of wire of 54 cm each.

After you have made the wrapping with all eight strands at the same time, clean the enamel off each strand and identify them as shown below.



Once identified, solder them according to the following drawing.



Because the transformer sections are identical, you can use either of them as primary and secondary.

If you want higher output currents, you will need to make the coils with 12 wires (3 on each section of the transformer) or even more!

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