ONO SOKKI

DS-2000 Series

RTA Measurement

(Real-time Octave Analysis)

ONO SOKKI CO., LTD.

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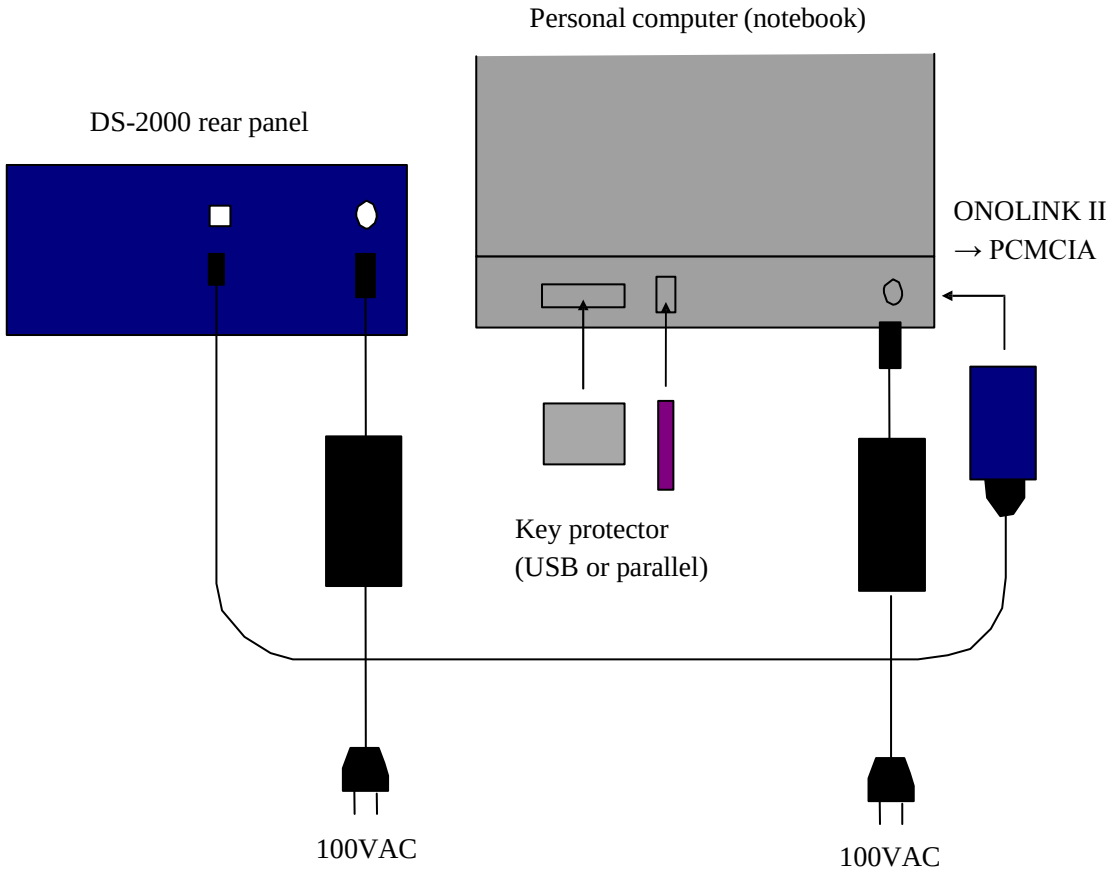
Saving data **Copying and outputting data**	**Save and output data.**

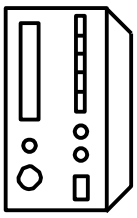
2. Device Connections

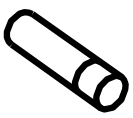
2-1 Device Connections

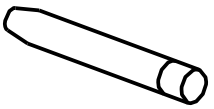
Connect the DS main unit and the PC.



2-2 Connecting a Detector







* When the MI-1211 and MI-3210 are used, an option for direct input (DS-0286/0287) is available.

* When the MI-1211 and MI-3210 are combined, use the SR-1100 Microphone preamplifier.

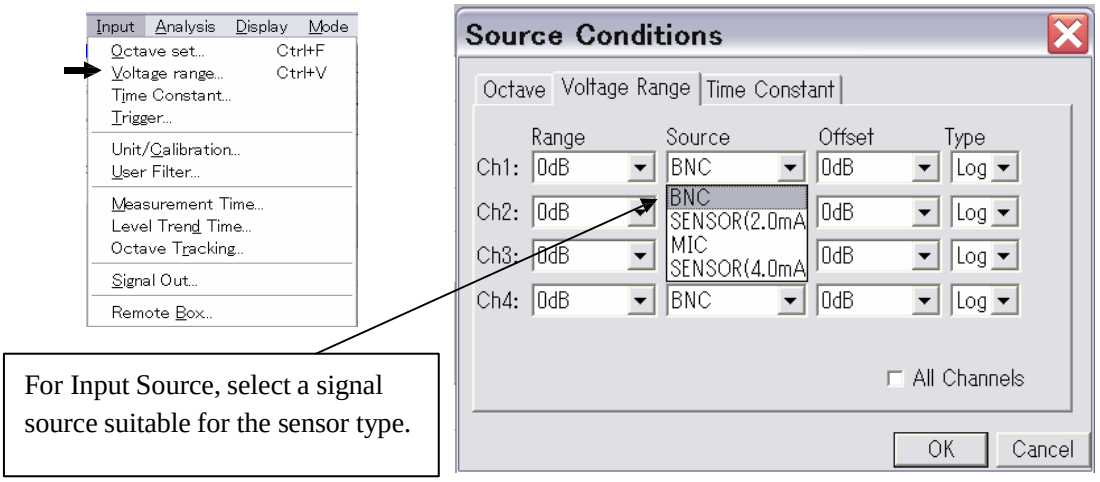
* When the MI-1233/1431 and MI-3110 are combined, use BNC cables for direct connection.

* With the LA Series sound level meter, connect the AC output and the input section at the bottom of the DS-2000 with a supplied cable.

3. Real-time Octave Analysis Setup

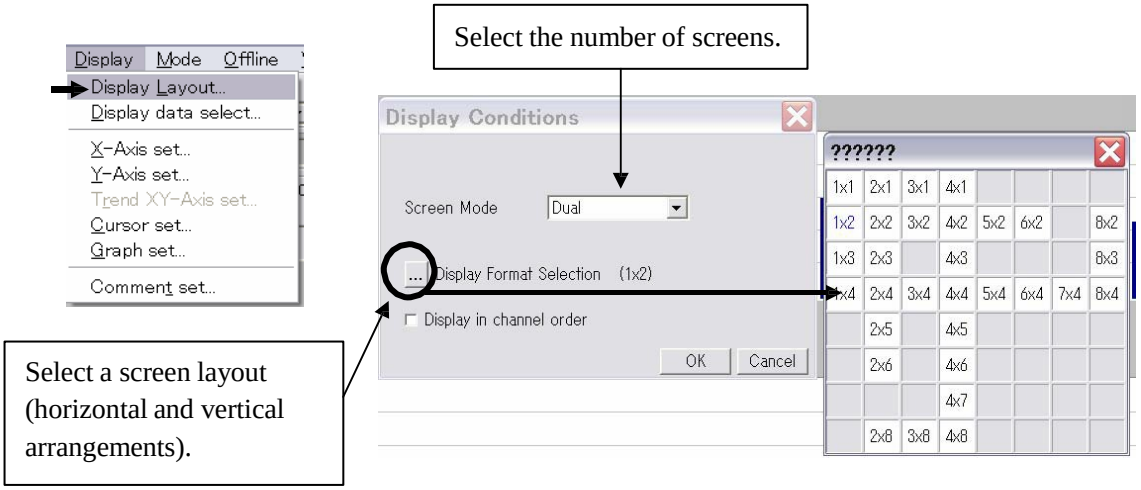
3-1 Input Source Setup

Select an input source depending on a sensor used. When using a constant-current microphone (a combination of the MI-1233/1431 and MI-3110), select a constant current of 2.0mA.
Select “Voltage range” from the “Input” menu.

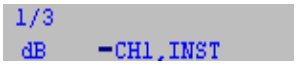


3-2 Display Layout Setup

Select the number of screens to be displayed in and a screen layout of the measurement screen.

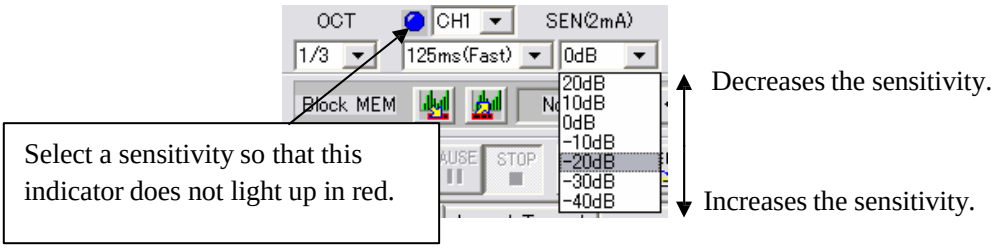


* When multiple screens are displayed, left-click the comment area at the top left of each screen to activate it.

