

Using ID Setting Files

The System 824 makes it easy to make the measurements you need through stored instrument definitions (ID). You can select one of the permanent ID's or you can create your own library using the 824's keypad or the 824 Utility software. This chapter will describe how to recall (or activate) an ID, customize it to suit your specific needs and then save it for later use. The details on each setting is described for the SSA, ISM and LOG instrument types.

This chapter covers the following:

- Recalling ID Setting Files
- Customizing Settings
- Menu Layout of SLM&RTA (SSA) Settings
- Menu Layout of High Dynamic Range Integrating SLM (ISM) settings
- Menu Layout of Logging (LOG) SLM Settings
- “Check Menus”

Recalling ID Setting Files

The procedural steps for recalling an ID setting file is identical for all the instrument types (i.e. SSA, LOG, ISM). The  SETUP key activates a menu that lists the active ID and all stored ID's. They are sorted in the order of most recently used first. If an ID is permanent, i.e. created by Larson-Davis and not detectable or changeable, it will have a “p” just to the left of its' name in the SETUP menu. These

permanent ID's are a good starting point for creating your own custom ID.

*If you have taken data that has not been stored or if the instrument is not reset, you will be prompted with "Data not Saved. Save?". Answer **Yes** to save the data, **No** to have the data reset or **cancel** to cancel the ID recall.*

To activate an ID, press the down  or up  arrow keys to highlight it and press the CHECK  key. The ID is then recalled, the menu closes and one of the previously viewed displays is shown. Data using these settings may now be taken or the settings may be further customized for your application.

NOTE: If any changes have been made to the current settings you will be prompted with "Active ID has Changed. Save?"

Customizing Settings

This section gives an example of using the standard settings in the SSA instrument. The procedures in this example can be applied to the other Model 824 modes and instruments by simply substituting the other instruments' specific settings for those of the SSA instrument.

Settings Example - SLM&RTA (SSA)

There are four general steps to setting up the SSA instrument: 1) Press the SETUP key. 2) Select the **SLM&RTA SSA** setting. 3) Press the SETUP key again. 4) Enter the **EDIT Settings** menu.

The following steps you through the example procedure of setting the SLM&RTA (SSA) instrument's **Detector** setting to **Fast**.

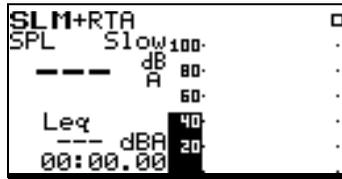
If the 824 is already in SSA mode, there will be a '>' to the left of "SLM&RTA SSA". In which case, skip to Step 3 below.

Step 1 Press the  SETUP key. A menu similar to the following appears:



If you have not already saved your data, you will be prompted to save it at this step.

Step 2 Select *SLM&RTA SSA* from the menu by using the  or  keys and then pressing the  Check key. The SLM+RTA screen appears:



The System 824 is now set to the *SLM&RTA (SSA)* instrument.

Step 3 To access the *Settings* menu, press the  Setup key. The *Edit Settings: SLM&RTA SSA* is highlighted as the *Setup* menu appears:



Step 4 Press the  key and the *Settings* menu for the *SLM&RTA (SSA)* instrument appears:



- Step 5** Using the  or  keys, highlight the SLM option and press the  Check key.



- Step 6** Use the  or  keys to highlight the *Detector* setting, then press the  key or the  Check key. The *Detector Settings* menu appears:



- Step 7** In the pop-up windows use the  or  keys to highlight the *Fast* setting, then press the  Check key to accept the setting change. The *SLM&RTA (SSA)* instrument's *Detector* setting is now set to *Fast*. Press the  Setup key to close the menu and return to the SLM+RTA view.

Settings Descriptions

Within the *Edit Settings* menu, use the  and  keys to move from one setting to the next. Use the  key or  Check key to select the setting to be modified. The  key is used to return to previous menus.

Descriptions of the System 824 instrument's various settings are provided in this section. The following will be covered:

- “Common SLM Settings”
- “Common Control Settings”
- “Logging SLM TWA Settings”
- “Logging SLM Triggering Settings”
- “LOG and SSA Ln Settings”

- “LOG and SSA Time History Settings”
- “Logging SLM Interval Settings”
- “Logging SLM Exceedance History Settings”
- “Logging SLM Daily History Settings”
- “Logging SLM Define Report Settings”

In the following sections, headings for each setting or display mode will identify in parentheses the particular System 824 instruments to which they pertain, as shown in the following example.

Example: Title Setting - (SSA, LOG, ISM)

Common SLM Settings

The SSA, ISM, and LOG instrument types include standard SLM functions. This section covers the available SLM settings for these instruments.

Title Setting - (SSA, LOG, ISM)

To change the Title, use the  and  keys to select each character. Use the  and  keys to replace the selected letter. Pressing the  Reset key clears all characters from the cursor to the end of the field.

Use the **Title** setting to create a title or header for printed reports. This title/header will be placed at the top of each report you print.

Detector Setting - (SSA, LOG, ISM)

The 824 measures all three frequency weightings with three detectors simultaneously and all nine of these levels can be viewed.

Detector - selects the detector rate of the instrument’s RMS detector. This setting provides the following three options:

Slow - An exponential average with a one second time constant.

Fast - An exponential average with a 1/8 second time constant.

There are certain features (such as event counting) that function only with one selection of frequency weighting and one selection of detector, both user selected. These same weighting and detector selections also determine the metrics used for features such as L_N , Intervals, Exceedances, etc.

Weighting Setting - (SSA, LOG, ISM)

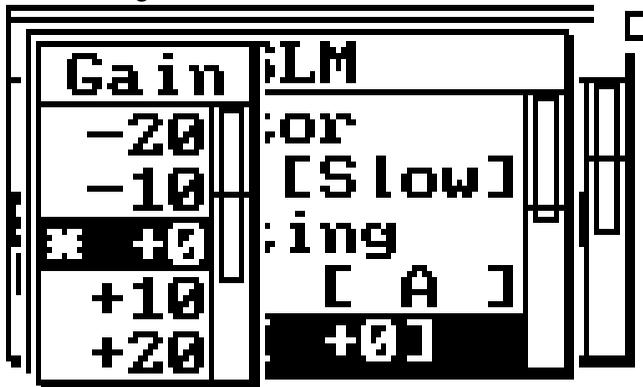
Weighting - selects the desired frequency weighting for the RMS and secondary peak detectors. The **Weighting** setting provides the following three options:

- A - The instrument uses an A-weighted input filter.
- C - The instrument uses a C-weighted input filter.
- FLT - The instrument uses Flat weighting (see specifications for passband frequency in Appendix C).

Gain Setting - (SSA)

The Gain setting is only available in the SSA instrument. The -10 and -20 dB gain settings are not available for electret or direct transducer types (see "Transducer").

Gain - The gain setting sets the measuring range of the instrument in 10 dB steps by adjusting the amplification of the microphone's signal. The gain is set from the **SSA Setup Menu**, highlighting and selecting **SLM**, then **Gain** to obtain the following **Gain Menu**.



In the display, the lowest and highest levels that can be measured accurately are indicated by each live display's graph scale. The following selections are available:

NOTE: If Gain is set to -10 or -20 dB and the microphone type is not condenser then the gain is set to 0 dB and the warning "Setting Conflict" is displayed.

-20, -10, 0, +10, +20, +30, +40, +50

Use the  and  keys to highlight the desired value of gain and press  Check key.

Range Setting - (LOG, ISM)

The Range setting is only available to the LOG and ISM instrument.

NOTE: If Range is set to "Low" and the microphone type is not condenser then the range is set to "Normal" and the warning "Setting Conflict" is displayed.

High Range is not available for electret or direct transducer types (see "Transducer Setting" below).

Range selects the measurement range you desire for the instrument. This setting provides the following three options:

Normal - The instrument's available dynamic range is positioned in the "normal" range which is typically 20dB to 130dB when using a Larson•Davis high-sensitivity microphone.

Low - The instrument's input circuitry provides an additional 20dB of gain which has the effect of moving the instrument's available dynamic range downward relative to the "normal" range. The net effect is that you can measure lower-level sounds effectively. The degree of benefit varies depending upon the weighting or filter that you are using.

High - The instrument's sensitivity is reduced by 20dB, which has the effect of moving the instrument's available dynamic range upward relative to the "normal" range. Therefore you can measure higher-level sounds effectively. The benefit varies depending upon the weighting or octave filter that you are using.

NOTE: The Range setting is not meant to be switched dynamically in real time—in part because selecting the “High” option requires a stabilization period. Furthermore, the System 824’s large dynamic range (110dB) often makes dynamic range switching unnecessary. The Range setting merely allows you to move the available dynamic range either up or down when you need to measure extremely high or low sound levels.

Transducer Setting - (SSA, LOG, ISM)

NOTE: Using an electret microphone with the polarization voltage supplied with the “condnsr” option, will change the microphones sensitivity and frequency response characteristics.

NOTE: The frequency characteristics of the 377B41 & 377A60 microphones change sufficiently enough in high range as to no longer meet Type 1 standards. Thus we recommend using the normal sensitivity microphones, such as 2540 & 2559 to measure high amplitude signals.

NOTE: The transducer setting is a system setting that is not saved or recalled with an ID even though it appears in the SETUP menu.

Random Incidence Microphone Correction - (Available to all Instrument types)

Transducer sets the desired transducer. This setting provides the following three settings:

Condnsr - This indicates that the microphone being used is an air condenser type and the System 824 will generate the appropriate polarization voltage to make it function properly.

Electret - This indicates that the microphone being used is an “electret” (pre-polarized) microphone. The instrument will not generate any polarization voltage.

Direct - This indicates that no microphone is being used and that electrical signals are being injected directly into the preamp. The instrument will not generate any polarization voltage.

The Random Corr setting gives you the option of turning on a digital filter to provide the correction necessary to provide a random incidence response when measuring with a 2540 or 377B41 free-field microphone.

See "Random Incidence Microphone Correction" on page C-24 for the random incidence correction filter's response.

No - Random incidence correction is turned off.

Yes - Random incidence correction is turned on.

NOTE: **Interval** Spectral LNs will not be available when R.I. Correction is turned on. **Overall** Spectral LNs will only be available when the 824 is stopped. This means that the overall Spectral LN data will not be viewable when the 824 is running. If you try to view the overall Spectral LN data while the 824 is running the message "Calculating/Stop to View" will be displayed.

Pk Weighting - (SSA, LOG, ISM)

The 824 has peak detectors for A, C, and Flat frequency weighting that measure simultaneously the greatest instantaneous level (L_{pk}) that has occurred since the last current or overall reset. Some histories and event counters are only able to evaluate one of the three peak detectors. The Peak Weighting Setting selects which is to be used for these features.

PK-II uses the normal weighting setting.

