# 5-PIN ADAPTER FOR URC-8820 AND SIMILAR REMOTES

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The URC-8820 has a different programming connector than we are used to, a single-row 5-position female connector instead of a dual-row 6-pin male header. It is externally accessible at the very rear end of the remote rather than inside the battery compartment. Looking at the rear with the remote lying face up, the pins are numbered 1 to 5 from left to right. The connections are the same as with any flash interface except that pin 5 replaces pin 6. These instructions tell how to make an adapter that plugs into the 6-pin female connector of a flash Interface to convert it into a 5-pin male plug, which enables you to use the interface with either type of remote.
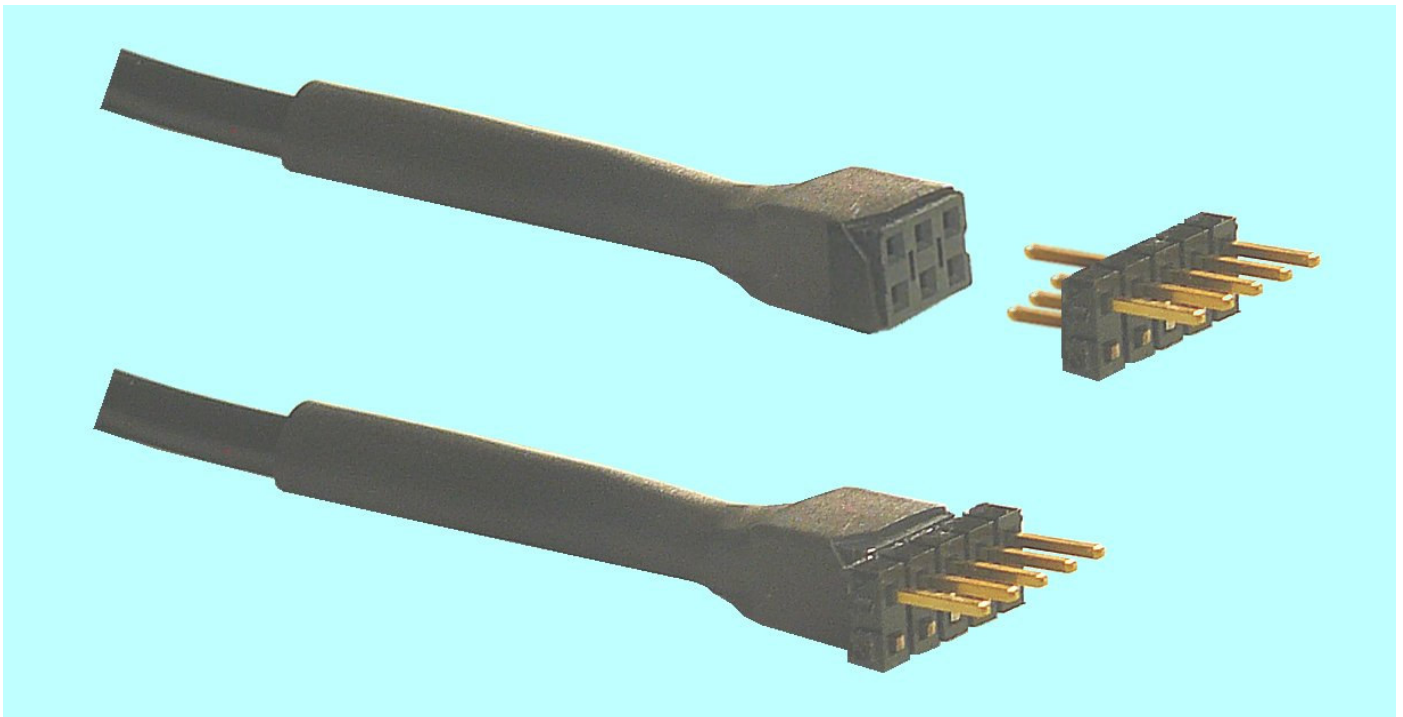
The adapter is made from a special 10-pin header, DigiKey part number S2031E-05-ND, which has a price of $2.68. The gold plated pins extend 0.230" on the front side and 0.320" on the rear side. The only tools you'll need are a soldering iron with a small tip no larger than 1/16" (preferably 1/32") and a pair of small wire cutters of the type that are flat on one side so they can cut nearly flush to the surface. The only parts you'll need are the header and a few individual strands of very fine wire. You can obtain the wire from stripping a couple of inches of insulation off of a piece of stranded hookup wire, #22 gage or smaller. There's no limit to how fine the wire strands can be. The smaller the better. The project consists of tying together three pairs of pins with the small wire and solder, then cutting off unused pins. It shouldn't take you longer than a half hour.