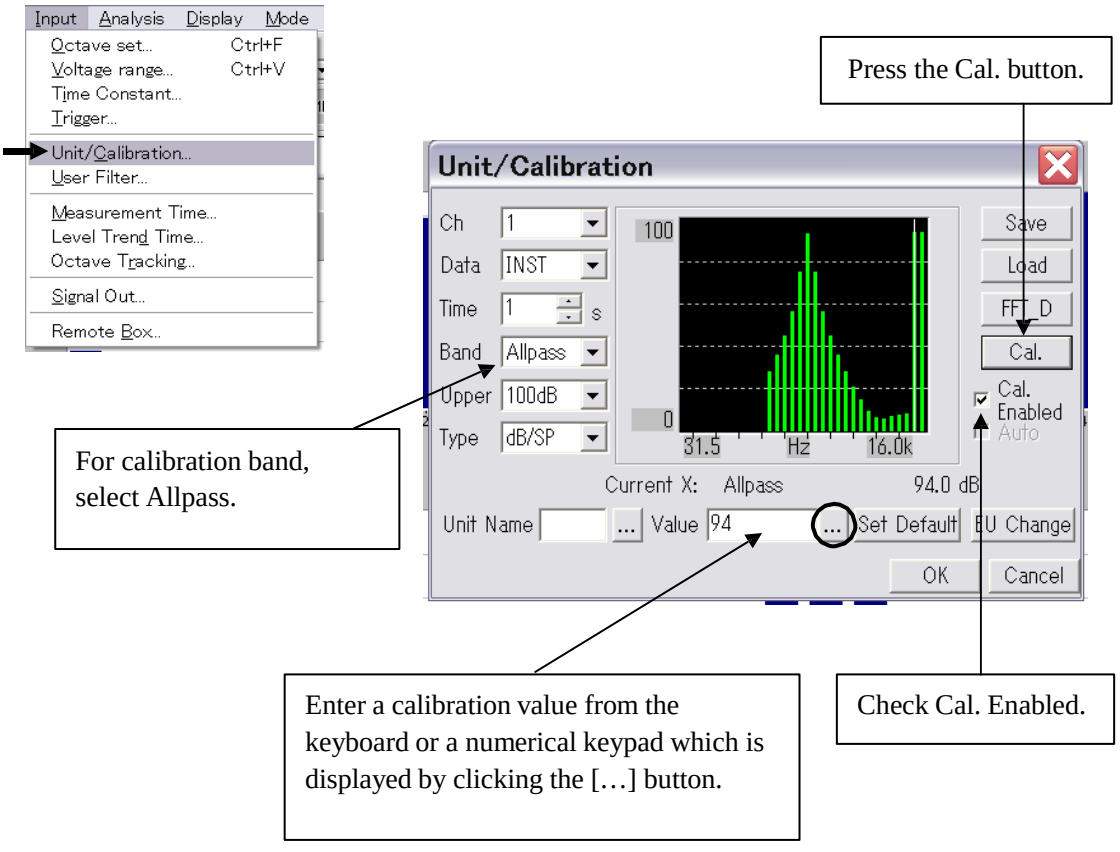


3-3 Calibration with Sensor

Perform calibration with a microphone. In the case of using a sound level meter, press the CAL button to output a calibration signal. When a microphone is connected, insert the calibrator into the microphone and output the calibration signal. (Do not change the level range after calibration.) Make sure that the sensitivity of the input signal is not exceeded.

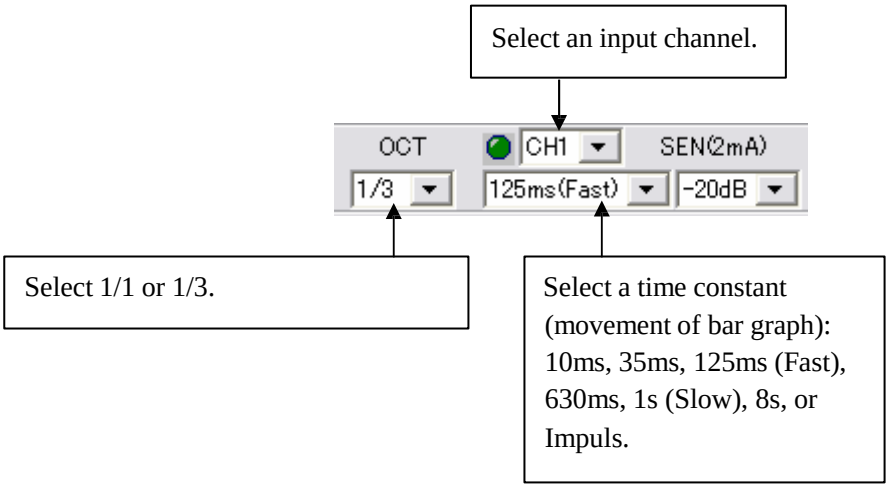


Select “Unit/Calibration” from the “Input” menu.



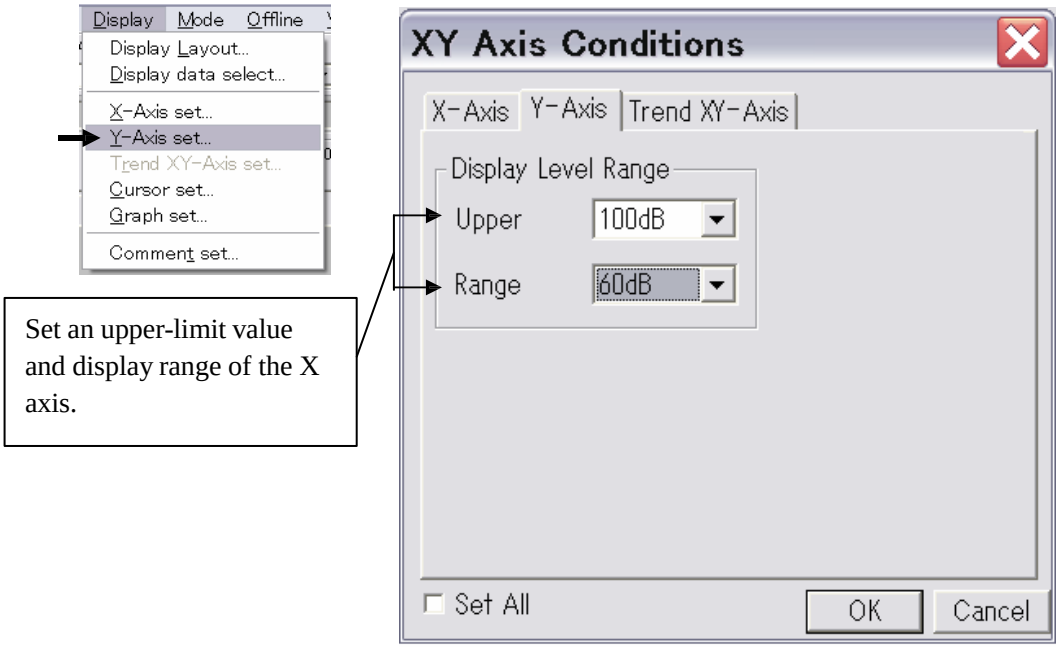
3-4 Displaying Instantaneous Data

Perform various setup of real-time octave analysis.

