

Software Release Notes

7400 Test Signal and Sync Pulse Generator

Software Version 2.2.7

Ensemble Designs Software and Customer Service Information

Software updates for your Avenue 7400 module are easy to access and free on our website:

<http://www.ensembledesigns.com/support/avenue-support/avenue-software>

Special notes for installing this software version are in the section below entitled "Procedure for Installing Software Version 2.2.7." For service assistance please contact us by phone at +1 530 478 1830, or email us at service@ensembledesigns.com

New Capabilities in Version 2.2.7

For systems that have the GPS option installed, software version 2.2.7 adds the following capabilities:

- **Optional Insertion of Date in all of the Timecode Outputs of the Module**
- **UTC Offset**
- **Optional Automatic Adjustment for Daylight Saving Time**

Bug Fixes

Version 2.2.7 corrects a bug where the timecode value derived from the GPS was 15 seconds fast.

Details for New Capabilities

Optional Insertion of Date in all of the Timecode Outputs of the Module

This feature is turned **On** and **Off** by a control in the GPS menu.

The date is inserted in accordance with SMPTE Standard 309 in MJD (Modified Julian Date).

Timecode Outputs on the 7400 are:

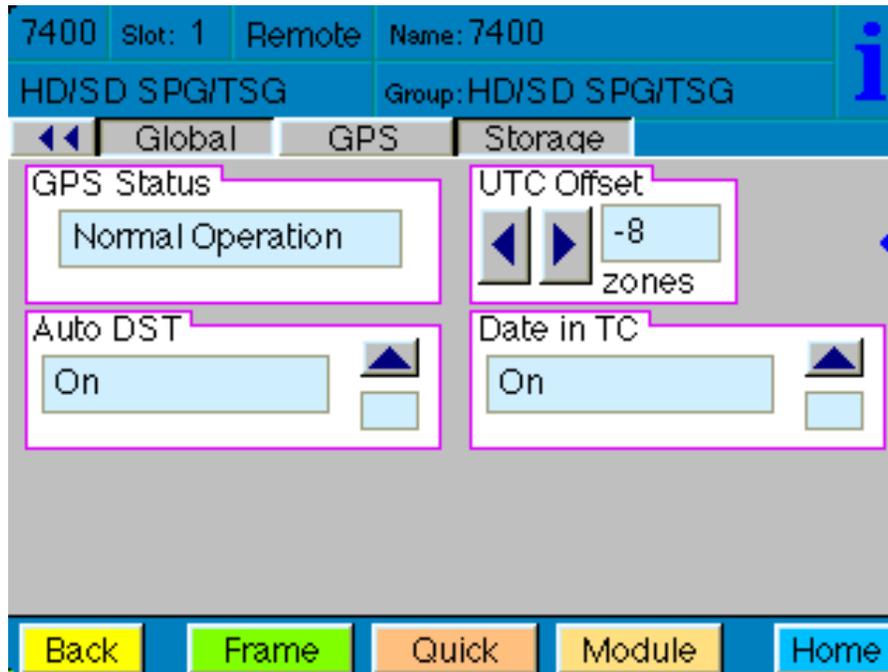
- LTC – "audio" style output
- VITC – vertical interval in Analog SD
- DVITC – vertical interval in SD SDI
- ATC – vertical interval in HD SDI

UTC Offset

UTC stands for Coordinated Universal Time, formerly known as GMT (Greenwich Mean Time).

The UTC Offset is used to configure the 7400 module so that the time that is loaded into the timecode generator from the GPS is properly offset to the local time zone. The UTC in the 7400 module follows the North American practice.

The UTC Offset feature is adjusted by a control in the GPS menu, as shown below. The menu options are -12 to 12, offset in hours. As an example, the setting for the Pacific Time Zone in North America (Los Angeles) is an offset of -8.



GPS Menu for Avenue 7400 Test Signal and Sync Pulse Generator

Optional Automatic Adjustment for Daylight Saving Time

This feature is turned **On** and **Off** by a control in the GPS menu.

The Auto DST function means that timecode will automatically be adjusted forward by an hour in the spring and back by an hour in the fall. If you want this auto functionality, leave the Auto DST function **On** all year round.

If you want to adjust for Daylight Saving Time manually, turn the Auto DST function **Off** and change the UTC by one hour manually on the designated dates in the spring and fall.

The calendar rules used by the 7400 for the beginning and ending of Daylight Saving Time are based upon the practice in North America.

