Purpose:

To inform customers of a solution to a problem which can cause program loss, memory corruption, data corruption and random controller lock-up in GN3-20 and GN3-40 controllers.

Description:

Certain Dual Port Memory (DPM) chips used in GN3-DSP cards up to Revision 3.0c may be from marginal batches. Under certain conditions, the DPM will return incorrect values to the controller. This can return incorrect values of ORMEC variables or other data to the main program. If the invalid data returned is an address pointer, the controller may lock-up, memory may be corrupted or the MotionBASIC program may be erased. This problem may be more evident in applications that make heavy use of queued MOVE/GEAR statements.

Identification:

The two DPM chips are large 48 pin DIP devices located to the left of the connector on the connector edge of GN3-DSP boards (see figure 1). They are identified as U13 and U21 and carry the manufacturer's part number 7130 and 7140. **GOOD** parts are identified by a double triangle (see attached diagram). Parts with no triangles or just one triangle should be considered suspect.

Recommendation:

If you have experienced any of the above problems and have GN3-DSP cards with suspect DPM chips, you should return the cards for upgrade.
Warranty Policy:
For customers who have experienced the above problems, GN3-DSP cards with suspect DPM chips that are still within their 24 month warranty period will be upgraded at no charge.

Procedure:
Contact ORMEC Service Department to verify your card's warranty status, obtain pricing for non-warranty upgrades or to obtain a return authorization number. Please have the model and serial number of the card available when you call.

Related Bulletins:
See also bulletins 93002 and 93003.

Please note only a small percentage of the suspect parts will actually cause problems. If your equipment has been operating with no problems for six months or more, there is probably no need to inspect or exchange the cards. Customers with critical downtime requirements may wish to inspect their GN3-DSP cards regardless of whether they have experienced these symptoms.