Peak Weighting allows you to select either A, C, or Flat weighting for the primary peak detector, PK-I.

This setting provides the following three options:

A - The A-weighted peak detector is used.

C - The C-weighted peak detector is used.

Flat - The Flat Weighted peak detector is used.

RTA Detector Setting - (SSA)

With the **RTA Detector** setting you can set the time averaging characteristics for real-time frequency analysis. This setting provides the following two options:

Slow - The frequency analysis uses exponential averaging with a one second time constant.

Fast - The frequency analysis uses exponential averaging with a 1/8 second time constant which allows more variability to appear in the measurement.

RTA Weighting - (SSA)

The **RTA Weighting** setting allows you to display an A, C, or Flat weighted spectrum. An overall reset is required before this parameter can be changed.

A - Display's an A weighted spectrum

C - Display's a C weighted spectrum

FLT - Display's a Flat weighted spectrum

Bandwidth Setting - (SSA)

The **Bandwidth** setting provides displaying of either full-octave or third-octave bandwidth filters for real-time frequency analysis. This setting has the following two options:

NOTE: The SSA instrument only measures data using 1/3 octave filters. When 1/1 octave filtered data have been selected, the energy in 1/3 octave band data are summed to give octave filter data. When using the translator function in the 824Util program both 1/1 and 1/3 octave data are provided.

1/1 - Display's octave band filters.

1/3 - Display's third-octave band filters.

Common Control Settings

Control settings are also available from some check menus as discussed later in this chapter. The Control settings are available on most System 824 instruments. The Control settings are available on most System 824 instruments.

Control Settings - (ISM)

For the ISM instrument, the control settings can be accessed through the "Edit Settings" menu as the last selectable menu item, **Controls**.

Control Settings _(SSA, LOG)

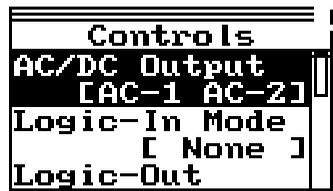
Use the  and  keys to move from one setting to the next. Then use the  key to change the selected setting. The  key is used to return to previous menus.

Triggering for the SSA instrument is for Logic out only. If Logic-Out is set to "RMS", the 824 looks at the level set under "SPL Excd Lvl 1". See the section "LOG and SSA Triggering Settings" on page 7-23.

For the SSA and Logging instrument, the control settings are also accessed through the "Edit Settings" menu, except that the last selectable menu item is **Advanced**. Using the  and  arrow keys, highlight the **Controls** item, then select it using the  arrow key or the  Check key.



Using the  and  arrow keys, highlight the **Controls** item, then select it using the  arrow key or the  Check key. Whether for the ISM, SSA or LOG instrument, the Controls menu will be as shown below.



The following is the menu layout for the control settings:

Menu Items	Available Settings Options
AC/DC Output	AC-1 AC-2 AC-1 DC AC-2 DC AC-2 AC-1
Logic-In Mode	None Pause Toggle Level Alarm

NOTE: Menu items Logic-In Mode through Logic-Out #2 Timer are system settings that are not stored or saved with an ID even though they appear in the SETUP menu

Logic-Out	Off RMS Peak R+P Intv R+I P+I R+P+I A:D R+A P+A R+P+A I+A R+I+A P+I+A R+P+I+A R/S Excd
Logic-Out Time	0 - 255 sec
Logic-Out #2	Same settings as Logic-Out
Logic-Out #2 Timer	0 - 255 sec
Heater On	Yes/No
E.A. Cal Tone	Yes/No

NOTE: The Logic-out #2, uses the Heater output line if set to something other than off.

AC/DC Output Settings - (SSA, LOG, ISM)

The **AC/DC Output** on the 824 allows the user to select what type of signal will be sent out the 3.5mm connector at the base of the instrument. See the section "AC/DC Output" on page 6-5 for more details.

Logic Input Setting - (SSA, LOG, ISM)

The SSA instrument can access the Logic-input Mode setting through either the Check or the Setup menus.

The **Logic Input** sets the functionality of the logic input pin on the control connector (pin 3). This pin is intended to be connected to an external switching device—possibly a push-button switch. The external switching device will either connect the pin to +5V (pin 6) or unconnected. This signal may also be supplied from another device that can supply a 0

to +5 volt logic signal (input load impedance is 100K ohms). The resulting logical state (high or low) will determine what occurs inside the instrument as a function of this **Logic Input** setting. Accordingly, the setting provides the following five options:

None - The state of the logic input pin has no effect.

Pause - Whenever the logic input is connected to +5 V (e.g. when a push-button switch makes contact), the instrument pauses when in the run mode.

Toggle - Each time the logic input is connected to +5 V, (e.g. switch makes contact) the instrument runs or stops. The effect is the same as pressing the  Run/Stop key.

Level - When the logic input is connected to +5 V, (e.g. switch makes contact) the instrument runs. When the logic input is disconnected from +5 V (e.g. switch breaks contact), the instrument stops.

Alarm - When the logic input is connected to +5 V (e.g. switch makes contact), the instrument initiates a *dial-out* sequence. This option is intended for use only with advanced remote monitoring applications where the instrument is paired with a modem.

Caution: *The Level setting overrides the RUN/STOP key and I/O Run/Stop function commands.*

Logic Output Setting - (SSA, LOG, ISM)

The **Logic Output** (2 outputs are available) selects the functionality of the **logic output** pin on the control connector (pin 2 referenced to ground, which is on pin 1) and the heater output (pin 8, pulled to ground). You can use these **Logic Outputs** to actuate external devices during certain events or combinations of events that occur in the instrument. The option you select determines which types of events will trigger a logic output line.

NOTE: In many of the options below, notice the use of a shorthand identifier which includes the first letters of the various events along with the plus + symbol. The plus symbol indicates a logical "OR" function between events. In other words, if for a given option, any one of the listed events occurs alone or in combination with another event, the logic output will turn on.

The **Logic Output** setting provides the following options:

Off - The **Logic Output** is disabled.

RMS - The **Logic Output** turns on when an RMS exceedance event occurs. An RMS exceedance event occurs when the RMS sound pressure level (SPL) exceeds the threshold set by the **SPL Trigger Level** setting. The Any-Data SPL used is the one specified by the Weight and Detector settings

Peak - The **Logic Output** turns on when the instantaneous peak level (Peak-I) specified by the Peak Weight setting is over the **Peak-1 Exceedance Level**, or when the instantaneous weighted peak level (Peak-II) specified by the Weight setting is over the **Peak-2 Exceedance level**.

R+P - The **Logic Output** turns on when either an RMS or Peak exceedance event occurs.

Intv - The **Logic Output** turns on when an interval begins.

R+I - The **Logic Output** turns on when an RMS exceedance event occurs or when an interval begins.

P+I - The **Logic Output** turns on when any peak exceedance event occurs or when an interval begins.

R+P+I - The **Logic Output** turns on when either an RMS or peak exceedance event occurs or when each interval begins.

A:D - The **Logic Output** turns on when an event on one of the A:D channels occurs. These A:D channels are typically used for weather monitoring.

R+A - The **Logic Output** turns on when an RMS exceedance event occurs or when an event occurs on one of the A:D channels.

The A:D (or 'A') functions are for compatibility with systems that have analog data acquisition, generally used to record weather metrics.

P+A - The *Logic Output* turns on when a Peak exceedance event occurs or when an event occurs on one of the A:D channels.

R+P+A - The *Logic Output* turns on when either an RMS or Peak exceedance event occurs or when an event occurs on one of the A:D channels.

I+A - The *Logic Output* turns on when each interval begins or when an event occurs on one of the A:D channels.

R+I+A - The *Logic Output* turns on when an RMS exceedance event occurs, when each interval begins, or when an event occurs on one of the A:D channels.

P+I+A - The *Logic Output* turns on when a Peak exceedance event occurs, when each interval begins, or when an event occurs on one of the A:D channels.

R+P+I+A - The *Logic Output* turns on when either an RMS or Peak exceedance event occurs, when each interval begins, or when an event occurs on one of the A:D channels.

R/S - The *Logic Output* turns on when the instrument is in run mode and turns off when the instrument is in stop mode.

Excd - The *Logic Output* turns on when a valid exceedance is detected and after it's minimum duration has been met.

Logic Output Time Setting - (SSA, LOG, ISM)

The *Logic Output Time* sets the number of seconds that the logic output will remain turned "ON" following a triggering event. Accordingly, this setting can take on any integral value within the following range:

(0)sec to (255)sec

NOTE: If set below 5 seconds, the output will remain “ON” as long as the conditions are true, and turn “OFF” x seconds (0 to 5) after the condition; if set to 6 seconds or greater, the output will stay “ON” for at least 5 seconds but will turn “OFF” as soon as the condition becomes false or the condition has lasted the number of set seconds (i.e. 0-5 minimum time, 6-255 maximum time).

Logic Output #2

Logic-Out #2 works the same as Logic Output and has the same options as shown above.

NOTE: When Logic-Out #2 is not off then the Heater Control setting has no effect. It is overridden by Logic-Out #2.

Logic Output #2 Time Setting

The **Logic Output #2** Time sets the number of seconds that the output will remain turned “ON” following a triggering event. See **Logic Output Time** setting above.

Heater On

The **Heater Control output** selects the functionality of pin 8 of the control connector. It is an “open drain” output such that when asserted, the Heater output sinks current to ground; when unasserted no current flows. It has a maximum rating of 40 volts.

The “**Heater On**” setting provides the following options:

No - Is unasserted; which is considered OFF (line can be used as Logic output #2)

Yes - Is asserted; which is considered ON

E. A. Cal Tone

The **E. A. Cal Tone** setting is used to manually control the Electrostatic Actuator (E. A.) of an outdoor microphone system. It is a CMOS output that drives from 0 to +5 volts through a 10,000 ohm current limiting resistor to pin 7 of the control connector; +5 volts is the asserted state.

Logging SLM TWA Settings

The Time Weighted Average (**TWA**) settings are available to the Logging SLM (LOG) instrument. In a few cases, the ISM instrument also provides access to a few of the TWA settings.

Use the ▲ and ▼ keys to move from one setting to the next. Then use the ► key to change the selected setting. The ◀ key is used to return to previous menus.

The following table shows the **TWA** settings as found in the LOG instrument. Each setting is later described in greater detail.

Menu Items	Available Settings Options
Ovll Exchange	3dB 4dB 5dB 6dB
Ovll Threshold	0 - 255 dB
Ovll Criterion	0 - 255 dB
Criterion Time	0 - 99 hours
Crnt Exchange	3dB 4dB 5dB 6dB
Crnt Threshold	0 - 255 dB
Crnt Criterion	0 - 255 dB

Ovll Exchange - (LOG)

This setting affects the System 824's primary or overall memory buffer.

