Cellcorder Firmware Revision History

Version 2.25 / Released 05/02

- 1. Calibration constants no longer get lost or altered during normal
- 2. Implemented counters to identify usage on load relays. This screen is password protected to prevent clearing of data.

Version 2.24 / Released 03/02

3. If the Cellcorder shut down automatically due to a low battery, it could never be turned on again without initializing memory.

Version 2.21 / Released 08/01

- 1. Error message changed from: LOW CURRENT CELL OR CONNECT PROBLEM. SELECT TEST BUTTON > 1 SECOND TO RETRY to: TO TAKE READING PUSH AND HOLD TEST KEY FOR ONE SECOND.
- 2. When overwriting resistance readings, a warning message is now displayed before the old readings are overwritten.
- 3. When testing 6 12 volt modules, the unit forced a cool-down time of five minutes before allowing the unit to be turned off. This cool down time is now three minutes.

Version 2.20 / Released 03/01

- A password is no longer required to use the specific gravity interface.
- 2. If the test leads were connected incorrectly and an error message indicated that voltage must be less than 16V, the unit would not resume operation if the leads were corrected. Previously, one of the up/down arrow keys had to be pressed. This no longer is required.

Version 2.19 / Not Released

Version 2.18 / Released 11/00

1. After resistance test is complete, check for test current. If test current is still present, an error message is displayed.

Version 2.17 / Released 10/99

- 1. Added enhancements to support new load module.
- 2. Verify intercell voltage before doing a resistance test. If voltage is excessive, test stops and unit displays an error message.
- 3. If the message "Voltage must be less than 16V" was displayed, the Test button would be disabled. This no longer occurs.

Version 2.16 / Released 7/99

1. Add selection -5- combined, under the intercell connection type. This will force intercell readings to zero when using spike probes that do not facilitate intercell readings.

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Version 2.15 / Released 6/99

- 1. After clearing the memory contents in the 7X256 mode and then changing it to 28X64 memory mode, temperature values will not transfer to software.
- 2. After clearing memory contents in the 28X64 mode, battery analysis software will give communication status "Communication Failure" and "Memory Mode Unknown."

Version 2.14 / Released 10/98

1. Decrease the amount of test time when performing multiple intercell resistance readings.

Version 2.11 / Released 7/98

1. Bug introduced in previous release relating to download speed of data from the Cellcorder to the computer.

Version 2.10 / Released 6/98

1. Changed load time for 2 volt and 12 volt modules during resistance tests.

Note: This load time change also requires a hardware change in the load module. The following units will require the change if using firmware revision 2.10 or higher.

CLC-100 serial numbers CLC100-97-233 through CLC100-98-114 CLC-200 serial numbers CLC200-97-233 through CLC200-98-132

2. Display a "*" on the right top corner of the display when in the 7×256 memory mode.

Version 2.08 / Released 3/98

1. Corrected a temperature upload problem from the Hydrometer to the Cellcorder.

Version 2.07 / Released 3/97

- 1. Extended the range of the intercell reading to approximately $1600\mathrm{m}\Omega$.
- 2. Corrected the memory overwrite routines when changing memory modes.

Version 2.06 / Released 9/97

1. Depending on Cal Constant settings, 6V and 12V resistance readings would sometimes not be repeatable. Changed the implementation on where the actual calibration was performed during a reading cycle.

Version 2.05 / Released 8/97

1. The word "change" was spelled wrong when the warning message appeared for the memory mode change.

Version 2.04 / Released 7/97

1. When changing the memory mode, the Cellcorder will now prompt the user "Changing memory mode will erase memory."

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Version 2.03 / Released 3/97

- 1. Corrected the spelling of the word "partitioning" under the memory configuration screen.
- 2. Display brightness set to a higher brightness.
- 3. When uploading from the Hydrometer, the battery selection now defaults to 01 instead of 00.

Version 2.02 / Released 2/97

- 1. Supports E2 memory.
- 2. Memory configurable from 7X256 or 28X64
- 3. When test cells less than 1000AH, the cool down time in between test has been shortened by five seconds.
- 4. When uploading data from a Hydrometer, the user will now be prompted to select which battery.

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