

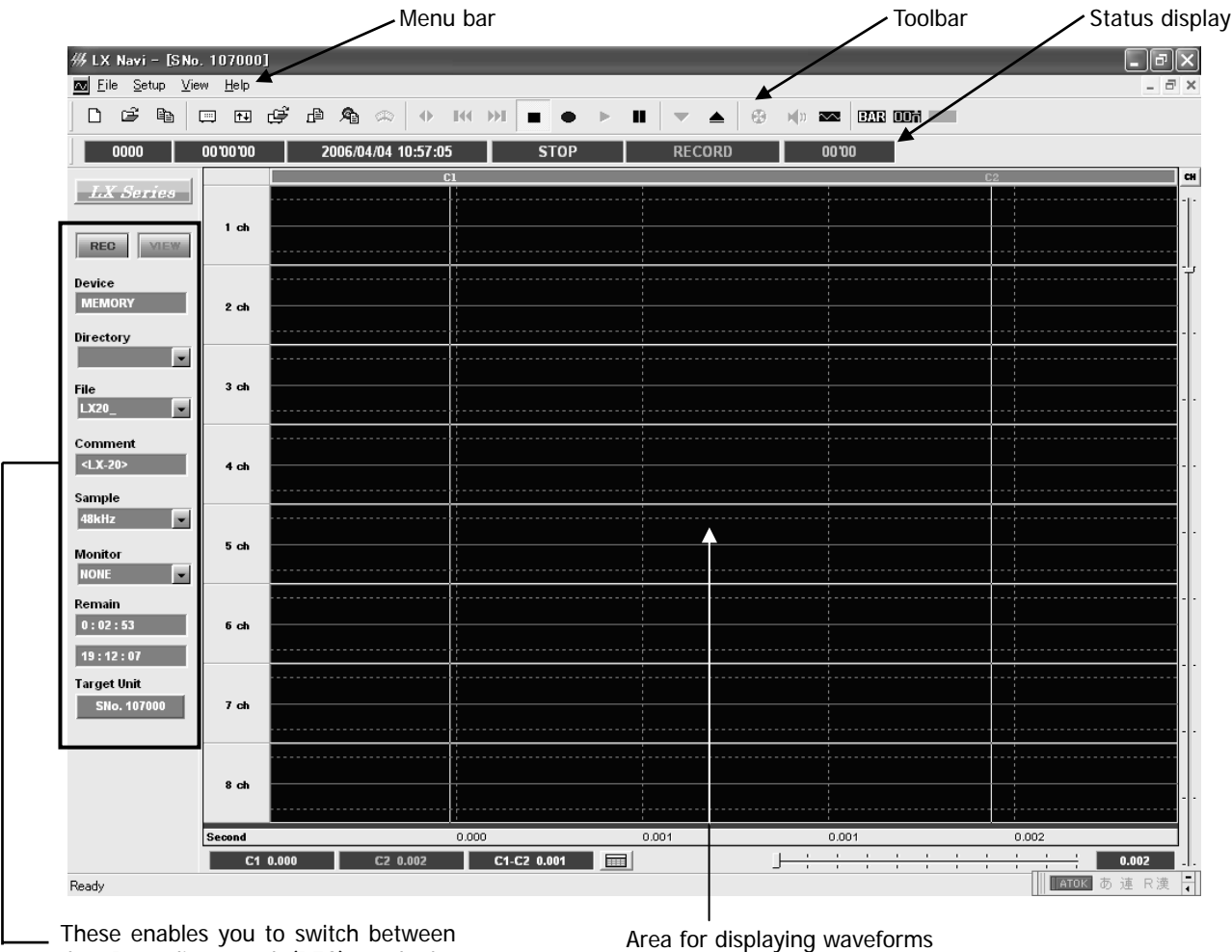
Section 3 Introduction to LX Navi

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Outline of Main Window

Outline of Main Window

Start LX Navi program, the following main window will be displayed.



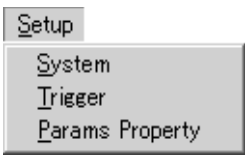
These enables you to switch between the Recording mode(REC) and the view mode(VIEW), check the name of a recording file, select the name of a recording file, select the files to be reproduced, etc.

Area for displaying waveforms

Menu bar



File Setup View

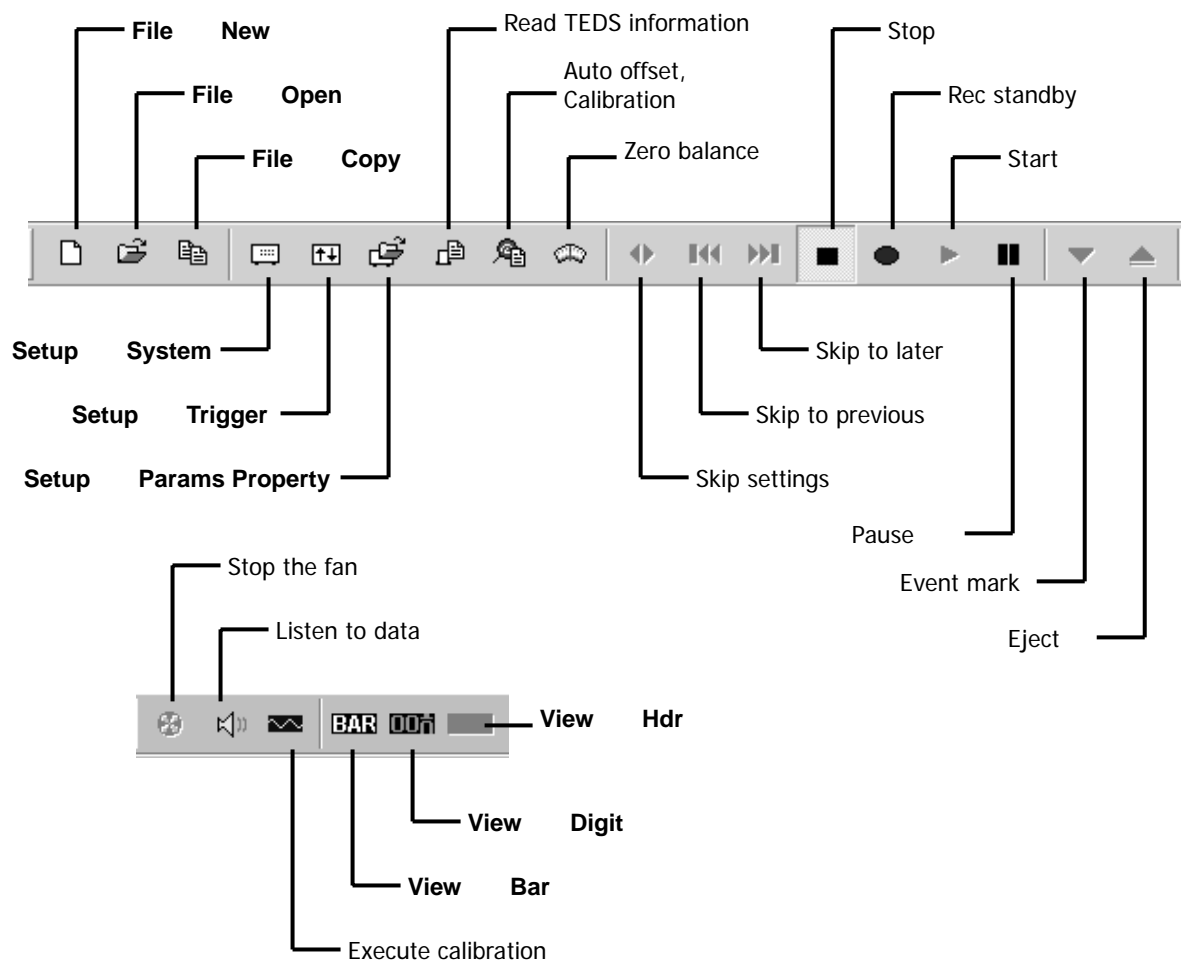


New: Select the device on which data is to be recorded, and specify the file name.
Open: Select data to be reproduced.
Copy: Copy data.
Format: Format a media.
Exit: Quit the application.

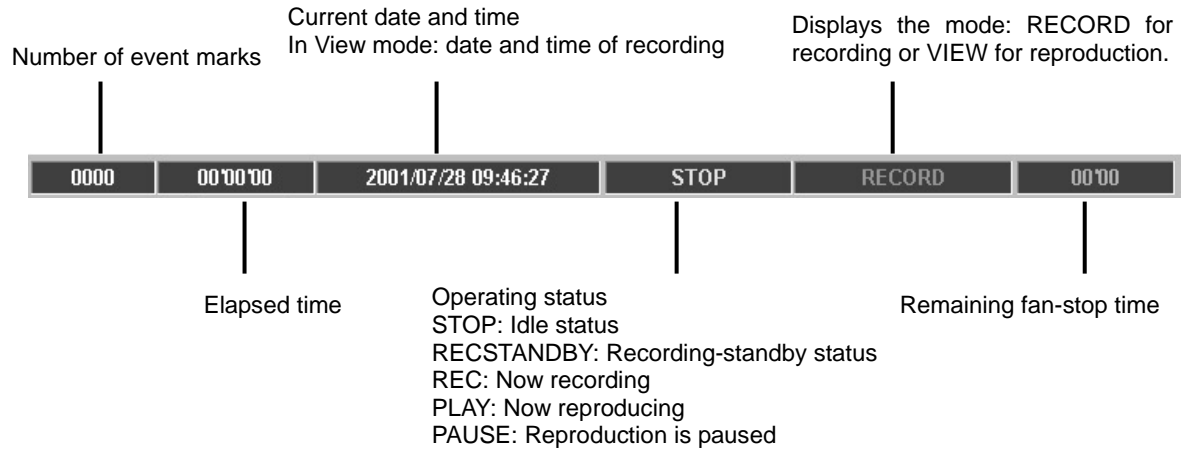
System: Set operations, recording conditions, and reproduction conditions.
Trigger: Set trigger actions.
Params: Property: Save or load settings.

Toolbar: Display or hide the toolbar.
Status Bar: Display or hide the status bar.
Bar: Display or hide bar meters.
Digit: Display or hide digital values.
Hdr: Display or hide header information.