The **Overall Exchange** rate setting sets the exchange rate (sometimes called the “doubling rate”) that is used to calculate the overall TWA. The exchange rate reflects the relationship between the permitted exposure levels and the exposure duration. Selecting an exchange rate of 5dB, for example, means that 5dB may be added to the permissible

exposure level every time the exposure duration is cut in half. This setting provides the following four options:

The formulas for TWA can be found in "Integrated Level Calculations" on page B-1.

3dB - The default 3dB option is the most commonly used and results in the L_{eq} time weighted average. (When a threshold of 0 is used.) It is used internationally and for measurements that comply with U.S. Environmental Protection Agency (EPA) regulations.

4dB - The 4dB option results in the L_{DOD} time weighted average which is used for measurements that comply with U.S. Department of Defense (DOD) regulations.

5dB - The 5dB option results in the L_{OSHA} time weighted average which is used for measurements that comply with U.S. Occupational Safety and Health Administration (OSHA) regulations.

6dB - The 6dB option results in the L_{Avg} time weighted average which is merely a convenient representation of the long-term average noise level as opposed to the RMS noise level.

Ovll Threshold - (LOG)

This setting affects the System 824's primary or overall buffer.

The ***Ovll Threshold*** setting sets the threshold for computing the overall time weighted average (TWA).

As per the requirements of various regulatory agencies, only those sound levels which are above a certain threshold level are used when computing the TWA. Accordingly, this setting can take on any integer value within the following range:

0 - 255 dB

For hearing conservation measurements, set the threshold to 80dB. For most community noise measurements, set the threshold to 0dB. (When set to 0, all levels are included)

Ovll Criterion - (LOG)

The ***Ovll Criterion*** setting sets the TWA level which constitutes 100% dose for the overall measurement. The 100% dose occurs if a person is exposed to that level for the criterion time. Accordingly, this setting can take on any integer value within the following range:

0 to 255 dB

Exposures at higher levels than the overall criterion level will result in a 100% dose in less time; or, if exposure continues, the overall dose will exceed 100%.

Criterion Time - (LOG)

The *Criterion Time* determines how long exposure to the set TWA level can occur before 100% dose occurs for the overall measurement.

Crnt Exchange - (SSA, ISM, LOG)

In the ISM instrument the Crnt Exchange setting is a submenu to the SLM menu selection.

The *Crnt Exchange* rate setting sets the exchange rate (sometimes called the “doubling rate”) that calculates the current TWA. The exchange rate reflects the relationship between the permitted exposure levels and the exposure duration. Selecting an exchange rate of 5dB, for example, means that 5dB may be added to the permissible exposure level every time the exposure duration is cut in half. This setting provides the following four options:

This setting affects the System 824's secondary or current buffer.

3dB - The *Crnt Exchange* defaults to the 3dB option. This provides a L_{eq} time weighted average in accordance with European common usage in addition to compliance with U.S. Environmental Protection Agency (EPA) regulations.

4dB - The 4dB option results in the L_{DOD} time weighted average which complies with U.S. Department of Defense (DOD) regulations.

5dB - The 5dB option results in the L_{OSHA} time weighted average which complies with U.S. Occupational Safety and Health Administration (OSHA) regulations.

6dB - The 6dB option results in the L_{Avg} time weighted average which provides a convenient representation of the long-term average noise level as opposed to the RMS noise level.

Crnt Threshold (SSA, ISM, LOG)

In the ISM instrument the Crnt Threshold setting is a submenu to the SLM menu selection.

This setting affects the System 824's secondary or current buffer.

The **Crnt Threshold** sets the threshold for computing the current time weighted average (TWA).

In compliance with the requirements of various regulatory agencies, only those sound levels which are above a certain threshold level are used when computing the TWA. Accordingly, this setting can take on any integer value within the following range:

0 - 255 dB

For hearing conservation measurements, set the threshold to 80dB. For most community noise measurements, set the threshold to 0dB.

Crnt Criterion (LOG)

The **Crnt Criterion** sets the TWA level which constitutes 100% dose for the current measurement. The 100% dose occurs if a person is exposed to that level for the criterion time or full dose hours. Accordingly, this setting can take on any integer value within the following range:

0 to 255 dB

Exposures at higher levels than the current criterion level will result in a 100% dose in less time; or, if exposure continues, the current dose will exceed 100%.

LOG and SSA Ln Settings

Ln Settings are available in the Logging SLM (LOG) and SLM&RTA (SSA) instruments.

Ln is the SPL which was exceeded n% of the time. The Ln's are computed from the overall level distribution histogram or each Interval's level histogram. The measured and displayed Ln percentage settings may be changed during the measurement. The six Ln's are automatically listed in increasing order.

Use the ▲ and ▼ keys to move from one setting to the next. Then use the ► key to change the selected setting. The ◀ key is used to return to previous menus.

The following is a table of the L_N settings:

Menu Items	Available Settings Options
Enable Ln (SSA only)	No Yes
Start Level	0-99 dB
Ln 1 Percent	0.00 to 99.99%
Ln 2 Percent	0.00 to 99.99%
Ln 3 Percent	0.00 to 99.99%
Ln 4 Percent	0.00 to 99.99%
Ln 5 Percent	0.00 to 99.99%
Ln 6 Percent	0.00 to 99.99%
Spectral Ln (SSA only)	None Overall Interval NOTE: Interval Spectral LNs will not be available when R.I. Correction is turned on.

NOTE: An Ln percentage of 0 provides L_{max} for the Ln level.

Enable Ln

This function turns on or off the automatic storage of the six Ln percentile levels for the overall measurement.

No - The six Ln levels are not stored for the overall measurement.

Yes - The six Ln levels are stored for the overall measurement.

NOTE: If Lns are enabled in the SSA instrument, then the Back-Erase feature is no longer available. (See the section "Pause, Back Erase" on page 3-10 for information on the Back-Erase feature)

Start Level

The Start Level allows you to set the minimum decibel level to be included in the statistical histogram and calculated Ln Percentiles.

Ln's

The L_N Centiles set the six percentile values to be measured, logged (if selected) and shown in the Ln displays. Using these six settings, you can select any six percentile values. As shown above, these settings can each take on any value within the following range:

0.00 to 99.99%

Whenever you change any percentile value, the instrument sorts and reorders the percentile values into ascending order as demonstrated in the following example:

Example: Suppose you change L_n 3 from 30.0* to 5.0*. The original setting values will then be automatically sorted into ascending order and re-assigned as shown in the table below:

Original Setting	After Change and Sort
L_n 1 Percentile = 10.0	* L_n 1 Percentile = 5.0
L_n 2 Percentile = 20.0	L_n 2 Percentile = 10.0
* L_n 3 Percentile = 30.0	L_n 3 Percentile = 20.0
L_n 4 Percentile = 40.0	L_n 4 Percentile = 40.0
L_n 5 Percentile = 50.0	L_n 5 Percentile = 50.0
L_n 6 Percentile = 60.0	L_n 6 Percentile = 60.0

Spectral Ln's (SSA only)

Spectral Lns can be enabled as an Overall measurement or as a function of each Interval History record.

To store interval spectral Ln levels, set "Spectral Ln" to "Interval", enable Ln and Interval histories and set "Intv Save Ln" to "Yes".

The **Spectral Ln** setting is used to measure six Ln values for each 1/3 octave. The setting options provided are:

None - Spectral Ln's are turned off.

Overall - Spectral Ln's are computed for the overall measurement.

Interval - Spectral Ln's are computed for each interval period.

NOTE: If Random Corr. is set to [Yes] and Spectral Ln is set to [Interval] then Spectral Ln will be set to [None] and the warning "Setting Conflict" is displayed.

LOG and SSA Triggering Settings

For the SSA instrument, these trigger settings are used to control the logic output line.

The Stats displays are only available to the LOG instrument.

Use the ▲ and ▼ keys to move from one setting to the next. Then use the ► key to change the selected setting. The ◀ key is used to return to previous menus.

Trigger levels can be set as follows: two for the SPL (RMS value) and one each for Peak I and Peak II. These levels are used with the LOG instrument to count the number of exceedances during the measurement period and display that number in the **Stats-a** and **Stats-b** displays. They also define the triggering of noise events or exceedances when using the Logging SLM Mode.

The following is a table of the **Triggering Menu** settings. Each setting is then described in greater detail.

Menu Items	Available Settings Options
SPL Excd Lvl 1	0 to 255 dB
SPL Excd Lvl 2	0 to 255 dB
Pk-1 Excd Lvl	0 to 255 dB
Pk-2 Excd Lvl	0 to 255 dB
Hysteresis	0 to 9 dB

SPL Excd Lvl 1 - (LOG, SSA)

NOTE: In the SSA instrument the logic output is asserted when it reaches this level. See the section "Common Control Settings" on page 7-10 for more details.

SPL Excd Lvl 2 - (LOG, SSA)

The **SPL Excd Lvl 1** sets the SPL trigger level that exceedance records are triggered from (LOG only). You can also view a count of the SPL events on the **Stats-a** display. This count is associated with the overall measurement data and is reset when the overall measurement is reset.

This setting can take on any value within the following range:

0 to 255 dB

The **SPL Excd Lvl 2** sets a second trigger level. When the SPL exceeds the level set by this setting, a corresponding count is incremented once. You can view this count on the **Stats-a** display. This count is associated with the overall measurement data and is reset when the overall

measurement is reset. A special flag is set with all exceedance records whose L_{MAX} is greater than this level.

This setting can take on any integer value within the following range:

0 to 255 dB

PK Excd Lvl 1 - (LOG, SSA)

The *Pk Excd Lvl 1* sets the trigger level for the primary peak detector (Pk-I). When the primary peak detector level exceeds this threshold, the corresponding Pk-I exceedance count is incremented once. You can view this count on the *Stats-b* display. This count is associated with the overall measurement data and is reset when the overall measurement is reset.

NOTE: The data for this comes from the instantaneous peak level, selected by the Weight setting.

This setting can include any integer value within the following range:

0 to 255 dB

Pk Excd Lvl 2 - (LOG, SSA)

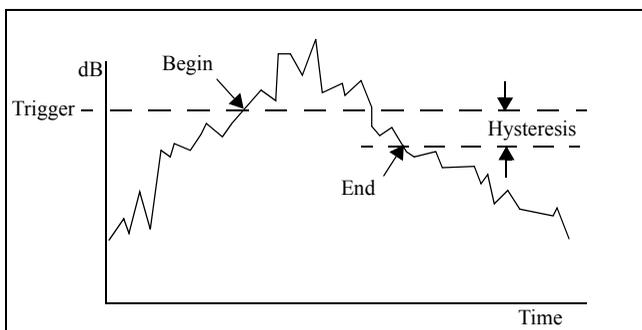
The *Pk Excd Lvl 2* sets the trigger level for the secondary peak detector (Pk-II). When the secondary peak detector level exceeds this threshold, the corresponding Pk-II exceedance count is incremented once. You can view this count on the *Stats-b* display. This count is associated with the overall measurement data and is reset when the overall measurement is reset.

