Sound Level Meter class1 NL-62A
Sound Level Meter class1 NL-52A
Sound Level Meter class2 NL-42A

Totally Supports Your Noise Measurement Tasks

Sound Level Meter (class 2) NL-42A / Sound Level Meter (class 1) NL-52A / Sound Level Meter (class 1) (With low-frequency sound measurement function) NL-62A

Download free trial
[Optional programs]

RionStation

A free trial of the optional programs is now available on our RionStation website. Please give it a try!

https://rion-sv.com/

NL-62A
Capable of measuring low-frequency sound

Sound Level Meter (class 2)
NL-42A

Sound Level Meter (class 1)
NL-52A

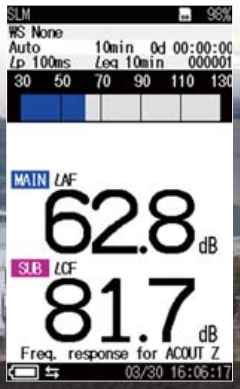
Sound Level Meter (class 1)
(With low-frequency sound measurement function)
NL-62A

We carefully designed our sound level meter to be user-friendly even to those who is not familiar with noise measurement. These models meet requirements of international standards such as IEC 61672-1, meaning they can provide reliable measurement for wide field of application.

Intuitive operation that requires no paper manual

Color LCD
for excellent readability

Measurement Display
(Level-Time graph)



Measurement Display
(Simultaneous display of
Main and Sub channel)

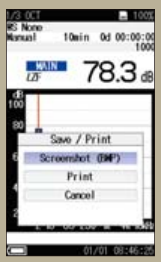
Parameter Screen

Menu screen

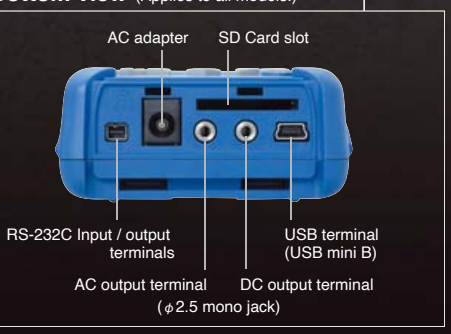
Help screen

Screenshot function

Saves the current screen to an SD card as a BMP file.



Bottom view (Applies to all models.)



In these models it is possible to use rechargeable
batteries which make these meters environmentally-friendly.
24 hour* continuous measurement is possible (when using eneloop® or dry alkaline batteries). *16 hours for NL-62A

- Please use the dedicated charger to charged eneloop® batteries.
- When using eneloop batteries, please read the eneloop® battery instruction manual.
- eneloop® is a registered trademark of Panasonic group.

IP54 (resistant to spraying water). Helps reduce failures caused by sudden rain showers.

*Mounting the All-weather windscreen or rainproof windscreen helps raise the water-resistant performance of the entire unit, so that the microphone will meet IPX3 specifications.

Continuous detailed measurements for one month
This meter can be used to conduct long-term measurements, such as environmental measurements. (If an AC adapter is used)

Duration of recording 1000 h (approx. one month)

Example of detailed recording
If the L_p is measured at 100 ms intervals and the L_{eq} is simultaneously measured at 10 min intervals over a 24 h period, the total size of accumulated data is approximately 74 MB (reference value)

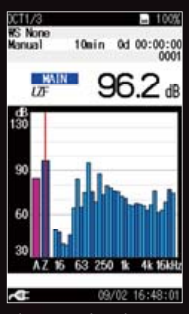
Sound calibrators meeting requirements of IEC 60942
(optional; see p. 8 for more information.)

Frequency analysis functions are available as option.