We will be making tiny solder joints at the base of pins in six places, as close to the header as possible. Any time you are soldering one of these headers you should support the pins with a mating female connector to keep them from becoming misaligned as the heat from the soldering iron softens the plastic. If you don't have a female connector with 2x5 or more positions, use a smaller connector (such as the 2x3 connector on your interface cable) and move it as necessary so that the pins you're soldering are always plugged in.

For identification purposes we will refer to the ten pins as A-E on the top row, and F-K on the bottom row, when the header is positioned as shown here, with the shorter pins (0.230") in front and the longer ones (0.320") in rear. All wiring is done on the rear pins while the front pins are engaged in a female connector to stabilize them.
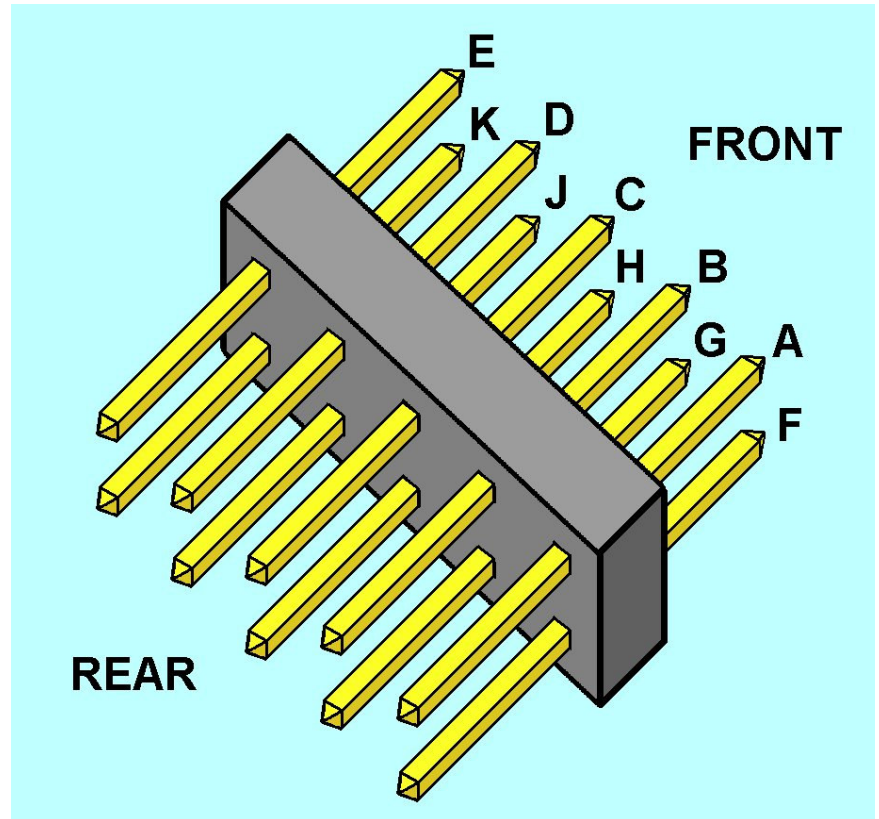
Stretching a wire strand diagonally between pins E and J, wrap a loop tightly around each pin once or twice to hold it in place, and solder as close to the header as possible, using as little solder as possible. A **TINY** bit of flux applied to the loop of wire will help, particularly if your wire strands are bare copper and not tinned. Touch the tip of the iron to the pin, close to the wire, but don't