This setting can include any integer value within the following range:

0 to 255 dB

Hysteresis - (LOG, SSA)

To prevent multiple triggering/counting of the same event, a hysteresis value may be entered. The event is triggered when a level goes over a corresponding trigger level, but does not become re-armed until the level drops below the value of the trigger level minus the hysteresis value.



This setting can include any integer value within the following range:

0 to 9dB

LOG and SSA Wind/Tach Settings

Other transducers providing similar pulse trains and DC voltages representing measured parameters could also be utilized in this manner. For example, engine tachometers frequently output such pulse trains and throttle position indicators usually output DC voltages. The setup permits the selection of units for both parameters which would be consistent with this alternative to windspeed/wind direction.

This feature is used most frequently with external weather transducers providing an analog pulse train whose frequency is proportional to windspeed and a DC voltage proportional to wind direction. However, other transducers could be utilized as explained in the left column. In the following description, it shall be assumed that windspeed and wind direction transducers are being used.

For the LOG instrument, these data are logged with the Daily, Advanced Time History, Interval and Exceedance records as selected by option settings.

For the SSA instrument, these data are logged with the Advanced Time History and Interval records as selected by option settings.

The Wind/Tach feature requires the optional firmware 824-WND. If it is not installed, attempting a setup will display the message shown to the right.

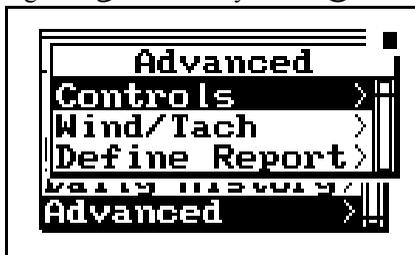
Wind/Tach
Not Available

This option may be
purchased. Please
contact Larson Davis

Phone: 801.375.0177

Setup of Wind/Tach Function

With either the LOG or SSA instrument active, press the  SETUP key to access the “Edit Setup Menu”. Using the  and  arrow keys, highlight the *Advanced* item and select it using the  arrow key or the  Check key.



Using the  and  arrow keys, highlight the *Wind/Tach* item and select it using the  arrow key or the  Check key to display the Wind/Tach menu.



Menu Items	Available Settings Options
Wind Scale	[nnn.nnn]
Wind Units	[cccc]

Menu Items	Available Settings Options
Direction Unit	Compass Degrees Percent Volts Number
Wind/Tach	No Yes
Windy Threshold	[nnn.n] or [nnnnn]
Wind Excd Level	[nnn.n] or [nnnnn]
Windy Hysteresis	[nnn.n] or [nnnnn]
Windy Pause Enable	No Yes
Pulse Trigger Voltage	0.0 2.5
Pulse Trigger Source	Int Ext

Wind Scale

Wind Scale is a scale factor which provides the wind speed (tach) when multiplied by the frequency of the wind speed (tach) signal from the external transducer. Limits to parameters associated with this factor are as follows:

Max. Input Freq.	25000 Hz
Max. Display Value	65535 units
Min. Input Freq.	1 Hz
Resolution	
Min. Display Value	0.01 units

Examples:

Type	Speed/Frequency	Wind Scale
YOUNG Wind Sentry	400.0 mph/235 Hz	1.7
YOUNG Wind Monitor	400.0 mph/1825 Hz	0.22
1 pulse/rev	30000 rpm/500 Hz	60
16 pulse/rev	30000 rpm/8000 Hz	3.75
600 pulse/rev	2500 rpm/25000 Hz	0.10

Wind Units

Wind Units is a four character alphanumeric field (e.g. mph, m/s, ft/s, etc.)

Direction Units

Direction Units. are used for describing Wind Direction or Throttle Position. There are five options available.

Compass

Compass reports wind direction using the following sixteen ordinate points: N, NNE, NE, ENE, E, ESE, SE, S, SSW, SW, WSW, W, WNW, NW, NNW.

Degrees

Degrees reports wind direction in degrees from 0 to 360°.

Percent

Percent would typically be used to report throttle position over the range 0 to 100% as a percent of full throttle.

Voltage

Voltage reports this parameter as a DC voltage over the range 0 to 2.49 volts.

Number

Number reports this parameter in numeric form between 0 and 255.93

Wind/Tach Enable

Note that when the Wind/Tach feature is enabled, Ln will automatically be enabled as well. When this occurs, the message "Setting Conflict" will be shown.

Select **Yes** to enable the Wind/Tach function. If disabled by selecting **No**, Wind/Tach data will not be measured and no corresponding data will be displayed in Views or presented in measurement results.

Windy Threshold

"Windy" is a condition defined by wind speed above a user-defined threshold value. Since wind can influence the propagation of sound, it is useful to note measurements which were made during periods of higher wind levels. The threshold level is entered as a number field using the Wind Units defined above.

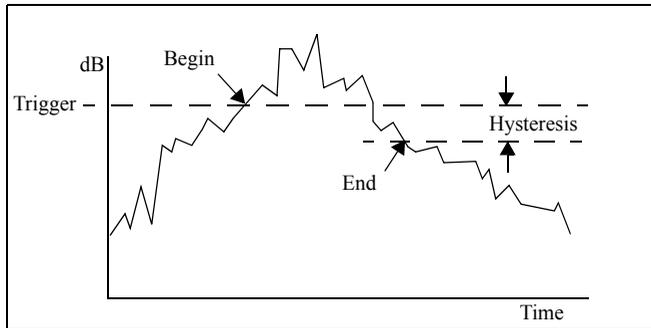
Wind Exceedance Level

The wind exceedance level represents a second threshold level, higher than that associated with Windy. Most often this is defined to be the wind level above which airflow over the microphone generates pressure variations not associated with actual acoustic signals. These pseudo-sound signals are detected by the microphone, producing erroneous results.

The System 824 can be set to pause sampling of the sound signal when the measured wind levels exceed this level. The instrument will also count the number of times the wind exceeds this level.

Windy Hysteresis

To prevent multiple triggering/counting of the same Wind exceedance event, a hysteresis value may be entered. The event is triggered when the wind level goes over the Wind exceedance level, but does not become re-armed until the level drops below the value of the exceedance level minus the hysteresis value.



Wind Pause Enable

Select **Yes** to enable the Wind Pause Function. This will cause the System 824 to pause sampling of the input signal whenever the wind speed is above the Wind Exceedance Level. Select **No** to disable this function.

Pulse Trigger Voltage

Select **0.0 V** for bipolar trigger signals which are essentially AC; triggering occurs on the zero crossing.

Select **2.5 V** for unipolar trigger signals, such as those based upon 0-5 volt logic.

Pulse Source

Generally the trigger signal for windspeed detection will be from an external transducer connected to the 9-pin connector labeled CONTROL. In this case, select **Ext**.

If **Int** is selected, the signal connected to the System 824 input will be used to determine the Wind/Tach level. This setting will allow the measurement of the frequency of an acoustic signal.

LOG and SSA Time History Settings

Time History Settings are available to both the Logging SLM (LOG) and SLM&RTA (SSA) instruments.

The time history recording stores an L_{EQ} , and if desired, one or more additional user-selected measurements, such as Lpk or Lmax. Levels can be stored rapidly, up to 32 samples per second with the LOG instrument and 8 samples per second with the SSA instrument. Since this function continues storing data as long as the measurement is in progress, the combination of a fast storage rate and a long measurement time can consume a large amount of data memory.

Use the ▲ and ▼ keys to move from one setting to the next. Then use the ► key to change the selected setting. The ◀ key is used to return to previous menus.

The following tables show the **Time History** settings for the LOG and SSA instruments. Each setting is described later in greater detail.

Menu Items (LOG instrument)	Available Settings Options
Hist Enable	No Yes
Hist Period	1 to 255
Period Units	1/32s 1.0s 10.0s 60.0s
Other Level	None Pk-II Pk-I Lmax Advc (See Adv TH)
Resolution	0.1 dB 1.0 dB
Adv TH	Activates a set of 3 displays used to configure what time history data will be stored. See page 7-26.
Marker Text	Marker 1 (Aircraft)
	Marker 2 (Automobile)
	Marker 3 (Truck)
	Marker 4 (Train)
	Marker 5 (Animal)

Menu Items (SSA instrument)	Available Settings Options
Hist Enable	No Yes
Hist Period	1 to 255
Period Units	1/32s 1.0s 10.0s 60.0s
Resolution	0.1 dB 1.0 dB
TH Setup	Activates a set of 3 displays used to configure what time history data will be stored. See "Advanced Time History - (LOG, SSA)" on page 7-35.
Marker Text	Marker 1 (Aircraft)
	Marker 2 (Automobile)
	Marker 3 (Truck)
	Marker 4 (Train)
	Marker 5 (Animal)

Hist Enable - (LOG, SSA)

This setting provides the following two options:

No - Time history storage is disabled.

Yes - Time history storage is enabled.

Hist Period (LOG, SSA)

This setting is used in conjunction with the “Period Units Setting” (below).

Hist Period sets the number of history **period units** that transpire between successive time history samples. These samples continue either until the instrument is stopped or runs out of memory. This setting can include any integer value in the following range:

(1) to (255)

Period Units - (LOG, SSA)

Period Units selects the type of units the instrument uses to calculate the time which transpires between successive time history storage operations. To calculate the timer period, the instrument multiplies the units selected in this setting by the number set in **Hist Period** setting (see the previous “Hist Period” setting and the following example).

Example: To measure 2 samples per second, set Hist Period to 16 and Period Units to 1/32s ($16/32=1/2$).

This setting provides the following four options:

When Takt functionality is enabled, the history period will be rounded to the nearest 5 second interval, and a warning, “Setting Conflict”, will appear. If the “Period Units” equal 1/32nd of a second, then the period will be forced to a count of 160 (5 seconds).

In the SSA instrument, the shortest time history period is 1/8th of a second. If the period is set to [1/32] of a second the history period will be forced to multiples of 4 to support the maximum data rate of 8 samples per second and the warning “Setting Conflict” is displayed.

1/32s - This sets the History Period Unit to 1/32 second intervals. Since the instrument samples the detector 32 times per second, this is the smallest resolution time period that you can use. If you set the time history period to 1/32 second (i.e. period setting = 1 and unit setting = Sample = 1/32s), the instrument will store every sample it takes.

1.0s - This sets the history period unit to one second.

10.0s - This sets the history period unit to ten seconds.

60.0s - This sets the history period unit to sixty seconds.

Other Level - (LOG only)

Use the **Other Level** setting to select the second measurement level stored in each time history record along with the L_{eq} . This setting provides the following options:

None - The instrument stores the L_{eq} but does not store a second level.

