

# System Properties

The System Property Pages are used to identify and / or control functions of the Model 831 that are not related to sound measurement or calculations.

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## Control Panel - System Properties

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To activate the System Property Pages, press the  (TOOLS) key. Highlight the System Properties icon as shown in FIGURE 17-1 "Control Panel" .



**FIGURE 17-1 Control Panel**

Press the  key to open the System Property Pages.

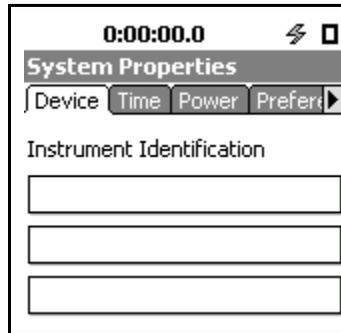
There are six System Property Pages that may be selected using the Right and Left Softkeys. All System Property Pages have one section.

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## Device

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The Device Page has three fields in which the user may enter information about the instrument. This can identify the owners company name and address. Information may be easily placed in these fields using the SLM Utility-G3 software.



**FIGURE 17-2 Device Page**

Highlight one of the three fields to edit. Enter the desired text and press the **ENTER** key to accept the information and move the highlight out of the field. At this point another field can be selected and the above process repeated.

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# Time

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The time and date for the Model 831 may be adjusted on the time page.



**FIGURE 17-3 Time Page**

## Setting Day and Year

Highlight the data field of the numerical parameter to modify. Enter the desired values and press the **ENTER** key when modifications are complete.

## Selecting the Month

When the Month box is highlighted, pressing the **ENTER** key will drop down a list of months. See FIGURE 17-4.



**FIGURE 17-4 Month List**

Highlight the desired month and press the **ENTER** key to accept the selection and exit the field.

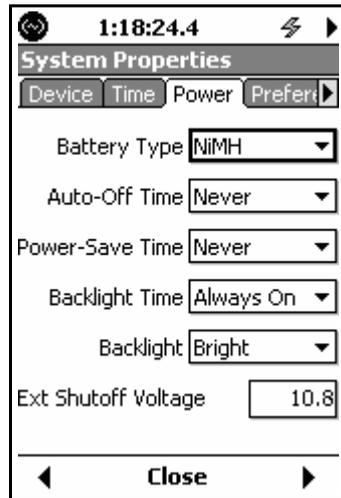
Selecting the "Sync Date/Time with PC" check box enables the Model 831 time to be set to the PC time when the unit is connected to the 831 Utility software. This function is enabled if there is an X in the check box. To modify the state of the check box, move the highlight to the check box and press **ENTER** key. The state of the check box will change.

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# Power

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*Note that the default values for these parameters are as shown in FIGURE 17-5.*



**FIGURE 17-5 Power Page**

There are five drop down list fields and one scrollable value field on the Power Page. These fields are selected and modified as discussed in the previous sections.

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## Battery Type

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*For more detailed information on the selection of battery type see "Batteries" on page 24-10.*

This parameter identifies the type of battery installed in the Model 831. This information is used for the calculation of battery life.

To set the battery type, highlight the Battery Type data field and press the **ENTER** key to open the Battery Type Menu, shown in FIGURE 17-7.



**FIGURE 17-6 Battery Type Menu**

Highlight the desired time and press the **ENTER** key to make a selection.

Battery type must be set to NiMH or Lithium to charge.  
The default value is “Alkaline”.

**WARNING: Do not mix Alkaline and NiMH batteries.**

**WARNING: Do not mix batteries from different manufacturers**

**WARNING: Replace all four batteries when installing fresh cells**

**WARNING: The correct battery type must be specified, as described in "Battery Type" on page 17-5, based on the battery type installed. Otherwise, serious damage, injury or fire can occur when the battery type is set to NiMH but Alkaline or Lithium batteries are installed because the internal charger will be enabled. Alkaline or Lithium batteries must not be charged.**

## Auto-Off Time

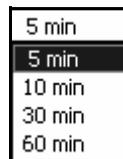
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Auto-Off time is the duration of time the instrument will stay on when no activity is occurring: button presses, running a measurement, USB communications, etc.

