

AeroElectric Connection

A "Little Connector" Solution for MAC servos . . .

Several times a year, someone asks about ways to deal effectively with the small bundle of wires that come out of a MAC trim servo. The wires are pretty small. Further, there are no quality, miniature connectors readily available to the owner built aircraft market. Soooo . . . here's my suggestion for an easy low cost way to put a reasonably sized, quality connector in the MAC trim servo harness

I don't hang out on as many list servers as in times past so if you think this is a good idea, be sure to tell others about it and where you found it.

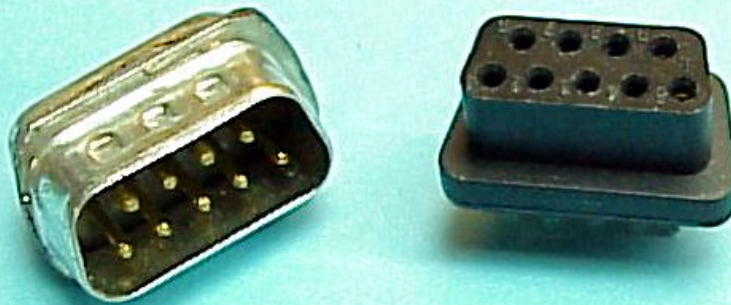
LET'S START OUT WITH A MATED PAIR OF 9-PIN D-SUBMINIATURE CONNECTORS. THESE SHOULD HAVE GOLD PLATED PINS. RADIO SHACK SELLS SUITABLE PARTS. . .



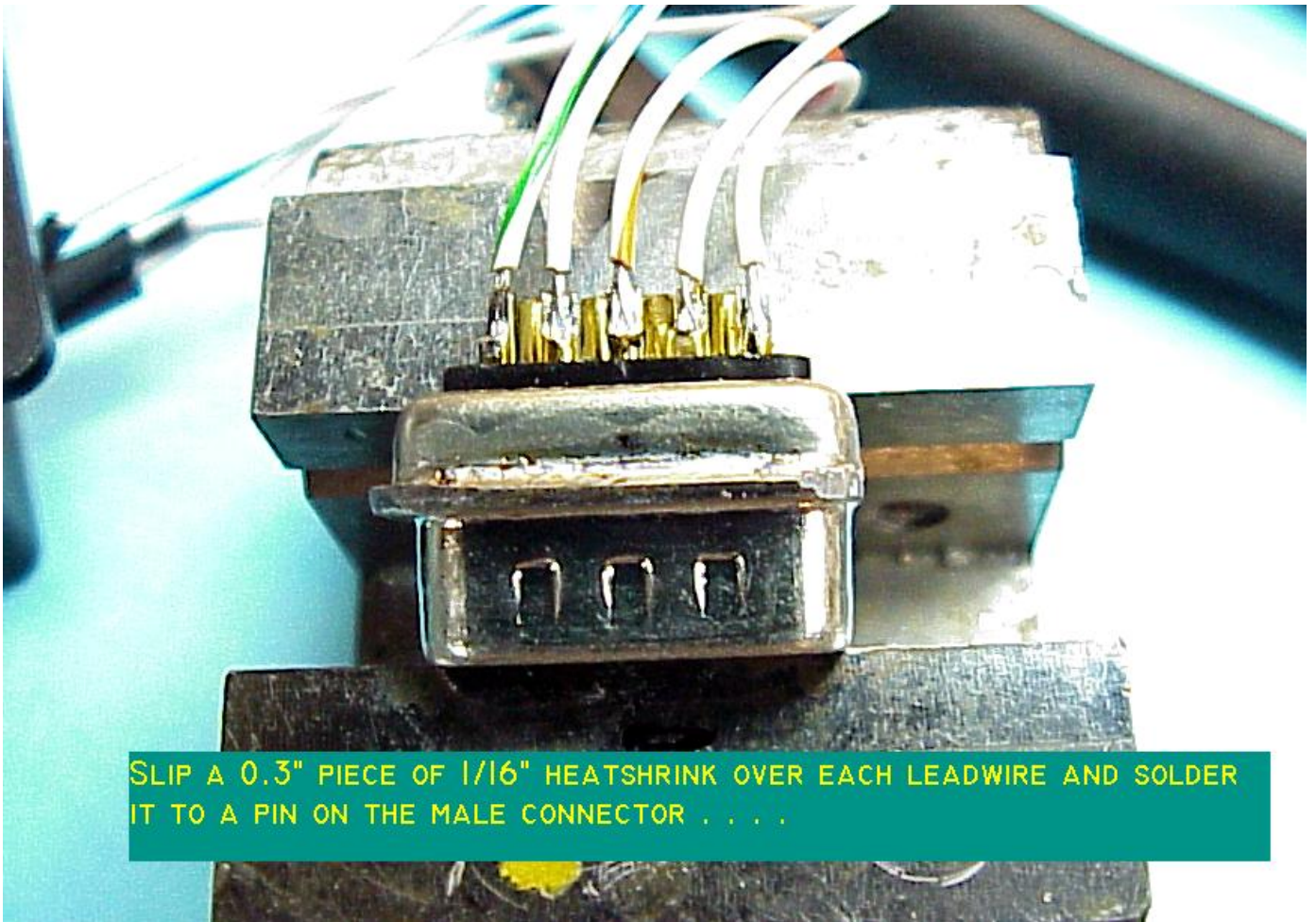
THESE ARE ALREADY "MINIATURE" CONNECTORS BUT WE'RE GOING TO MAKE THEM SMALLER. USE A BIG PAIR OF DIAGONAL CUTTERS TO REMOVE THE END TABS. REMOVE ALL OF THE METAL SHELL FROM THE FEMALE CONNECTOR AND USE SPOT OF SUPER-GLUE TO KEEP THE FRONT AND REAR MOLDINGS TOGETHER.



