

## LEAP SECOND BULLETIN

LSB# 170101

January 1, 2017

*A Leap Second Insertion occurred on December 31, 2016*

### **GPS-Synchronized Products:**

Our GPS-synchronized products precisely adjust for leap seconds to keep all Network Time Servers and Time & Frequency Equipment accurately synchronized to UTC. The leap second insertion on December 31, 2016 was handled automatically.

### **CDMA-Synchronized Products:**

Our CDMA-synchronized products needed some user intervention in order to precisely handle the leap second insertion. This is because the timing information being transmitted by the CDMA base stations is very precise, except for the leap seconds. Some base stations handle leap seconds properly and some do not, so it is best to do it yourself. If you did not configure for the leap second occurrence you can correct it now. See below for product-specific instructions.

### **Sonoma Network Time Servers:**

To check the leap second settings, use the network port command **cdmaleapmode**. Current and future leap seconds should both be 18. If they are not, continue with the instructions.

You need to set the current leap seconds to 18 and the future leap seconds to 18. There are two ways to do this. One way is to use the front-panel keypad/display - navigate to the Clock Menu and then to Leap-Sec. Another way is to use the network port command **cdmaleapconfig**. This is a script that will walk you through the process. To verify that you set the leap seconds correctly, wait about 20 seconds and then use the command **cdmaleapmode**.

### **Tempus LX, Meridian and Tempus Cntp:**

To check the leap second settings use the network port command **cdmaleapmode**. If in "user" mode, then current and future leap seconds should both be 18. If they are not both 18, then continue with the instructions in the next paragraph. If in "auto" mode, then use the **cdmastat** command to confirm that the current leap seconds is 18. If it is not, then continue with the instructions below.

You need to set the mode to "user", and the leap seconds to 18 (current) and 18 (future)\*. One way is to use the front-panel keypad/display - navigate to the Clock Menu and then to Leap-Sec. Another way is to use the network port command **cdmaleapconfig**. This is a script that will walk you through the process. To verify that you set the leap seconds correctly, wait about 20 seconds and then use the command **cdmaleapmode**.



## Unison, Praecis Cntp, and Tycho:

To check the leap second settings use the network port command **cdmaleapmode**. If in “user” mode, then current and future leap seconds should both be 18. If they are not both 18, then continue with the instructions in the next paragraph. If in “auto” mode, then use the **cdmastat** command to confirm that the current leap seconds is 18. If it is not, then continue with the instructions in the next paragraph.

Use the network port command **cdmaleapconfig**. This is a script that will walk you through the process. Use the “User” mode and set the leap seconds to 18 (current) and 18 (future)\*. To verify that you set the leap seconds correctly, wait about 20 seconds and then use the command **cdmaleapmode**.

## Praecis (II/Cf/Cf/Ce/Cfr/Cfr2):

To check the leap second settings use the serial port command **LEAP**. Current and future leap seconds should both be 18. If they are not, continue with the instructions.

To set the leap seconds, the command syntax is: **LEAP=18,18**

To verify that you set the leap seconds correctly, enter the **LEAP** command with no parameters.

\* NOTE: The current leap seconds are the number of leap seconds in effect NOW. The future leap seconds are the number of leap seconds in effect AFTER the next possible leap second insertion date. Since the leap second insertion occurred yesterday, the current and future leap seconds are now equal. A leap second insertion occurs every few years.

## Contact Information:

Feel free to contact us if you have any questions or need help.

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