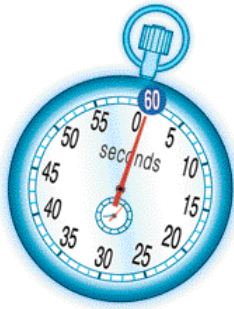**Perfect Timing. It's Our Business.**

Testing Results

Certification: Leap Second Testing

Model Name: SSU2000
Current Release:
14313012-001-5 Rev J.00,
14313012-003-5 Rev J.00,
14313012-005-5 Rev E.00

Leap Second tested product from Symmetricom provides Time of Year information across the boundary between December 31, 2005, and January 1, 2006. This includes, but is not limited to, handling of the Time information provided via integrated displays and output ports.

Symmetricom products that report time information will do so as described below.

> **Expected Leap Second Behavior:** If the NTP feature is in either CLIENT or BROADCAST CLIENT mode of operation, the time will correct itself 2.5 hours after midnight Dec 31st (worst case, assuming the NTP Server time is correct). If the NTP feature is in GPS mode of operation, the time will be incorrect (1 second offset) until the workaround instructions are performed. Performance of the timing outputs are unaffected by the leap second.

> **Resolution Plan:** None if in CLIENT or BROADCAST CLIENT mode. Automatic correction within 2.5 hours of leap second. If in GPS mode then workaround instructions are given on page 2 of this document.

Symmetricom is not responsible for the correct processing of this information by any external program or device, only the transition from the year 2005 to the year 2006 as provided by integrated displays and output ports.

Symmetricom, Inc., is making every effort to provide accurate and up-to-date information on the Leap Second readiness of its products. This information reflects the current results of compliance tests of standard products and may be updated or changed without notice as testing continues. This information is published for your assistance only. An overall assessment and plan based on your particular needs is your responsibility. Symmetricom disclaims any implied warranties of merchantability and fitness for a particular purpose and makes no express warranties except as may be stated in its written agreement with its customers. In no event is Symmetricom liable to anyone for any indirect, special, or consequential damages. Liability is limited to the purchase price of the product.

Workaround Instructions

To correct the time offset in the SSU2000 perform the following steps. Please note these instructions assume the GPS Input module is operating on revision A.09 software:

WARNING: Performing these workaround instructions on a system where the GPS Input module is the only valid input reference will result in the system entering a **HOLDOVER** condition for approximately 10 minutes.

1) Type the command **ENGINE 1AY** (where Y is the slot location of the GPS Input module, either 3 or 5) and observe the position information shown similar to below examples:

Example of position information from a calculated position fix:

> SSU_2000->ENGINE 1A5
> 2006-01-06T19:05:01Z ID: SSU2000, Name: SSU_2000
> GPS Module: 1A05
> GPS MOT Engine : 2.2, APR 24 1998
> Lat: +30:28:07.97, Lon: -097:40:34.91, Ht: 260.93 m (3D) PDOP: 1.9, 300 ave

Example of position information from a user entered position fix:

> SSU_2000+>ENGINE 1A5
> 2006-01-06T19:16:46Z ID: SSU2000, Name: SSU_2000
> GPS Module: 1A05
> GPS MOT Engine : 2.2, APR 24 1998
> Lat: +30:28:07.97, Lon: -097:40:34.91, Ht: 260.93 m (3D), entered

2) If the GPS Input module reports a user entered position fix then enter the **RESTART 1AY** command (where Y is the slot location of the GPS Input module, either 3 or 5). The system will prompt the user to verify the restart is desired, type **YES** when prompted. Proceed to step 4.

3) If the GPS Input module reports a calculated position fix then enter the **ENGINE 1AY POS AVG 300** command (where Y is the slot location of the GPS Input module, either 3 or 5). The system will perform a new position fix, this will cause the GPS Input module to correct the time of day information.

4) If two GPS Input modules are installed in the system, wait until the module that was corrected in step 2 or 3 becomes a valid reference and perform steps 1 and 2 or 3 on the second GPS Input module.

5) The NTP feature will correct it's time within 2.5 hours after the corrected GPS Input module becoming a valid reference. If a faster recovery is desired the COMM module may be restarted as well with the **RESTART 1A02** command. The system will prompt the user to verify the restart is desired, type **YES** when prompted.

6) This completes the workaround.