make direct contact with the plastic header as it melts easily. Try not to get any solder within 1/4" of the end of a pin. Use a small blade to cut off the excess wire, or bend it back and forth until it breaks off.
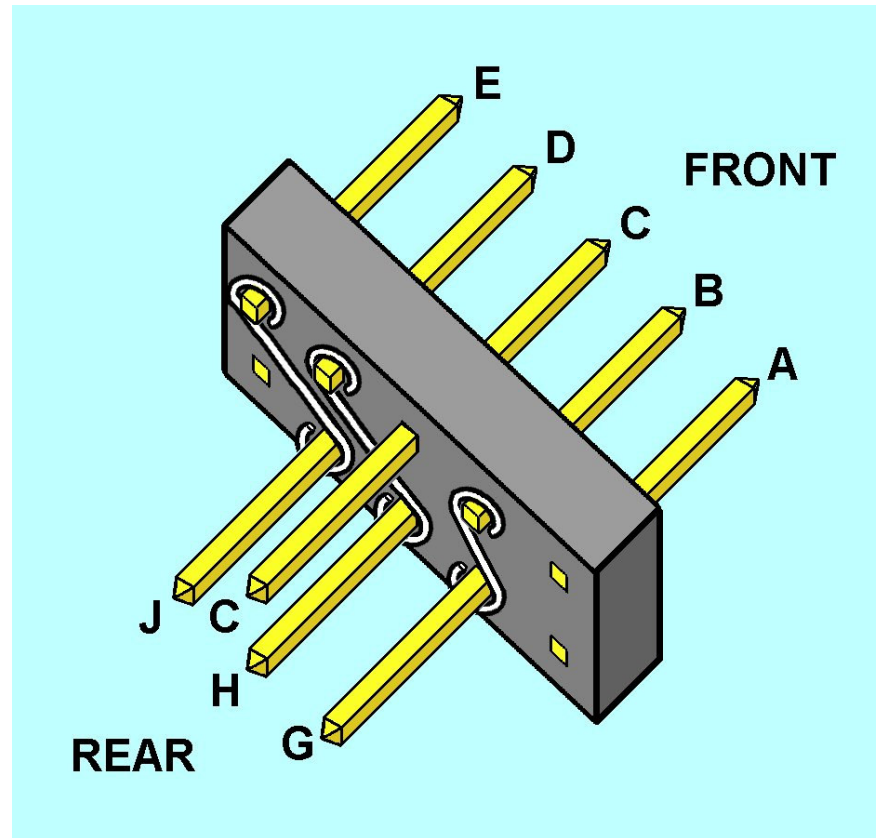
Repeat the above between pins D and H, and between pins B and G.
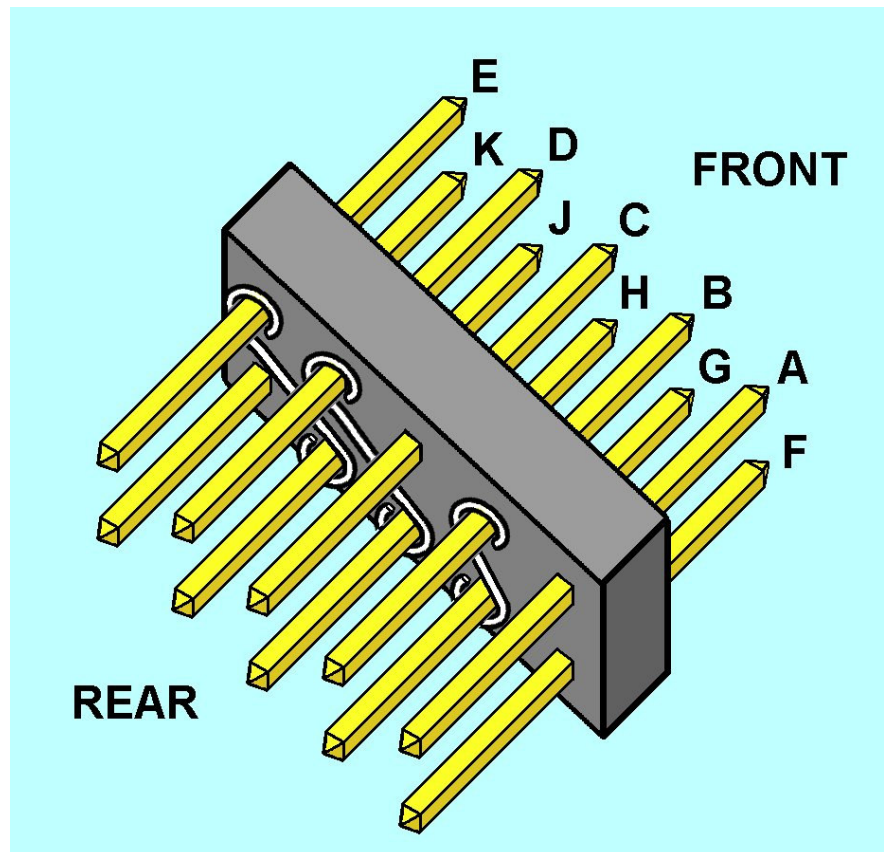
Cutting as close to flush with the plastic header as possible, trim off the front end of the entire front row of pins F - K.

Cutting as close to flush with the plastic header as possible, trim off the rear end of pins A, F, and K.

Cutting as close to the solder joints as possible, trim off the rear end of pins B, D, and E.

The finished adapter now has four pins out the rear and five out the front. Clean the unit of excess soldering flux if necessary, using a toothbrush and rubbing alcohol.

To orient the adapter correctly, just remember that the one pin that goes straight through the header is ground, which is pin 3 of both the interface 6-position connector and the remote 5-position connector. When plugging the adapter into the interface connector, that pin should be toward the same side as pin 1. And when plugging the Adapter into a remote, pin 1 of the Interface connector should be facing downward when the remote is lying on a table face up.