COSMOS Recommended Default Accelerograph Parameter Settings

A goal of installing strong motion accelerographs is the recording of important strong-motion ground and building response data from significant earthquakes. Accelerographs may be installed by network operators making little or no change to the triggering, pre-event time or other settings in the instrument. This can result in situations, as have occurred in recent years, where recorder settings are such that aftershocks overwrite the already-recorded strong shaking of the main shock. Another inadvertent situation may occur when a large earthquake occurs at a significant distance from a station. The pre-event memory needs to be long enough to record the entire motion if the instrument is triggered on the S wave or surface waves and the post-event time needs to be long enough to completely record the later waves.

To prevent adverse outcomes, it is recommended that instruments leaving a manufacturer's facility be initially adjusted to the following settings so that useful records may be obtained even if the settings are not changed at the time of installation.

Parameter	Recommended Default Setting	Remarks
Triggering	0.5%g occurring on two of three channels	Operator may wish to raise level if site is noisy or the number of records becomes excessive.
Memory Control	Unit to stop recording when memory is full (overwriting of recorded data is blocked)	If available, intelligent control could be used to allow overwriting if subsequent peak accel. is larger.
Time	Set To UTC	
Pre-event Time	30 seconds, minimum	Operator may wish to use 45-60 seconds if memory is adequate.
Post-event Time	60 seconds, minimum	Operator may wish to use 90 seconds or more to insure recording surface waves from distant events, especially in subduction environments.
Station Id	Set to serial number of accelerograph	