Toolbar

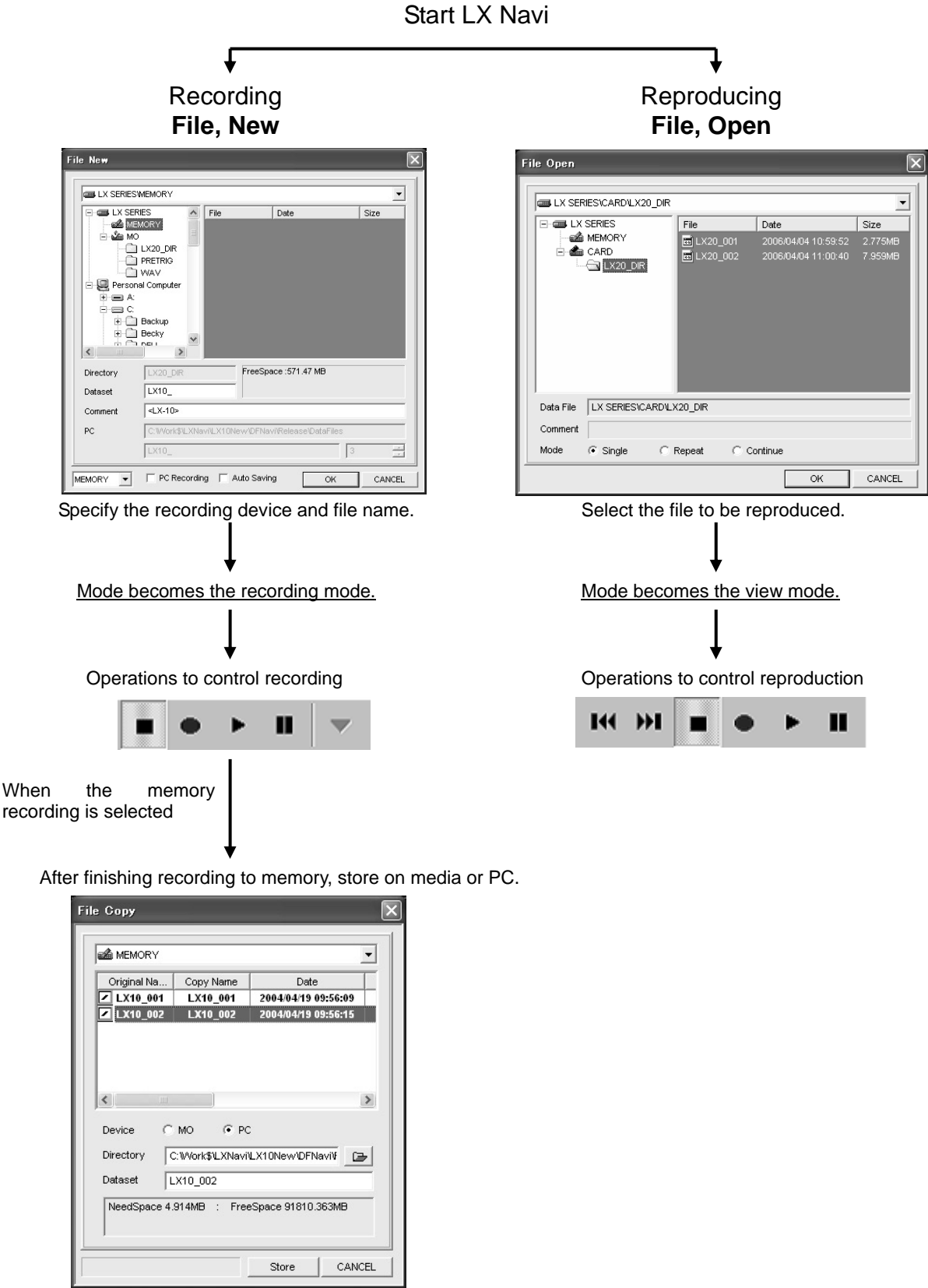


Status display



Overview of Steps in Recording and Reproduction

Overview of Steps in Recording and Reproduction



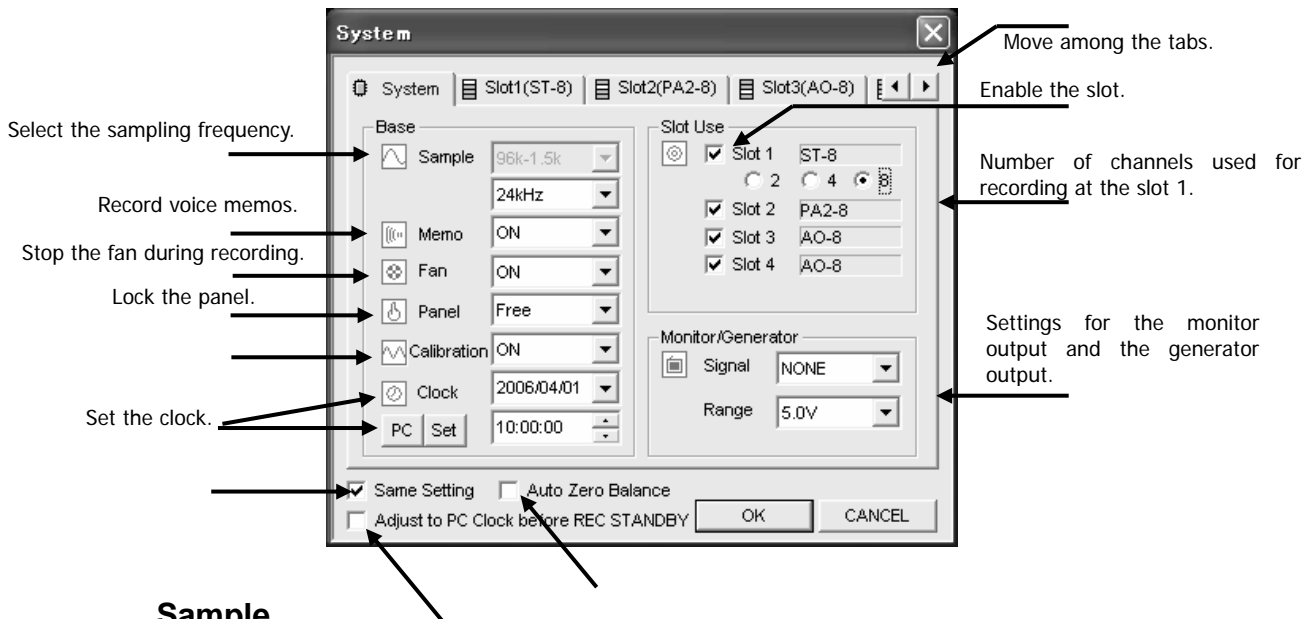
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System Settings

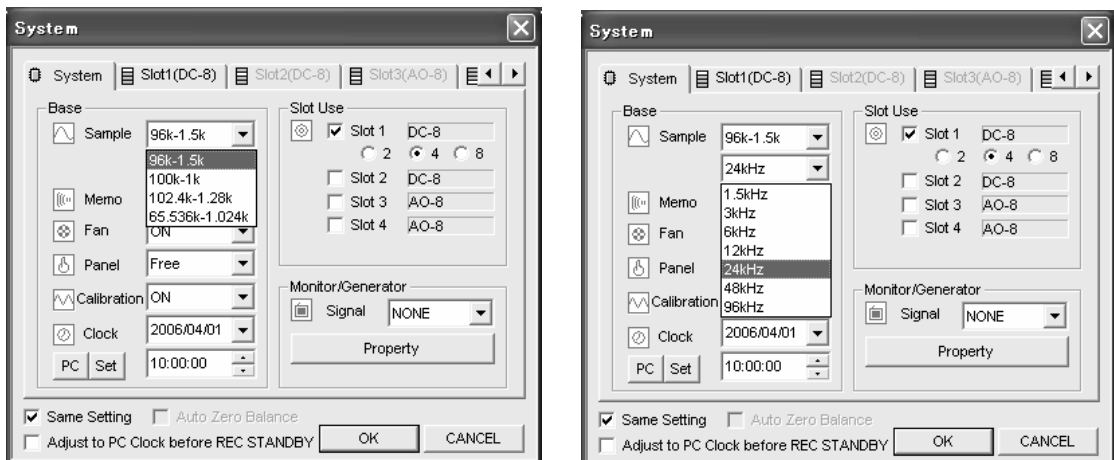
System Settings

To specify settings for the LX operations, from the **Setup** menu choose **System**.



Sample

Select the sampling frequency. Select the sampling frequency series including the sampling frequency to be selected at the upper row, then select the sampling frequency within the list shown at the lower row. They are to be limited based on the selected recording media and the tachometer pulse input channels. See "1-13 Sampling Frequency and Number of Channels".



LX-10/10L

You can select the sampling frequency series of 96k-1.5k only at the upper row for the sampling frequency of 96 kHz, 48 kHz, 24 kHz, 12 kHz, 6 kHz, 3 kHz, or 1.5 kHz at the LX-10/10L.

LX-20/20L

You can select the sampling frequency from the followings;

96k-1.5k for 96 kHz, 48 kHz, 24 kHz, 12 kHz, 6 kHz, 3 kHz, or 1.5 kHz

100k-1k for 100 kHz, 50 kHz, 20 kHz, 10 kHz, 5 kHz, 2 kHz, or 1 kHz

102.4k-1.28k for 102.4 kHz, 51.2 kHz, 25.6 kHz, 12.8 kHz, 5.12 kHz, 2.56 kHz, or 1.28 kHz

65.536k-1.024k for 65.536 kHz, 32.768 kHz, 16.384 kHz, 8.192 kHz, 4.096 kHz, 2.048 kHz, or 1.024 kHz.

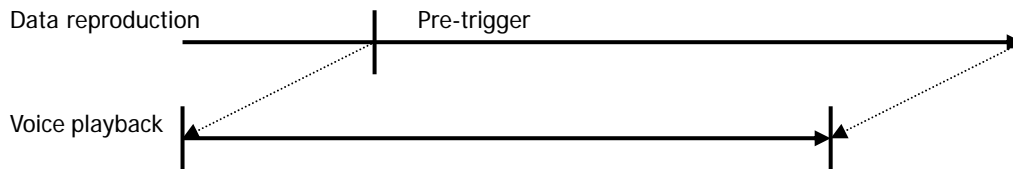
AR-LXDC2


You can select 1k-1/60 for 1 kHz, 500 Hz, 200 Hz, 100 Hz, 50 Hz, 20 Hz, 10 Hz, 5 Hz, 2 Hz, 1 Hz, 1/2 Hz, 1/5 Hz, 1/10 Hz, 1/30 Hz, or 1/60 Hz when the low-speed sampling DC amp card is installed.