Procedure for Installing Software Version 2.2.7

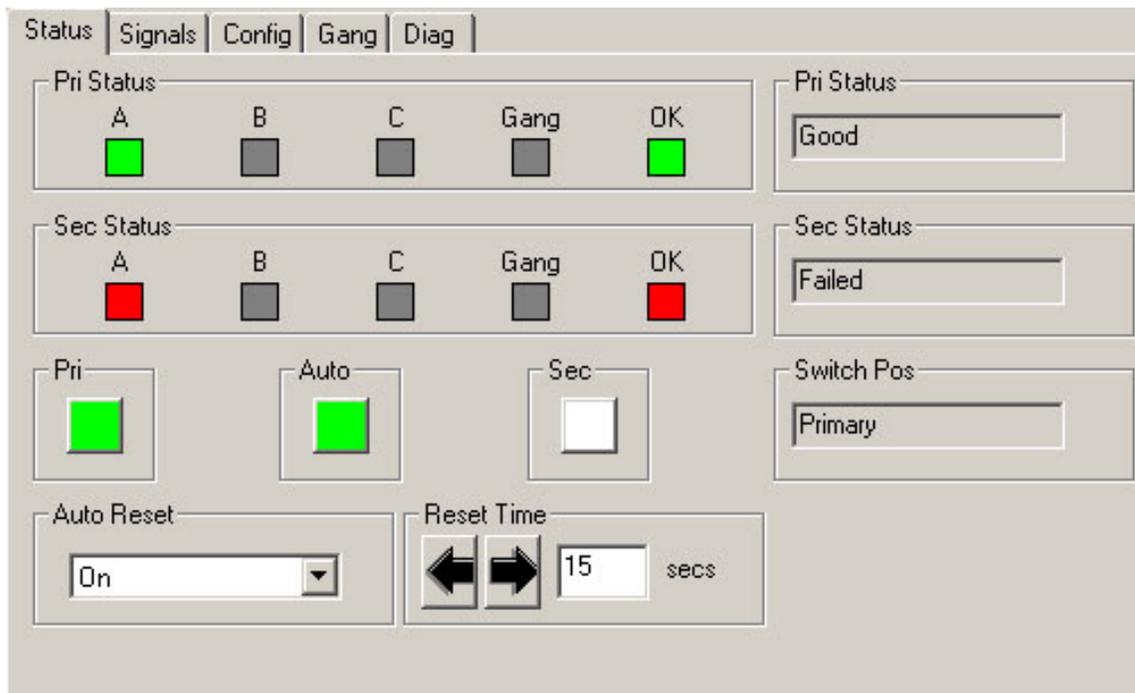
1. Use Avenue PC to install software version 2.2.7 into the 7400 module. After loading the new software, all of the controls on the 7400 will be reset to factory default. Carefully step through the configuration menus and verify that all of the settings are correct for your installation.
2. In the GPS menu, set the UTC Offset for your time zone.
3. If you want the module to switch automatically at the beginning and end of Daylight Saving Time, turn the Auto DST feature **On** in the GPS menu.

Special Instruction for Facilities Using Auto Sync Changeover Function

When updating a dual generator system that has automatic Sync Changeover, such as an Avenue 5465 or 7465, please use the following special instructions:

1. In the Status Menu of your Sync Changeover module (Avenue 5465 or 7465) verify that the Sync Changeover is in primary position, and that the secondary generator is offline. For your reference, the Status Menu is shown on the following page.
2. If the Auto function is enabled (indicated when lit green), disable it by clicking on the button. When the Auto function is enabled the module will automatically switch to the secondary input if the primary fails. This functionality is not desired while performing software upgrades.
3. If the Auto Reset function is turned **On**, turn it **Off**. The Auto Reset function enables automatic return to the primary after a fault clears. This functionality is not desired while performing software upgrades.
4. Perform the standard software upgrade procedure on the secondary generator (7400 module). After loading the new software, all of the controls on the 7400 will be reset to factory default. Carefully step through the configuration menus and verify that all of the settings are correct for your installation.

5. If cabling allows it, view the outputs of the secondary generator to verify proper functionality, thus ensuring on-air continuity when switching to the secondary generator.
6. In the Status Menu of your Sync Changeover module, switch to the secondary source by clicking on the **Sec** button.
7. Perform the standard software upgrade procedure on the primary generator (7400 module). After loading the new software, all of the controls on the 7400 will be reset to factory default. Carefully review the configuration menus and verify that all of the settings are correct for your installation.
8. If cabling allows it, view the outputs of the primary generator to verify proper functionality, thus ensuring on-air continuity when switching back to the primary generator.
9. In the Status Menu of your Sync Changeover module, switch to the primary source by clicking on the **Pri** button.
10. Rearm the Auto Reset function if you are using it in your facility.



Status Menu for Avenue 5465 or 7465 Sync Changeover Switch

Additional Notes

GPS offers a highly accurate and stable clock reference, and can also source the time and the date into the timecode if your source is set to GPS in the Timecode menu.

The 7400 is a dual generator with two independent outputs, each capable of having their own timecode source. Although the UTC Offset and the optional Daylight Saving Time settings are global to the 7400 module, the source of the timecode for each output can be independently selected. You may select your timecode sources in the Timecode A and Timecode B menus.

When the timecode system is configured so the time is sourced from the GPS, the time will be loaded (jammed) into the timecode generator when a change in the settings for the timecode source is made.

In addition, the 7400 will jam the GPS timecode into the timecode generator once daily, this happens at 2:00 am local time.

The reason for this daily jam is that in 59.94 frame rate (NTSC family), timecode does not match time of day exactly, even with drop frame. During a 24 hour period an accumulated error of three frames occurs. Therefore in a 59.94 system, everyday at 2:00 am this is corrected.

In 50 Hz (PAL family) systems, no such continuity error will occur because timecode is exact.