MICROCONTROLLER TECHNOLOGY OTP PROGRAMMER SUPPORT APPLICATION NOTE

SUBJECT: COP8SAx7 and COP8SGx7 Programming Problems with COP8SG-DM or COP8SA-DM

PROBLEM and SYMPTOMS:

You have a COP8SG-DM, COP8SA-DM, or other PCB-DM4 Debug Module, and you are having programming problems with COP8SGx7 or COP8SAx7 devices.

SCOPE:

The COP8SA-DM was released in 1997 to support the COP8SAx7 Family devices. This DM does not have the 8SGx7 devices on its programming menu.

The COP8SG-DM was released in May 1998 to support the COP8SGx7 Family devices. This DM also has the 8SAx7 devices on its programming menu.

SOLUTIONS:

1. Check the programmer "device" menu for 8SGx and/or 8SAx listings. The latest DOS software is available free from our web site and should include both.

   The windows software update is available, but only from Metalink for a small charge.

2. The revision of the PLCC memory and control chip should be (at least) V11.01 on the 8051 controller part and V7.01 on the memory chip. (Contact Metalink if updating is needed).

3. In the corner, next to the 44PLCC programming socket, there are two 16-pin sockets one of which is filled with an 8 pole 1-1 jumper block. This must be in the COP8Sxx / COP87Lx spot.

4. Check that the fuse is OK (Vpp is dead otherwise). With power on, there should be about 12.8-13.2V on both sides of the fuse.

5. Check the date code of the parts you are programming. You should be programming Rev B devices only (They will be marked with a B at the end of the NSID). Earlier Rev A parts (No "B", and marked ES), were hard to program.

   You can use the earlier Rev A parts, but you must re-program them several times to get them to pass. Once they pass they can be used for **development ONLY.**

6. Some early 8SGR7 samples (Rev A only) had problems programming because of the Vpp rise times. A 370pf capacitor to ground can be added to the G6 pin on the programming socket to fix this. The cap must be added directly under the appropriate socket (DIP, PLCC, or SOIC). This capacitor is not needed for released 8SGx7 devices.

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