Pressing the  (ON / OFF) key will return the instrument and the display to the state it was in when the Auto-Off time expired.

The auto-off feature is ignored when connected to external power (assumed to mean when not on internal batteries which includes USB and External Power). When the unit is connected to USB power, the feature is ignored but when it is connect to external power (12 Vdc) it is not ignored.

To set the Auto-off Time, highlight the Auto-Off Time data field and press the  key to open the Auto-Off Time Menu, shown in FIGURE 17-7.



**FIGURE 17-7 Auto-Off Time Menu**

Highlight the desired time and press the **ENTER** key to make a selection.

The default value is “Never”.

## Power-Save Time

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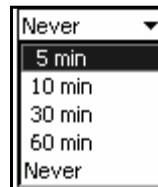
In the power save mode, battery power is significantly reduced by shutting down the display and analog circuitry and ceasing signal processing activities.

There are two power saving features controlled by the Power-Save Time setting. Power can be shut off to the display and to the analog circuitry to save power when the Power-Save Time is set to a value other than **Never**.

The display will be powered down when no keys on the instrument have been pressed for the time set. Pressing any key will reactivate the display.

The analog circuitry, including power to the preamplifier, will be shut down when the instrument has been stopped for the time set. Pressing the **▶||** (RUN / PAUSE) key will restore power to the analog circuitry and the instrument can take data in a number of seconds.

To set the Power-Save Time, highlight the Power-Save Time data field in the System Properties-Power tab and press the **ENTER** key to open the Power-Save Time Menu, shown in FIGURE 17-8.



**FIGURE 17-8 Power-Save Time Menu**

Highlight the desired time and press the **ENTER** key to make a selection.

The default value is “Never”.

## Power Save Icon

When the Model 831 is in the power save mode, the power save icon



will be displayed in the location where the measurement status icons, described in "Measurement Status" on page 3-5, usually appear.

## Exit from Power Save Mode

Press any of the following keys to exit from the power save mode:

-  (STOP/STORE)
-  (RESET)
-  (RUN / PAUSE): There will be a few seconds delay before the instrument starts recording data.

The following actions will also cause an exit from the power save mode:

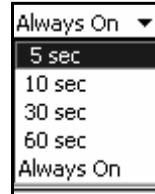
- Calibrate
- Record (voice or sound recording)
- Play (voice or sound recording)

## Backlight Time

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This sets the duration of time the backlight remains on after the last key press.

To set the Backlight Time, highlight the Backlight Time data field and press the **ENTER** key to open the Backlight Time Menu, shown in FIGURE 17-9.



**FIGURE 17-9 Backlight Time Menu**

Highlight the desired time and press the **ENTER** key to make a selection.

The default is “10 sec”.

## Backlight

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*Note that using the backlight on bright setting will significantly increase power consumption and decrease battery life*

This field sets the intensity of the backlight. To set Backlight, highlight the Backlight data field and press the **ENTER** key to open the Backlight Menu, shown in FIGURE 17-10.



**FIGURE 17-10 Backlight Menu**

Highlight the desired time and press the **ENTER** key to make a selection.

The default is Off.

Backlight can also be set by pressing the key as described in the section ‘ON/OFF Key’ on page 3-7.

## Exceptions

There are several situations which will affect the backlight and its intensity as follows:

- When the USB Host port is turned On, the backlight will be turned Off for five seconds
- When the USB Host port is On, the backlight will not go into the Bright intensity (if set to Bright, it will switch to the Dim intensity)
- When running on battery power, if the batteries are less than 10% the backlight will not go into the Bright intensity (if set to Bright, it will switch to the Dim intensity)
- When running on battery power, if the batteries are less than 3%. the backlight will not be permitted to turn on.

