

# APC ALARMS

By David Smith, Field Service Engineer-Trainer

**Problem:** Whenever machine is powered down and powered backup you keep getting a . . .

“DS0300 : APC ALARM : NEED REFERENCE RETURN” (31i controls)

or

“300 APC ALARM : Nth-AXIS ORIGIN RETURN” (18i or earlier controls)

**Cause:** Servo axis absolute position retaining batteries are bad

**Solution:** Replace batteries

**Explanation:** Murata turning centers have two sets of retaining batteries. One set retains the absolute positioning of each servo axis. This is the information that tells the machine where it is positioned at all times. When the machine is turned off, the batteries supply a current to the encoder which stores all the positioning information while powered down. These batteries are usually (8) “D” Cell batteries installed in (2) battery cases located on the backside of the machine.

If at any time while the machine is powered down these batteries lose their charge, all information stored on the encoders will be lost. You must then go through the process of re-establishing the home positions for all of your different axis which can be time consuming and unnecessary.

We recommend changing these batteries once a year or whenever you get a “**LOW BATTERY ALARM**”, whichever comes first.

Even though something as simple as changing batteries might seem unimportant, it can greatly affect the bottom line by causing down time and wasted manpower.

Below are pictures of where the batteries are located and the procedure for changing the batteries.

**NOTE: ALWAYS REMEMBER TO CHANGE BATTERIES WHILE THE MACHINE IS POWERED UP**

## Battery Replacement Procedure

- 1) Power on NC.
- 2) Open the battery case cover.
- 3) Remove the batteries and replace.
- 4) Close the battery case cover.