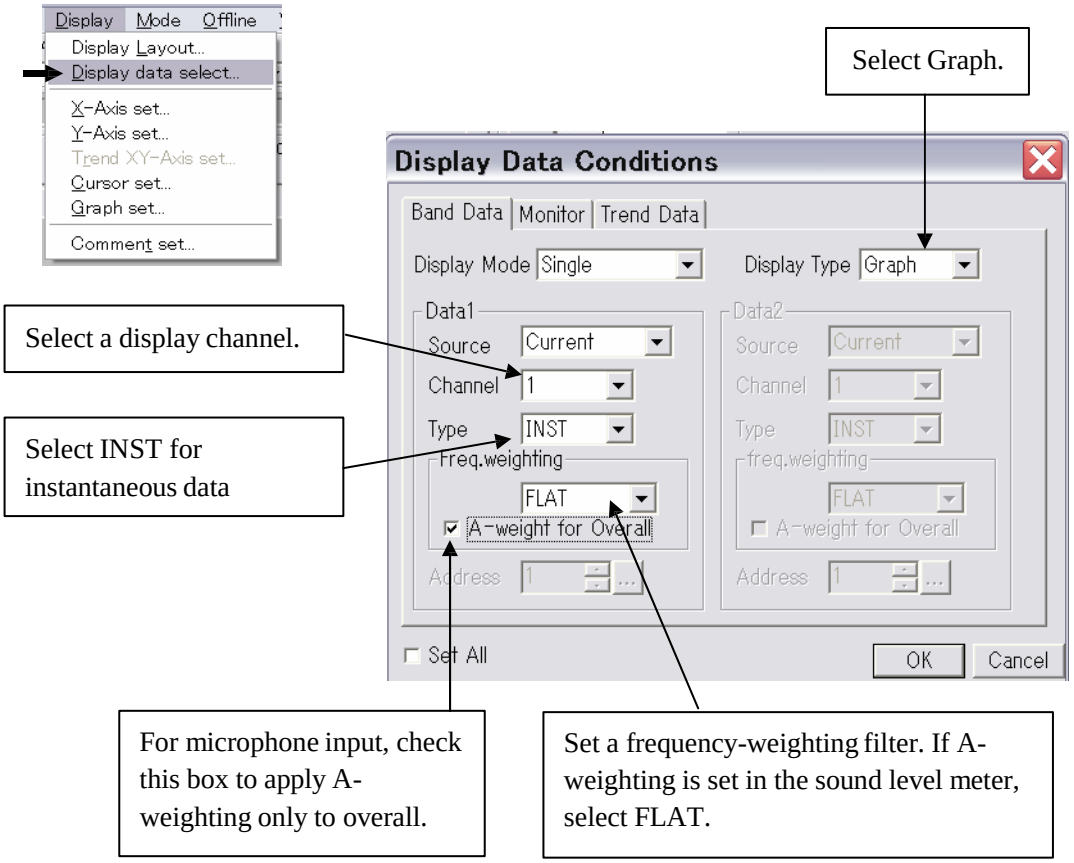


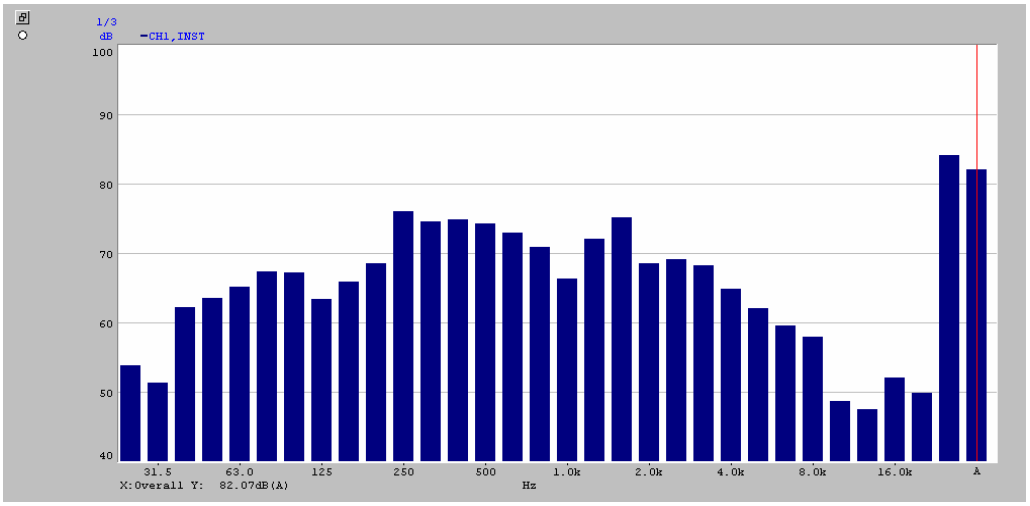
Set a display range of the Y-axis.

Select “Y-Axis set” from the “Display” menu.



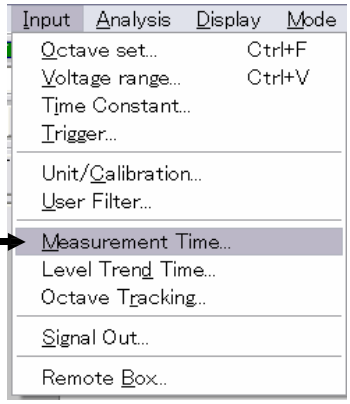
Similarly, select “Display data select” from the “Display” menu.

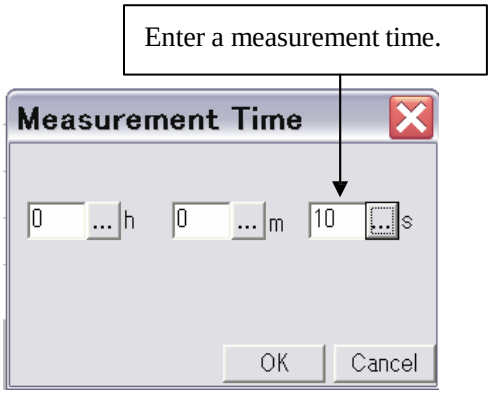


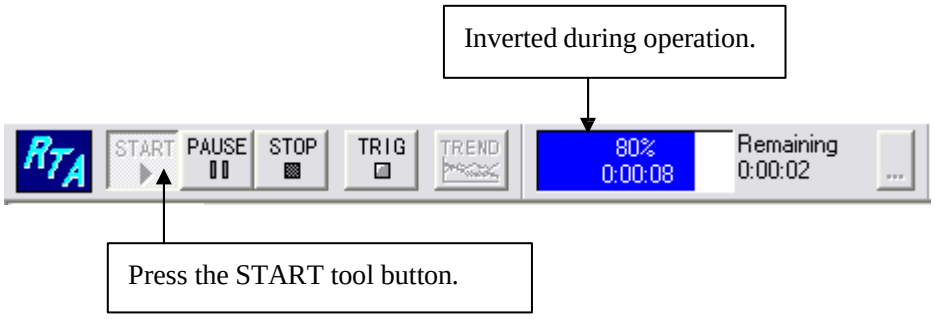


3-5 Calculating Power Average (Equivalent Sound Level Leq)

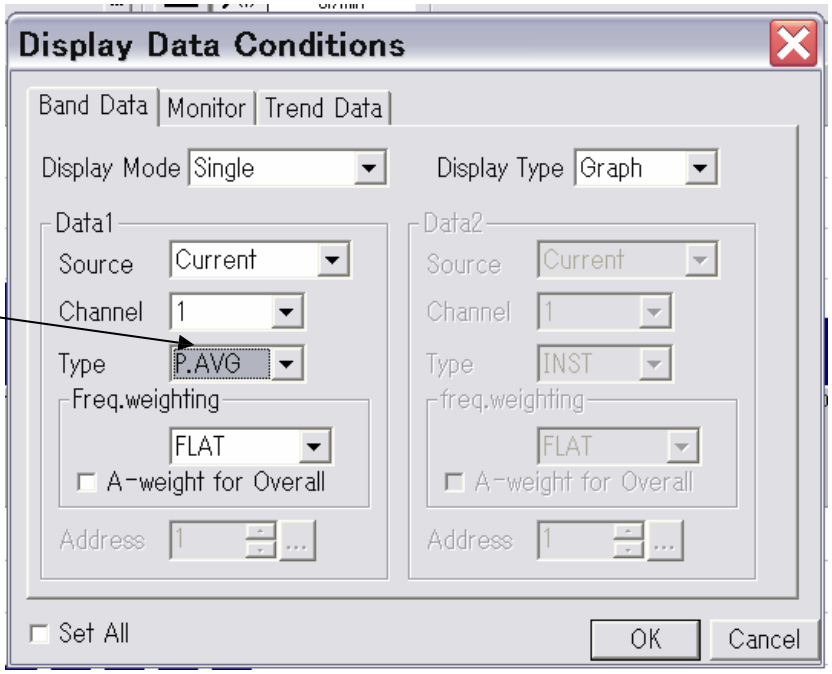
Select “Measurement Time” from the “Input” menu.