Memo

Set to ON when recording or reproducing a voice memo. Voice memo data is recorded as a WAV file separately from the data and header files, using 8,000 bytes per second. Note that this data increases even when the microphone is removed from the jack.

- Voice memo is not recorded during the pre-trigger period. In playback, the voice is played back from the beginning of data. So, the voice and data are not synchronized.



- When recording the voice memo under the (only) PC direct recording, click  or press the PAUSE button of the main unit to pause before recording stop.

Fan

When you set this to **OFF**, you can stop the cooling fan on the LX-10 for a period of 10 minutes from the start of recording. This is useful for recording noise. If you have already stopped the fan and recorded data, wait for about 10 minutes before you again stop the fan and record.




When you set this to **ON**, the cooling fan is turned to on. However, by clicking the fan stop button on the toolbar, you can stop the fan while recording. Click again to restart the fan. An accumulated time to stop the fan within a single recording (from recording start to stop) is 10 minutes. The remaining time to stop the fan is displayed at the status display. (See 3-3 Outline of Main Window, Toolbar and Status Display.)

Panel

When you set this to **Lock**, you can disable the control buttons on the front of the main unit.

Clock

Use this to adjust the internal clock on the main unit. The current date and time according to the internal clock are displayed here.

To change the date, click the  button on the right of the date. A calendar will appear. In the calendar, click the desired date. To change the time, click the digits you want to change and then either type the desired time or click the  or  button on the right of the time to increment or decrement the time value. After you have changed the date or time values, click **Set** to apply the new settings.

Click **PC** to set the date and time of the PC connected.

Slot Use

Turn on a check box to enable the corresponding slot to be used for recording or reproduction. For Slot 1, you can choose the number of channels to be used for recording from 2, 4, and 8.

Use the slot tab of the **System** dialog for the settings of the input and output amps enabled here.

At the LX-20/20L, turn on **Tacho** check box to enable the tachometer pulse input channels.

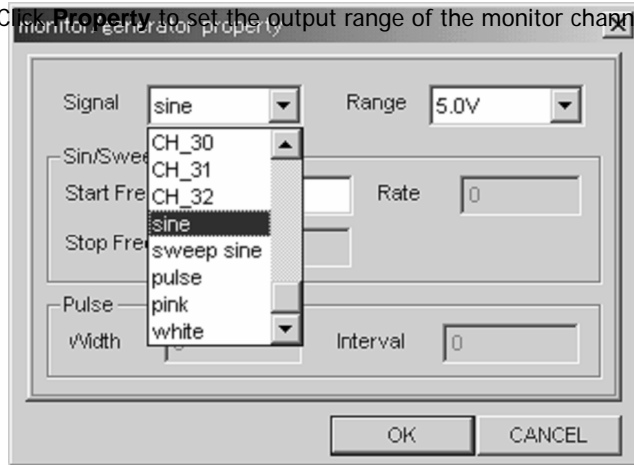
- You cannot use the tachometer pulse input channels and the generator output function at the time.

Monitor/Generator

In **Signal**, select the monitor channel or the type of the generator output signals (only for the LX-20/20L) to be output from the MON OUT connector on the rear panel. If you don't want to monitor any channel, set NONE.

In **Range** set the output range. You can set the output range in 0.1 V steps, from 1 V to 5 V.

Click **Property** to set the output range of the monitor channel or the details of the generator output signal.



In **Signal**, select the monitor channel or the type of the generator output signals (sine, sweep sine, pulse, pink noise, or white noise) from the MON OUT connector of the LX-20/20Ls).

When you select the generator output signal, you can select the following parameters show at the dialog. (The parameters can be set are automatically appeared depending on the selection of the output signal.)

Sin/Sweep

Start Freq: Set the start frequency (Hz) when <sine> or <sweep sine> is selected at **Signal**.

Stop Freq: Set the stop sweep frequency (Hz) when <sweep sine> is selected at **Signal**.

Rate: Set the sweep rate when <sweep sine> is selected at **Signal**.

Pulse

Pulse Width: Set the pulse width when <pulse> is selected at **Signal**.

Pulse Interval: Set the pulse interval when <pulse> is selected at **Signal**.

Select the output range at **Range** from 1 V to 5 V at 0.1 V steps.

See Section 6 for the specifications of the generator output.

- You cannot use the tachometer pulse input channels and the generator output function at the time.
- You cannot use the monitor output of the analog signal when recording at the low-speed sampling (1 kHz to 1/60 Hz).

Input Amp Settings

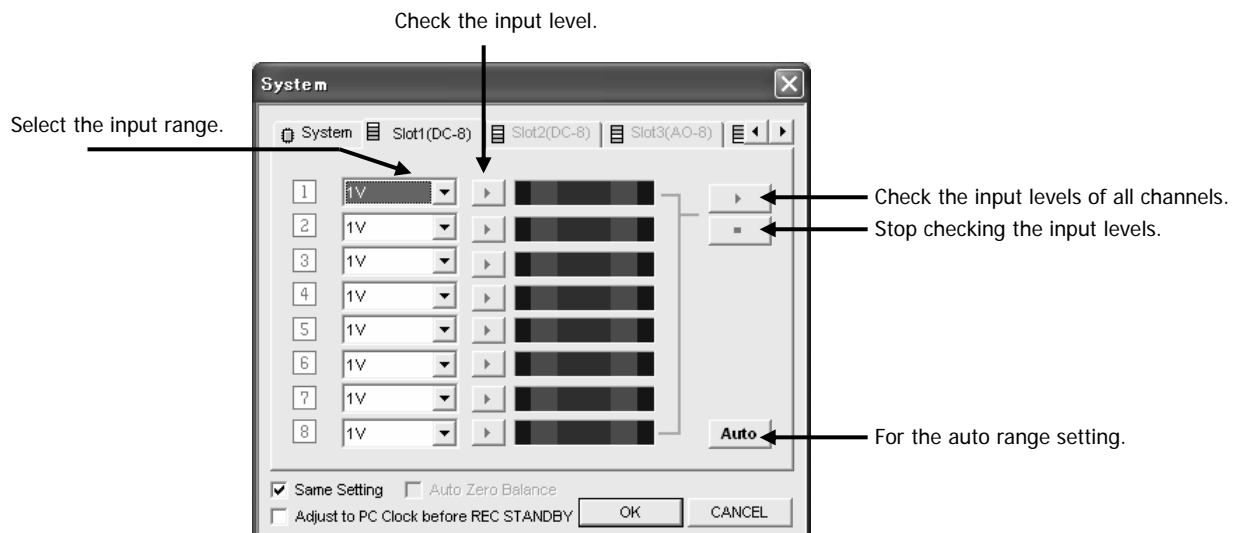
In the **System** dialog, click the tab of the slot in which the input amp is installed. The setting parameters are valid depending on the type of the amps installed.

DC Amp AR-LXDC/DC2

<DC-8> is shown at the **Slot** tab.

The AR-LXDC2 is a DC input amp equipped the low-speed samplings (1 kHz to 1/60 Hz) addition to the functions that the AR-LXDC supports.

See Section 6 for the specifications.



Range Settings

You can select from ± 0.5 , 1, 2, 5, 10, 20, or 50 V. A range of $\pm 131\%$ of the selected range can be obtained for A/D (analog to digital) conversion value; however, the input margin level is approximately $\pm 120\%$. Input the signal, then click ► button on the right and specify the setting while checking the level.

Auto

When you input the signal and click **Auto**, the optimum input range is set automatically.

Same Setting

Check to apply the same settings to the channels later than the channel changed.

- You cannot use the analog output signal of the monitor output and/or the analog output amp when recording at the low-speed sampling (1 kHz to 1/60 Hz).
- You can reproduce the data recorded at the low-speed sampling from the analog output amp by changing the reproduce sampling speed at 1.5 kHz or higher.

PA Amp AR-LXPA1/PA3

Two types of the PA amps for a voltage output accelerometer input are available for the LX series.

<PA-8> is shown at the **Slot** tab for the AR-LXPA1.

<PA3-8> is shown at the **Slot** tab for the AR-LXPA3.


The AR-LXPA3 is an amp equipped +/- 50 V input range and A and C weighting filters addition to the functions that the AR-LXDC supports.

See Section 6 for the specifications.

Cautions on Using PA Amp

- Calibration

It is suggested to use 0.01 V range of the LX PA amp after turning on the power for 10 minutes or more, and then executing manual calibration.

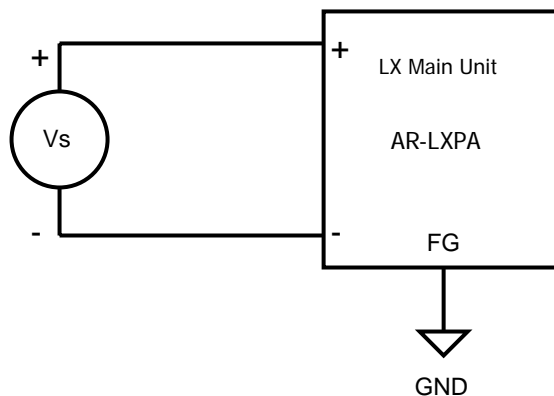
In order to execute the manual calibration for precisely measurement, click  button on the toolbar of the LX Navi. Also it is recommended to use the balanced input mode for precisely measurement.