## Display Contrast

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*Note that the Display Contrast can also be set from the display by pressing the 0 key as described in the section "ON/OFF Key" on page 3-7. This is the preferred method of adjusting contrast because the changes are made immediately. With the method described here, the change is not applied until the System Properties display is closed.*

This parameter is used to adjust the contrast of the display to accommodate varying viewing angles, temperature and lighting condition. Adjustment ranges from - 9 to +9. The default is 0.

To set the Display Contrast, highlight the Display Contrast data field and press the **ENTER** key. This will open a single digit data field as shown in Figure 17-11.



**FIGURE 17-11 Entering Display Contrast**

Enter a value in the range 0 to 9 and press the **ENTER** key to conclude the process.

## External Shutoff Voltage

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To avoid damaging the internal batteries when the voltage of an external battery drops too low, the user can set an external shutoff voltage. The instrument will shut off automatically when the external voltage drops below this level.

The default level is 10.8 volts, but the user can select a value in the range 10 to 25 volts by entering the value directly into the Ext Shutoff Voltage field shown in FIGURE 17-12.



**FIGURE 17-12 External Shutoff Voltage Menu**

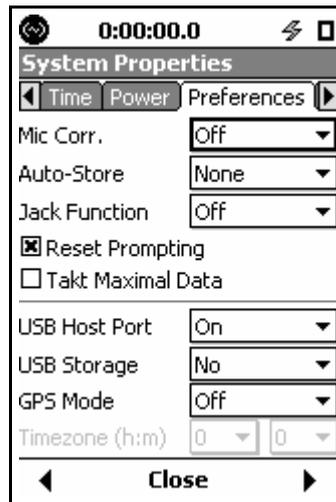
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## Preferences

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*Note that the default values for these parameters are as shown in FIGURE 17-13.*

The Preferences Page is used to configure certain instrument functions..



**FIGURE 17-13 Preferences Page**

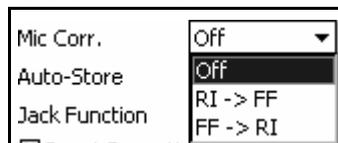
Highlight the preference to be selected and press the **ENTER** key to view a list of options.

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## Microphone Correction

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When using a free-field microphone, a correction can be applied to provide a random incidence response or, when using a random incidence microphone, a correction can be applied to provide a free-field response. Highlight the **Mic Corr.** field and press the **ENTER** key to open the Microphone Correction menu shown in FIGURE 17-14.



**FIGURE 17-14 Microphone Correction Menu**

To correct a random incidence microphone to obtain a free-field response, highlight **RI -> FF** and press the **ENTER** key.

To correct a free-field microphone to obtain a random incidence response, highlight **FF** -> **RI** and press the  key.

The default mode is **Off**

## Auto-Store

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The Model 831 provides three Auto-Store options to enhance your data gathering activities:

- None
- Prompt
- Store

Highlight the Auto-Store field and press the  key to obtain a listing of the choices as shown in FIGURE 17-15.



**FIGURE 17-15 Auto-Store Preferences**

Highlight the desired Auto-Store option and press the  key to make the selection.

### None

The user must press the  (STOP/STORE) key to Stop the measurement. Press it again to store the data and also assign a filename. See ‘Storing the Measurement’ on page 7-15.

### Prompt

*When the Run Mode is set to Daily, a stop will be performed by the timer without prompting for the data to be stored even though Auto-Store is set to Prompt.*

When the  (STOP/STORE) key is pressed to stop a measurement, the user will be prompted to save the data file. See ‘Storing the Measurement’ on page 7-15. If the user responds **Yes**, then a data file is saved. If **No** is selected, a data file is not saved. If data was stored when the  (RUN/PAUSE) key is pressed, the instrument is automatically reset so a new measurement may begin.