Pk-I - The second level the instrument stores is the greatest instantaneous level (L_{pk}) detected by the primary peak detector that occurred during the time history period. The primary peak level is weighted according to the state of the **Pk Weighting** setting.

Pk - II - The second level the instrument stores is the greatest instantaneous level (L_{pk}) detected by the secondary peak detector that has occurred during the time history period. The secondary peak level is weighted according to the state of the **Weighting** setting.

Lmax - The second level the instrument stores is the maximum level (L_{max}) that has occurred during the time history period.

The “Any Data” information stored with the Time History is accessed through the Time History menu under the “View” key.

Advc - Stores up to 38 different parameters with each time history period which are user selectable, such as: Leq, Peak, Max, Min, Takt maximal, battery voltage and temperature. See Advanced Time History screens below.

Resolution - (LOG, SSA)

In order to double the time history storage capacity, it is possible to reduce the resolution of the Time History record from 0.1dB to 1.0dB.

0.1dB - Leq and the optional Other Level are stored with the highest resolution (0.1dB) which requires 2 bytes of memory per level.

1.0dB - Leq and the optional Other Level are stored with 1.0dB resolution which requires only 1 byte per level stored. Levels are rounded to the nearest integer (85.5 would be stored as 86dB and 85.4 would be stored as 85dB).

Advanced Time History - (LOG, SSA)

Up to 40 different parameters can be stored (LOG and SSA) with each time history period including Wind/Tach data and spectral data (SSA only). These are all user selectable in the Advanced Time History displays.

The *Advanced Time History* displays are shown below:

```

Adv TH Setup-a
Le Pk  s  F  I  s  F  I
A:  0  0  /  0  0  /  0  0
C:  /  /  0  0  0  0  0
F:  0  /  0  0  0  0  0
Next Done
    
```

SSA & LOG

```

Adv TH Setup-b
Live
s  F  I
A:  0  0  0  LAFTMS
C:  0  0  0  RTA Leq
F:  0  0  0  RTA Live
Next Done
    
```

SSA only if Takt is ON

```

Adv TH Setup-c
Wind / Tach /
Temperature
External Volt
Battery Volt
Next Done
    
```

SSA & LOG

```

Adv TH Setup-b
Live
s  F  I
A:  0  0  0
C:  0  0  0  RTA Leq
F:  0  0  0  RTA Live
Next Done
    
```

SSA only if Takt is OFF

```

Adv TH Setup-b
Live
s  F  I
A:  0  0  0
C:  0  0  0
F:  0  0  0
Next Done
    
```

LOG only with Takt OFF

```

Adv TH Setup-b
Live
s  F  I
A:  0  0  0  LAFTMS
C:  0  0  0
F:  0  0  0
Next Done
    
```

LOG only with Takt ON

NOTE: RTA Leq and RTA Live are mutually exclusive, allowing you to choose only one for each time history period. (SSA only)

NOTE: If Spectral Ln is set to [Interval] and Interval Ln's is enabled and the Interval Period is 00:00:00 then the Interval Period is set to 00:00:01 (one second) and the warning "Setting Conflict" is displayed.

Once the Advanced Time History displays have been selected, do the following to navigate through and setup each display.

- Use the up  and down  and left  and right  arrow keys to move the cursor between each selection or check box.
- The Check  key toggles the selection on or off. The Reset key  will uncheck all the items on the current display.
- To move to the next screen, (a, b, or c), highlight "Next" and press the Check  key.
- When all of your selections have been made, highlight "Done" and press the Check  key.

Marker Text - (LOG, SSA)

One of the features of the 824 is the ability to **mark** or annotate the SLM Time History as the instrument is running. This allows the user to identify each noise source as the measurement is being taken. There are 5 **Markers** and each

marker can be assigned an 8 character description. See page 7-55 for a description of the **Marker** display.

LOG and SSA Interval Settings

Interval Settings are available on the LOG and SSA instruments.

The **Intervals** menu sets the System 824 to automatically store at regular time periods, Leq, SEL, Lmax, Lmin, L_{pkI}, L_{pkII}, and the six Ln levels. The Interval time period can range from one second to nearly one hundred hours. The Interval feature is particularly useful when monitoring noise levels for extended periods of time because you can determine how the statistical makeup of the acoustic environment has changed over time.

The ▲ and ▼ keys move from one setting to the next. The ▶ key changes the selected setting. The ◀ key is used to return to previous menus.

*The following table shows the available **Intervals** settings. Each setting is described later in greater detail.*

T

Menu Items	Available Settings Options
Intv Enable	No Yes
Intv Period	hh:mm:ss
Intv Time Sync	No Yes
Intv Save Ln's	No Yes

Intv Auto Stop	No Yes
Intv Threshold	0 to 255
Intv Exchange	3dB 4dB 5dB 6dB
Intv Spectrum (SSA only)	None @Max Mins

To store interval spectral Ln levels, set “Spectral Ln” to “Interval”, enable Ln and Interval histories and set “Intv Save Ln” to “Yes”.

Intv Enable - (LOG, SSA)

Intv Enable enables or disables the automatic storage of interval statistical records.

This setting provides the following two options:

No - Disables interval storage.

Yes - Enables interval storage.

NOTE: If Intervals are enabled and Interval Ln’s are enabled and Ln’s are not enabled then Ln’s are turned on and the warning “Setting Conflict” is displayed.

Intv Period - (LOG, SSA)

Intv Period sets the time interval between successive interval storage operations. These storage operations continue either until the instrument is stopped or runs out of memory. You can set this to any time value in the following range:

NOTE: If set to 00:00:00 then the period is 0.125 seconds for SSA and infinite for LOG.

00:00:01 to 99:59:59 (i.e. one second to 99 hours, 59 minutes and 59 seconds)

Intv Time Sync - (LOG, SSA)

Intv Time Sync setting either enables or disables the time interval sync feature. When enabled, this feature causes the Interval history storage operations to be synchronized with

the real-time of day clock. This synchronization can occur on a 1, 5, 10, 15, 20, 30, or 60 minute basis. The **Intv Period** setting should also be set accordingly so that the synchronization works properly. When you start a measurement, the initial storage interval will last for only a fraction of the determined synchronization until the start of the next time segment; at which time a new, synchronized storage interval will begin.

This setting provides the following two options:

No - Disables interval synchronization.

Yes - Enables interval synchronization.

Intv Save Ln's - (LOG, SSA)

Intv Save Ln's either enables or disables the automatic storage of the six L_N percentile levels in the interval record.

This setting provides the following two options:

No - The six L_N levels are not stored with the interval record.

Yes - The six L_N levels are stored with the interval record.

NOTE: If Intervals are enabled and Interval Ln's are enabled and Ln's are not enabled then Ln's are turned on and the warning "Setting Conflict" is displayed.

Intv Auto Stop - (LOG, SSA)

NOTE: Do not use this feature with the Time Sync feature, or you will not get the full time period you desire.

Use the **Intv Auto Stop** setting to enable or disable the auto-stop feature. When enabled, this feature causes the instrument to automatically stop the measurement at the end of each storage interval. This allows you to precisely time a series of manual measurements. To start a new measurement after an automatic stop, just press the  Run/Stop key.

This setting provides the following two options:

No - Disables the automatic stop feature.

Yes - Enables the automatic stop feature.

Intv Threshold - (LOG, SSA)

Intv Threshold sets the threshold for computing the interval time weighted average (TWA). As per the requirements of various regulatory agencies, only those sound levels which are above a certain threshold level are used when computing the TWA. Accordingly, this setting can take on any integral value within the following range:

0 to 255 dB

For hearing conservation measurements, set the threshold to 80dB. For most community noise measurements, set the threshold to 0dB.

Intv Exchange - (LOG, SSA)

The *Intv Exchange* sets the exchange rate (sometimes called the “doubling rate”) that is used to calculate the interval TWA. The exchange rate reflects the relationship between the permitted exposure levels and the exposure duration. Selecting an exchange rate of 5dB, for example, means that 5dB may be added to the permissible exposure level every time the exposure duration is cut in half. This setting provides the following four options:

3dB - The 3dB (default) option is the most commonly used and results in the L_{eq} time weighted average which is used in Europe and for measurements that comply with U.S. Environmental Protection Agency (EPA) regulations.

4dB - The 4dB option results in the L_{DOD} time weighted average which is used for measurements that comply with U.S. Department of Defense (DOD) regulations.

5dB - The 5dB option results in the L_{OSHA} time weighted average which is used for measurements that comply with U.S. Occupational Safety and Health Administration (OSHA) regulations.

6dB - The 6dB option results in the L_{Avg} time weighted average which is merely a convenient representation of the long-term average noise level as opposed to the RMS noise level.

Intv Spectrum - (SSA only)

The Intv Spectrum allows you the choice of storing spectral data with the interval. It will always give you the L_{eq}

spectra and one other spectra. This setting provides the following three options:

None - Does not store any spectral data besides the Leq spectra with the interval.

@Max - Stores the spectra associated with the maximum broadband level during the interval period.

Min - Stores the minimum level obtained by each filter. This is a bin by bin minimum level.

Logging SLM Exceedance History Settings

Exceedance History Settings are only available to the Logging SLM (LOG) instrument.

Exceedance History settings allow you to select what data will be saved in memory during an exceedance. An exceedance is defined as an acoustic event characterized by the instantaneous rms sound pressure level or peak level (Pk-1 or Pk-2) going above or exceeding a predetermined level. For further detail see the section "LOG and SSA Triggering Settings" on page 7-23.

Triggering - (LOG)

The Triggering menu defines event triggering used to initiate an exceedance or event. See "Logging SLM Triggering Setting" earlier in this chapter.

Excd Enable - (LOG)

The **Excd Enable** setting allows you determine whether or not exceedance data will be stored in memory when exceedance trigger conditions are met. This setting provides the following two options:

Yes - Exceedance data will be stored in memory when exceedance conditions are met.

No - Exceedance data will not be measured or stored in memory when exceedance conditions are met.

Min Duration - (LOG)

The **Min Duration** setting allows you to determine the minimum number of seconds an exceedance must last for it to be logged. This setting can take on any time value in the following range:

0-255 second

Excd Time Hist - (LOG)

The *Excd Time Hist* setting enables you to indicate whether or not to have an Exceedance Time History saved as part of the exceedance. This setting provides the following two options:

Yes - The Exceedance Time History will be saved.

No - The Exceedance Time History will not be saved.

T.H. Period - (LOG)

The *T.H. Period* setting allows you to set the period of time for the Leq stored in the Exceedance Time History, in steps of 1/32 seconds. This setting can take on any time value in the following range:

1/32 - 32/32 seconds

Excd Trigger - (LOG)

The *Excd Trigger* setting enables you to select whether the Exceedance Trigger utilizes the fixed trigger levels or uses a special 10 dB rise then fall Passby trigger. This setting provides the following two options:

Level - Enables fixed level triggering.