- Input Connection and Grounding

When using many sensors or circuit signals of operations powered by a battery:

Input Mode: Balanced (Bal) mode

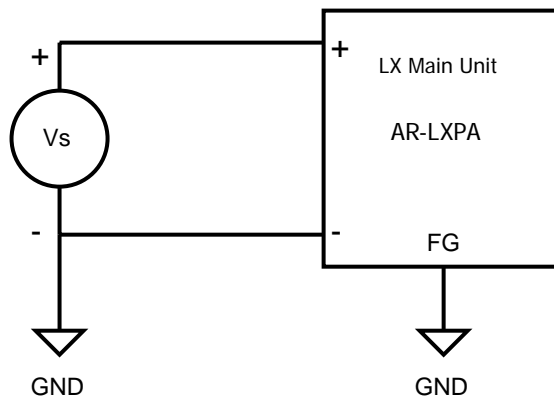
Whenever possible, connect the LX frame ground (FG) to ground.



When using circuit signals (AC, ICP, DC) of operations powered by an AC power source:

Input Mode: Balanced (Bal) mode

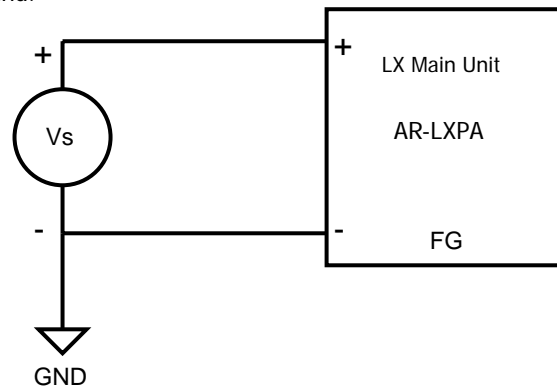
Always connect the frame ground (FG) of the input signal source and the LX frame ground (FG) to ground.



When using circuit signals (DC) of operations powered by an AC power source:

Input Mode: Unbalanced (Unbal) mode

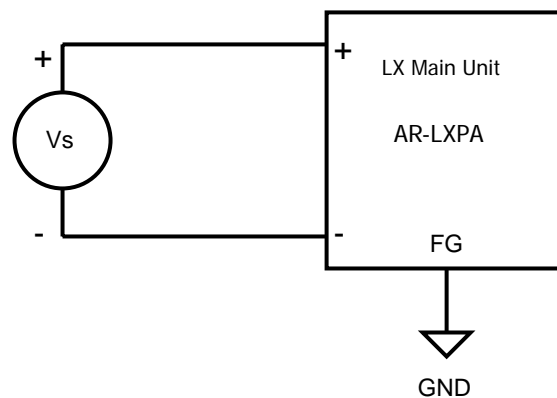
If the frame ground (FG) of the input signal source is connected to ground, do not connect the LX frame ground (FG) to ground.



When using circuit signals (DC) of operations powered by an AC power source:

Input Mode: Unbalanced (Unbal) mode

If there is no frame ground (FG) of the input signal source, connect the LX-10 frame ground (FG) to ground.



Input Amp Settings

AR-LXPA1 Setting Dialog

Select the input range (0.01 V, 0.0316 V, 0.1 V, 0.316 V, 1 V, 3.16 V, 10 V)

Select Balanced or Unbalanced input.
Bal: Balanced
Unbal: Unbalanced
Automatically set to DC coupling for all 8 channels when the balanced input is selected.

Select the coupling mode.
AC: AC coupling
DC: DC coupling

Select turning ON or OFF of the power supply to the sensor connected.
OFF: No supply
4mA: Supply 4 mA constant current

AR-LXPA2 Setting Dialog

Select the weighting filter.
A: A filter
C: C filter
FLAT: Flat

Select HPF (High Pass Filter).
OFF: No
10Hz: 10 Hz
20Hz: 20 Hz

Only combination of DC/OFF/FLAT selections is applicable at **Bal/Unbal: Unbal**.

- At the AR-LXPA2 amp, you can select between 28 V DC and 24 V DC on the sensor power supply at the internal dip switch. The factory default is 28 V DC. Contact TEAC for 24 V DC setting.

ST Amp AR-LXST1

<ST1-8> is shown at the **Slot** tab for the AR-LXST1.


The AR-LXST1 is an input amp applied for strain gauges and strain gauge type sensors and DC inputs.

See Section 6 for the specifications.

Cautions on Using ST Amp

- Calibration

It is suggested to use the LX ST amp after turning on the power for 5 minutes or more, and then executing manual calibration.

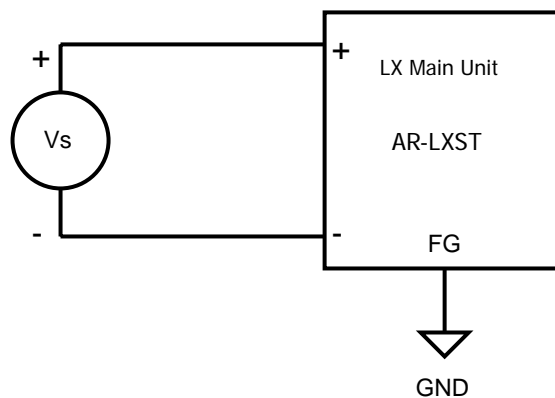
In order to execute the manual calibration for precisely measurement, click  button on the toolbar of the LX Navi. Also it is recommended to use the balanced input mode for precisely measurement.

- Input Connection and Grounding

When using sensors:

Input Mode: Balanced (Bal) mode

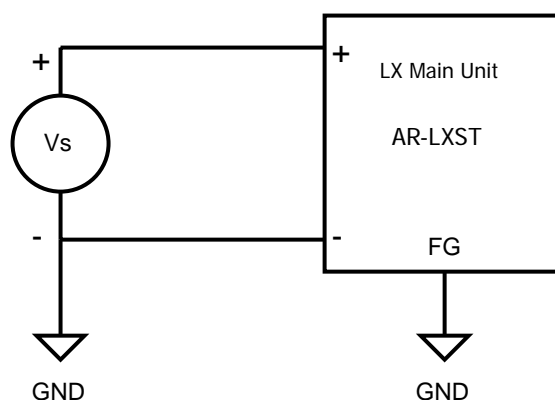
Whenever possible, connect the LX frame ground (FG) to ground.



When using circuit signals (DC) of operations powered by an AC power source:

Input Mode: Balanced (Bal) mode

Always connect the frame ground (FG) of the input signal source and the LX frame ground (FG) to ground.



Input Amp Settings

AR-LXST1 Setting Dialog

Select the input range.
Click **uST** to turn the button at the right bottom to **mV/V**.

Change the input range display between **uST** and **mV/V**.

Set the low pass filter.

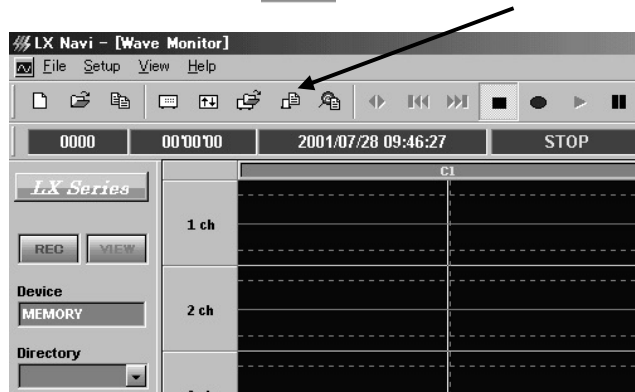
Change the bridge voltage.
Turn to **OFF** to set the DC input range.

Sensitivity Setting Using TEDS Functions

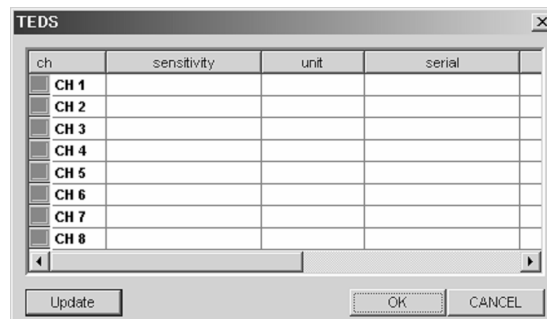
When a transducer/sensor conforms to the IEEE Std 1451 A SMART TRANSDUCER INTERFACE is connected to the AR-LXPA1/AR-LXPA2, the LX can read its Transducer Electronic Data Sheet (TEDS) information, then can display the information and set the acquired sensitivity coefficient automatically to the channel that the transducer is connected.

- If the information of the transducer is not complied with the IEEE TEDS standard template, the LX cannot read and display the information correctly.

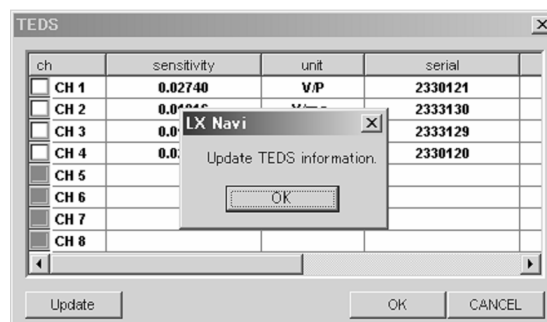
1. Click the toolbar icon  in the main window.



2. The **TEDS** dialog is displayed. If you turn ON the power of the LX after connecting the TEDS transducers, the TEDS information is automatically loaded at the initial calibration stage, and the LX displays the following window shown at the following step.

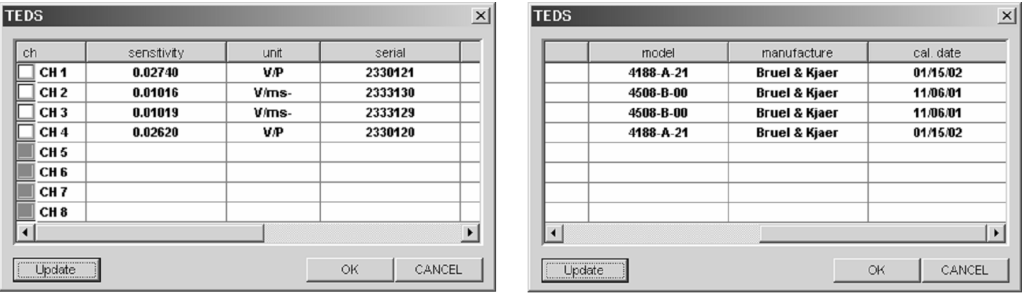


3. Click **Update** to read the TEDS transducer information. If you turn ON the power of the LX after connecting the TEDS transducers, the TEDS information is automatically loaded at the initial calibration stage, and the LX displays this window.