### Store

In this mode, when the  (STOP/STORE) key is pressed, a data file is automatically saved. The default file name is

assigned to the file. There is no user interaction in this process.

Pressing the  (RUN/PAUSE) key, the instrument will automatically reset so a new measurement may begin.

## Jack Function

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The AC/DC Out/Headset Jack on the bottom of the instrument can be configured to provide one of the following:

- As an AC/DC output of the signal from the detector. Use with the optional AC/DC Output Cable (CLBL139); AC signal is output via the red BNC and DC signal via the white BNC. The AC output is typically directed to a frequency analyzer or oscilloscope and the DC output is typically directed to a strip chart recorder.
- As a microphone and speaker connection when used with the optional headset for voice recording/playback (ACC003)

It can also be set to **Off**.

*The jack function setting becomes active as soon as it is selected.*

Use the  and  keys to highlight the Jack Function field and press the  key to obtain a listing of the choices as shown in FIGURE 17-16.



**FIGURE 17-16 Jack Function Preferences**

Highlight the desired Jack Function press the  key to make the selection.

## Reset Prompting

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If the Reset Prompting check box is checked, the user will be prompted with an “Are You Sure” message box whenever the  (RESET) key is pressed. If it is not checked, this prompt will not appear prior to the reset action taking place.

Highlight the Reset Prompting check box. Pressing the  key toggles the state of the check box.

## Takt Maximal Data

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The definition of LAFTM5 is shown in "Taktmaximal-5" on page D-21.

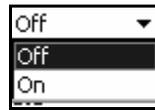
When this is checked, the parameter LAFTM5 is also measured and displayed on the Overall and Current Pages and as a parameter of a Time History measurement.

## USB Host Port

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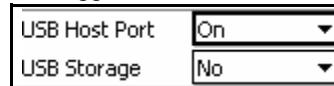
Note that this must be On in order to utilize the USB Port with peripheral devices.

This function controls the power to the USB Port, so it must be set to On in order to utilize it with peripheral devices. Highlight the USB Host Port field and press the **ENTER** key to obtain a listing of the choices as shown in FIGURE 17-16.



**FIGURE 17-17 USB Host Port On/Off Menu**

Highlight the desired USB Host Port Status and press the **ENTER** key to make the selection. When the USB Host Port is set On, additional data fields associated with the use of the USB Host port will appear as shown in



**FIGURE 17-18 USB Host Port Parameters**

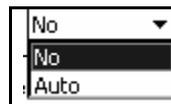
## USB Storage

Data might not be copied correctly if the USB drive has not been properly formatted. As a result, it is recommended that the drive be formatted before using it, as described in "Format USB" on page 23-4.

Data can be stored to internal memory or to an external memory device connected to the USB Port. The options are:

- **No:** Store only to internal memory
- **Auto:** Store data to USB memory if available; otherwise, store to internal memory.

Highlight the USB Storage field and press the **ENTER** key to obtain a listing of the choices as shown in FIGURE 17-16.



**FIGURE 17-19 USB Storage Preferences**

Highlight the desired USB Storage and press the **ENTER** key to make the selection.

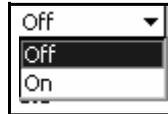
When data is stored to USB memory, it is first stored to internal flash memory, a process which is much more rapid than storing directly to USB memory. Following that, the data is then copied to USB memory without interfering with the operation of the instrument. When the data file has been successfully copied, the original data file in internal memory is deleted.

## GPS Mode

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*The USB Host Port must be set to On for the GPS Mode field to appear. Note that the daylight saving time is not supported.*

Highlight the GPS Mode field and press the **ENTER** key to obtain a listing of the choices as shown in FIGURE 17-20.



**FIGURE 17-20 GPS Mode On/Off Menu**

Highlight On and press the **ENTER** key to make the selection.