PassBy - Enables 10 dB Passby triggering.

Note: Minimum duration is not considered when using the Exceedance Trigger in Passby Mode.

Excd Time - (LOG)

Using the symmetry data provided with every exceedance it is possible to calculate the time of the Max even though you choose to record the start time of the event.

The *Excd Time* setting allows you to select whether the time reported for the exceedance is the time that it started or the time of the maximum level. This setting provides the following two options:

Start - The exceedance time will be logged at the beginning of the exceedance event.

Max - The exceedance time will be logged at the maximum level of the exceedance event.

Timed Excd Period - (LOG)

This setting will extend an event to be at least as long as the time set (mm:ss) if it is over the threshold for at least the minimum duration.

NOTE: This setting is only available through the serial port. using the command S76, see table "Setting Commands" on page A-30Logging SLM Daily History Settings

Daily History Settings are only available to the Logging SLM (LOG) instrument.

Use the  and  keys to move from one setting to the next. Then use the  key to change the selected setting. The  key is used to return to previous menus.

The Model 824 automatically calculates daily sound statistics including: L_{eq} 24, L_{dn} , CNEL, L_{peak} , L_{uwpk} , L_n 's, L_{max} , and L_{min} ; and for each hour of the day the hourly L_{eq} , the hourly EXCD L_{eq} and the resultant Background L_{eq} .

Menu Items	Available Settings Options
Daily Enable	Yes No
Daily L_n 's	Yes No

Daily Enable - (LOG)

Daily Enable allows you to store daily data such as listed above. This setting provides the following two options.

Yes - Storage of daily history data will occur.

No - Daily data will not be stored.

Daily L_n 's - (LOG)

Daily L_n 's allows you to store six L_n percentiles with the Daily History data. This setting provides the following options:

Yes - Storage of daily data for L_n 's percentile will occur.

No - Daily Data will not be stored for the L_n 's percentiles.

Logging SLM Define Report Settings

Define Report Settings are also available to the SSA instrument. For more details on Reporting, see "Printing a Report" on page 8-1

Define Report allows you to determine which individual reports will be included in the "Tailored" report. This allows you to tailor the measurements and the reports desired to your requirements.

Use the  and  keys to move from one setting to the next. Then use the  key to change the selected setting. The  key is used to return to previous menus.

The following is a table of the **Define Report** settings. Each setting is described later in greater detail.

Menu Items	Available Settings Options
Data Report	No Yes
Setup Report	No Yes
SPL Histogram	No Yes
Pk-1 Histogram	No Yes
Pk-2 Histogram	No Yes
Intv Report	No Short Long
Hist Report	No Yes

Data Report - (LOG, SSA)

The **Data Report** setting either enables or disables the printing of the data report. The data report contains all the basic measurement parameters for both the overall and current measurements. This setting provides the following two options:

No - The data report will not print.

Yes - The data report will print.

Setup Report - (LOG, SSA)

The Setup Report setting either enables or disables the printing of the setup report. The setup report shows each of the parameters and how they are set. This setting provides the following two options:

No - The data report will not print.

Yes - The data report will print.

SPL Histogram - (LOG)

SPL Histogram either enables or disables the printing of the SPL histogram report. The histogram report contains a histogram of the SPL levels that have occurred during the overall and current measurements. The report also prints a table of all (1 to 99%) L_N percentiles. This setting provides the following two options:

No - The SPL histogram report will not print.

Yes - The SPL histogram report will print.

Pk-1 Histogram - (LOG)

The *Pk-1 Histogram* setting either enables or disables the printing of the Peak I histogram report. The histogram report contains a histogram of the Peak I levels that have occurred during the overall measurement. This setting provides the following two options:

No - The peak I histogram report will not print.

Yes - The peak I histogram report will print.

Pk-2 Histogram - (LOG)

The *Pk-2 Histogram* either enables or disables the printing of the Peak 2 histogram report. The histogram report contains a histogram of the Peak 2 levels that have occurred during the overall measurement. This setting provides the following two options:

No - The peak 2 histogram report will not print.

Yes - The peak 2 histogram report will print.

Intv Report - (LOG, SSA)

The *Intv Report* either disables the printing of the interval report or enables either the “long” or the “short” version of this report. The “short” interval report contains all the basic measurement parameters for each interval period in a specified range of records. The “long” interval report contains everything the short report contains plus some additional information.

This setting provides the following three options:

No - The interval report will not print.

Short - The “short” interval report (including L_{max} , L_{min} , SEL, L_{eq} , Pk-I, Pk-II, overloads, and exceedances) will print.

Long - The “long” interval report (including L_{max} , L_{min} , SEL, L_{eq} , Pk-I, Pk-II, overloads, exceedances, and six Ln Percentiles) will print.

Hist Report - (LOG, SSA)

The **Hist Report** either enables or disables the printing of the Time history report. The history report contains the L_{eq} , and optionally one selectable level (Lpk-I, Lpk-II, or Lmax) basic measurement parameter for each time history period.

This setting provides the following two options:

No - The history report will not print.

Yes - The history report will print.

Menu Layout of SSA Settings

The SLM&RTA **Edit Settings** menu has 49 configurable items. Provided in this section is a table depicting the menu layout of the SLM&RTA instrument’s Settings.

Menu Items	Submenu	Available Settings Options
Title		User customized text entry

SLM	Detector	Slow Fast Impl
	Weighting	A C FLT
	Gain	A C FLT
	Transducer	Condnsr Elctret Direct
	Random Corr	No Yes
	Pk Weighting	A C FLT
RTA	RTA Detector	Slow Fast
	RTA Weighting	A C FLT
	Bandwidth	1/1 1/3

Intervals	Intv Enable	No Yes
	Intv Period	hh:mm:ss
	Intv Time Sync	No Yes
	Intv Save Ln's	No Yes
	Intv Auto Stop	No Yes
	Intv Threshold	0 - 255 dB
	Intv Exchange	3dB 4dB 5dB 6dB
	Intv Spectrum	None @Max Min

Time History	Hist Enable	No Yes
	Hist Period	0 - 255 (default: 60)
	Period Units	1/32s 1.0s 10.0s 60.0s
	Resolution	0.1db 1.0db
	TH Setup	Activates a set of 3 displays used to configure what time history data will be stored. See the section "Advanced Time History - (LOG, SSA)" on page 7-35.
	Marker Text	Marker 1 (Aircraft) Marker 2 (Automobile) Marker 3 (Truck) Marker 4 (Train) Marker 5 (Animal)

Ln	Enable	No Yes
	Start Level	0-99dB (default 15dB)
	Ln 1 Percent	Selectable (default: 1.67%)
	Ln 2 Percent	Selectable (default: 8.33%)
	Ln 3 Percent	Selectable (default: 33.33%)
	Ln 4 Percent	Selectable (default: 50%)
	Ln 5 Percent	Selectable (default: 66.67%)
	Ln 6 Percent	Selectable (default: 90%)
	Spectral LN	None Overall Interval
Triggering	SPL Excd Lvl 1	0 - 255 dB (default: 115dB)
	SPL Excd Lvl 2	0 - 255 dB (default: 120dB)
	Pk-1 Excd Lvl	0 - 255 dB (default: 140dB)
	Pk-2 Excd Lvl	0 - 255 dB (default: 140dB)
	Hysteresis	0 - 9 dB (default: 2dB)
Advanced	See "Advanced Menu Layout" on page 7-56	

Menu Layout of Integrating SLM (ISM) Settings

The Integrating SLM (ISM) *Edit Settings* menu has 16 configurable items. Provided in this section is a table depicting the menu layout of the ISM instrument's Standard Settings.

ISM Setting

Menu Items	Submenu	Available Settings Options
Title		User customized text entry

SLM	Detector	Slow Fast Impl
	Weighting	A C FLT
	Range	Normal Low High
	Transducer	Condnsr Elctret Direct
	Random Corr	No Yes
	Pk Weighting	A C FLT
	Crnt Exchange	3dB 4dB 5dB 6dB
	Crnt Threshold	0 - 255 dB
Advanced	See "Advanced Menu Layout" on page 7-56	

Menu Layout of Logging SLM Settings

The Logging SLM (LOG) *Edit Settings* menu has 66 configurable items. Provided in this section is a table depicting the menu layout of the LOG instrument's Standard Settings.

LOG Settings

Menu Items	Submenu	Available Settings Options
Title		User customized text entry
SLM	Detector	Slow Fast Impl
	Weighting	A C FLT
	Range	Normal Low High
	Transducer	Condnsr Elctret Direct
	Random Corr	No Yes
	Pk Weighting	A C FLT

TWA	Ovll Exchange	3dB 4dB 5dB 6dB
	Ovll Threshold	0 - 255 dB (default: 80dB)
	Ovll Criterion	0 - 255 dB (default: 90dB)
	Criterion Time	0 - 99 hours (default: 8 hours)
	Crnt Exchange	3dB 4dB 5dB 6dB
	Crnt Threshold	0 - 255 dB (default: 80dB)
	Crnt Criterion	0 - 255 dB (default: 90dB)
Ln	Start Level	0 - 99dB (default 15dB)
	Ln 1 Percent	Selectable (default: 1.67%)
	Ln 2 Percent	Selectable (default: 8.33%)
	Ln 3 Percent	Selectable (default: 33.33%)
	Ln 4 Percent	Selectable (default: 50%)
	Ln 5 Percent	Selectable (default: 66.67%)
	Ln 6 Percent	Selectable (default: 90%)
Triggering	SPL Excd Lvl 1	0 - 255 dB (default: 115dB)
	SPL Excd Lvl 2	0 - 255 dB (default: 120dB)
	PK-1 Excd Lvl	0 - 255 dB (default: 140dB)
	PK-2 Excd Lvl	0 - 255 dB (default: 140dB)
	Hysteresis	0 - 9 dB (default: 2dB)

Time History	Hist Enable	Yes (default) No
	Hist Period	0 - 255 (default: 60)
	Period Units	1/32s 1s (default) 10s 60s
	Other Level	None (default) Pk-II Pk-I Lmax Advc
	Resolution	0.1dB (default) 1.0dB
	Adv TH	Activates a set of 3 displays used to configure what type of time history data will be stored. See "Advanced Time History - (LOG, SSA)" on page 7-35.
	Marker Text	Marker 1 (Aircraft) Marker 2 (Automobile) Marker 3 (Truck) Marker 4 (Train) Marker 5 (Animal)