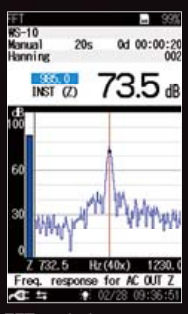
Functionality can be extended by a range of options

Add long-term data recording capability and frequency analysis function

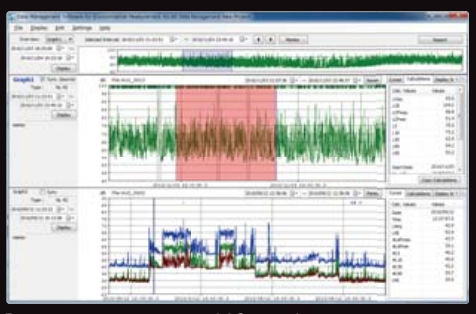
See pages 4, 5, 6, and 7 for more information.

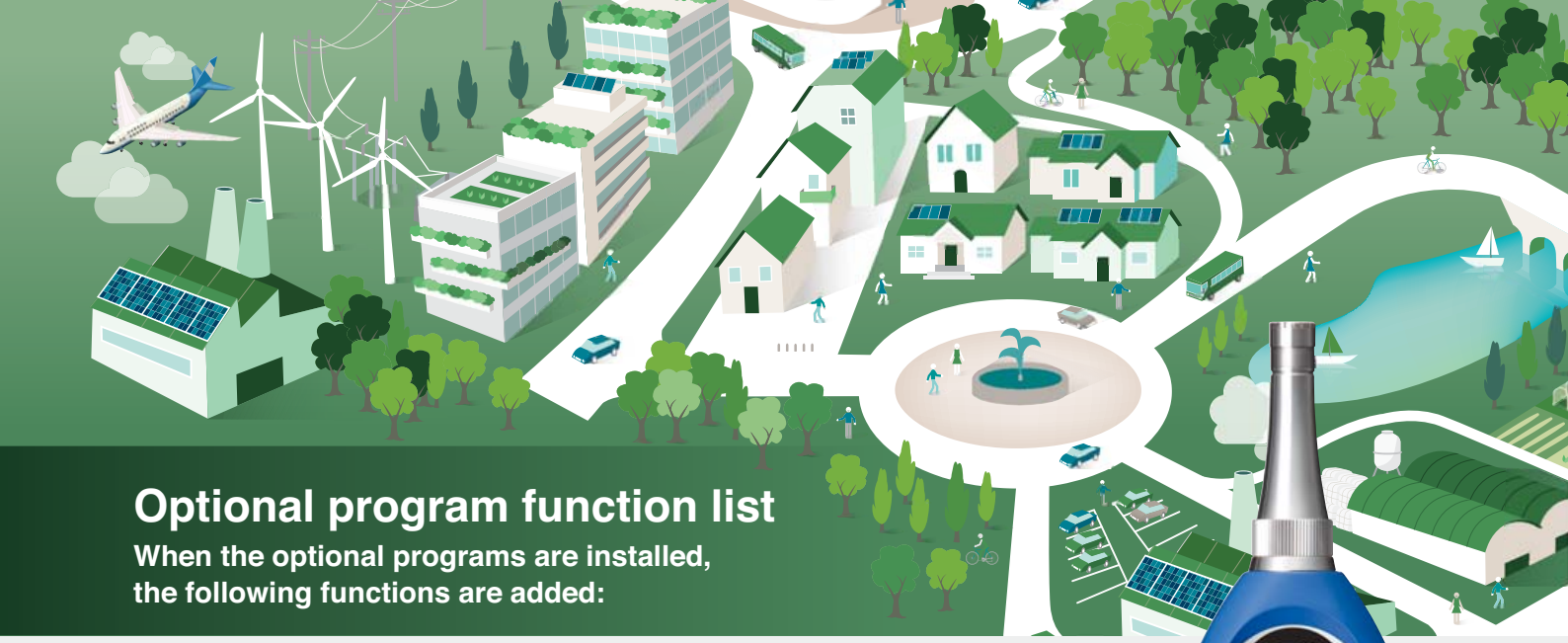


1/3 octave band
analysis screen



FFT analysis screen
(x40)


Data management screen of AS-60 software



Optional program function list

When the optional programs are installed, the following functions are added:

Extended function program

NX-42EX

(The NX-42EX program cannot be uninstalled.)

