

PSAP Master Clock

(Description and Feature Definitions)

To ensure consistency of time stamps added to event records, reports and voice recordings, it is advised that equipment such as CAD, ANI/ALI Controllers, Voice Recorders, Radio Consoles, etc, have the ability to synchronize internal clocks to a PSAP master clock.

Minimum Standard¹ to Qualify for ECB Reimbursement²

The PSAP master clock shall:

- Be traceable to Coordinated Universal Time (UTC);
- Have a continuous accuracy of .1 seconds relative to UTC when locked to the UTC time source;
- Have a front panel Display to indicate time;
- Have the optional capability to provide time codes via an RS-232 serial, Inter Range Instrumentation Group (IRIG), and Ethernet 10/100 Base T interfaces;
- Have the capability to automatically adjust the Master Clock Display, RS-232 and IRIG time codes for Daylight Saving Time;
- Have a selectable 12 or 24 hour display of Hours, Minutes and Seconds;
- Have a means to indicate its status; locked / unlocked and time synchronized or unsynchronized to the external UTC time source;
- Have alarm dry contact closures that are activated upon loss of power or when the clock has lost time synchronization;
- Be connected to an uninterruptible power supply (UPS) or be equipped with internal batteries which are continually charged from main power.

Equipment connected to the master clock must maintain a continuous accuracy of $\pm .25$ seconds relative to the PSAP master clock.

Optionally, equipment synchronizing to the ASCII time code date may derive alarm status by monitoring the Time Sync Status character within the data stream.

If equipped with internal batteries, the batteries must be capable of powering the equipment for a minimum of 15 minutes.

In the event the PSAP master clock becomes unlocked from the external UTC source and must "free run", it will not exceed an error accumulation of more than 1 second per day.

¹ National Emergency Number Association (NENA), NENA-04-002, Issue 3, May 17, 2000, NENA Recommended PSAP Master Clock Standard.

² Policy No. 19 - Effective April 1, 2004, emergency communications districts are encouraged to obtain for each public safety answering point (PSAP) therein that is capable of receiving enhanced 911 calls, a PSAP Master Clock that meets or exceeds the recommended standards of the National Emergency Number Association. The Tennessee Emergency Communications Board shall provide cost recovery for PSAP Master Clocks not to exceed \$5,000 per district, subject to availability of funds. Districts that presently possess such a PSAP Master Clock shall be eligible for such cost recovery upon production of paid invoices therefore.