When using the SLM Utility-G3 software to control the Model 831, there are two operational modes for the GPS:

### GPS On

In this mode, the GPS is always on and consuming power, but the GPS page is also always being updated. This can be useful for real-time tracking of location or time.

### GPS Auto

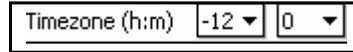
In this mode, the GPS will turn on at two different time:

- At the beginning of an interval, the GPS will turn on to record the location
- During a daily autostore, the GPS will turn on to check the time and update the internal clock if needed

## Time Zone

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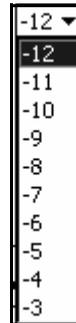
Setting the GPS to On will open the menus to select the time zone in which the GPS is located, as shown in FIGURE 17-21



**FIGURE 17-21 GPS Time Zone Menu**

The time zone is selected by both hours (1st data field) and minutes (2nd data field), referenced to Greenwich Mean Time. Highlight the desired data field, and press the **ENTER** key to list the options, as shown below. Highlight the desired value and press the **ENTER** key to make a selection.

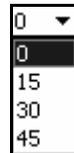
### Hours



**FIGURE 17-22 Time Zone: Hours**

The Time Zone Hours range from -12 to +13, in integer steps.

### Minutes



**FIGURE 17-23 Time Zone: Minutes**

The available values range from 0 to 45, in 15 minute steps.

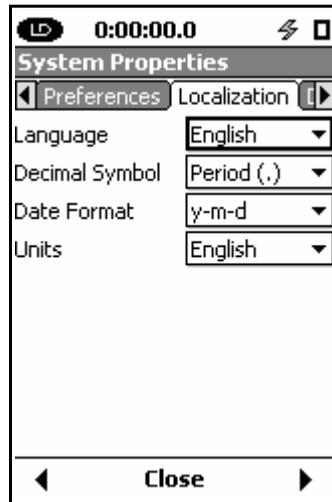
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## Localization

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*Note that the default values for these parameters are as shown in FIGURE 17-24.*

The Localization Page, shown in is used to select formats for parameters which may vary from one country or region to another. FIGURE 17-24.



**FIGURE 17-24** Localization Page

Highlight the parameter to be set and press the **ENTER** key to view a list of options.

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## Languages

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The Model 831 supports the following languages:

- English
- Czech
- French
- German
- Italian
- Portuguese(pt)
- Spanish
- Swedish
- Norwegian

- Portuguese(br)

English is the default language.

Highlight the Language field and press the **ENTER** key to obtain a listing of the language choices as shown in FIGURE 17-25.



**FIGURE 17-25 Language Preferences**

Highlight the desired language and press the **ENTER** key to make a selection.

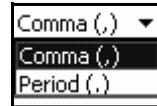
## Decimal Symbol

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The Model 831 supports two formats for the decimal symbol

- Period (.)
- Comma (,)

Highlight the Decimal Symbol field and press the **ENTER** key to obtain a listing of the choices as shown FIGURE 17-26.



**FIGURE 17-26 Decimal Symbol Preferences**

Highlight the desired symbol and press the **ENTER** key to make the selection.

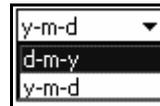
## Date Format

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The Model 831 supports two formats for expressing dates

- day-month-year
- year-month-day

Highlight the Date Format field and press the **ENTER** key to obtain a listing of the choices as shown in FIGURE 17-27.



**FIGURE 17-27 Date Format Preferences**

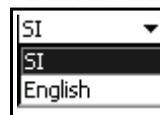
Highlight the desired Date Format and press the **ENTER** key to make the selection.

## Units

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The Model 831 supports both English and SI units.

Highlight the Units field and press the **ENTER** key to display the Units Menu as shown in FIGURE 17-27.



**FIGURE 17-28 Units Menu**

Highlight the desired Units and press the **ENTER** key to make the selection.