Make your meter ready for installing various programs.

Compatible models

NL-42A | NL-52A

*Standard function on NL-62A

512 MB

The NX-42EX is supplied on the 512 MB SD card. The 512 MB SD card can be used as a memory card after installing the program.

Adding programs

The NX-42EX allows users to add the NX-42WR, NX-42RT, and NX-42FT

Extended function program
NX-42EX

+

Real sound monitor (waveform recording)
NX-42WR

See page 5.

FFT analysis
NX-42FT

See page 5.

Octave, 1/3 octave band analysis
Octave, 1/3 octave band filter output
NX-42RT

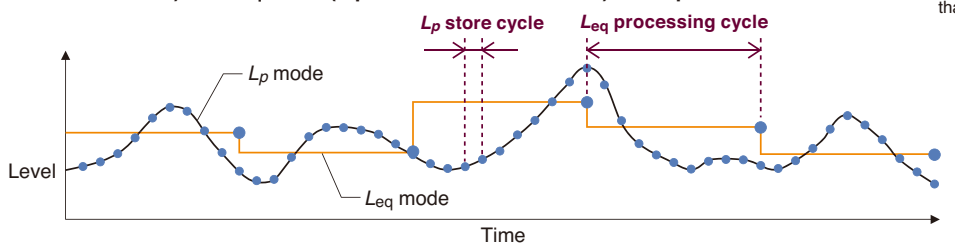
See page 6.

Auto store function

This function allows simultaneous, automatic, continuous measurements in *Lp* mode (instantaneous SPL) and *Leq* mode (calculated values such as equivalent continuous sound pressure level, percentile sound levels, maximum sound pressure level). The recorded data is saved to an SD card in CSV format. Data can be managed using the AS-60 data management software for environmental measurements and loaded and displayed using spreadsheet or other software.

Total measuring time of Auto store function : Up to 1 000 h (Equipped with a timer function)

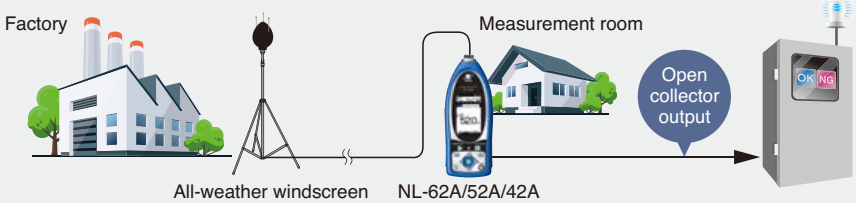
***Lp* mode (instantaneous SPL) and *Leq* mode (equivalent continuous SPL) concept**



Simultaneous recording in both *Lp* mode (Auto 1) and *Leq* mode (Auto 2)

Comparator function

This function turns on when the open collector output exceeds the set value (max. applied voltage 24 V, max. current 60 mA, allowable dissipation 300 mW).



Continuous data output function

This function enables the continuous acquisition of instantaneous values and processed values during both USB and RS-232C communication This is a convenient function for users who can design their own control programs, where data has to be transferred continuously from the sound level meter to the computer.

Download free trial
[Optional programs]
RionStation
A free trial of the optional programs is now available on our RionStation website. Please give it a try!

Waveform recording program

NX-42WR

Compatible models: NL-42A | NL-52A | NL-62A

*A separate NX-42EX is required for the NL-52A and NL-42A.

This function enables users to record sounds and to process sound levels simultaneously. Recorded data can be played on computer and used for frequency analysis. (Uncompressed waveform WAVE file)

The NX-42WR waveform recording program can also be used with the NX-42RT and NX-62RT octave and 1/3 octave real-time analysis programs and the NX-42FT FFT analysis program. It can record real sound while simultaneously performing frequency analysis. The NX-42WR stores recorded data as uncompressed waveform WAVE files. The data can be processed using the AS-70 waveform analysis software for graphing, sound pressure calculations, frequency analysis (FFT analysis, 1/3-octave band analysis), file output, and sound file playback.

