

## **LQ-1000™ User Manual Addendum**

May 2013

### **Summary**

This addendum explains new features in LQ-1000 units with software version 1.10.12 and above and addresses changes to the way in which Dolby® Digital (AC-3) is measured in later model units with software version 1.29.02 and above.

Specifically, software version 1.10.12 offers the following features:

- Dialnorm metadata (or manually set reference level) can be shown on meter display
- Meter D (large digital meter at right side of display) can display decimal point and 1/10<sup>th</sup> dB
- TruePeak measurement is now displayed
- Ethernet port added with DHCP (default) or fixed IP address
- NTP time sync
- 4 internal metering logs: 24 hour, 48 hour, 7 day, and user controlled
  - Logs are date and time stamped with readings every second
  - Logs include readings of A, B and C meters, dialnorm metadata or manual reference level, and Dolby acmod metadata
- Built-in http server
  - Simple text GUI for manual access to logs and control of user log
  - Ability to use http commands to automate log retrieval

To determine which software version is installed in your unit, refer to the “System Info” menu. Users of older LQ-1000 units running software version 1.00.05 can update to version 1.10.12 by logging in to the Linear Acoustic website (<http://linearacoustic.com>), logging in with their user name and password, and navigating to the “Software” section.

If you have not yet registered on the website, you may do so by clicking on the “Register” link at the top of the home page.

Furthermore, LQ-1000 units beginning with serial number 34-1000 perform Dolby decoding differently than older units and do not use a SIMM card. Therefore, they require a slightly different I/O configuration than indicated in the full manual. The serial number can be found on the back of the unit.

Specific instructions for accessing the new features of software version 1.10.12 and for setting up the I/O to properly decode and route the AC-3 stream in later units are provided below.

### **Accessing each of the new features is accomplished as follows:**

- Use the right/left arrows to navigate to the “Main Menu” on display
- Use the up/down arrows to highlight “Full Screen Mode”, then push the right arrow to select.
- Use the up/down arrows to navigate to “ITU Meter Options” and the right arrow to enter the “ITU Option Selections” menu
- Use the up/down arrows to display the feature to be setup

### **Displaying dialnorm Metadata/Target Loudness**

- Use the up/down arrows to navigate to the “Target Loudness” menu and the rotary dial to set the ‘manual’ loudness reference
- Use the down arrow to navigate to the “Use Dialnorm” menu and either the rotary dial or the right arrows to choose between “Use Dialnorm if Present” or “Never Use Dialnorm”. If dialnorm is delivered to the LQ1000 via the RS422 port or the Dolby Decoder option is installed, select “Use Dialnorm If Present”
- Use the down arrow to navigate to the “Display Value” menu and the rotary dial to choose “Dialnorm” to appear in the center of meter display.

### **Using the Decimal Display**

- Navigate to Decimal display
- Use the right arrow or the rotary dial to toggle between “On” and “Off”

## **Saving Your Settings**

- When all setup selections have been made, use the left arrow to return to the “Main Menu”
- Use the up/down arrows to highlight “System Options” and the right arrow to select
- Use the up/down arrows to highlight “Save Settings Now” and the right arrow to save. Note that there are more menu options than can be displayed at once; the menu will scroll when the up/down menus reach the end of the displayed options

## **Setting the Time/Date and Configuring NTP Time Settings**

- From the Main Menu, use the up/down arrows to highlight “System Options” and the right arrow to select
- Use the up/down arrows to highlight “Time/Date Settings” and the right arrow to select
- Use the up/down arrows to highlight “Timezone” and the right arrow to select
- Use the rotary dial to select your GMZ zone. Be sure to select the correct offset AND region as there are several choice for each zone. (GMT -5 Caracus is NOT the same as GMT -5 Eastern Time US and Canada!)
- Use the down arrow to highlight “Daylight Savings” and the right arrow to check/uncheck
- Use the up/down arrows to highlight “Apply” and right arrow to select/save. This requires a reboot of the unit, and you will be asked twice if you really want to save
- Once the unit reboots, navigate back to the “Time/Date Settings” menu
- Use the down arrow to highlight “NTP Settings” and the right arrow to select
- Use the up/down arrows to highlight “NTP Enable” and the right arrow to uncheck. If this box is checked, no changes to the NTP server addresses can be made
- Use the up/down arrows to highlight first NTP address and the right arrow to select
- Use the left arrow to backspace over existing content and the rotary dial to select each numerical value for your first NTP server. Use the right arrow to move to next numeral, keeping in mind that a period (.) must be inserted between each octet
- Use the down arrow to insert a second server address, etc.

- Use the up/down arrows to highlight “NTP Enable” and the right arrow check (enable)
- Use the up/down arrows to highlight “Apply” and right arrow to select/save. This requires a reboot of the unit, and you will be asked twice if you really want to save
- Navigate back to the “Time/Date Settings” menu. Check the values in the “Time Zone” and “NTP Settings” to ensure they are correct

## Accessing the http Server and Logs

- Connect LQ1000 to your network via the rear panel Ethernet port. By default, LQ1000 will use DHCP to obtain an address. If you need to set a fixed IP address, please log in with your registered users name and password at <http://linearacoustic.com> and download the “IPaddress-Set” software from the LQ-1000 page of the “Software” menu
- Using your web browser of choice (IE, Firefox, Chrome, Safari, etc.) type the IP address of the LQ1000 and the port number (7380) in this form, where the actual IP address is that of your LQ1000 – 192.168.1.24:7380 . Remember that with Internet Explorer, you must precede the IP address with <http://>
- Specific language will vary depending upon the browser used, but clicking on each meter instance and then right clicking on any log file will provide options for viewing and saving the file to your local PC or network drive
- The commands to Start, Stop and Reset a log can be used to control the events logged in the “loudness.csv” log. GPI and front panel buttons that start, stop and reset the LQ1000 meters (when GPIs are enabled) also start and stop this log

## Decoding Dolby Digital (AC-3) in Newer LQ-1000 Units

Older units decode Dolby Digital (AC-3) by way of a SIMM card. Newer units, beginning with serial number 34-1000, do not have a SIMM card and therefore do not list it as a source in the I/O menu or as an installed option in the System Info screen.

In order to decode the AC-3 stream in the newer units, you must choose the location of the stream as the source for Input 1/2.

For example, if the AC-3 stream is embedded in an applied SDI signal on channels 9/10, then In 1/2 = SDI 9/10. If the AC-3 stream is applied to AES Input 1/2, then In 1/2 = AES 1/2.

Finally, it should be noted that applying a Dolby Digital (AC-3) signal to AES In 1/2 will replace all six input channels sent to the main 5.1 meter with the audio in the AC-3 stream, regardless of which audio sources have been selected for In 3/4 and In 5/6.