Intervals	Intv Enable	Yes (default) No
	Intv Period	0-24:0-60:0-60 (hh:mm:ss)
	Intv Time Sync	Yes (default) No
	Intv Save Ln's	Yes (default) No
	Intv Auto Stop	Yes No (default)
	Intv Threshold	0 - 255 dB
	Intv Exchange	3dB (default) 4dB 5dB 6dB
Excd History	Triggering	SPL Excd Lvl 1 SPL Excd Lvl 2 PK-1 Excd Lvl PK-2 Excd Lvl Hysteresis
	Excd Enable	Yes No (default)
	Min Duration	0 - 999 seconds
	Excd Time-Hist	Yes No (default)
	T.H. Period	0 - 255 seconds 9 multiplied by 1/32s
	Excd Trigger	Level PassBy
	Excd Time	Start Max

Daily History	Daily Enable	Yes No (default)
	Daily Ln's	Yes No (default)
Define Report	Data Report	Yes (default) No
Advanced	See Advanced Menu (below)	

Advanced Menu Layout

Menu Items	Submenu	Available Settings Options
Controls (See also "Control Settings (SSA, LOG)" on page 7-11)	AC/DC Output	AC-1 AC-2 AC-1 DC AC-2 DC AC-2 AC-1
	Logic-In Mode	None Pause Toggle Level Alarm

Menu Items	Submenu	Available Settings Options
Controls (Continued)	Logic-Out	Off RMS Peak R+P Intv R+I P+I R+P+I A:D R+A P+A R+P+A I+A R+I+A P+I+A R+P+I+A R/S Excd
	Logic-Out Time	0 - 255 sec
	Logic-Out #2	Off RMS Peak R+P Intv R+I P+I R+P+I A:D R+A P+A R+P+A I+A R+I+A P+I+A R+P+I+A R/S Excd
	Logic-Out #2 Time	0 - 255 sec

Menu Items	Submenu	Available Settings Options
Controls (Continued)	Heater On	No Yes
	E. A. Cal Tone	No Yes
Wind/Tach (See also "LOG and SSA Wind/Tach Settings" on page 7-25) This is an optional feature requiring the firmware 824-WND	Wind Scale	0.015 - 255.99
	Wind Units	4 alphanumeric characters
	Direction Units	Compass; 16 ordinates Degrees; 0 - 360 Percent; 0 - 100 Volts: 0 - 2.49 Number; 0 - 255.93
	Wind/Tach	No Yes
	Windy Threshold Level	0.0 - 65,535
	Windy Exceedance Level	0.0 - 65,535
	Windy Hystereses	0.0 - 65,535
	Windy Pause Enable	No Yes
	Pulse Trigger Voltage	0.0 2.5
	Pulse Source	Int Ext
Define Report	Data Report	No Yes
	Setup Report	No Yes

Menu Items	Submenu	Available Settings Options
Define Report (Continued)	SPL Histogram	No Yes
	Pk-I Histogram	No Yes
	Pk-II Histogram	No Yes
	Interval Report	No Short Long
	History Report	No Yes
	Exceedance Report	No Short Long
	Daily Report	No Short Long

Check Menus

In addition to being able to modify an instrument ID's settings through the *Edit Settings* item in the *Setup* menu, selected settings can also be modified through what is known as a Check menu which is specific to the current display function. The Check menu is accessed simply by pressing the  Check key from within the System 824's different views.

The available Check menu options vary between an instrument ID's different views. The options available from each display allows the user to change settings peculiar to that display function. In many cases they are shortcuts to other displays. In some cases the check menu allows you to

toggle between a views tabular mode or graphical spectrum mode.

This section will present the following:

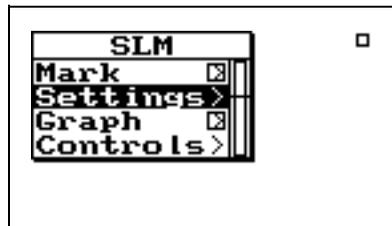
- Check Menu Example
- SLM Check Menu Options
- Other SSA Check Menus
- Other Logging (LOG) Check Menus

Check Menu Example

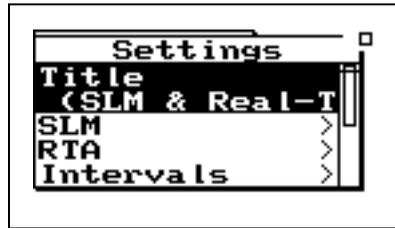
The Check menu is accessed by simply pressing the  Check key from within an Instrument ID's view. The following is an example of using the Check menu from a SLM view to change the **Detector** setting from the selected instrument's SLM display:

Use the  and  keys to move from one setting to the next. Then use the  key to change the selected setting. The  key is used to return to previous menus

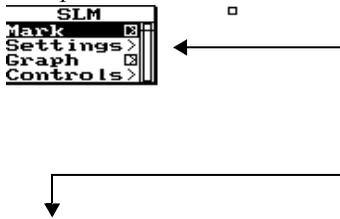
Step 1 From the Instrument's SLM (LOG or SSA) view display, press the  key to access the **Check** menu. A menu similar to the following appears:



Step 2 Use the \blacktriangle and \blacktriangledown arrow keys to highlight *Settings*, then press the \checkmark Check key or the \blacktriangleright arrow key. A menu similar to the following appears:

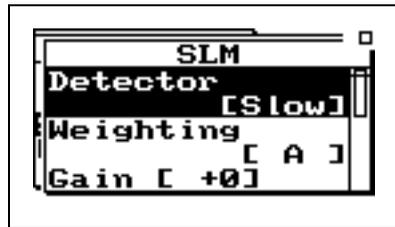


Pressing the right \blacktriangleright arrow key takes you to a different place than pressing the check \checkmark key. See example below:



A box with an arrow next to a menu item indicates that you use the right arrow key to access another display or menu. The check \checkmark key takes you to a different place. An empty box indicates that a check \checkmark takes you to the same place as the right \blacktriangleright arrow key.

Step 3 Use the \blacktriangle and \blacktriangledown arrow keys to highlight *SLM*, then press the \checkmark Check key or the \blacktriangleright arrow key. A menu similar to the following appears:



Step 4 Use the \blacktriangle and \blacktriangledown arrow keys to highlight *Weighting*, then press the \checkmark Check key or the \blacktriangleright arrow key. A menu similar to the following appears:



Step 5 Highlight the desired weighting and press the \checkmark Check key.

SLM Check Menu Options (SSA and LOG)

The Check menu's Controls and Settings items correspond to those described earlier in the Settings descriptions section of this chapter.

The SLM display check menus for the SSA and LOG instruments are identical. The following describes the Check Menu setting.

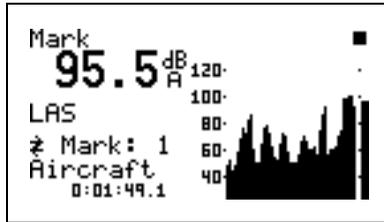
Menu Items	Purpose
Mark	Puts a marker in the time history
Settings	Modifies the SLM settings for the selected instrument
Graph	Changes the scaling of the instrument's SLM history graph
Controls	Modifies the Control menu for the selected instrument

The following screen appears when accessing the Check menu from the SLM view.



Mark Display

Pressing the right  arrow key when "Mark" is highlighted puts you in the "Mark" display. The following screen appears:



The “Mark” display shows the current SPL level and a time history of the SPL level is shown graphically. This enables you to set a marker in the time history. To set a marker in the time history, press the Check (✓) key. The following menu appears:



When “Set Mark” is initiated by pressing the Check (✓) key, a marker is placed into the time history record at that point in time.

With “Set Mark” highlighted, press the Check (✓) key to place a marker in the time history.

The Settings menu item in the “Mark” Check menu allows you to access the “Settings” menu in the marker area in order to change the marker descriptions.

The Graph menu item allows you to change the scaling of the Mark graph. (See below)

Graph Menu

There are two **Graph** settings available:

Menu Items	Available Settings Options
Graph Level	-39 to 799
Graph Scale	2, 1, 1/2, 1/4, 1/8

Graph Level may also be changed interactively with the Adjust Graph display (below).

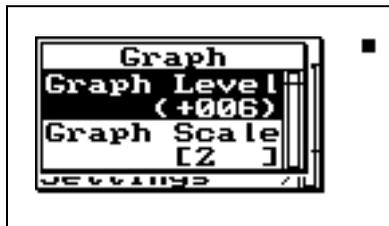
The **Graph Level** setting allow you to change the base level of the SPL history graph. The following is the possible setting range:

-39 to 799

The **Graph Scale** setting allows you to change the vertical range of the SPL history graph, using the following possible settings:

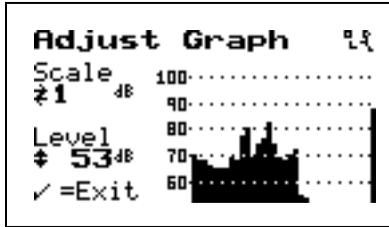
2, 1, 1/2, 1/4, 1/8 dB per dot (pixel)

Pressing the  arrow key on the Graph menu item allows you to adjust the graph settings through a menu. A screen similar to the following appears:



*The  or  key allows you to adjust the **Graph Level**. The  or  key allows you to adjust the **Graph Scale**. When you are finished customizing the settings of the graph, press the  key to finish.*

Pressing the  key on **Graph** menu item (from the SLM **Check** menu) allows you to graphically and interactively adjust the **Graph** settings. A screen similar to the followings appears:



Settings

The Settings menu allows you access to the SLM settings area that is usually accessed from the SETUP  key. (This is a shortcut to the SLM settings so you can modify the items in the SLM menu)

NOTE: Refer to the Settings Description section and the individual instrument's Settings Menu Layout sections for details on the configuration options for this menu.

Controls Settings Menu

Allows you access to the Settings menu in the Controls area that is usually accessed from the SETUP  key. (This is a shortcut to the Controls settings so you can modify the items in the Controls menu)

Other SSA Check Menus

NOTE: The SSA "Any Data" check menu is the same for the LOG instrument.

This section will present the Check menu screens that display when pressing  Check key from within the System 824 SSA instrument definition.

Any Data Check Menu

The following Check menu is accessible from the "Any Data" screen. Press the Check  key and the following appears:

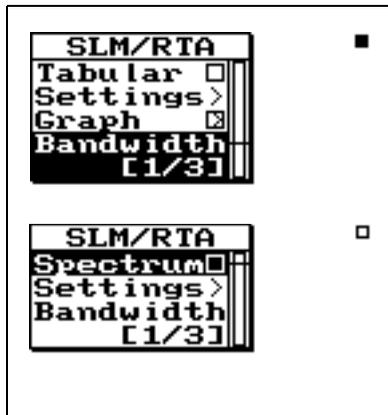


Following is a chart of the check menu with a description of each menu item:

Menu Items	Purpose
Mark	Puts a marker in the time history.
Settings	Modifies the SLM settings for the selected instrument.