2 GB

The NX-42WR is supplied on the 2 GB SD card. The 2 GB SD card can be used as a memory card after installing the program.

Maximum recording time (16 bit)

Sampling frequency \ Memory card	512 MB	2 GB	32 GB
48 kHz	1 h	4 h	79 h
24 kHz	2 h	9 h	158 h
12 kHz	4 h	18 h	315 h

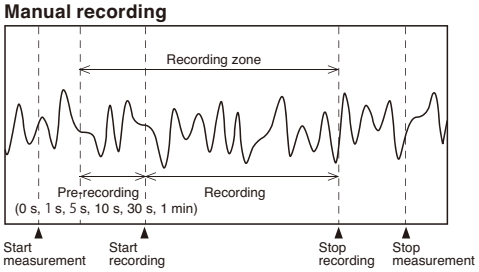
Recording in 24 bits creates files 1.5 times larger than 16-bit recordings. Accordingly, the maximum recording time is reduced to 2/3.

Sampling at 48 kHz, 24 kHz, 12 kHz, Selection of 24 bit or 16 bit

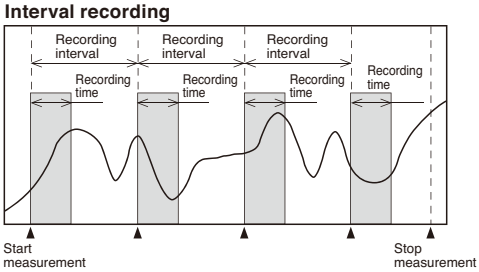
(The recorded sound will be Z-weighted regardless of the frequency weighting settings for the sound level meter.
If either the high pass filter (HPF) or low pass filter (LPF) setting is selected on the NL-62A, the recorded data will reflect the filter characteristics.)

Recording Modes

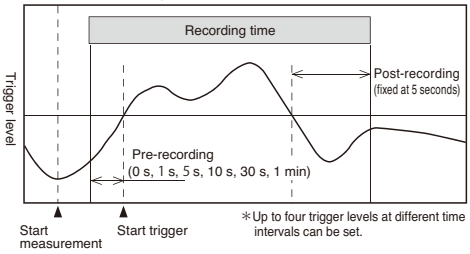
Manual recording



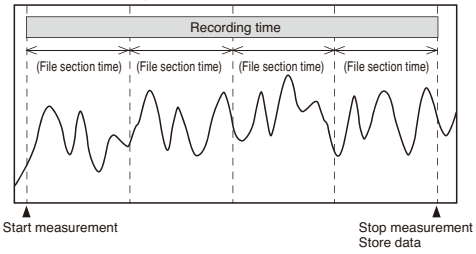
Interval recording



Level recording



Total recording



FFT analysis program

NX-42FT

Compatible models: NL-42A | NL-52A | NL-62A

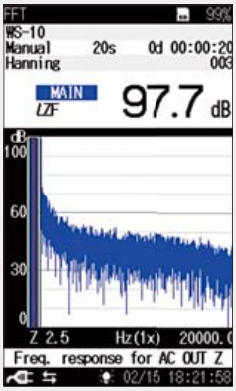
*A separate NX-42EX is required for the NL-52A and NL-42A.

512 MB

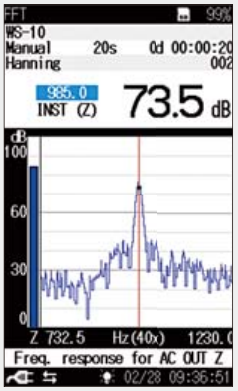
The NX-42FT is supplied on the 512 MB SD card. The 512 MB SD card can be used as a memory card after installing the program.

