

Notes on Connecting Induction-Coil Handset to 1A Monophone Desk Sets

One person who replied to the e-mail said he thought he had an induction-coil handset on an AE34. If so, it's the wrong handset and a standard one should be used. Same for an AE35. These are complete telephones containing induction coils and a better circuit.

For an AE 1A or similar set that requires a separate subset, the induction-coil handset can be useful because you can eliminate the normal subset without altering the original circuit. There are several variables, so here goes.

The receiver will either have a built-in 200-ohm resistor or not. Refer to the appropriate diagram that is attached. In both cases, a 1- μ F metallized-film capacitor (e.g., Radio Shack 272-1055) will fit perfectly between Terminals 2 and 4 in the desk set. Just bend the leads to fit around the screws. If the receiver has a built-in resistor, just connect a jumper wire between Terminals 8 and 2. If the receiver does not have a built-in resistor, add one (e.g., Radio Shack 271-1111) between Terminals 8 and 2. It's a long way from Terminal 8 to Terminal 2, so you will have to solder a long insulated wire to one of the leads of the resistor.

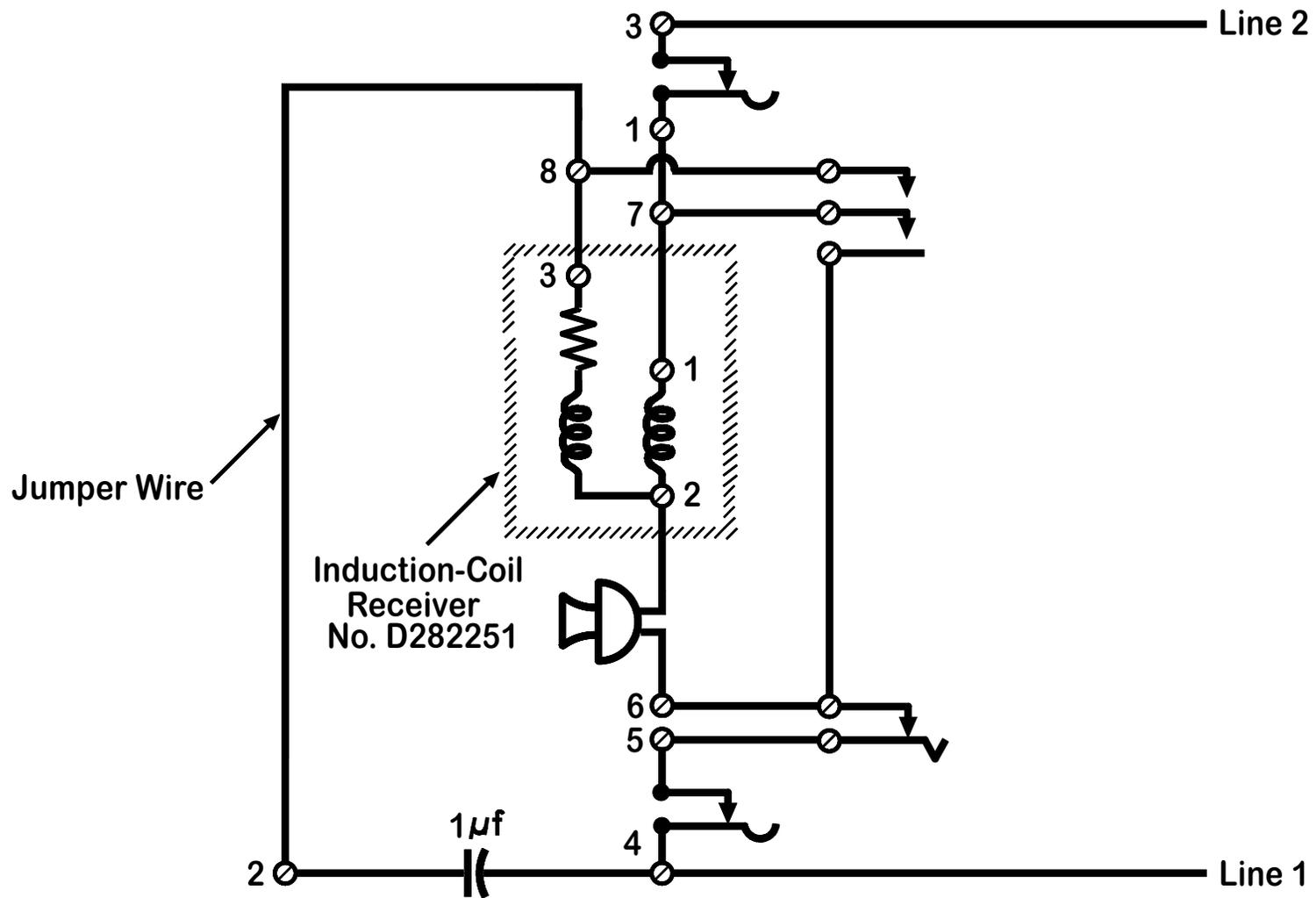
You will notice that original AE wiring diagrams for this circuit always show a subset containing a ringer and a condenser. In the 1930s, condensers were too large to fit inside the desk set, so they were located in the subset and used for double duty with the ringer. Today's metallized-film capacitor is plenty small.