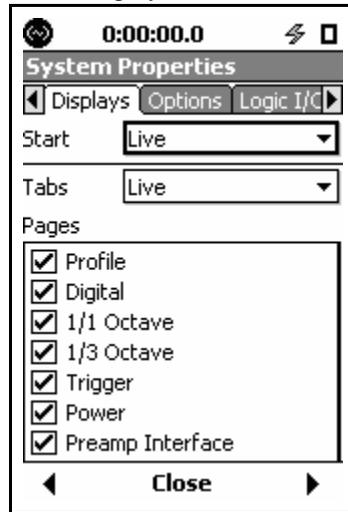
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## Displays

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*Note that the default values for these parameters are as shown in FIGURE 17-29.*

The Displays page, shown in FIGURE 17-29., permits some customization of the displays



**FIGURE 17-29** Displays Page

## Start

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The user can select to have one of the following displays appear when the Model 831 is switched **On**.

With the Start data field highlighted, press the **ENTER** key to obtain a list of options, as shown in FIGURE 17-30.

*Note that this list will present only those measurements which have been enabled in the setup.*



**FIGURE 17-30 Display Start Options**

Highlight the Display Start option and press the **ENTER** key to make the selection.

## Selecting Displays to Appear

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When there are measurement functions not being used or data displays which are not of interest for a measurement, the instrument operation can be streamlined by hiding selected displays. As a default, all available displays are set to appear.

### Tab Page Selection

The displays to be used are selected one tab page at a time. Highlight the Tabs field to list the tab pages for which displays can be set to appear or be hidden, as shown in FIGURE 17-31.



**FIGURE 17-31 Displays Tab Page Options**

Highlight the desired Tab Page and press the **ENTER** key to make the selection.

## Display Selection

The displays which can be set to appear or be hidden are shown below for each of the possible Tab Page selections.