Enables FFT analysis

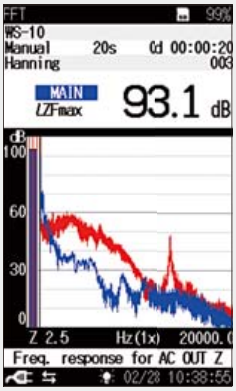
The analysis frequency range is 20 kHz with frequency resolution of 2.5 Hz (8,000 spectrum lines). Saved analysis results can be loaded and shown in an overlay graph display together with current analysis data. The maximum zoom ratio is x40. The top list screen can display up to 20 lines.



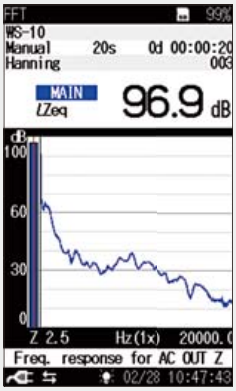
Analysis screen (x1)



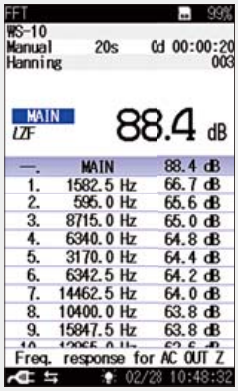
Analysis screen (x40)



Overlay analysis screen



Linear average screen



Top list screen

Optional program function list

Download free trial
[Optional programs]
RionStation
A free trial of the optional programs is now available on our RionStation website. Please give it a try!

Octave, 1/3 octave real-time analysis program
NX-42RT

Compatible models

NL-42A NL-52A

*A separate NX-42EX is required for the NL-52A and NL-42A.

512 MB

The NX-42RT is supplied on the 512 MB SD card. The 512 MB SD card can be used as a memory card after installing the program.

Octave, 1/3 octave real-time analysis program
NX-62RT

Compatible models

NL-62A

512 MB

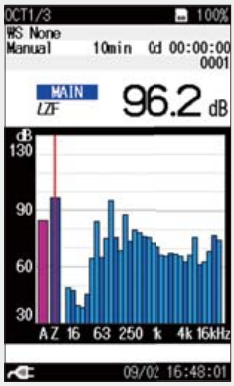
The NX-62RT is supplied on the 512 MB SD card. The 512 MB SD card can be used as a memory card after installing the program.

Both allow measurement compliant with IEC 61260-1:2014
Electroacoustics -- Octave-band and 1/N (fractional)-octave-band filters Part 1: Specifications

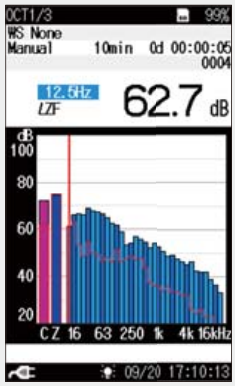
Saved analysis results can be loaded and shown in an overlay graph display together with current analysis data. The programs also offer functions that display NC curves and calculate/tabulate NC values. Used with the AS-60RT data management software for environmental measurements, they enable recalculation and data management from a computer. They can also output the voltage of a selected band (AC out, DC out).

AC out can be connected to earphones to listen to sound data.