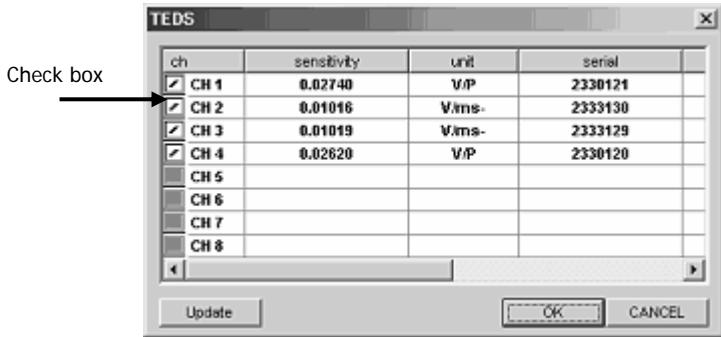


Sensitivity Settings Using TEDS Functions

4. Click OK when **<Update TEDS information>** message is displayed.
- You can view the list of the TEDS transducer information connected to the amp, such as;
- Sensitivity (**sensitivity**), Unit (**unit**), Serial number (**serial**), Manufacturer name (**manufacturer**), and Calibration date (**cal date**).




Turn on the check box of the channel to reflect the sensitivity of the loaded TEDS information.

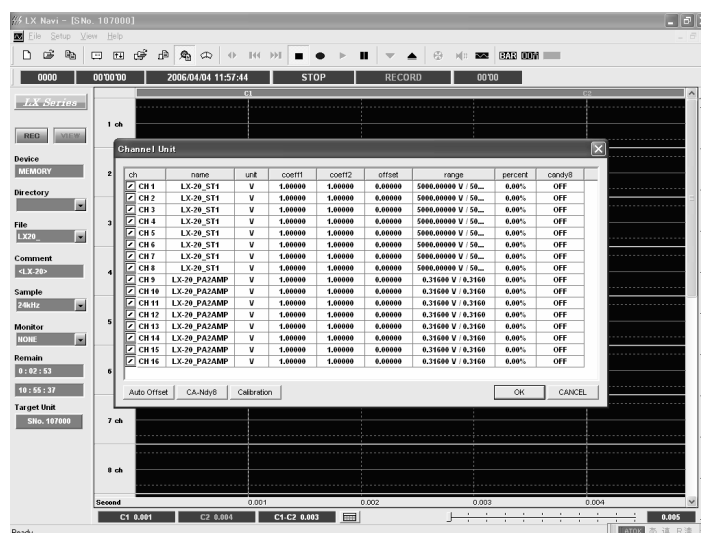


5. Click **OK** to write the applicable slope value (reciprocals of the loaded sensitivity) to the header file, then the window is closed. Open the channel property list at the main window to confirm the slope value is updated based on the loaded TEDS information.
- (See 5-16 Channel Property.)

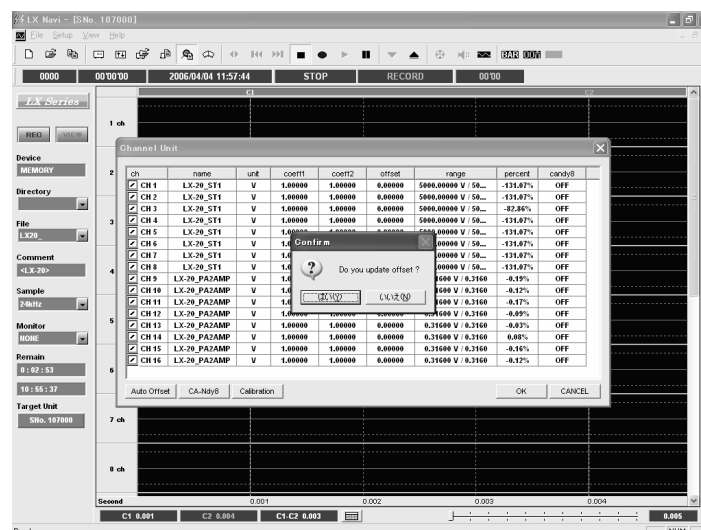
Auto Offset

The auto offset function of the LX Navi measures the voltage of each channel when clicking the **Auto Offset** icon, then reflects its voltage value to the header file. The waveform data in the LX Navi displays Y-axis data by adjusting to zero by using this offset value.

1. Click  on the toolbar at the stop state of the LX main unit.
2. The **Channel Unit** table is displayed.




3. Click **Auto Offset** on the **Channel Unit** table at the timing to execute the offset. The LX measures the voltages of the channels at the click timing and displays these values on the **offset** field.
4. Click **OK** to apply the offset voltages displayed on the channels turning on their check boxes. The **Confirm** dialog is displayed and then click **Yes** to set the values.

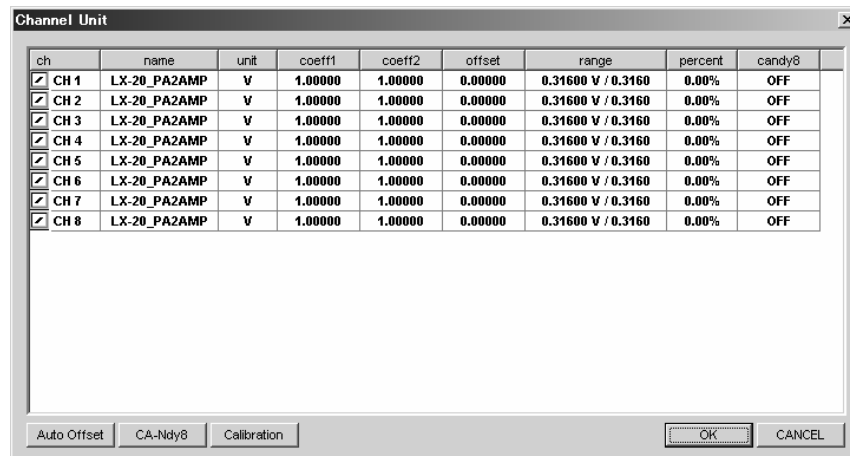


Calibration By Using Calibrator

Calibration By Using Calibrator

You can use a calibrator or a pistonphone to apply a sensor sensitivity based on the actual measurement at the PA amp.

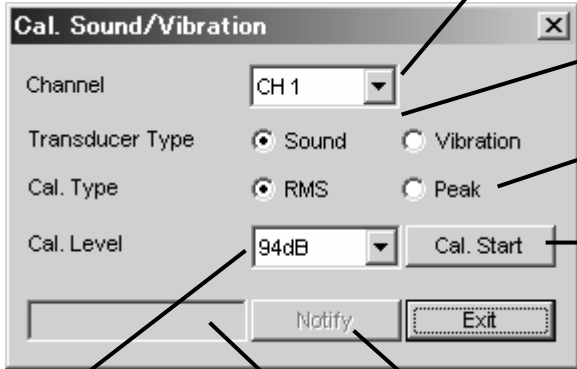
1. Click  on the toolbar at the stop state of the LX main unit.
2. The **Channel Unit** table is displayed.



The Channel Unit dialog box displays a table with 9 columns: ch, name, unit, coeff1, coeff2, offset, range, percent, and candy8. It contains 8 rows of data for channels CH 1 through CH 8. All channels are configured with the same parameters: name 'LX-20_PA2AMP', unit 'V', coefficients of 1.00000, offset of 0.00000, range of 0.31600 V / 0.3160, percent of 0.00%, and candy8 set to OFF. At the bottom, there are buttons for 'Auto Offset', 'CA-Ndy8', 'Calibration', 'OK', and 'CANCEL'.


ch	name	unit	coeff1	coeff2	offset	range	percent	candy8
<input checked="" type="checkbox"/> CH 1	LX-20_PA2AMP	V	1.00000	1.00000	0.00000	0.31600 V / 0.3160	0.00%	OFF
<input checked="" type="checkbox"/> CH 2	LX-20_PA2AMP	V	1.00000	1.00000	0.00000	0.31600 V / 0.3160	0.00%	OFF
<input checked="" type="checkbox"/> CH 3	LX-20_PA2AMP	V	1.00000	1.00000	0.00000	0.31600 V / 0.3160	0.00%	OFF
<input checked="" type="checkbox"/> CH 4	LX-20_PA2AMP	V	1.00000	1.00000	0.00000	0.31600 V / 0.3160	0.00%	OFF
<input checked="" type="checkbox"/> CH 5	LX-20_PA2AMP	V	1.00000	1.00000	0.00000	0.31600 V / 0.3160	0.00%	OFF
<input checked="" type="checkbox"/> CH 6	LX-20_PA2AMP	V	1.00000	1.00000	0.00000	0.31600 V / 0.3160	0.00%	OFF
<input checked="" type="checkbox"/> CH 7	LX-20_PA2AMP	V	1.00000	1.00000	0.00000	0.31600 V / 0.3160	0.00%	OFF
<input checked="" type="checkbox"/> CH 8	LX-20_PA2AMP	V	1.00000	1.00000	0.00000	0.31600 V / 0.3160	0.00%	OFF

3. Click **Calibration**.
4. The **Cal. Sound/Vibration** dialog is displayed.




The Cal. Sound/Vibration dialog box contains the following elements and annotations:

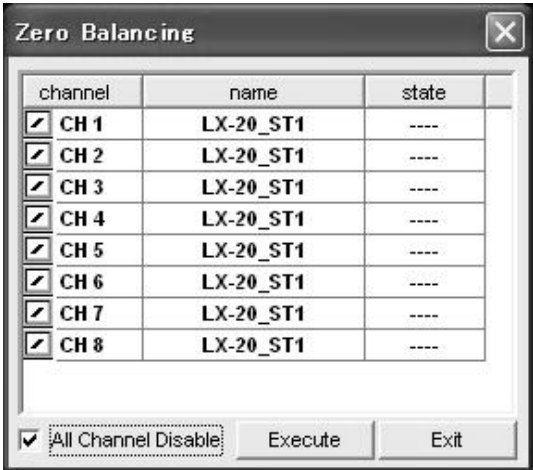
- Channel:** A dropdown menu currently showing 'CH 1'. Annotation: "Select the channel."
- Transducer Type:** Radio buttons for 'Sound' (selected) and 'Vibration'. Annotation: "Select the type of the sensor to use."
- Cal. Type:** Radio buttons for 'RMS' (selected) and 'Peak'. Annotation: "Select to use RMS or Peak value for calibration."
- Cal. Level:** A dropdown menu currently showing '94dB'. Annotation: "Set the output level to match to the calibrator to be used."
- Cal. Start:** A button to initiate calibration. Annotation: "Start calibration."
- Notify:** A button to apply the calibration result to the slope value. Annotation: "Apply the calibration result to the slope value."
- Exit:** A button to close the dialog. Annotation: "Being displayed the progress of the calibration."