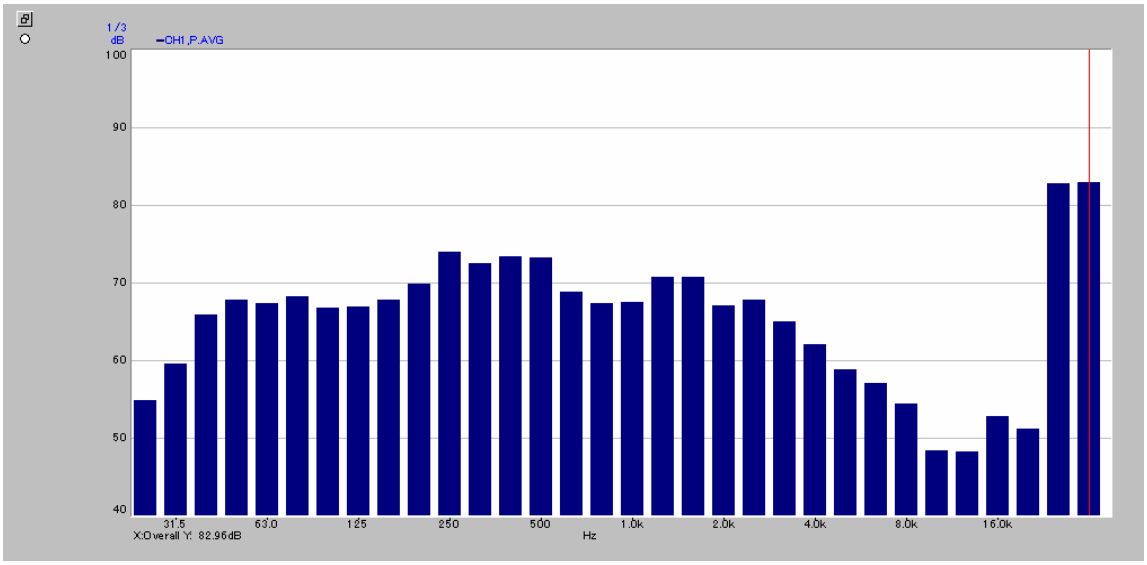




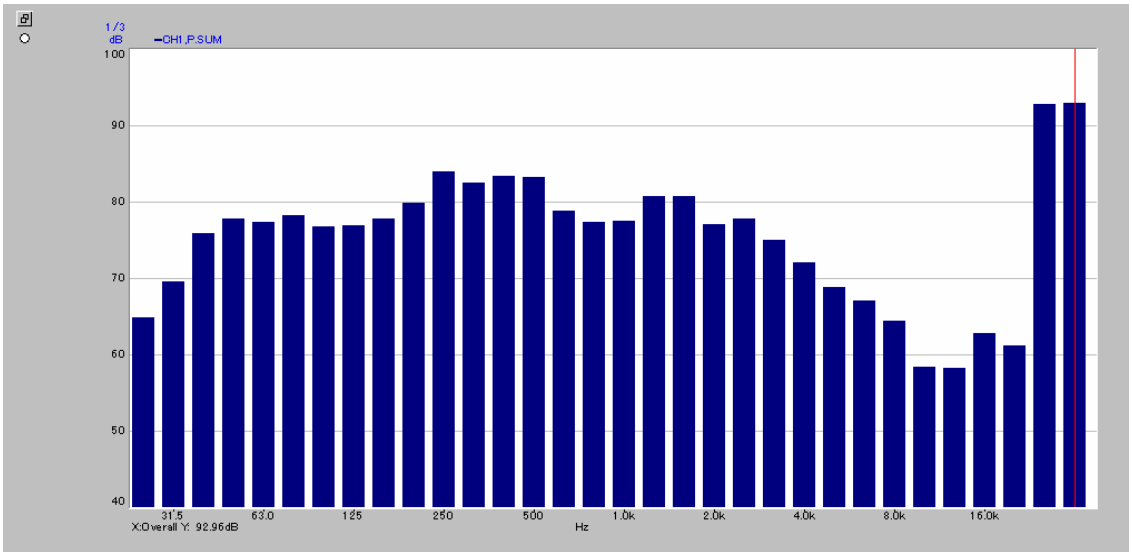
Select “Display data select” from the “Display” menu, and select P.AVG for Type. When P.SUM is input, the power summation value is displayed.



Power average display

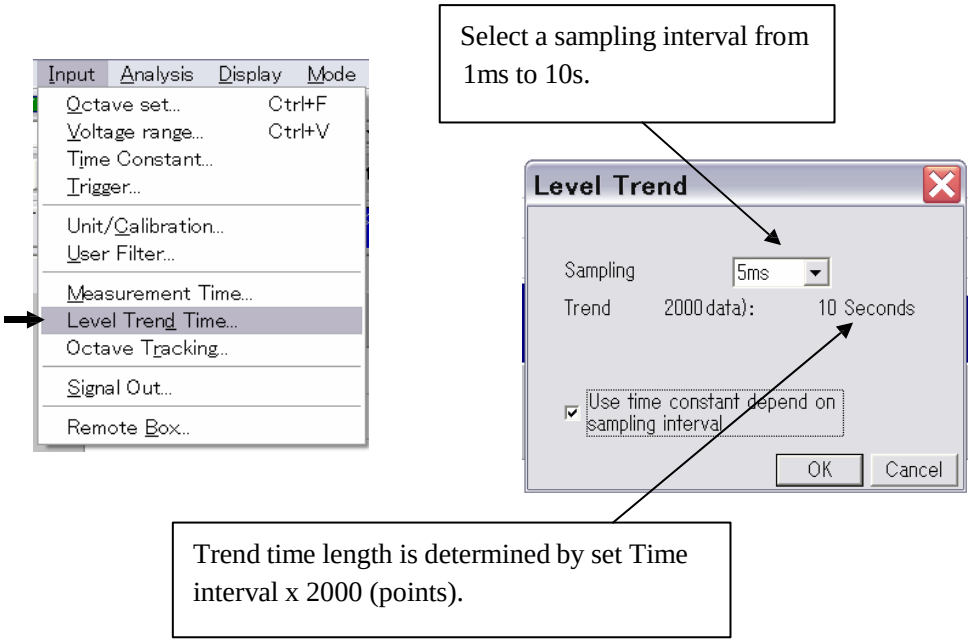


Power sum total value display



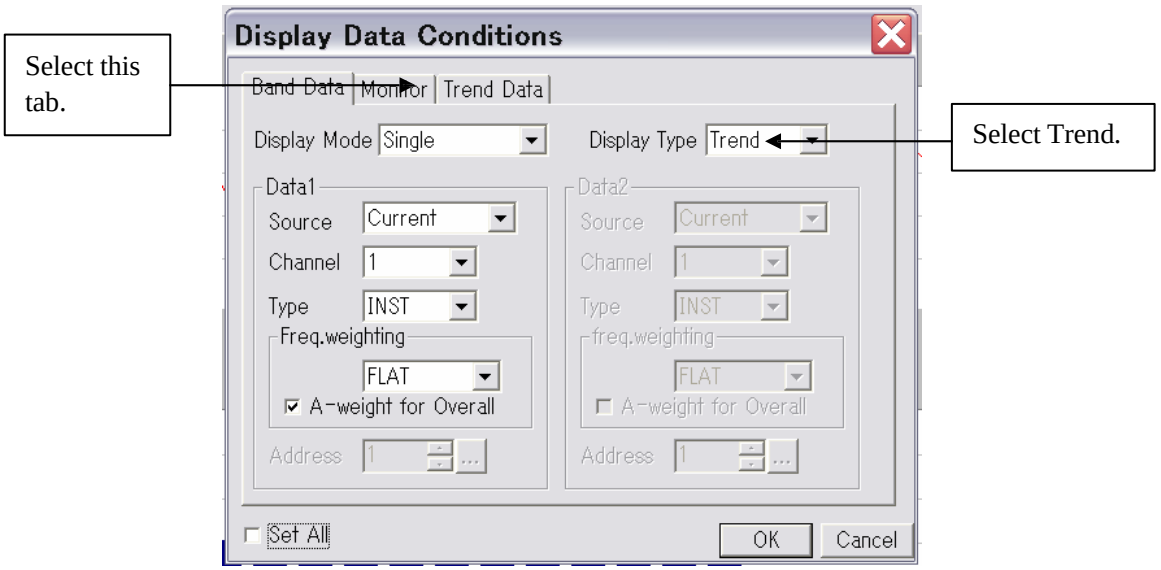
3-6 Level Trend Analysis

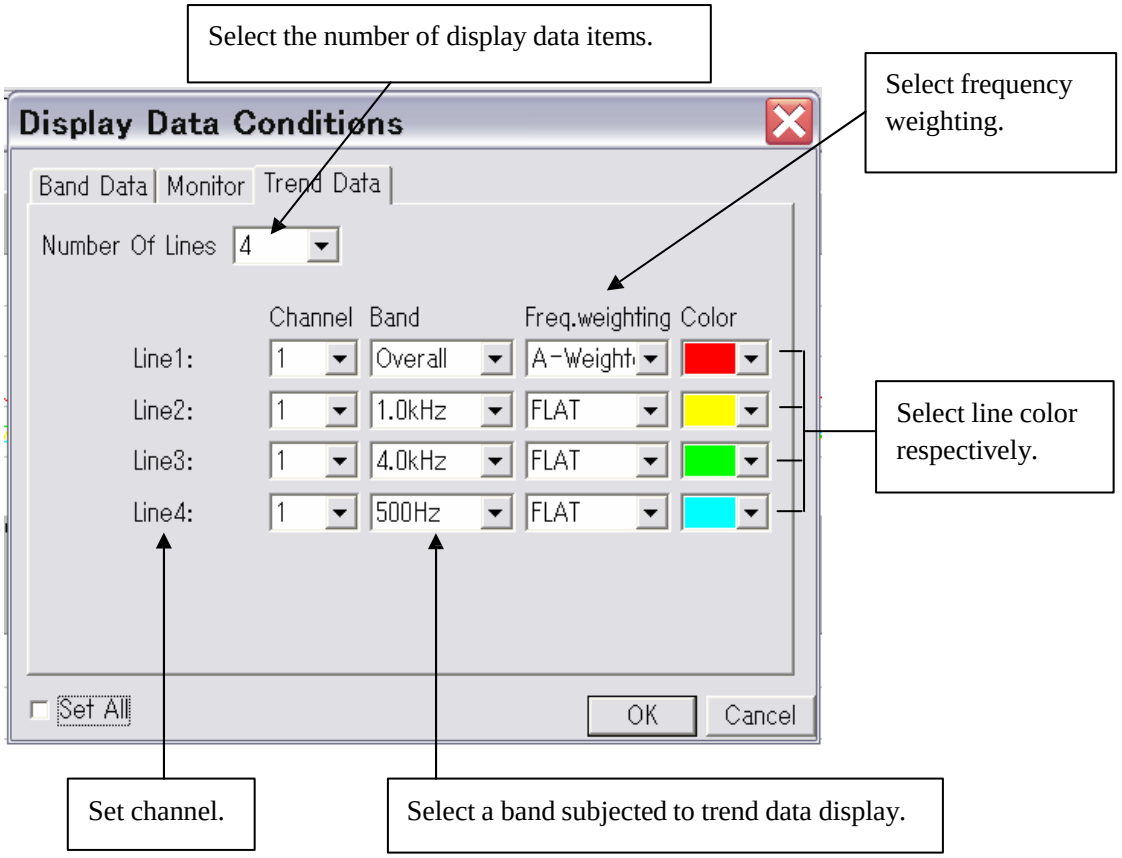
Level trend analysis is performed to analyze how each band level changes with time.
Select “Level Trend Time” from the “Input” menu.