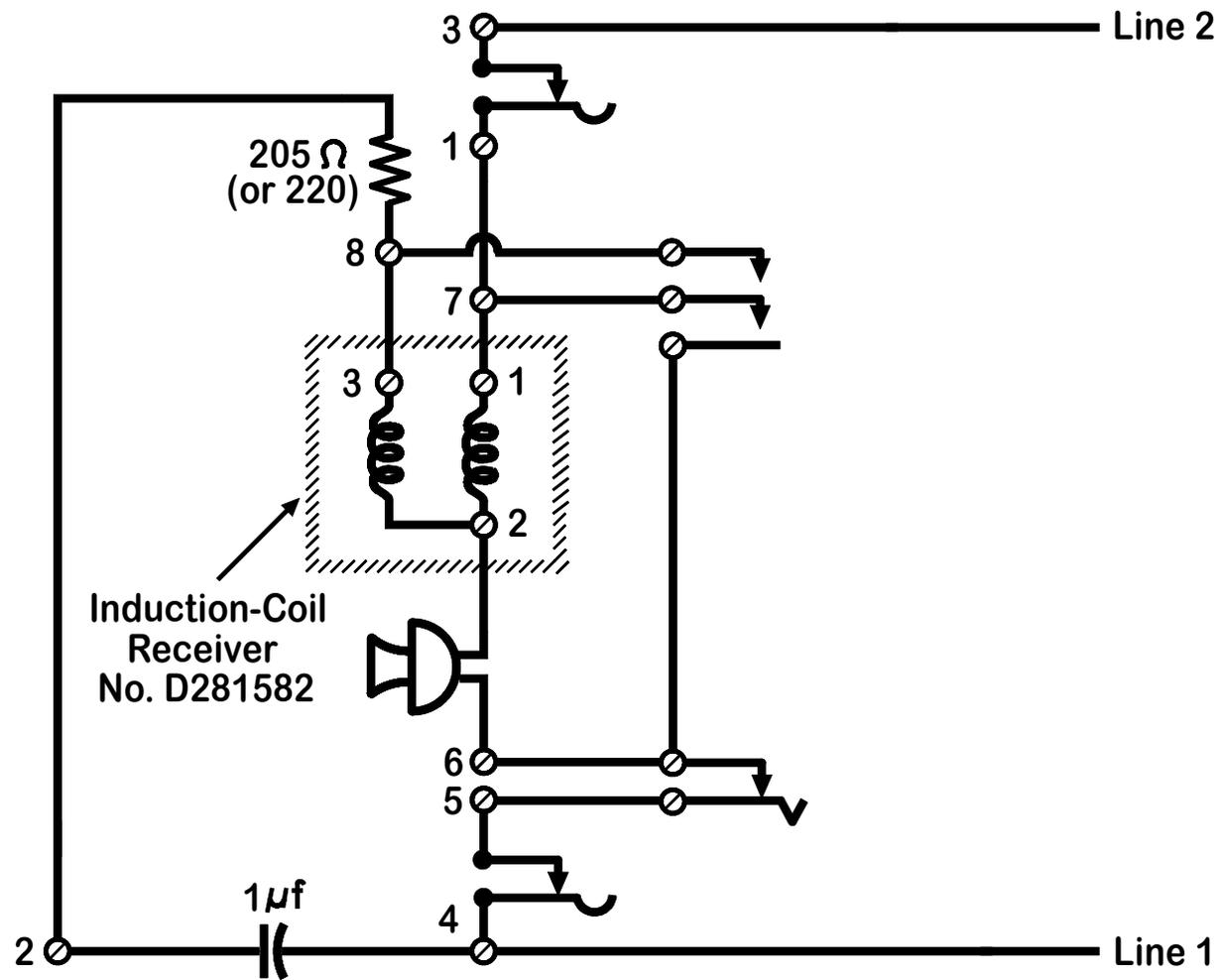
The handset will either have the original solid-back transmitter, which is connected with wires, or it will have a transmitter capsule that fits in a bracket. Again, refer to the appropriate diagram that is attached. For the original solid-back transmitter, there are no problems. However, for a handset with a transmitter capsule there are not enough screw terminals to do the job. Here's what I did to create more.