5. After the calibration is done, click **Exit** or click  to return to the main window.

Zero Balance

Whenever turning on the power, use the zero balance function at the ST amp.

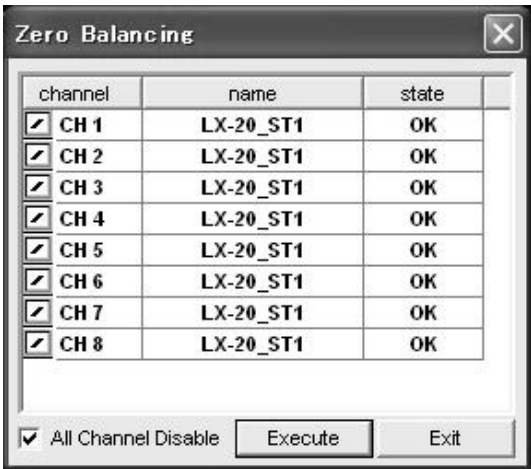
- 1. Click  on the toolbar at the stop state of the LX main unit.
- 2. The **Strain Zero Balance** dialog is displayed to start the zero balance.



- 3. **Start Zero Balance ...** is displayed while implementing the zero balance of all ST amp channels at the time.



- 4. **Completed** is displayed when the zero balance has been completed.



- 5. After the zero balance is completed, click **Exit** or click  to return to the main window.

Setting Tachometer Pulse Inputs

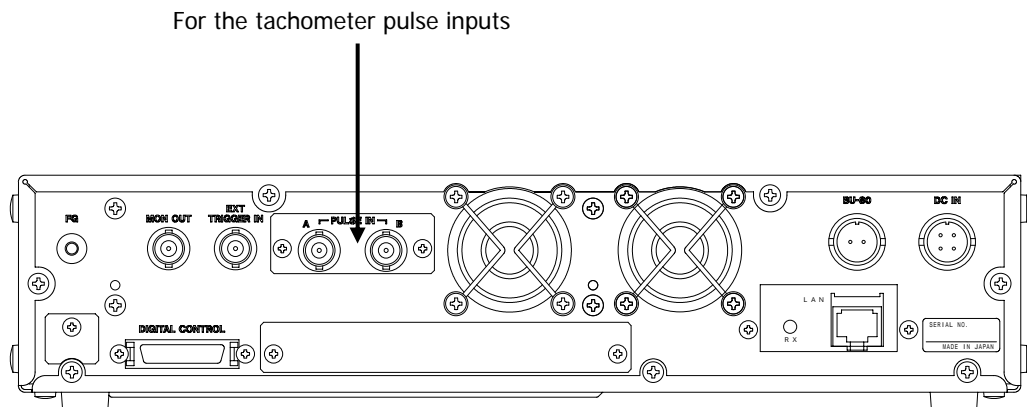
Setting Tachometer Pulse Inputs

The LX-20/20L equips two of the tachometer pulse input channels in separate of analog input channels. Their input connectors are located on the rear panel.

Either 16 bits or 32 bits mode can be selected. When you select the 16 bits mode for one channel, another channel is automatically effective at 16 bits mode. In 32 bits mode, you may select only one channel.

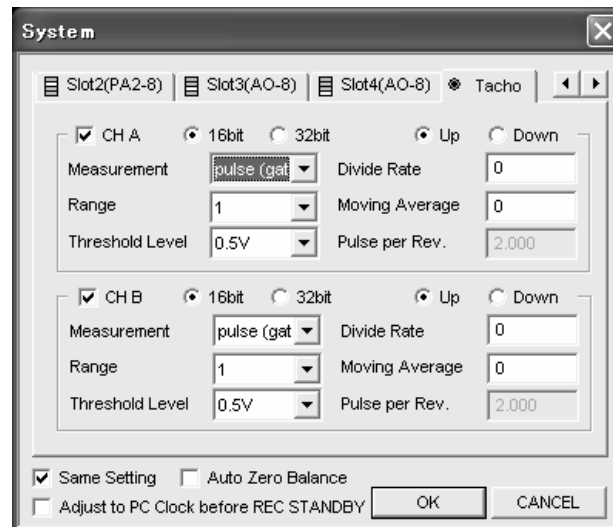
See Section 6 for the specifications.

- 1 x 16 bits tachometer pulse input channel is equivalent to 1 x analog input channel. 1 x 32 bits tachometer pulse input channel is equivalent to 2 x analog input channels. Therefore, if you turn ON tachometer pulse input channel(s), in order keep the same analog input channels, lower the sampling frequency is required by following the setting of tachometer pulse input channel(s).
- Set **Moving Average** to [1] only, when the sampling frequency of 102.4 kHz, 100 kHz, 96 kHz, 65.536 kHz, 51.2 kHz, 50 kHz, 48 kHz, or 32.768 kHz is selected.
- Only 1 x 32 bits tachometer pulse input can be selected when the sampling frequency of 102.4 kHz, 100 kHz, 96 kHz, or 65.536 kHz is selected.
- The LX Navi cannot monitor the tachometer pulse input in wave form display. Use the distal display to monitor.
- The LX cannot playback the recorded tachometer pulse input signals. Process the data as digital data file.
- You cannot use the tachometer pulse inputs and the generator output function at the time.



Setting Tachometer Pulse Inputs

At the **System** dialog, click the **Tacho** tab to set the tachometer pulse input channel parameters.



Turn on the check box for the tachometer pulse input channel to be used and select **16bit** or **32bit**. If you turn on both channels, the number of the bits to be set must be the same. Other parameters are show below.

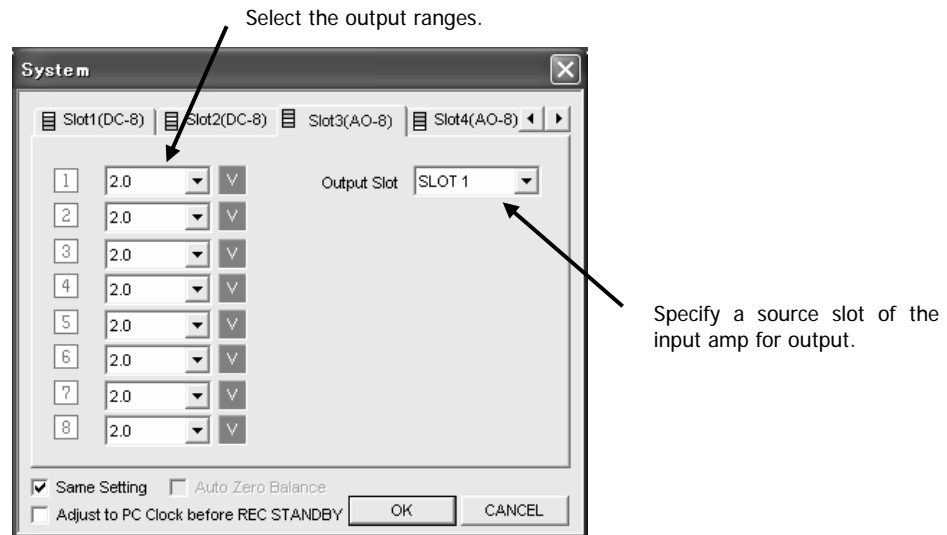
Parameters (Note to refer the articles mentioned at the previous page.)

Parameters	Details
Measurement	Measurement mode
pulse (gate)	Pulse count mode within the gate time
pulse (total)	Total counts from measurement start to stop
Period	Cycle count mode
Frequency	Frequency measurement mode
Rpm	RPM measurement mode
Range	Measurement range
at pulse (gate) mode	1 to 255 times of the sampling frequency
at period mode	1m, 5m, 10m, 50m, 100m, 500m, 1 sec
at frequency mode	10, 20, 50, 100, 200, 500, 1k, 2k, 5k, 10k, 20 kHz
at rpm mode	1500, 3000, 6000, 9000, 12000, 15000, 18000, 24000 rpm
Threshold Level	Threshold level setting +0.5, +1, +2.5, +5, +10, +20 V
Divide Rate	Divide rate 1 to 255
Moving Average	Moving average setting 1 to 16
Pulse per Rev.	Pulse per revolution 1 to 255

Output Amp Settings

Output Amp Settings

In the **System** dialog, click the tab of the slot in which the output amp is installed to set the output ranges. <AO-8> is shown at the **Slot** tab.



Output Range Setting

You can select the output range from 1 V to 5 V at 0.1 V steps.

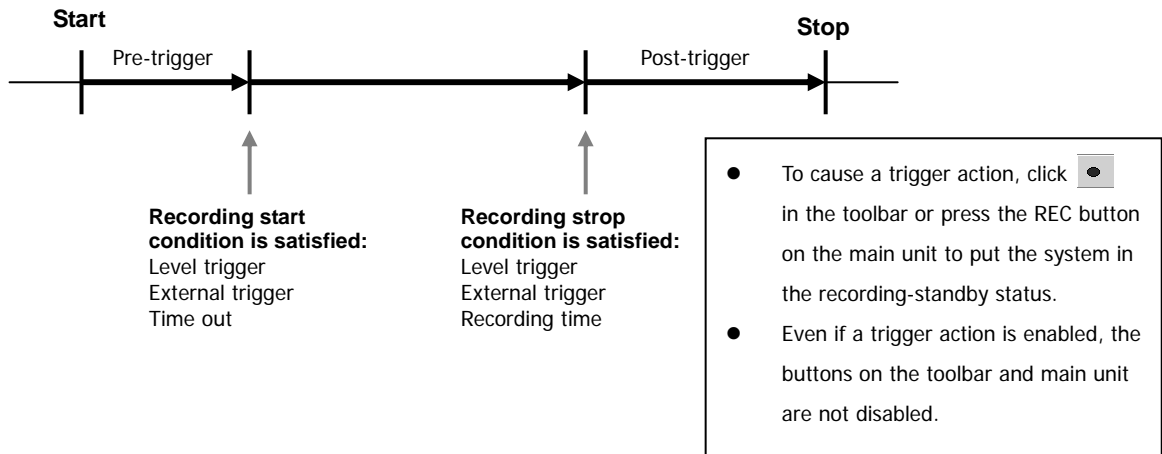
- In the recording at the low-speed sampling mode (1 kHz to 1/60 Hz), you cannot use the analog output at the output amp.
- You can playback the data recorded at the low-speed sampling mode (1 kHz to 1/60 Hz) by changing the playback sampling frequency at 1.5 kHz or higher.
- Make sure to specify the source slot installed the input amp at the **Output Slot**.
- At the LX series, the AD value of +/- 25000 is correspondent to +/- 100 % of the input range. So that the output amp outputs the signal at the scale of +/- 100% as the specified output range. For example, if you record + 1V signal at the 1 V input range and you set the output range at 2 V, you will obtain +2 V signal correspondent to the recorded 1 V signal.