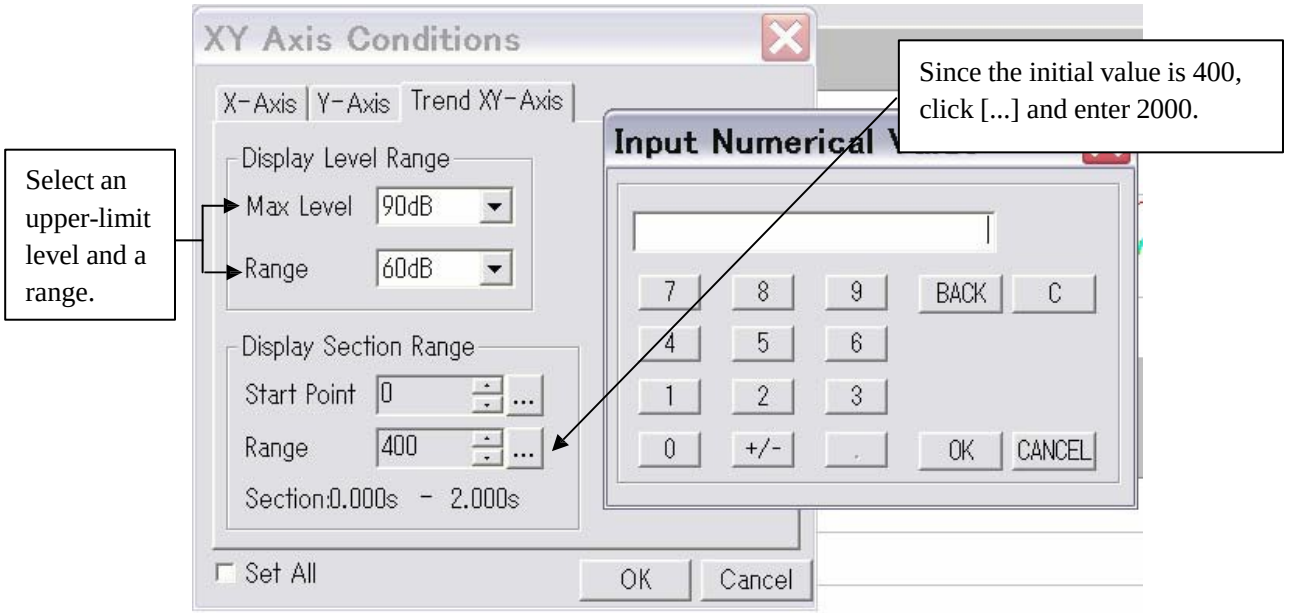
Set the trend mode and then start trend analysis. When the measurement time has elapsed, trend analysis automatically stops and trend operation starts.

Select “Display data select” from the “Display” menu.

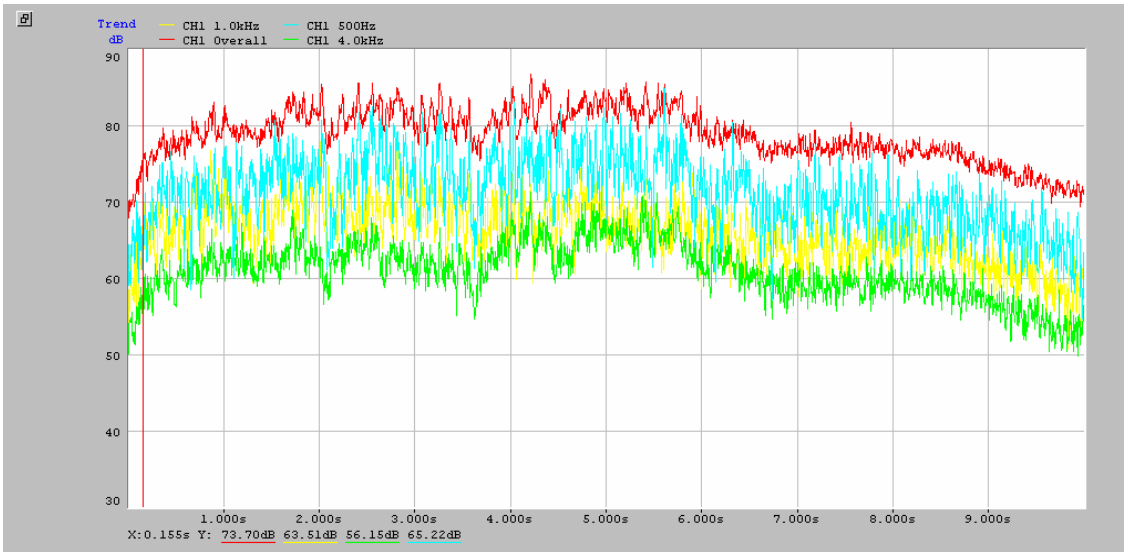




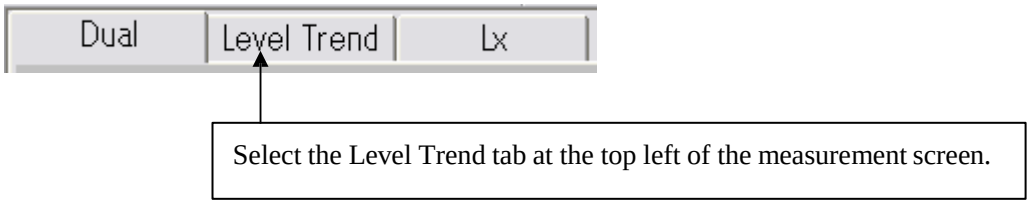
Select “Trend XY-Axis set” from the “Display” menu.



