

TIME SYNC UNIT (TSU1)



TAKE GPS TIMING PRECISION INDOORS OR UNDERGROUND

The Time Synchronization Unit (TSU1) is a tool to take GPS timing accuracy into an enclosed location.

The Time Sync Unit provides a simulated GPS timing signal which can be used with all Seismic Source Co. (SSC) products. The simulated GPS timing signal from the TSU1 is connected to any SSC product in place of the standard GPS unit. This connection will provide GPS timing synchronization in locations without a view of the sky. This includes mines, buildings, basements, parking structures, or anywhere GPS signals are not available.

The Time Synchronization Unit utilizes an extremely high-accuracy oscillator to maintain timing. The unit is first placed in an open location where GPS signals are available. The TSU1 synchronizes its internal clock to the GPS signals. Typical battery life of the TSU1 is 72 hours with a typical clock drift of less than 30 microseconds.

The Time Synchronization Unit outputs standard NEMA navigation messages and is suitable for any device, source or receiver, that requires accurate timing.



Features and Benefits:

Precision - Once calibrated, the TSU1 outputs a standard Pulse-Per-Second signal with microsecond accuracy. The TSU1 provides a simulated GPS time synchronization signal with its last known location.

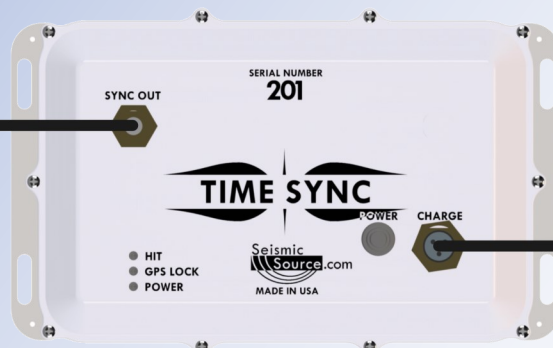
Working Time - Timing accuracy is typically less than 30 microsecond error over the expected 72 hour battery life. External battery can be added for extended operation.

Simplicity - Place the unit outside in a location with a good view of the sky to receive GPS signals. Once the TSU1 has obtained a valid GPS lock, usually in about ten minutes, it can be taken indoors or underground.

Robustness - The TSU1 is enclosed in a simple lightweight rugged enclosure.



SYNC OUTPUT
6s 10b
For Providing Synchronizing
Time to a Recorder



CHARGE
19s 16b
For Charging
Internal Battery