The bracket for the transmitter capsule is in two parts, which connect to the two screws on the left and the two screws on the right, respectively. Trim away the bracket's metal around the upper screw on the left and the lower screw on the right. This creates two usable terminals, and the bracket is still fastened well enough inside the handset. The screw that normally fastens to the handset cord restraint also has to be used, so you can't use a cord restraint in this case.

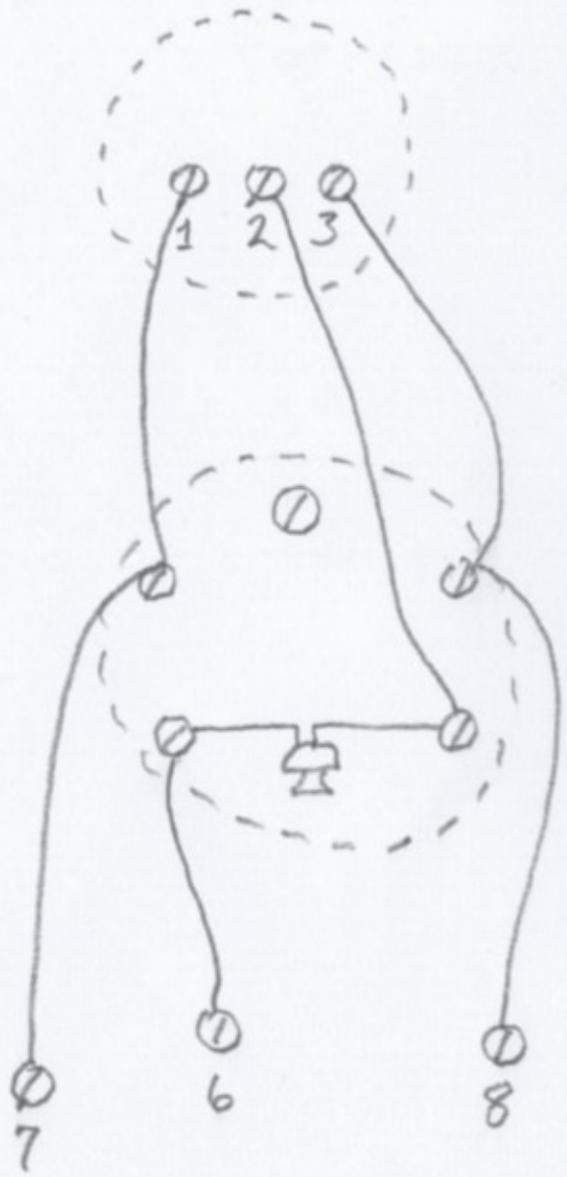
Obviously there are different combinations of screw terminals within the transmitter cavity that could be used to obtain the same result. But in any event, the result should be as follows: Receiver terminal No. 1 goes to Terminal 7 in the desk set. Receiver terminal No. 2 goes through the transmitter to Terminal 6 in the desk set. Receiver terminal No. 3 goes to Terminal 8 in the desk set.

Finally, if your desk set does not have a dial, jumper Terminals 5 and 6. If your desk set has an additional hookswitch contact, disconnect it or connect it to its neighbor. End of Notes.





Solid-Back Transmitter



Transmitter Capsule



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