### Live Page Displays (7 items)

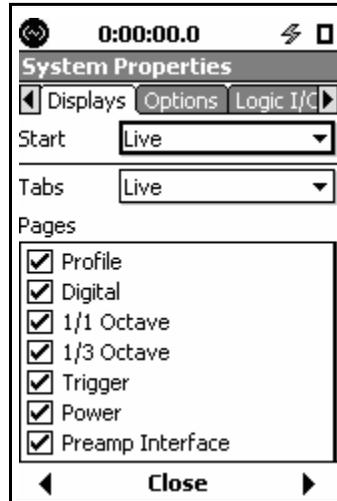


FIGURE 17-32 Live Page Displays

### Overall Page Displays (14 items)

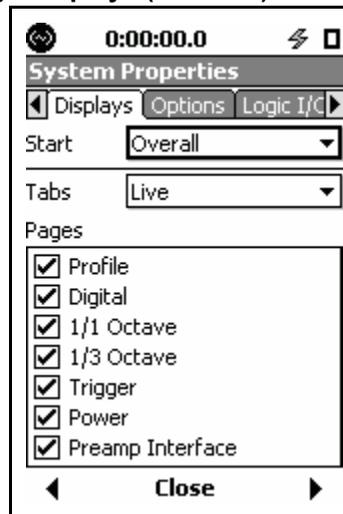


FIGURE 17-33 Overall Page Displays

### Session Log Display

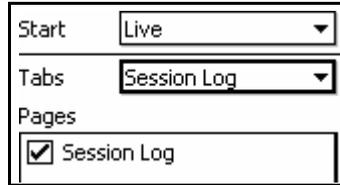


FIGURE 17-34 Session Log Displays

### Current Displays (13 items)

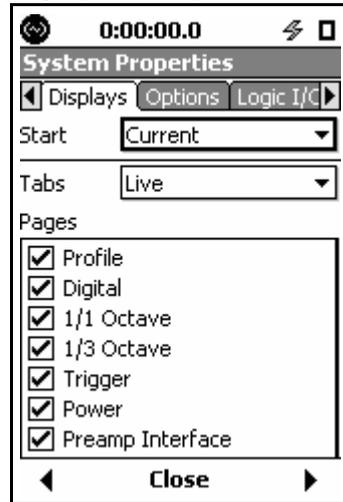


FIGURE 17-35 Current Displays

### Measurement Displays (13 Items)

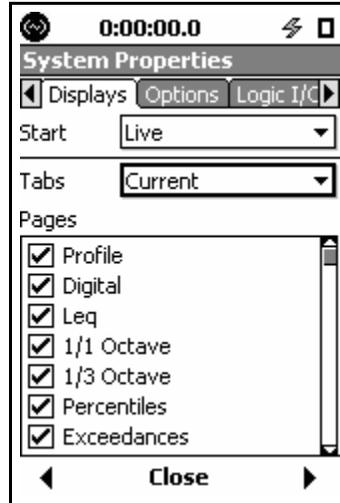


FIGURE 17-36 Measurement Displays

### Events Displays (6 items)



FIGURE 17-37 Events Displays

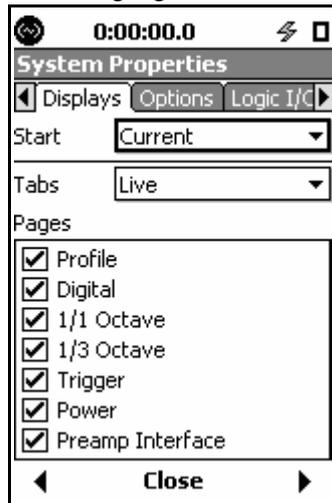
## Time History Displays (5 Items)



**FIGURE 17-38 Time History Displays**

All displays which have a check in their check box will appear on the Model 831.

To modify any of the displays associated with one of the Tab Pages, highlight the field listing those displays and press the **ENTER** key. to obtain a display similar to FIGURE 17-39, where the first item is highlighted.



**FIGURE 17-39 Display; Set to Appear or Hide**

Pressing the  $\odot$  key will toggle the state of the highlighted display between **Appear** (checked) and **Hide** (unchecked).

Highlight different displays and set them as desired. When finished setting the display types for this Tab Page, press the  $\text{ENTER}$  key.

When all desired modifications have been made to the displays for all Tab Pages, press the center softkey **Close** to return to the Control Panel.

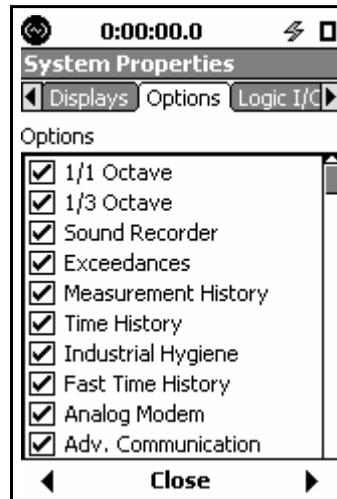
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## Options

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*Note that default options, Community Noise for example, will not appear in the list as they cannot be masked. Also, RT-60, Exceedances, 1/1 Octave, and 1/3 Octave cannot be masked while in RT-60 mode.*

The Options Page permits the user to enable/disable installed options on the Model 831.

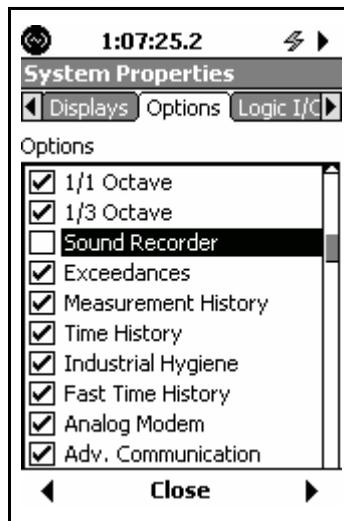


**FIGURE 17-40 Options Page**

*Note that this is temporary and does not result in permanent loss of a purchased option. The user is able to re-enable a purchased option at any time and a restore/format defaults, described in ‘Format & Restore Defaults’ on page 16-3, will also enable all purchased options.*

