

## MICROCONTROLLER TECHNOLOGY OTP PROGRAMMER SUPPORT APPLICATION NOTE

**SUBJECT:** Designing with, and/or programming COP8SAx7 and COP8SGx7 devices with an older DM (Debug Module), or other than COP8SG-DM. or COP8SA-DM

**PROBLEM and SYMPTOMS:**

You don't have a COP8SG-DM or COP8SA-DM, and you want to design with, and/or program COP8SGx7 or COP8SAx7 devices.

**SCOPE:**

The COP8SA-DM was released in 1997 to support the COP8SAx7 Family devices.

The COP8SG-DM was released in May 1998 to support the COP8SGx7 Family devices.

These debug modules are a version of the Metalink DM dedicated to COP8SGx or COP8SAx design and debug, and are based on a newer DM4 PCB.

Other PCB DM4 boards should be able to support the programming only of COP8SAx7 and COP8SGx7 devices, but may require some upgrades.

PCB DM3 or earlier will not support the 8Sxx7 devices for programming or design.

**SOLUTIONS:**

1. Each DM is dedicated to the **DESIGN** support of a particular COP8 Family or device type. Older DMs, and other versions of the DM, cannot be converted or updated to support the design and debug of 8SGx or 8SAx devices (However, programming is a separate issue).
2. Each DM is capable of programming several family types of COP8 devices, depending on how old the DM PCB is. PCB DM3 or earlier will not support the 8Sxx7 devices
  - a. Any PCB DM4 should program OK with a software update. The board is marked with a label, or the PCB number (135M or later) is in the etch, around the corner from the RED Reset Button. Also, next to the 44PLCC programming socket, there are two 16-pin Jumper sockets one of which is filled with an 8 pole 1-1 jumper block.
  - b. 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 for updates)
  - c. Check the programmer "device" menu for 8SGx and/or 8SAx listings. The latest DOS software is available free from our web site

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

4. Your board is updated, and still having programming problems? Refer to AppDM3.doc for more help.

For more information contact Dave Katra by EMAIL: dave.katra@nsc.com.  
end.