SMOOTH AND SCULPTURE THE ROUGH EDGES OF THE METAL ON THE MALE CONNECTOR AND THEN TACK SOLDER THE FRONT AND REAR SHELLS TOGETHER IN THREE OR FOUR PLACES AROUND THE SEAM.



HERE'S OUR EXTRA-MINATURE CONNECTORS . . .

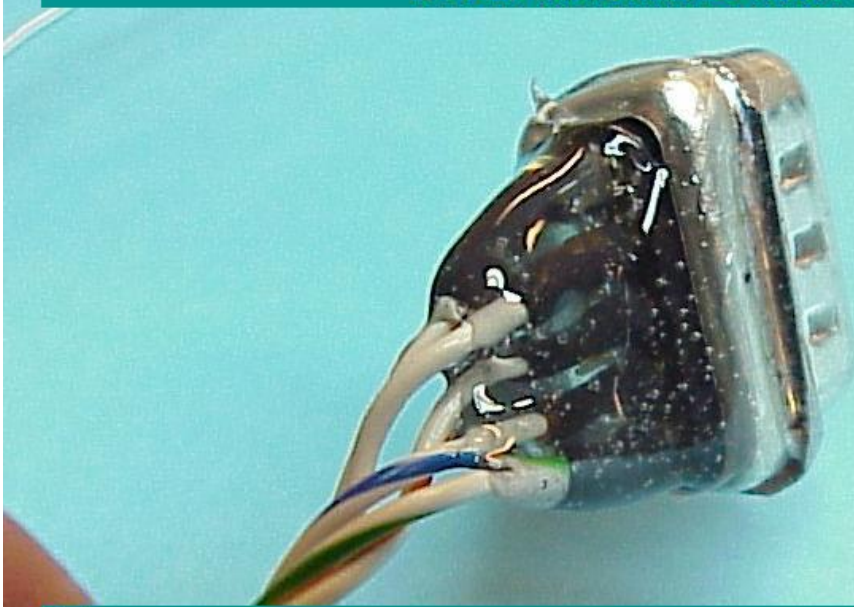


SLIP A 0.3" PIECE OF 1/16" HEATSHRINK OVER EACH LEADWIRE AND SOLDER IT TO A PIN ON THE MALE CONNECTOR

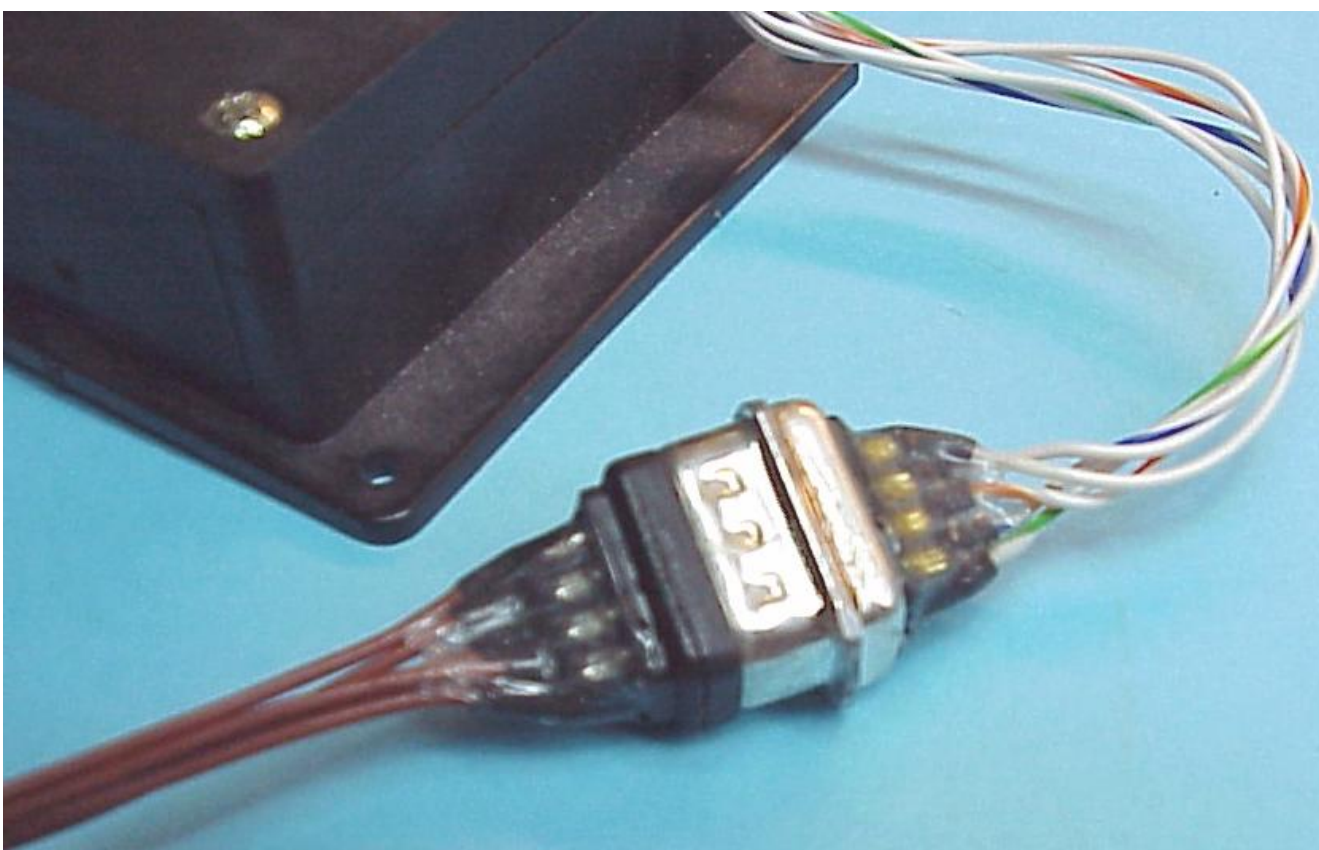


