

REVISION:

202-001-450

PRODUCT INFORMATION BULLETIN

FULL DISTRIBUTION REQUIRED

REVISION DATE:

ORIGINAL DATE: 08-03-22

1. SUBJECT:

Cornerstone® Software Version 3.1.0

NOTE: Cornerstone® Software received significant changes in appearance with this update. A summary of these changes is available on page 5 of this bulletin.

2. INSTRUMENT(S) AFFECTED:

AMH55-family Automatic MicroHardness Testers
CHN828 Carbon, Hydrogen, Nitrogen Analyzer
CN828 Carbon and Nitrogen Analyzer
FP828 Food Protein Analyzer
CN928 Carbon and Nitrogen Analyzer
CNS928 Carbon, Nitrogen and Sulfur Analyzer
FP928 Food Protein Analyzer
NS928 Nitrogen and Sulfur Analyzer
C744 Carbon Analyzer
CS744 Carbon and Sulfur Analyzer
S744 Sulfur Analyzer
C844 Carbon Analyzer
CS844 Carbon and Sulfur Analyzer
CS844ES Carbon and Sulfur Analyzer
S844 Sulfur Analyzer
S844ES Sulfur Analyzer
GDS900 Glow Discharge Spectrometry System
GDS950 Glow Discharge Spectrometry System

N736 Nitrogen Analyzer
O736 Oxygen Analyzer
ON736 Oxygen and Nitrogen Analyzer
H836 Hydrogen Analyzer
H836EN Hydrogen Analyzer
N836 Nitrogen Analyzer
NH836 Nitrogen and Hydrogen Analyzer
O836 Oxygen Analyzer
O836Si Oxygen Analyzer
OH836 Oxygen and Hydrogen Analyzer
ON836 Oxygen and Nitrogen Analyzer
ONH836 Oxygen, Nitrogen and Hydrogen Analyzer
C832 Carbon Analyzer
S832 Sulfur Analyzer
S832DR Dual Range Sulfur Analyzer
SC832 Carbon and Sulfur Analyzer
SC832DR Carbon and Dual Range Sulfur Analyzer
S832HT Sulfur Analyzer
SC832HT Carbon and Sulfur Analyzer

3. S/N EFFECTIVITY:

Not applicable

4. PARTS REQUIRED:

One 259-078UPGR 744-series and 844-series Cornerstone® Software Version 3.1.0
One 259-081UPGR 736-series and 836-series Cornerstone® Software Version 3.1.0
One 259-086UPGR 832-series Cornerstone® Software Version 3.1.0
One 259-087UPGR AMH55 Cornerstone Software Version 3.1.0
One 259-088UPGR AMH55S Cornerstone Software Version 3.1.0
One 259-089UPGR AMH55L Cornerstone Software Version 3.1.0
One 259-096UPGR 928-series Cornerstone® Software Version 3.1.0
One 259-097UPGR 828-series Cornerstone® Software Version 3.1.0
One 259-091UPGR GDS900/GDS950 Cornerstone® Software Version 3.1.0

NOTE: Cornerstone® Application Software is now available for download at www.lecosoftware.com. To access this version or the previous version of software for your instrument, you will need to download the Cornerstone® Installer from a web browser on the instrument. The Installer will automatically select the appropriate version of software for your system. If you do not have internet access at the instrument, you have the option to manually enter the system's Registration ID, which can be found on the registration certificate or in the Software 'About' by pressing the "i" icon in the upper right corner of the software screen. Upon entering a valid Registration ID, you will be allowed to download the appropriate version of the system software. Please contact LECO Service with any questions or concerns.

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5. DETAILS:

Changes incorporated into Cornerstone® Software Version 3.1.0 include:

For all instruments listed:

- Flat Gold look. (Refer to *Summary of 3.1.0 Flat Gold User Interface Changes* on page 5 of this bulletin.)
- Added blanking with samples.
- Separated common supplemental manual from the instrument specific manual.
- Replaced task center with notification center.
- Allow lower backpressure for areas of lower pressure.
- Dual instrument support for a shared balance.
- Only allow editing of drift selection for new calibration, otherwise editing must be done through Manage Drift.
- Added atmospheric blank support.
- Show default value in keyboard.
- Use of long press action to grab a field for drag and drop.
- Added loader location as an available field.
- For Peak Find option, added fields for peak compositions.
- Allow manual drift if no standards present.
- Extend sample import fields to allow for moisture, protein, atmospheric blank, and furnace method.
- Alert operator if there is no room to add a peak.
- Added “from method” option.
- Added ability to customize footer.
- For Peak Find option, added peak table option.
- Only allow current user or administrator to see their credentials.
- Fixed when multiple sets and reps of gas doses are logged, the next set did not always automatically start.
- Fixed Operator field not being set when multiple set of multiple reps are run automatically over many hours.
- Prevent closing/opening keyboard for mass value.
- Summary represents the whole database, not just current filter.
- Does not allow deletion while calculation jobs are busy.
- Only export current sets.
- Disallow merge if replicates have different moisture, atmospheric blank, or protein values/factors.
- Allow peaks to start at time 0 (zero).
- Fixed startup speed, especially on larger databases.
- Decreased creation time for plots.
- Fixed bouncing between value after certain types of range editing.
- Ensure save also saves the value from an open keyboard.
- Show “Save” at sample level after editing style of a field.
- Only allow editing of permission level if editable by current user.

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- ❑ For GDS900:
 - Auxiliary Gas analysis support.
 - Support RF lamp and analysis.
 - Improved spectral registration for peak locations.
 - Manual IEC selection.
 - Manual density layers for CDP.
 - CDP Hydrogen correction.
 - Allow adding time to CDP analysis.
 - Automatically register calculate system for Conditioner at end of analysis.
 - Retain inclusion for non-certified standards when recalibrating.
 - Added option for milli- and micro- grams per meter square for Coating Weight units.
 - For water conductivity test, uses average of last 10 readings.
 - Restrict method creation to only through keyed option.
 - Enable He, F, and Ne as element options.
 - Allow switching to “element” from “analyte”, except in main analysis view.
 - UV lamp on now with only 25% duty cycle.
 - Detect when CCDs report 0s (zeroes).
 - Switch to scientific notation for polynomial terms if smaller than 1E-8.
 - Fix R Squared calculated value for sputter rate corrected curves.
 - When deleting CDP calculation, ensure it is removed from any CDP plot.
 - Ensure switch units when switch trace domains in CDP calculations.
 - Show empty area if field does not exist in method of the set/rep.
 - Only show needed axes for CDP plots.

- ❑ For 828 analyzers:
 - Retain Blank No Load sample type during analysis.
 - Performs full gas OFF sequence when massive leak is detected in segmented inert leak check.

- ❑ For 928 analyzers:
 - Added procedure to condition new heating elements
 - For LT option, support 500 for low end furnace temperature.
 - Added in calibration for zero offset correction for pneumatic pressure.
 - Allow toggling of pump solenoid.
 - Fixed segmented system leak check to end correctly on failure.
 - Fixed ballast leak check to complete properly when failing due to pressure increase.

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- ❑ For 836-series analyzers:
 - Added H836EN.
 - Allow editing of integration time for single step furnace methods.
 - Reset control loops when interlocks open.

- ❑ For 832-series instruments:
 - Added procedure to condition new heating elements
 - For LT option, support 500 for low end furnace temperature.
 - Peak Find Supplemental manual.

- ❑ For AMH55-family instruments:
 - Improved rendering with many indents.
 - Allow selection of stage type.
 - Added autodetect of COM port for tester/stage.
 - Added control limits fields for image tolerance.
 - Fixed red lines sometimes not rendering fully.
 - Fixed image freezing when focusing objective edit screen.

6. SUMMARY OF 3.1.0 FLAT GOLD USER INTERFACE CHANGES:

- The Guide and Help buttons are now located in the Title Bar (previously located on either side of the analyze button on the bottom of the screen) and the information button has moved from the right side to the left side of the Title Bar. (See Figure 1.)
- The Navigation Buttons (Analysis, Diagnostic, Settings, Instrument) are now located in the upper part of the display (previously located in the lower part of the display). (See Figure 1.)
- The Selection buttons (Multi, Select All, Clear, Range, Multi Field, Collapse All and Filter) are now located in a Selection sub menu bar below the Toolbar. (See Figure 1.)
- The Task Center and Message Bar feature has been replaced by the Notification Center located in the lower right corner of the screen (bell button icon). The Notification Center will notify the operator of software task status, errors, or when it is time to perform maintenance. (See Figure 1.)



FIGURE 1

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- Utility Button Icons and Button Icons within the Login Bar and Toolbar have changed. (See Figure 2 for icon change examples.)


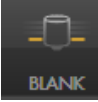
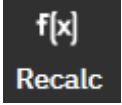

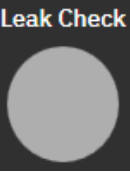

Button Name	New Icon	Old Icon
Blank		
Recalculate		
Leak Check		

FIGURE 2