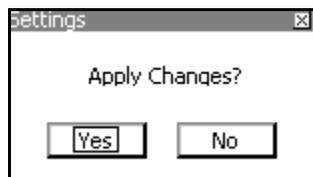
When the option is checked in mask, it is enabled in the instrument. Unchecking removes the option. To mask or unmask any option(s), press the  $\text{ENTER}$  key to enter the dialog mode. Use the  $\leftarrow$  and  $\rightarrow$  arrow keys to highlight each option and use the  $\odot$  and  $\text{ENTER}$  arrow keys to toggle the state of the option between masked (unchecked) and unmasked

(checked). In Figure 17-41, we see that the Sound Recorder option has been masked.



**FIGURE 17-41 Sound Recorder Masked**

When all selections have been made, press the **ENTER** key to exit the dialog mode and press **Close**, which will produce the message shown in FIGURE 17-42



**FIGURE 17-42 Apply Changes**

Highlight Yes and press the **ENTER** key, which will produce the message shown in FIGURE 17-43 indicating that the instrument must be rebooted for the masking/unmasking changes to take effect.



**FIGURE 17-43 Reminder to Reboot Instrument**

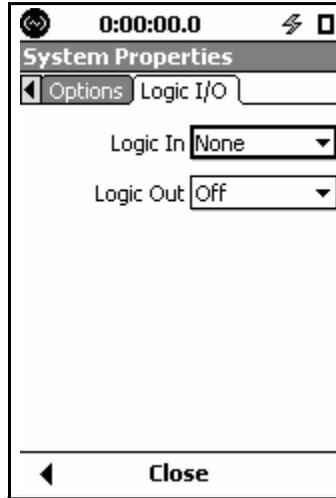
Press the **ENTER** key to return to the System Properties Menu and reboot the instrument.

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## Logic I/O

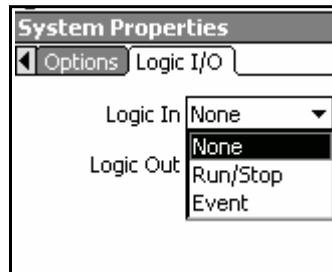
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The Model 831 has one logic in line and one logic out line as described in Table 24-4, “Model 831 I/O Pinouts,” on page 24-9. The role of these lines is defined in the Logic I/O menu, shown in FIGURE 17-44.



**FIGURE 17-44 Logic I/O Menu**

The Logic In line receives a signal from an external device such as the 831-INT, permitting it to initiate one of the actions listed in FIGURE 17-45.

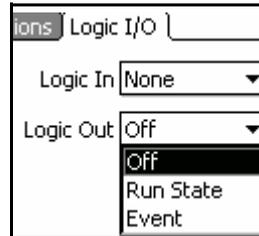


**FIGURE 17-45 Logic In Menu**

## Logic Out

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The Logic Out line transmits a signal to an external device such as the 831-INT, defining one of the states listed in FIGURE 17-46.



**FIGURE 17-46 Logic Out Menu**

### Run State

When the Logic Out is set to Run State, then the output will be driven high when the Model 831 is running and will be driven low when the Model 831 is stopped.

### Event

When the Logic Out is set to Event, then the output is dependent upon the event trigger settings as follows:

#### Level Triggering

If the event mode is set to Level Triggering, then this output will be driven high whenever the current RMS level exceeds the SPL1 trigger level or the current Peak level exceeds the Peak1 trigger level. If the current RMS level is below SPL1 and the current peak level is below Peak1, then the output will be driven low.

#### Dynamic

If the event trigger is set to Dynamic, then the output will be driven high when the current SPL level exceeds the dynamic trigger level plus the dynamic trigger offset and will be driven low when the current SPL level is below the dynamic trigger level plus the dynamic trigger offset.