Outline of Trigger Recording

In addition to manual operation, you can also start or stop recording automatically in the following modes.

Repeat Mode

Repeats the recording operation for a specified number of times, as shown in the following diagram. Recording once is also possible.



<Recording-Start Conditions>

- Level trigger

The trigger is a change in level in a specified channel.

- External trigger

The trigger is a contact signal to the EXT TRIGGER IN connector on the rear of the LX. (L level: starts if 0.6 V or less) If the level is already L when the system enters the recording-standby status, recording starts at once in memory/MO recording. In PC recording, however, recording starts when the signal changes from H to L after the system enters the recording-standby status.

- Time-out

Recording is forced to start when the specified recording- start condition is not satisfied during a set period.

- Pre-trigger

A pre-trigger also records the data that was read into a buffer before one of the above recording-start conditions was satisfied. The voice memo is not recorded during the pre-trigger period.

<Recording-Stop Conditions>

- Level trigger

The trigger is a change in level in a specified channel.

- External trigger

The trigger is a contact signal to the EXT TRIGGER IN connector on the rear of the LX. (H level: stops if open or 2 V or more)

- Recording time

Records for a specified period only.

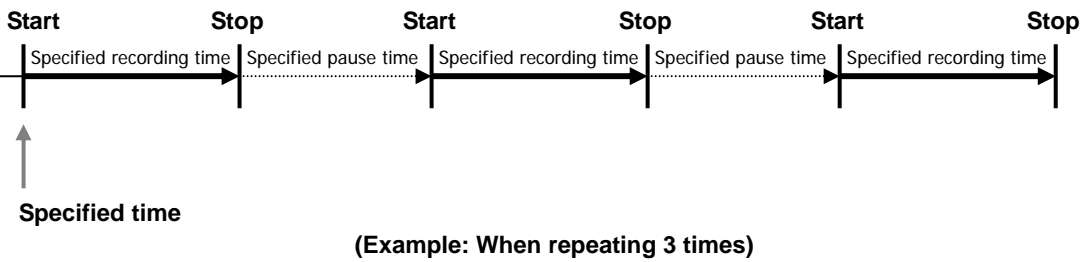
- Post-trigger

Continues to record for a set period even after a recording-stop condition is satisfied.

Outline of Trigger Recording

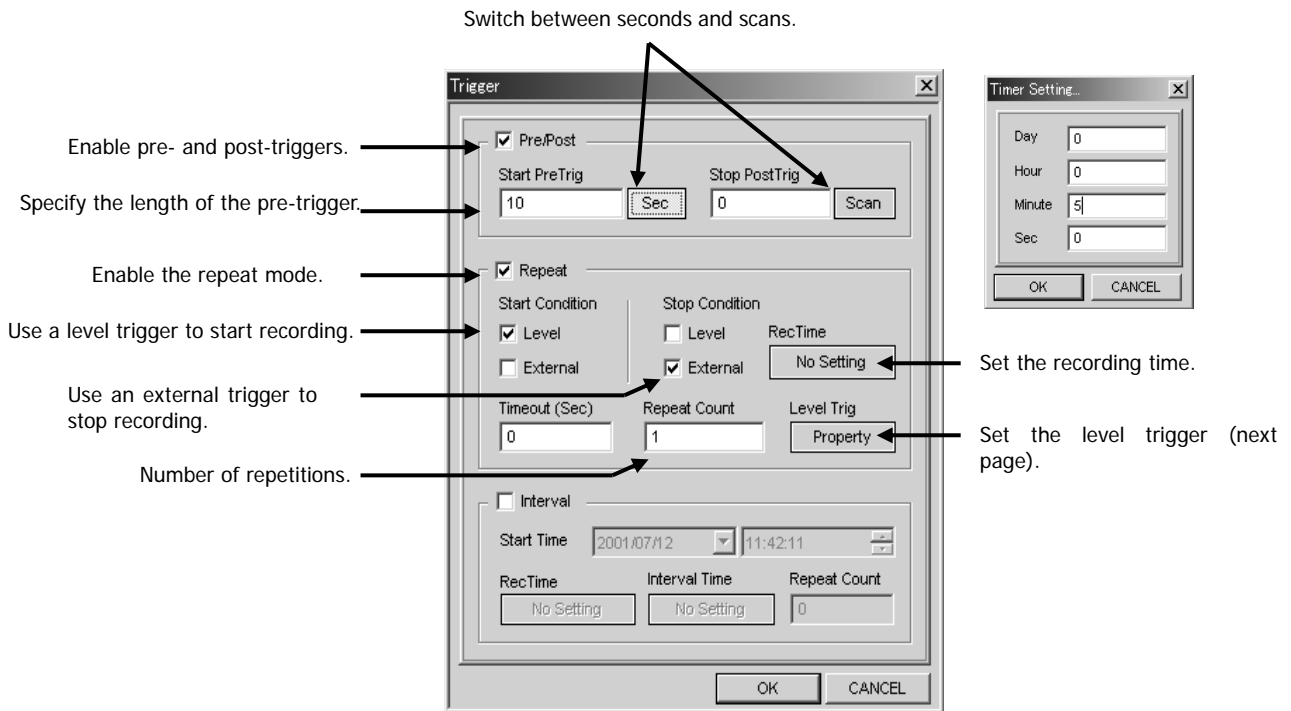
Interval Mode

Repeats the starting and stopping of recording for a specified number of times, during a specified period.
Recording once is also possible.



Repeat Mode Settings

To specify trigger action settings, from the **Setup** menu choose **Trigger**.



The settings in the above dialog box use a level trigger to start recording and an external trigger to stop recording. A 10-second pre-trigger is specified, and recording is done once.

Pre/Post

Select this to enable a pre-trigger or post-trigger. When Pre/Post is selected but the lower **Repeat** is not selected, the pre-trigger is enabled for starting recording by operations that use the toolbar or the buttons on the LX main unit. (The post-trigger is not enabled for stopping recording by operations that use the toolbar or the buttons on the LX main unit.)

Start PreTrig/Stop PostTrig

Specify the length of the pre-trigger or post-trigger in seconds or in scan units. To switch the units, click a button on the right. When 0 is entered, the pre- or post-trigger is disabled. Specify a value that does not exceed the time possible using available free memory.

Repeat Mode Settings

Repeat

Select this to enable the Repeat mode.

Start Condition

Specify a recording-start condition. If multiple conditions are set, the first condition satisfied will start recording.

Level: Select this to enable a level trigger. You can set level trigger details in the dialog box displayed by choosing **Level Trig** and then **Property**. (See the next page.)

External: Select this to enable an external trigger.

Timeout: If a level trigger or external trigger has been enabled, you can force recording to start if a specified recording-start condition is not satisfied during a specified period. Specify the period in seconds. When 0 is entered, **Timeout** is disabled.

Stop Condition

Specify a recording-stop condition. If multiple conditions are set, the first condition satisfied will stop recording.

Level: Select this to enable a level trigger. You can set level trigger details in the dialog box displayed by choosing **Level Trig** and then **Property**. (See the next page.)

External: Select this to enable an external trigger.

RecTime: Enables you to stop recording after a set period has elapsed from the start of recording. You can set the period in the dialog box displayed by clicking the button. After you have entered a period, the period is displayed in this area.

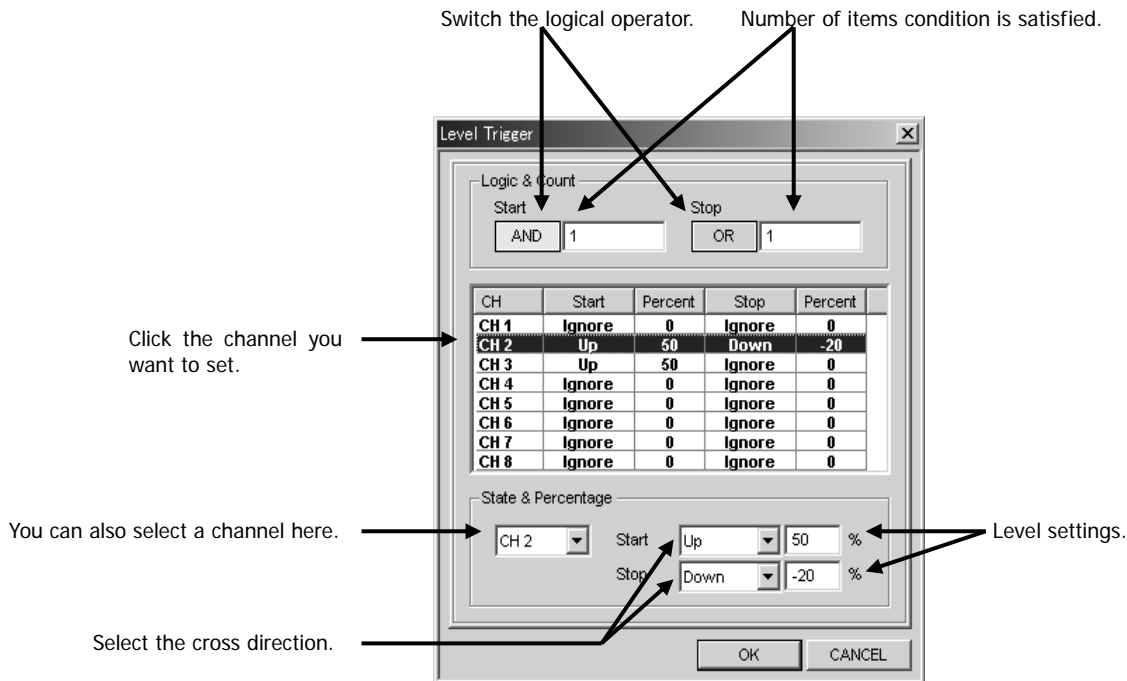
- Make sure to turn the trigger signal level to High before the next start, when you are using an external trigger for start with a repeat recording by using REC TIME.