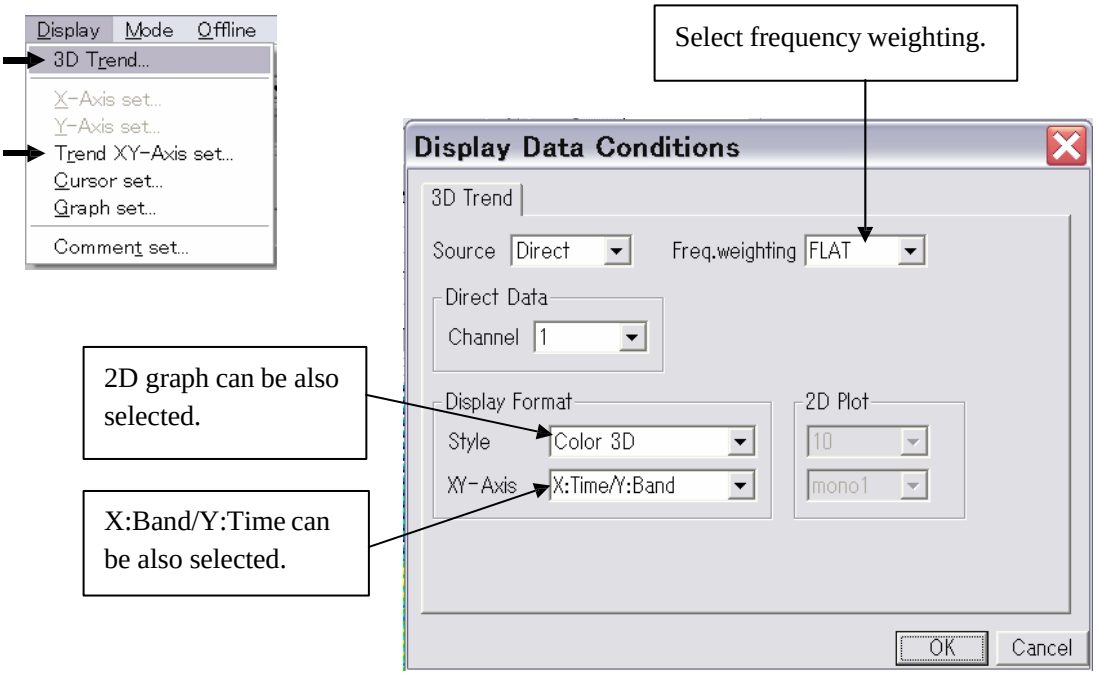
Level trend data



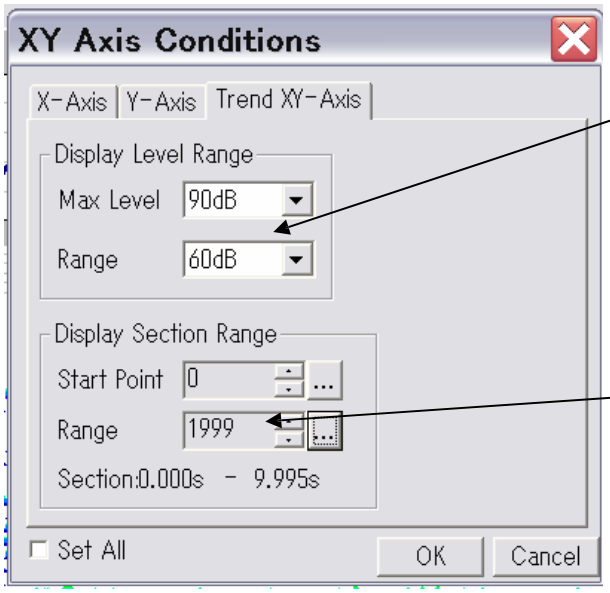
3D display of level trend



Select “3D Trend” from the “Display” menu.

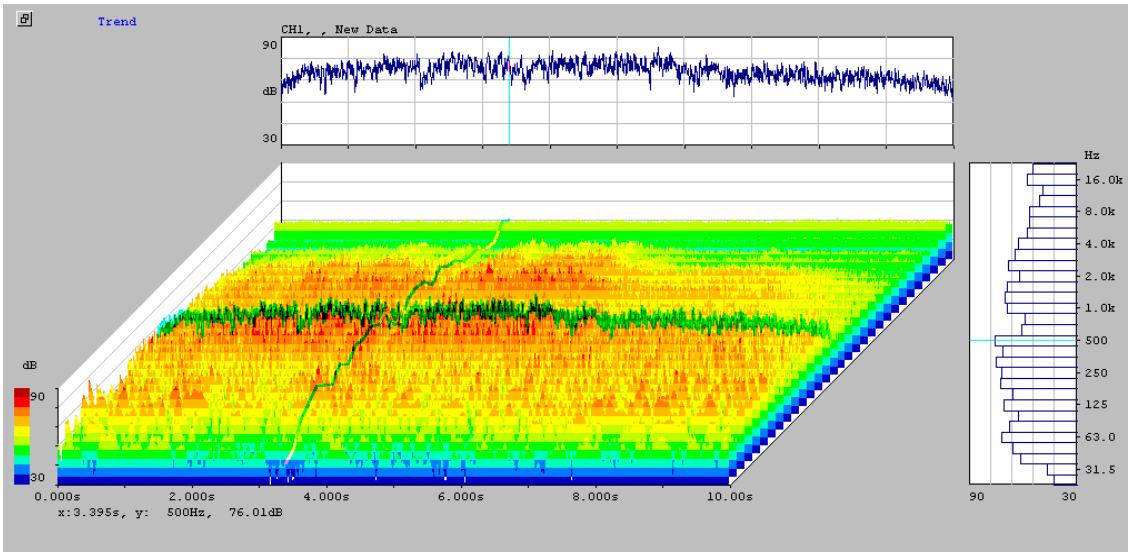


Open Trend XY Axis Conditions.



Select Upper-limit level and Range same as level trend setup.

The initial value is 400 same as level trend setup, so enter 2000 (1999 is automatically displayed).

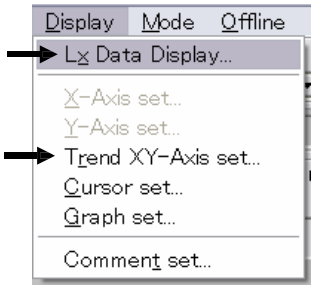


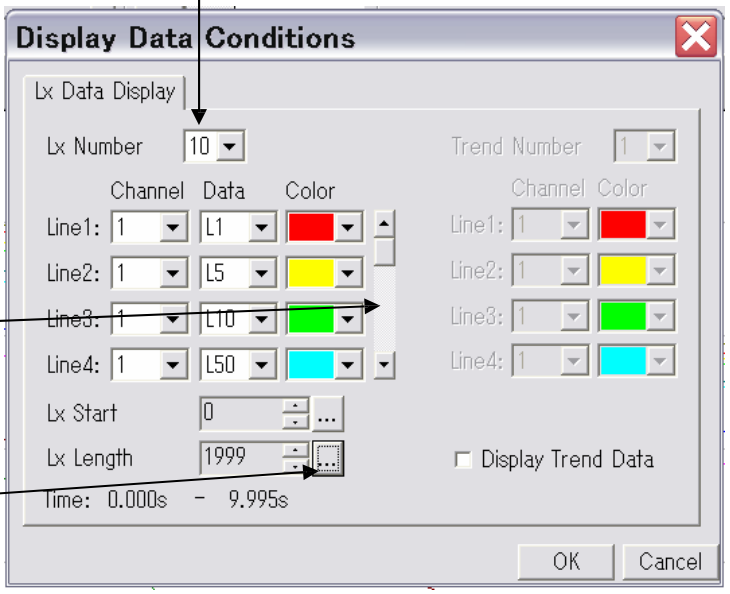
* Out of data for 2000 points, 1/3 octave band data for any desired point and level trend data for any desired band are displayed by using the cursor.

Displaying Lx

Lx operation for each band can be displayed using data for 2000 points sampled in level trend analysis. Lx indicates the percentile sound pressure level with which the number (frequency) of sampled data for each level is obtained. The DS-2000 simultaneously displays L1, L5, L10, L50, L90, L95, L99, Lmax, Lmin, and Lavg for each band.

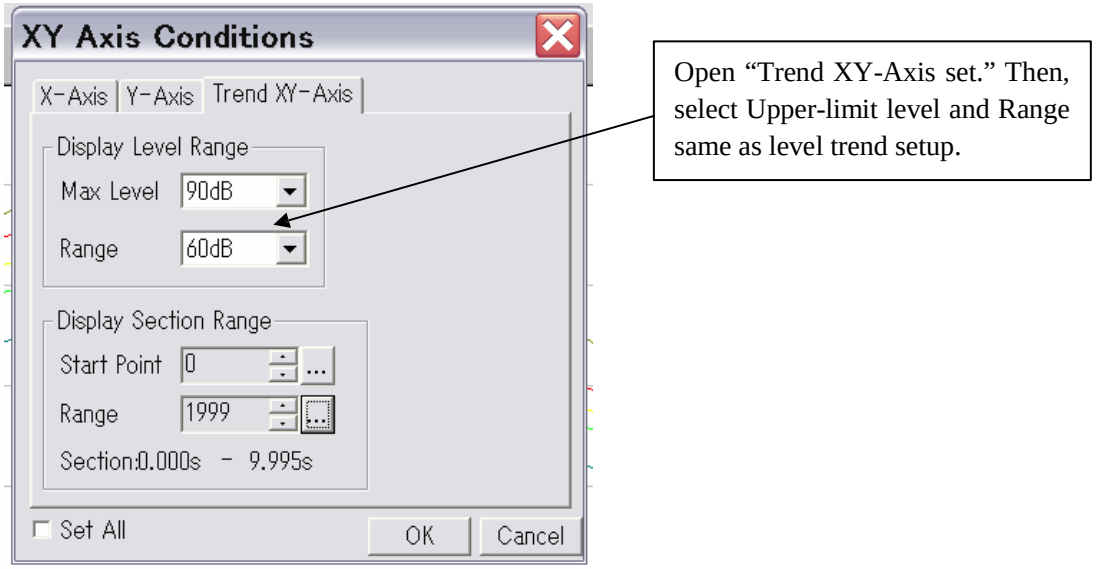
Select “Lx Data Display” from the “Display” menu.