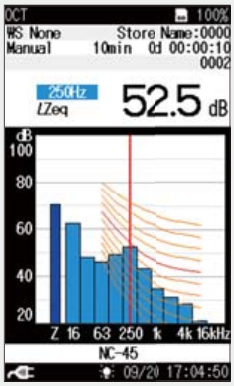
Examples of the user display screen



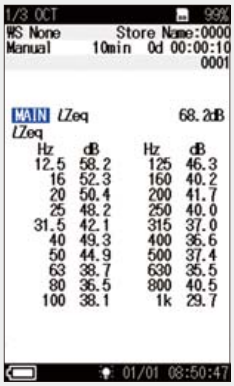
1/3 octave band analysis screen



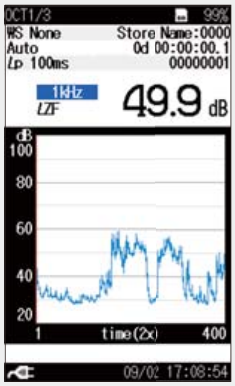
Overlay analysis screen



NC curve screen

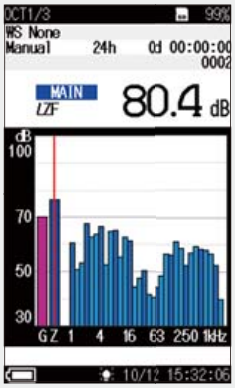


Result screen

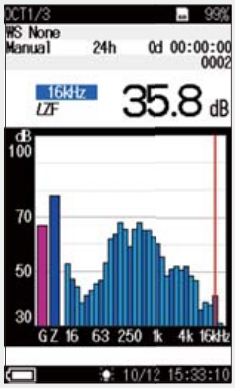


Measurement screen (Level-Time graph)

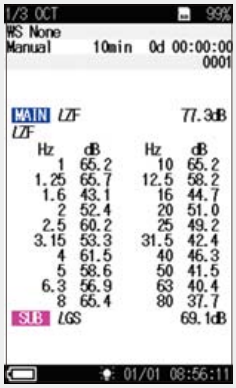
Examples of the user display screen (NX-62RT)



1/3 octave band analysis screen (low range)



1/3 octave band analysis screen (high range)



Result screen (1 Hz~)

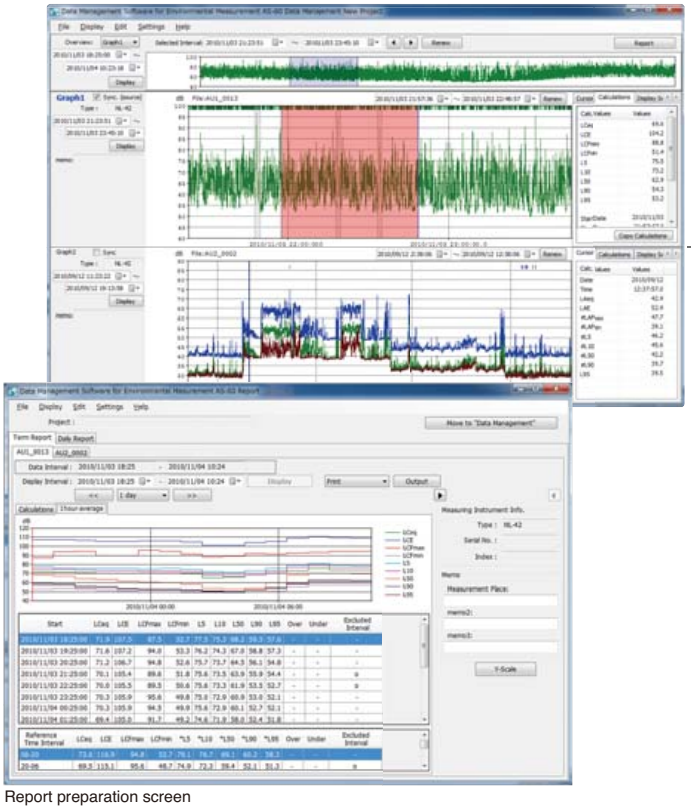
Complete software for environmental measurements

Data management software for environmental measurement
AS-60

Free trial optional programs now available on our website

This software enables the graph display of measurement data, arithmetic processing, excluded sound processing, preparation of reports, file output, and playback of real sound files for data stored by sound level meters (NL-42A/52A/62A, NL-42/52/62, NL-21/22/31/32).

