

2300 Orchard Parkway
San Jose, CA 95131-1017
Customer Assistance Center: 1-408-428-7907

FIELD SERVICE BULLETIN

FSB #: 098-50620-011**DATE: April 01 2009**

Title: 9390-xxxx March 2009 Time Jump

System: 9390-xxxx

Product Identity: 9390-XXXX ExacTime GPS Time Code and Frequency Generator

Note: The 9390-xxxx family of products was discontinued in 2002 or earlier.

Product Code: N/A

Description: N/A

CLEI Code: N/A

Technical Support: Worldwide 1-408-428-7907 (1) (2) or USA toll free 1-888-367-7966 (1) (2)
Customer Relations: Worldwide 1-408-428-7907 (2) (2) or USA toll free 1-888-367-7966 (2) (2)

NOTE: Find a copy of this FSB in the Support section on the Symmetricom website:

<http://www.symmetricom.com/support/online-support/ttm-product-support/field-service-bulletins/>

General Behavior:

1. 9390-XXXX used a standard base software that utilized leap seconds to identify the GPS week rollover epoch:

Epoch 0: Jan 6, 1980 – Aug 22, 1999

Epoch 1: Aug 23, 1999 – Apr 6, 2019

Epoch 2: Apr 7, 2019 – Nov 20, 2038

This was a standard practice at that time since GPS does not provide year information. The algorithm identifies the GPS week rollover epoch based on a predicted number of leap seconds. This algorithm required at least 17 leap seconds at the start of GPS week 500 to properly compute year, month and day for the remaining weeks in the current rollover epoch (Aug 23, 1999 – Apr 6, 2019).

March 21, 2009 at 23:59:45 UTC marked the beginning of GPS week 500. Since the current GPS leap second count is 15, the clock jumped back to the previous epoch 0 and defaulted to the base year that the core software was built for the product family - 1997.

Although other product functions, not related to year and day of year, have continued to operate normally (i.e. hour, minute, second, 1 PPS epoch, frequency, etc) future performance cannot be predicted

Recommended Actions:

Immediate:

1. No immediate countermeasures are available for users to restore the unit to normal operation.
2. Contact Technical Support regarding potential firmware upgrade options. Need to provide the following information.

Model 9390- XXXXX	Serial #	Firmware Version	OSC type
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To check firmware version please follow the steps below.

1. Press the "Menu" key twice to enter the "Setup Menu Screen"
2. Press the #0 keyboard switch.
3. The current leap second count (15) and software version will appear in the lower right corner of the display

To check the OSC types please follow the steps below.

1. Remove cover from unit the oscillator is located at Y2 (either OCXO or TCXO).
2. If no oscillator is installed in location Y2 it than uses a RB oscillator.

Note: Users that require correct year and day, can place the 9390-6000 in Flywheel mode and manually set the time. In Flywheel mode, the unit will not lock to GPS and performance will be relative to the reference oscillator type and accuracy.

Contact Information:

Symmetricom Inc
3750 Westwind Blvd
Santa Rosa CA 95403

E:mail: support@symmetricom.com

Toll Free Calls: 888.367.7966 option 1, then option 2

Toll Calls: 408.428.7907 option 1, then option 2

International Tech Support fax number: 707.636.1891