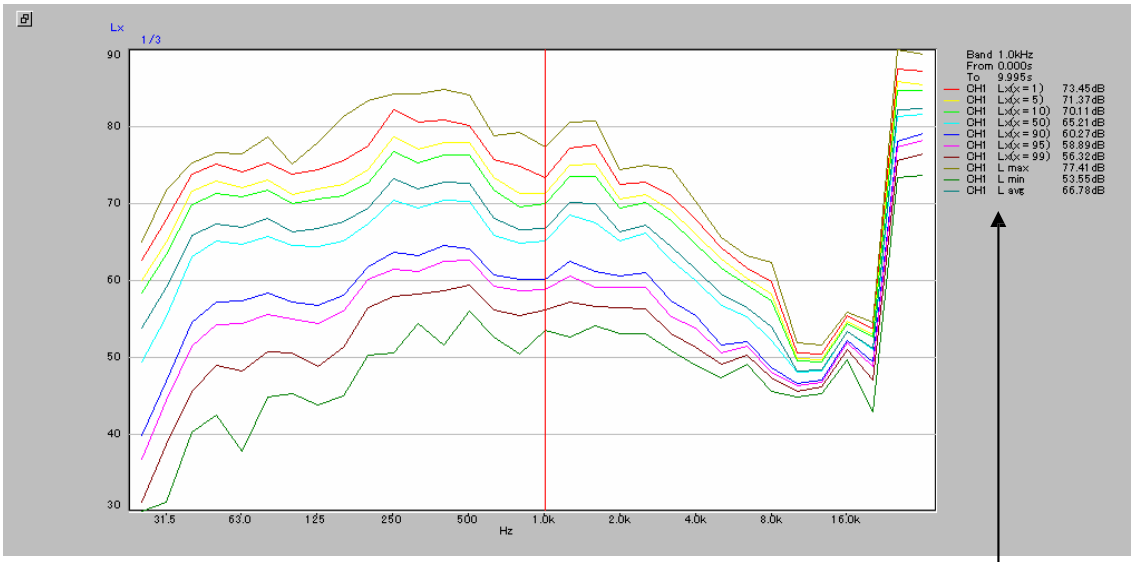


Select line color for L1 to Lavg.by using the scroll bar.

Since the initial value is 400, and enter 2000.



Open “Trend XY-Axis set.” Then, select Upper-limit level and Range same as level trend setup.



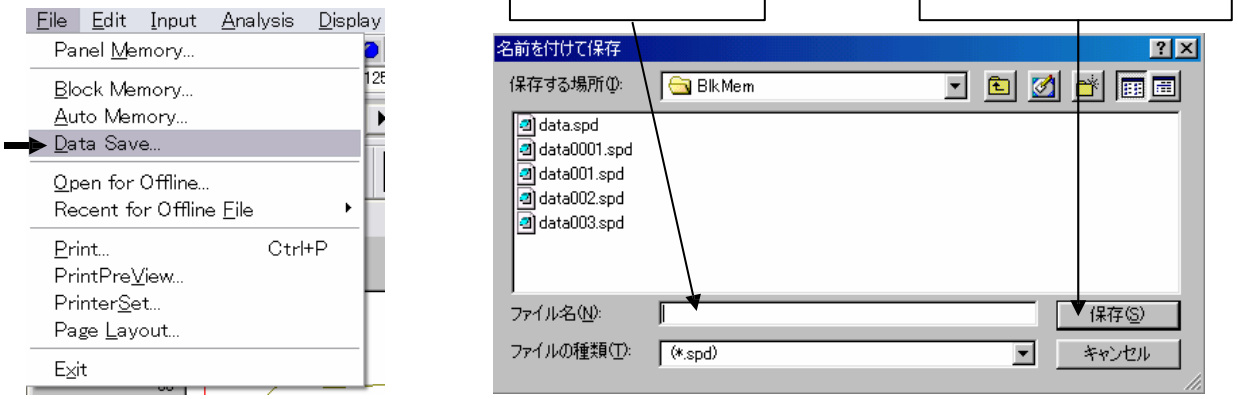
* Lx display for each band at 1kHz

Displays L1, L5, L10, L50, L90, L95, L99, Lmax, Lmin, and Lavg for each band. L1 to Lavg are connected for each band.

4. Outputting and Saving Data

4-1 Saving Display Data

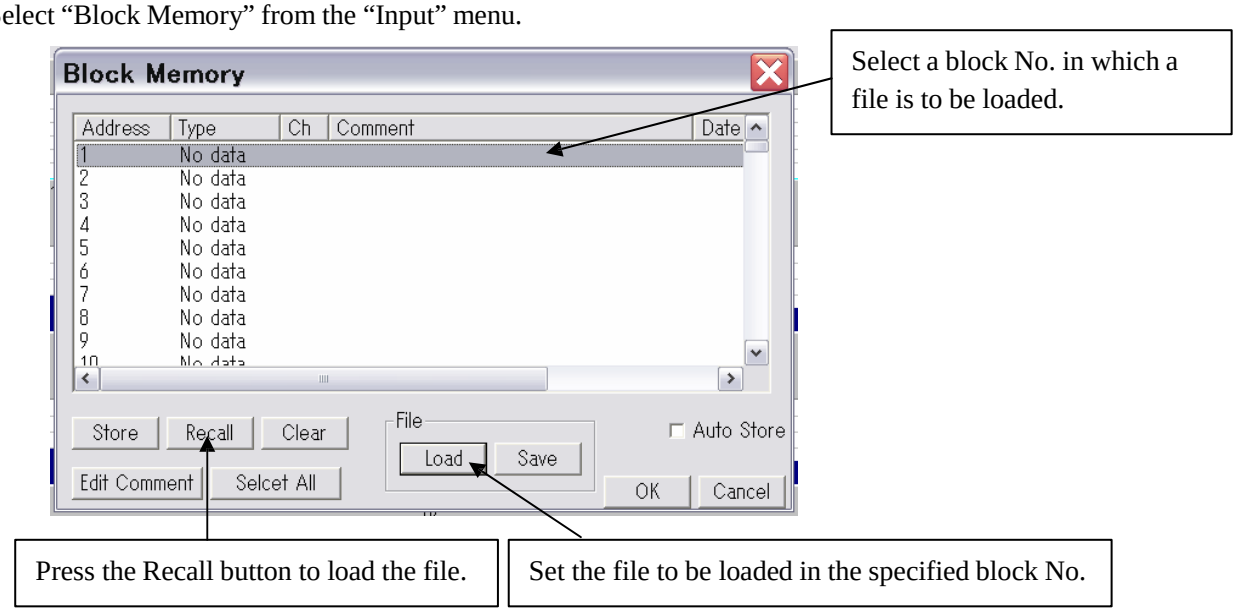
This function saves the power averaging data, power total value, and other graph data displayed in the measurement screen. (Trend data is saved by another operation.)
Select “Data Save” from the “File” menu.



* Although the file name extension is only .spd, the saved file is a text file and therefore can be loaded in Excel, etc.

4-2 Loading Saved Data

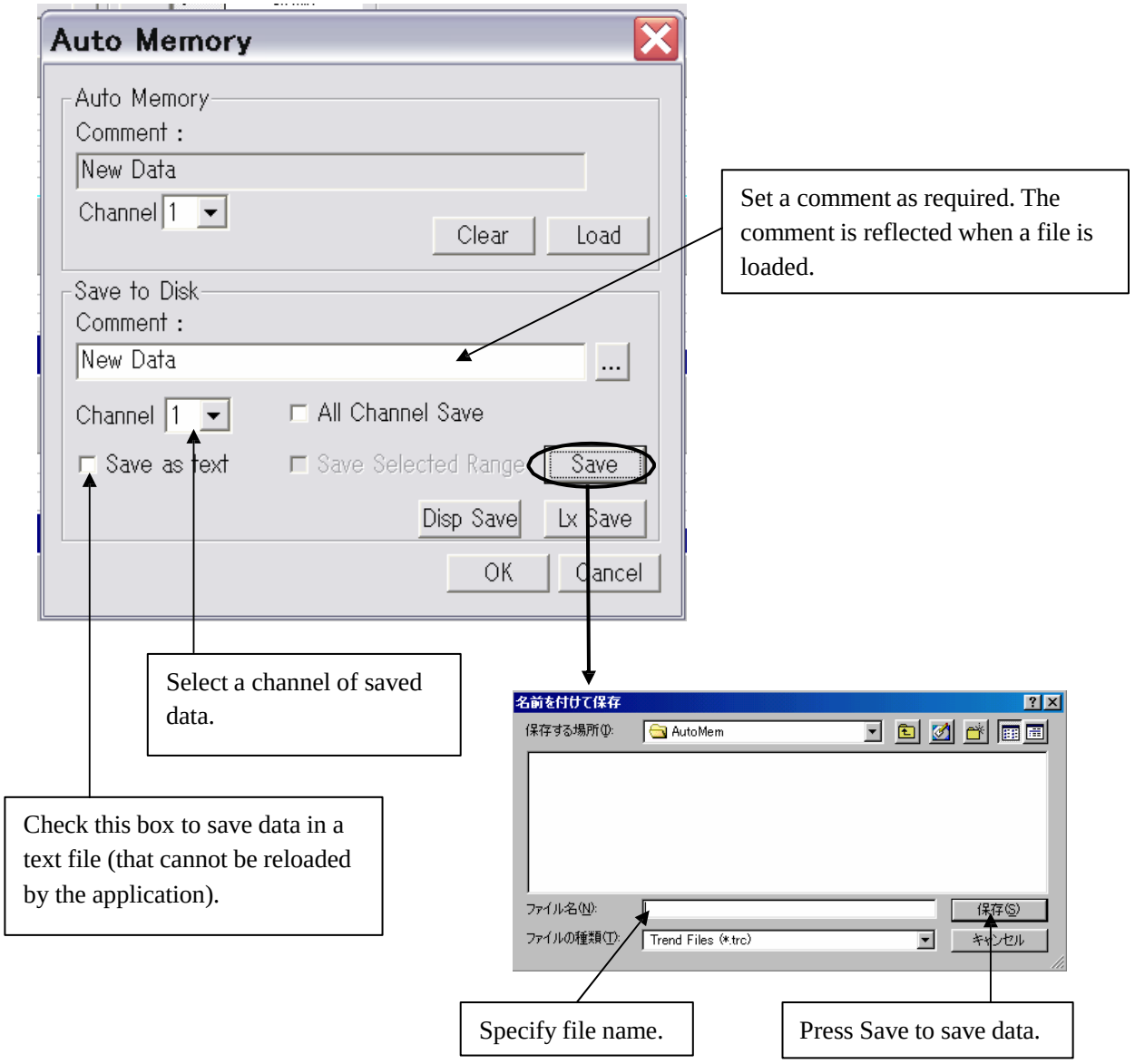
Data saved in a file can be loaded through the block memory.
Select “Block Memory” from the “Input” menu.