- **Easy to use**
- **Reports easy to prepare**
- **Simultaneous display of multiple data items (up to 8 data items)**
- **Data stored in a data recorder can be loaded (CSV file for DA-40 Viewer)**
- **Data combination**



Report preparation screen

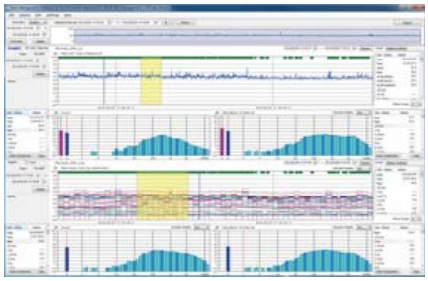
Recommended computer specifications (Common for AS-60/60RT/60VM/60VMRT)

CPU	Intel Core i5 2 GHz or higher
RAM	2 GB or more (4 GB recommended)
DISPLAY	XGA (1024 x 768) or more, at least 65 536 colors
OS	Microsoft Windows 8.1 Pro 64 bit, 10 Pro 64 bit

● The AS-60/60RT/60VM/60VMRT software requires the USB digital rights management key (a hardware key bundled with software).

Data management software for environmental measurement
(Includes the octave and 1/3 octave data management software)
AS-60RT

In addition to the functions provided by the AS-60, the AS-60RT offers functions needed to manage data saved to computer by the SX-A1RT, NX-62RT/42RT, or NA-28.



Data management software for environmental measurement
(Includes the vibration level data management software)
AS-60VM

In addition to the functions provided by the AS-60, the AS-60VM offers functions needed to manage data saved to computer by the VM-55EX/53A.

Data management software for environmental measurement
(Includes the 1/3 octave data and vibration level data management software)
AS-60VMRT

In addition to the functions provided by the AS-60, the AS-60VMRT offers functions needed to manage data saved to computer by the VX-55RT. Additionally, the AS-60VMRT provides the functions of the AS-60RT/60VM.

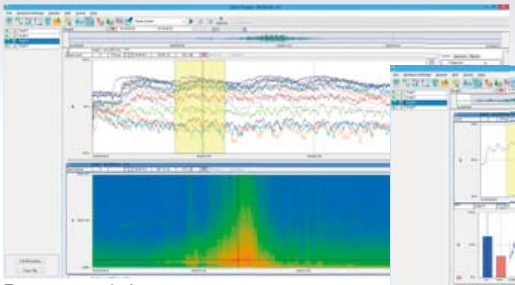
Supported models
(Only auto store data are supported, excl. DA-40 Viewer)

Hard ware \ Software	AS-60	AS-60RT	AS-60VM	AS-60VMRT
NL-42A*1/52A*1/62A	●	●	●	●
NL-42*1/52*1/62	●	●	●	●
NL-21/22/31/32	●	●	●	●
DA-40 Viewer	●	●	●	●
SX-A1RT		●		●
NX-62RT		●		●
NX-42RT		●		●
NA-28		●		●
VM-55*2			●	●
VM-53A			●	●
VX-55RT				●

*1 The NX-42EX is also needed. *2 The VM-55EX is also needed.

Waveform analysis software
AS-70

This software allows you to load stored WAVE files from a RION sound level meter, vibration meter or data recorder. Octave, 1/3 octave, and FFT analyses can then be performed.
Playback of the real sound files is also possible.



