FIRMWARE DOCUMENTATION

CyTime™
Sequence of Events Recorder
SER-3200 / SER-2408

APPLICABLE PRODUCTS

Note: Updating firmware does not affect user-configured settings. However, updating from very old versions (v1.xx) to v.2.xx will CLEAR event log. Be sure to upload all events prior to the update.

This document contains information about updating firmware to the latest released versions for the CyTime™ Sequence of Events Recorder, models SER-3200 and SER-2408, from Cyber Sciences. The information applies to the following catalog numbers:

• SER-3200-P2X2
• SER-3200-PTP
• SER-3200-32GB
• SER-2408-P2X2
• SER-2408-PTP
• SER-2408-32GB

FIRMWARE REVISION HISTORY

Note: Do not attempt to "downgrade" firmware to a previous version; this can cause the unit to malfunction.

The CyTime SER-3200/SER-2408 uses three (3) microprocessors, each of which contains its own set of firmware (embedded software):

• Time processor (TP)
• Event processor (EP)
• System processor (SP)

To determine the latest SER firmware release or to view complete details on firmware history, please refer to CyTime SER Release Notes.

UPDATE INSTRUCTIONS

UPDATE PROCESS OVERVIEW:

1) EXTRACT firmware update zip.

2) SEND files to CyTime SER via FTP.

3) RESET unit.

4) CONFIRM update by viewing LCD screen or Diagnostics web page.

CyTime SER-3200/SER-2408 firmware can be updated over a network. First download the latest firmware update (zip file) from the Cyber Sciences web site (www.cyber-sciences.com/downloads) and extract all files.

Connect a PC to the CyTime SER using a standard Ethernet cable and establish communications. It is also possible to update firmware over a local area network. In either case, ensure that reliable control power is maintained to the CyTime SER during the entire update process. A loss of communications during the update could cause the unit to malfunction. Do not delete any existing files on the CyTime file system.

The firmware files for all three processors are combined into a single file with .S19 extension. During startup or reset, the presence of a text file called "LOAD_SP.TXT" causes the firmware update to begin.

To confirm the update, view the CyTime LCD screen or its Diagnostics web page and verify the latest firmware versions.

The next sections provide detailed instructions for each step in the firmware update process .

DOWNLOAD / EXTRACT FILES

Download the firmware zip file and extract to a folder in a known location on your PC, such as the Windows Desktop. The folder contains the following files:

<u>Firmware files</u>
- SER_SP_B.S19
- LOAD_SP.TXT

<u>Optional files*</u>
- IBSER01.PDF
- IBSER02.PDF
- _CUSTOM.HTM
- _CUSTOM.SWF
- others, if needed

Note: The firmware update process does <u>not</u> affect existing user configuration settings. However, an update from 1.xx to v2.xx will CLEAR the existing event log.

* Optional files are only included if they are impacted by the firmware release, such as changes to instruction bulletins stored on the SD card.

UPDATE PROCEDURE:
Time / Event / System Processors

1. EXTRACT firmware files to a folder in a known location on your PC, such as the Windows Desktop:

a. Double-click the firmware zip file.

b. Choose "Extract all files."

Note: The CyTime SER's FTP function must be enabled to send firmware files using this process. To verify that its FTP server has <u>not</u> been disabled, view the Communications Setup web page.

2. SEND all files to the SER-3200/SER-2408:

a. Open Windows Explorer and navigate to the folder with extracted firmware files.

b. Click the first file to select it, then hit <Ctrl+A> to select all. (All firmware files should be highlighted at this point.)

c. Now hit <Ctrl+C> to copy all files to the clipboard.

d. In the pane at the top, type ftp:// followed by the IP address of the CyTime SER (e.g., ftp://169.254.0.10), then hit Enter.

e. When prompted, enter the CyTime user name and password (default = admin / admin).

f. Hit <CTRL+V> to paste all firmware files. (Click "Yes to all" to overwrite any existing files.)

g. Click the "Close" button on the Windows Explorer window to end the FTP connection to the CyTime SER.

Important: After reset, allow 7-10 minutes for all updates to complete <u>before</u> you try to login and view Diagnostics web page.

If Resetting the unit via the Admin Setup web page, close browser, wait for updates to complete, then re-open the browser and login again to confirm the updates.

Note: The CyTime SER suspends normal event recording while the unit resets and the new firmware is installed.

3. RESET the SER-3200/SER-2408:

a. By pressing the reset button on top of the device, OR

b. By clicking the "Reset" button found on the Administration Setup web page.

This resets the CyTime SER and initiates the firmware updates to the time, event and system processors. (Allow 7-10 minutes for all updates to complete.) Now continue to the next section to confirm updates have installed successfully.

XML SETUP FILE STRUCTURE CHANGE (This step is not always required)

To take advantage of new features provided in the firmware update, the setup file must conform to the latest structure. If the structure of the _SETUP.XML file requires changes, this is accomplished automatically during the firmware update.

If the CyTime detects an older version of setup file, it will update the setup file to the new format. All previous user settings are preserved. In addition, a backup copy of the old XML file structure is saved as _SETUP.OLD. (This can be deleted later if desired.)

An XML schema document called ser.xsd defines the structure and allowable values for the latest version of _SETUP.XML. This file is available at:

http://www.cyber-sciences.com/products/xsd/ser.xsd

CONFIRMING SUCCESSFUL UPDATE

4. CONFIRM

To verify that the firmware was updated successfully, launch your web browser, enter the SER-3200/SER-2408 device IP address, and click the "Diagnostics" tab to view the Diagnostics web page. The current firmware versions are displayed on this page, as shown below.

Verify the correct firmware versions

SER-3200 Diagnostics web page

If the correct firmware values do not appear, try resetting the CyTime SER (either by pressing the reset button on the top of the device, or by clicking the "Reset" button on the Administration Setup web page).

If this does not help, verify the IP address of the target device and repeat the process, being careful to follow each step in this manual.

If you still need assistance, please contact Cyber Sciences using one of the methods found on the web site:

www.cyber-sciences.com/support

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