4-3 Saving Level Trend Data

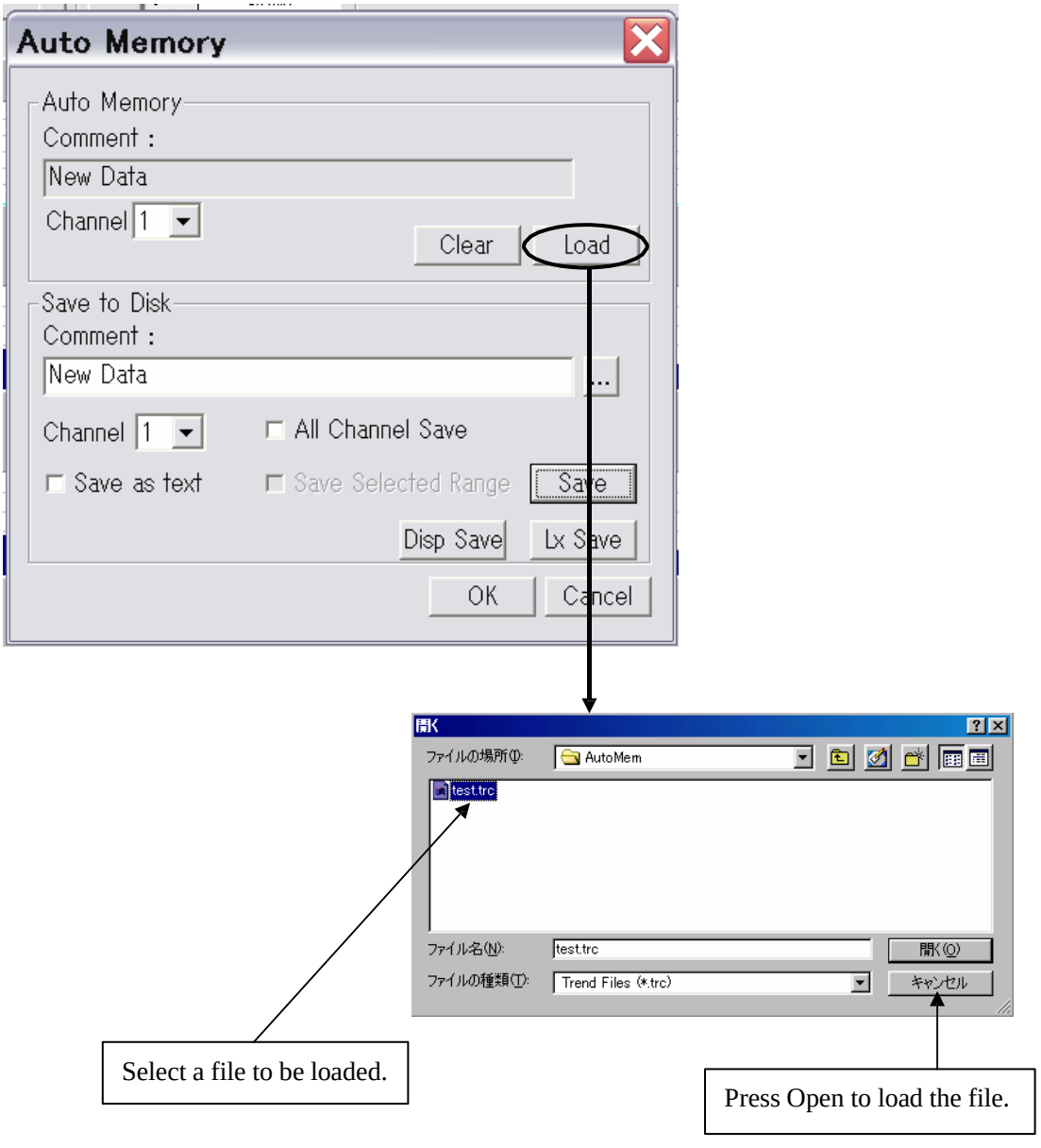
Level trend data is temporarily saved in the auto memory. The level trend data saved in the auto memory can be saved in a file.

Select “Auto Memory” from the “Input” menu.



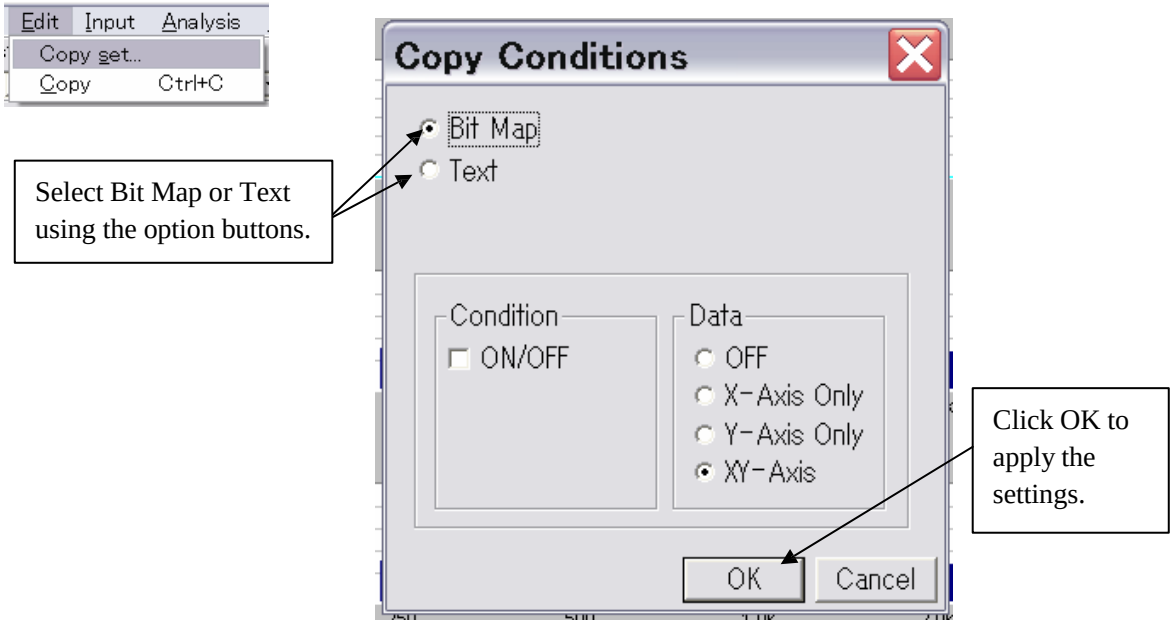
4-4 Loading Level Trend Data

The following procedure loads and displays level trend data saved in a file.
Select “Auto Memory” from the “Input” menu just as when saving the data.



4-5 Copy Function

Measurement data can be temporarily put in the clipboard. The data in the clipboard can be easily pasted to other applications without saving.
Select “Copy set” from the “Edit” menu.



After determining the data format with “Copy set,” select “Copy” from the “Edit” menu.

CAUTION:

1. The copyright of this procedure manual is reserved by Ono Sokki Co., Ltd.
2. Duplication without prior permission is prohibited.
3. This procedure manual explains general measurement procedures. Ono Sokki assumes no responsibility for data obtained through a specific operation performed by the customer.