Repeat Count

Specify the number of times the trigger recording operation specified above is to be repeated. A file is made for each of the specified number of times. You can also specify 1 time only. Specifying 0 will result in an unlimited number of repetitions (repetitions until you manually stop recording).

Level Trigger Settings

To specify the details of the level trigger, click **Level Trig – Property**.



The settings in the above dialog box are such that recording starts when the input signal of channel 2 crosses from lower than +50% of the specified input range to higher than +50%, AND, the channel 3 signal crosses from lower than +50% to higher. Recording stops when the input signal of channel 2 crosses from higher than -20% of the specified input range to lower than -20%.

Channel selection

In the list of channels, click the desired channel. Alternatively, select the channel from the drop-down list box in the lower left of the window.

Select the cross direction:

Up: The condition is regarded as having been satisfied when the input signal crosses from lower than the specified level to higher. The condition is regarded as not having been satisfied if the specified level was already higher when the recording-standby status was entered.

Down: The condition is regarded as having been satisfied when the input signal crosses from higher than the specified level to lower. The condition is regarded as not having been satisfied if the specified level was already lower when the recording-standby status was entered.

Ignore: The channel is not monitored for the level trigger.

Level settings

The full scale of the specified input range is set to 100% on both the plus and minus sides. You set the monitoring level for these in the range from -99% to +99%. Enter a minus sign (-) for minus values. In the above dialog box, when the input range is 10 V, 50% becomes 5 V and -20% becomes -2 V.

Logic

When multiple channels are monitored for **Start** and **Stop**, specify whether these are combined using a logical **AND** or logical **OR**.

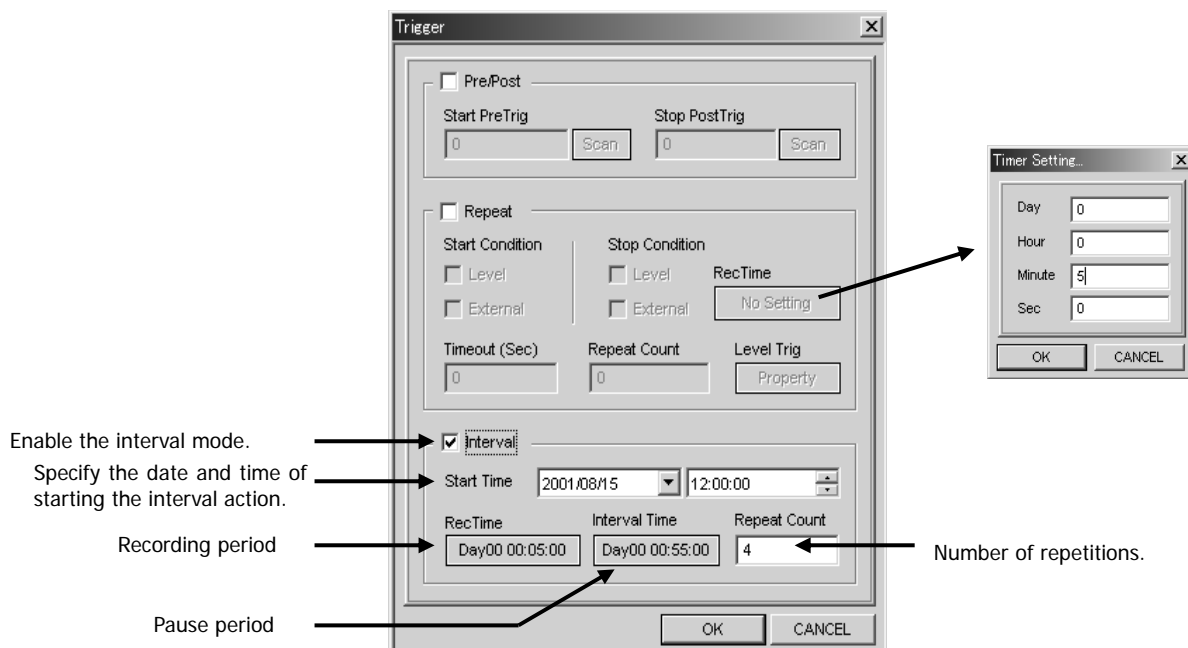
Number of times condition is satisfied

Specifies how many times a condition is regarded as having been established when a condition specified above (including the logical operator) is satisfied multiple times.

Interval Mode Settings

Interval Mode Settings

You can set trigger-action details in the dialog box displayed by choosing the **Setup** menu and then **Trigger**.



The settings in the above dialog box specify that there are to be 4 recordings, each of which shall begin every hour on the hour from noon on August 15, 2001 and end in 5 minutes.

Interval

Select this to enable the Interval mode.

Start Time

Specify the date and time when the interval action is to start.

Rec Time

Clicking this displays a dialog box in which you can specify the recording period. The value you set is displayed in this area.

Interval Time

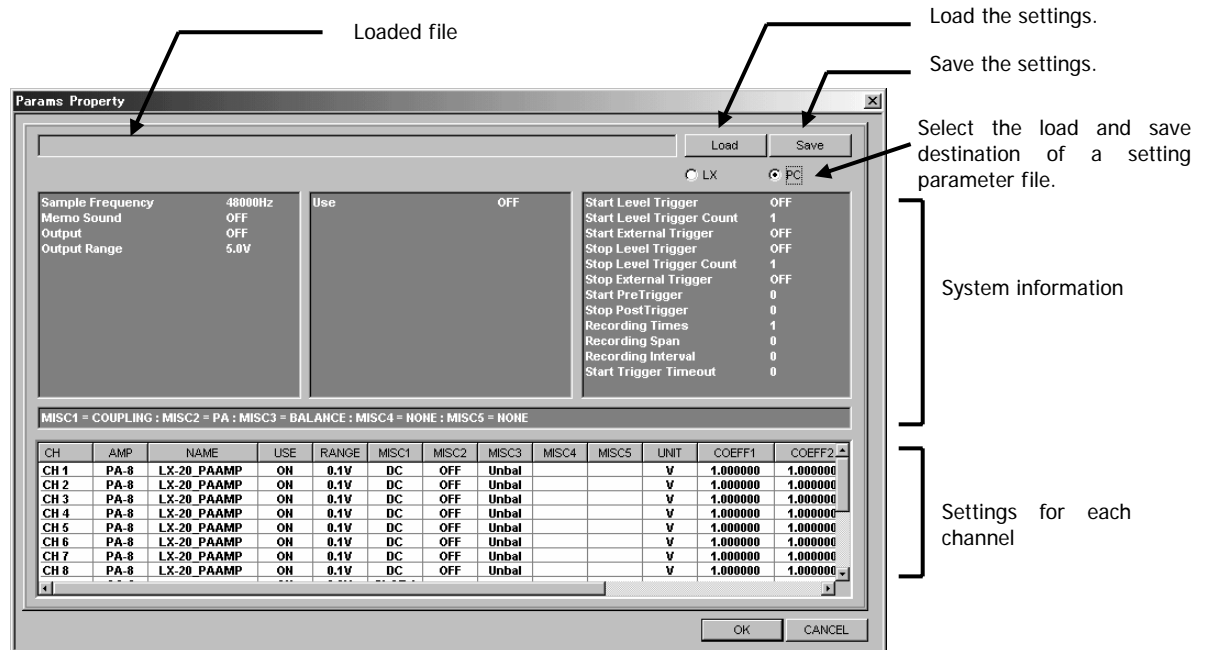
Specify the interval to wait before recordings. (Note that this is not the cycle period.) Clicking this displays a dialog box in which you can specify the interval. When recording to the media, the interval must be three seconds or longer; to memory or a PC, one second or longer. The value you set is displayed in this area.

Repeat Count

Specify the number of times recording is to be repeated. A file is made for each of the specified number of times. You can also specify 1 time only. Specifying 0 will result in an unlimited number of repetitions (repetitions until you manually stop recording).

Saving and Loading Settings

The parameters that you set after choosing the **Setup** menu and then **System** and **Trigger** can be saved to a file and then loaded whenever required. When you choose **Params Property** from the **Setup** menu, the following dialog box is displayed.



Saving Settings

You save the set parameters as a file that has a .prm extension. We recommend that you save your settings to avoid potential problems.

1. Click **Save** at the **Params Property** dialog.
2. When you select the **LX** (the media loaded into the LX main unit) for the destination to save, the **LX Parameter File List** dialog will be displayed. Enter the file name to save the setting parameters at the bottom of the dialog, or select the file name to be changed its parameters, and then click **OK**.



2. When you select the **PC** for the destination to save, the **Save As** dialog will be displayed. Enter the folder to save and the file name, and then click [Save(S)].

- The setting parameter file is saved as ASCII format, so that you can open the file by using the word pad program of Windows. Never replace the contents, otherwise you cannot load the file at the LX.

Saving and Loading Settings

Loading Settings

Load the prm file once saved.

1. Click **Load** at the **Params Property** dialog.
2. When you select the **LX** (the media loaded into the LX main unit) for the destination to load, the **LX Parameter File List** dialog will be displayed. Select the file name to load its parameters, and then click **OK**.



The loaded file name is displayed at **Params Property** dialog.

2. When you select the **PC** for the destination to load, the Open dialog will be displayed. Enter the folder to load and the file name, and then click [Open(O)].

The loaded file name is displayed at **Params Property** dialog.

3. Click OK at the **Params Property** dialog.
The LX will be set at the contents of the loaded file.