RTA Check Menu

The following Check menus are accessible from the *RTA Live*, *RTA Leq*, *RTA Max* and *RTA Min* views:



Following is a chart of the check menu with a description of each menu item:

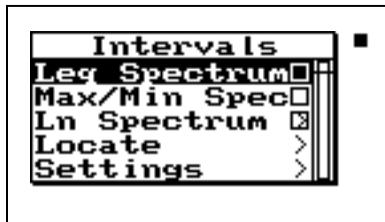
Menu Items	Purpose
Tabular/ Spectrum	Enables switching between spectrum (graphical) view and Tabular view.
Settings	Modifies the SLM settings for the selected instrument.

Graph	Changes the scaling of the instrument's SLM history graph
Bandwidth	Selects either 1/1 or 1/3 octave filters.

Intervals Check Menu

The intervals displays have three different check menus depending upon which display you are viewing.

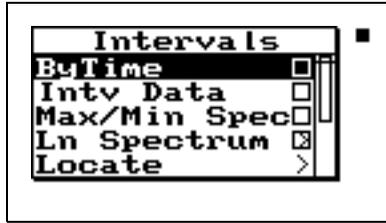
When viewing the displays *Interval-a* through *Interval-e* the following menu appears after pressing the Check (✓) key:



Following is a chart of the check menu with a description of each menu item:

Menu Items	Purpose
Leq Spectrum	Allows you to view the Leq spectral data
Max/Min Spectra	Allows you to view the Max or Min spectral data
Ln Spectrum	Allows you to view the Spectral Ln data
Locate	Locates a specific interval record
Settings	Modifies the interval settings

In the “Leq Spectrum” display press the Check (✓) key and the following menu appears:



Following is a chart of the “Leq Spectrum” check menu with a description of each menu item:

Menu Items	Purpose
ByTime	Allows you to view the Leq for each interval over time
Intv Data	Allows you to view the <i>Interval-a</i> through <i>Interval-e</i> displays
Max/Min Spectra	Allows you to view the Max or Min spectral data
Ln Spectrum	Allows you to view the Spectral Ln data
Locate	Locates a specific interval record
Settings	Modifies the interval settings
Graph	Changes the scaling of the “Leq Spectra” graph
Bandwidth	Changes the filters to either 1/1 or 1/3 octave

Time History Check Menu

Press the Check  key while viewing either of the Time History displays and the following check menus appear:



Following is a chart of the Time History check menu with a description of each menu item:

Menu Items	Purpose
Broadband/ Spectrum	Allows you to view the broadband history graph or the spectral data
Locate	Locates a specific time history record
Settings	Modifies the time history settings
Graph	Changes the scaling of the instrument's time history graph.

Run Log Check Menu

Press the Check (✓) key while viewing the Run Log display and the following check menu appears:



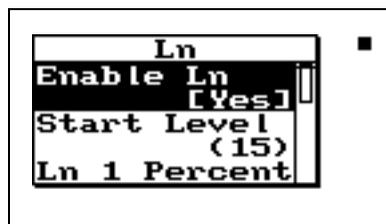
Following is a chart of the Run Log check menu with a description of each menu item:

Menu Items	Purpose
First	Locates the first Run Log record
Last	Locates the last Run Log record
Find	Finds the specified Run Log record
Locate T.H.	Displays the Time History

Ln Centiles Check Menus

There are three different Check menus contained within the Ln Centiles views.

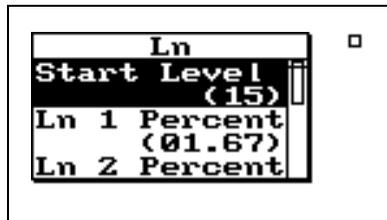
Press the Check (✓) key while viewing the Ln Centile's **broadband** displays and the following check menu appears:



Following is a chart of the Ln Centiles broadband check menu with a description of each menu item:

Menu Items	Purpose
Enable Ln	Enables or disables Ln data
Start Level	Sets the minimum dB level to be calculated in the Ln data
Ln 1 Percent	Changes the percentage for Ln 1
Ln 2 Percent	Changes the percentage for Ln 2
Ln 3 Percent	Changes the percentage for Ln 3
Ln 4 Percent	Changes the percentage for Ln 4
Ln 5 Percent	Changes the percentage for Ln 5
Ln 6 Percent	Changes the percentage for Ln 6
Spectral LN	None Overall Interval

Press the Check (✓) key while viewing the Ln Centile's **spectral** displays and the following check menu appears:



Following is a chart of the Ln Centiles **spectral** check menu with a description of each menu item:

Menu Items	Purpose
Start Level	Sets the minimum dB level to be calculated in the Ln data
Ln 1 Percent	Changes the percentage for Ln 1
Ln 2 Percent	Changes the percentage for Ln 2
Ln 3 Percent	Changes the percentage for Ln 3
Ln 4 Percent	Changes the percentage for Ln 4
Ln 5 Percent	Changes the percentage for Ln 5
Ln 6 Percent	Changes the percentage for Ln 6

Press the Check (✓) key while viewing the Ln Centile's spectrum displays and the following check menu appears:



Menu Items	Purpose
Settings	Modifies the spectral Ln settings. (See table above, “spectral check menu items”, for a description of the settings)
Graph	Changes the scaling of the instrument's spectrum graph.

Other Logging (LOG) Check Menus

See "SLM Check Menu Options (SSA and LOG)" on page 7-62 for a description of the (LOG) SLM check menu.

This section presents the LOG instrument's available Check menus that are in addition to the SLM Check menu previously described in this chapter.

Any Data Check Menu

See "Any Data Check Menu" on page 7-73 for a description

Current SLM / Overall SLM Check Menu

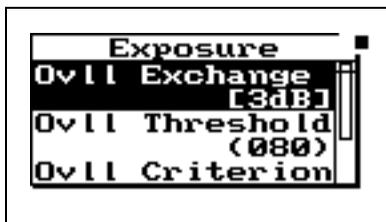
Current SLM and *Overall SLM* views have access to the following Check menu:



Menu Items	Purpose
Mark	Puts a marker in the time history record if the check C key is pressed. If the right arrow key is pressed it puts you in the Marker screen.
Settings	Modifies the SLM settings for the selected instrument.
Graph	Changes the scaling of the instrument's SLM history graph.
TWA	Modifies the TWA settings for the selected instrument.

Exposure Check Menu

The *Exposure* view has access to the following Check menu:



Menu Items	Purpose
Ovll Exchange	Sets the exchange rate that is used to calculate the overall TWA.
Ovll Threshold	Sets the threshold for computing the overall time weighted average (TWA)
Ovll Criterion	Sets the TWA level which constitutes 100% dose for the overall measurement.
Criterion Time	Sets how long of an exposure time for the TWA level you can have before 100% dose occurs for the overall measurement.

LN Centiles Check Menu

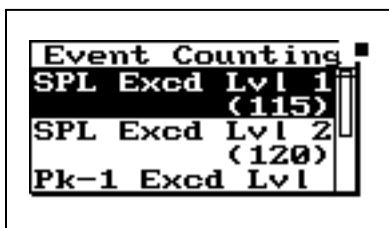
The *Ln Centile* view has access to the following Check menu:



Menu Items	Purpose
Settings	Modifies the Ln percentiles settings for the selected instrument.
Graph	Changes the scaling of the instrument's Ln-b Centiles graph

Stats Check Menu

The *Stats* view has access to the following Check menu:



Menu Items	Purpose
SPL Excd Lvl 1	Sets the lowest SPL trigger level.
SPL Excd Lvl 2	Set the higher trigger level.
Pk-1 Excd Lvl	Sets the trigger level for the primary peak detector (i.e. Pk-I).
Pk-2 Excd Lvl	Sets the trigger level for the secondary peak detector (i.e. Pk-II).
Hysteresis	Sets a hysteresis value to prevent multiple triggering/counting of the same event

Run Log Check Menu

See "Run Log Check Menu" on page 7-75 for a description of the Run Log check menu for the LOG instrument.

Time History Check Menu

The *Time History* view has access to the following Check menu:



Menu Items	Purpose
Mark	Puts a marker in the time history record
Locate	Allows you to locate a time history record
Settings	Modifies the Time History Settings.
Graph	Adjusts the scaling of the Time History graph

Intervals Check Menu

The *Intervals* view has access to the following Check menu:

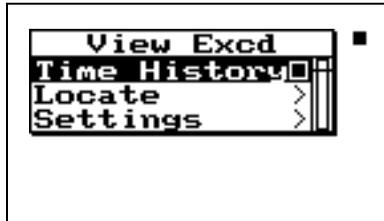


Menu Items	Purpose
Locate	Locates an interval record
Settings	Modifies the Interval Settings.

Excd History Check Menu

The *Excd History* displays have two different check menus depending upon which display you are viewing.

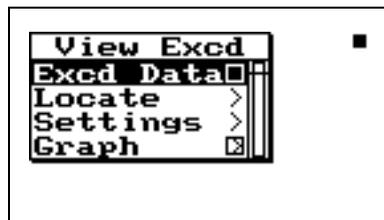
When viewing the displays *Excd-a* through *Excd-b* the following menu appears after pressing the Check (✓) key:



Following is a chart of the check menu with a description of each menu item:

Menu Items	Purpose
Time History	Displays the Excd time history graph
Locate	Locates a specific Exceedance record
Settings	Modifies the Exceedance settings

In the "Excd Time History" display press the Check (✓) key and the following menu appears:



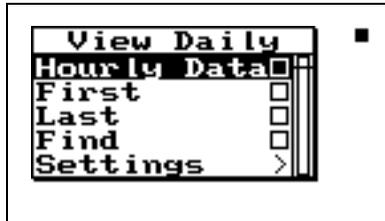
Following is a chart of the “Excd Time History” check menu with a description of each menu item:

Menu Items	Purpose
Excd Data	View Excd-a and Excd-b displays
Locate	Locates a specific Exceedance record
Settings	Modifies the Exceedance settings
Graph	Adjusts the scaling of the Excd Time History graph

Daily History Check Menu

The *Daily History* display has two different check menus, one for the Daily data and one for the Hourly data.

When viewing the Daily History the following menu appears after pressing the Check (✓) key:



Following is a chart of the “Daily History” check menu with a description of each menu item:

Menu Items	Purpose
Hourly Data	Displays hourly data
First	Displays the first hourly record
Last	Displays the last hourly record
Find	Displays a specific record
Settings	Modifies the Daily History settings

In the “Hourly” display press the Check (✓) key and the following menu appears:



Following is a chart of the “Hourly History” check menu with a description of each menu item:

Menu Items	Purpose
Daily Data	Displays Daily data
First	Displays the first hourly record
Last	Displays the last hourly record
Find	Displays a specific record
Settings	Modifies the Daily History settings
Graph	Adjusts the scaling of the Hourly Leq graph

*NOTE: Check menus are not available for the **Metrics**, **PassBy**, and **Wind / Tach** views.*

