

S E R V I C E N O T E

SUPERSEDES: None

E1420B Universal Counter

Notification of Operating Anomaly

Serial Numbers: 0000A00000/9999Z99999

Situation:

Possible corruption of calibration data if self-test is interrupted.

The E1420B goes through an internal self-test routine every time that power is supplied to the module. This test takes about 5 seconds, and if the module passes the test, the FAILED LED on the front panel will turn off. The counter will repeat this self-test every time that the command *TST? is sent.

It is important that this self-test, once started, is allowed to finish without interruption. If the test is interrupted, there is a chance that the internal calibration constants will be corrupted, and the unit might not pass its sensitivity specification, even though the FAILED LED turns off.

Conditions that can cause interruption:

- Issuing DIAG:BOOT to a slot zero E1406A command module (if used).
- Asserting SYSRESET to the VXI backplane.
- AC power main drop-outs or brown-outs.
- Writing to the E1420Bs register-level RESET bit.

Continued

DATE: May 2001

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:		
INFORMATION ONLY		
AUTHOR:	ENTITY:	ADDITIONAL INFORMATION:
CF	0200	



Indications of problem:

If the calibration constants have been corrupted, then voltage measurements made may be out of specification, or counter sensitivity, even at minimum hysteresis, may degrade.

Solution / Action:

The user should avoid combining self-test with the conditions that can cause interruption. If it is suspected that the calibration constants have changed, refer to Section C of the Users Guide E1420-90027. If the unit fails the sensitivity specification, then the unit should be recalibrated with a 5-volt source and two 50-ohm terminations as described in the service guide E1420-90026 on Page 3-4.