SLIDE INSULATION SEGMENTS INTO PLACE AND SHRINK DOWN

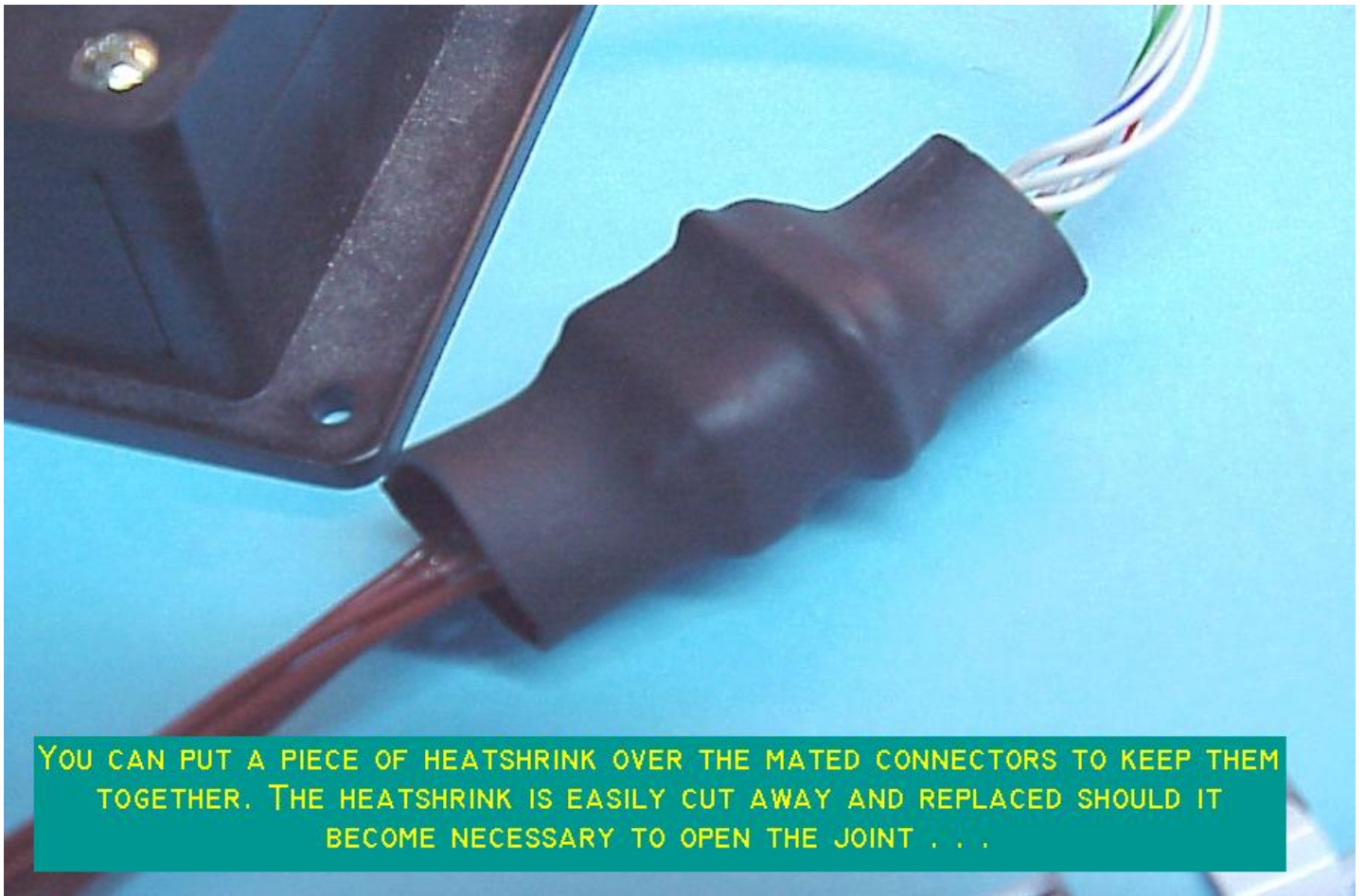
THERE'S A CLASS OF CLEAR, SOLVENT BASED ADHESIVES SOLD UNDER A VARIETY OF NAMES. ATHLETIC SHOE STORES CALL IT SHOE GOO. I FOUND IT AT HOBBY LOBBY AS E6000 INDUSTRIAL STRENGTH ADHESIVE.



IT'S WATER-CLEAR AND SMELLS LIKE A DRY CLEANING STORE (PERCHLORETHYLENE). IN OUR CASE, IT MAKES AN EXCELLENT ENCAPSULANT AND WIRE SUPPORT ON THE BACK SIDE OF OUR SUPER-MINI-DSUB CONNECTOR . . .



HERE'S WHAT THE MATED CONNECTORS LOOK LIKE WHEN WIRES ARE ADDED TO THE FEMALE HALF AND SIMILARLY ENCAPSULATED WITH "SHOE GOO" . . .



YOU CAN PUT A PIECE OF HEATSHRINK OVER THE MATED CONNECTORS TO KEEP THEM TOGETHER. THE HEATSHRINK IS EASILY CUT AWAY AND REPLACED SHOULD IT BECOME NECESSARY TO OPEN THE JOINT . . .

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