Frequency analysis screen

Frequency analysis screen

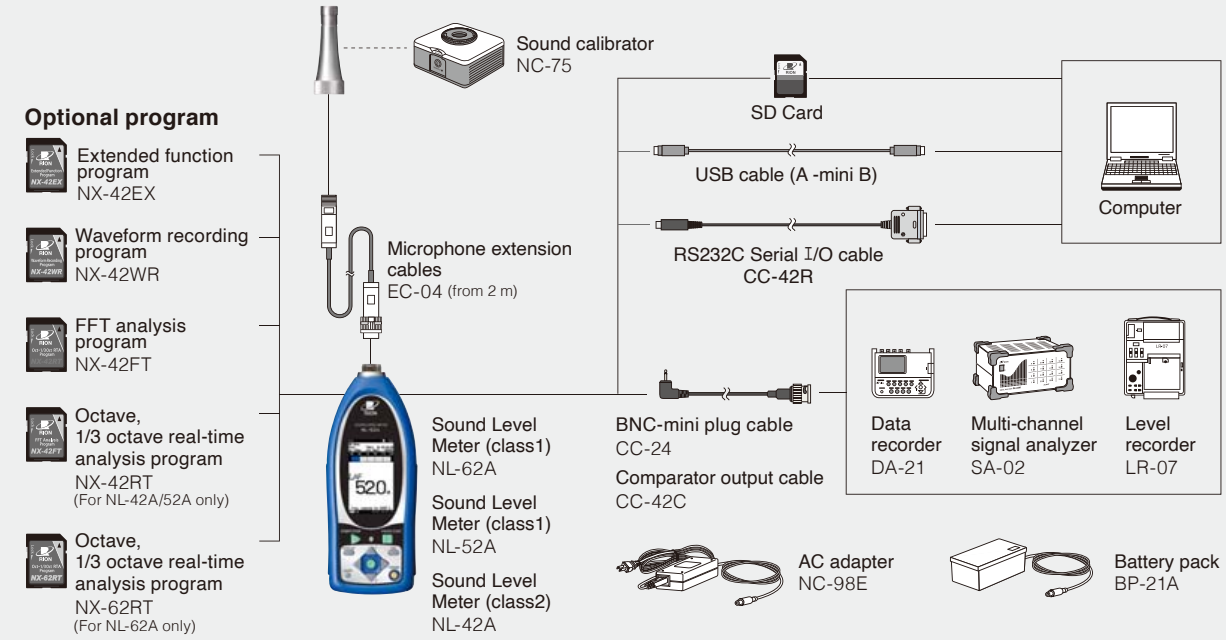
Specifications

Waveform analysis	Calculations	Maximum value, Minimum value, Average value, RMS, Variance, Differential and integral calculus, HPF, LPF
Frequency weighting		Z, A, C, G, C to A, L_{vz} (vertical) (JIS C 1510), L_{vxy} (horizontal) (JIS C 1510)
FFT analysis	Analysis points	32 to 65 536 points
	Display data	Power spectrum, Power spectral density, Spectrogram
Time weighting		10 ms, F, 630 ms, S, 10 s
Octave band analysis	Applicable standards	IEC 61260-1 : 2014 class 1 (JIS C 1514 : 2002 class 1)
	Analysis frequency range	Octave band 0.5 Hz to 16 kHz (16 bands) 1/3 octave band 0.4 Hz to 20 kHz (48 bands)

Recommended computer specifications

CPU	Intel Core i5 2 GHz or higher
RAM	2 GB or more (4 GB recommended)
HDD	20 GB free or more (100 GB or more recommended)
DISPLAY	XGA (1024 × 768) or more
OS	Microsoft Windows 8.1 Pro 64 bit, 10 Pro 64 bit

System construction



Peripheral devices

Sound calibrator
NC-75

This Sound calibrator conforms to IEC 60942 (JIS C 1515), class 1, providing a level of performance sufficient for calibrating the precision sound level meter.

Specifications

Nominal acoustic pressure level	94 dB
Nominal frequency	1 k Hz

PISTONPHONE
NC-72B

Compliant with IEC 60942: 2017 (JIS C 1515: 2020) class LS/M, class 1/M
Allows calibration with accuracy of ±0.10 dB.

Specifications

Nominal acoustic pressure level	114 dB
Nominal frequency	250 Hz

Tripod
ST-80

This stand can be used for general acoustic measurements.
The sound level meter and microphone can be mounted on the stand.

Specifications

Max. Height	1460 mm*
Min. Height	570 mm

*Total height when mounted using a tripod extension column (optional): 2060 mm

Rain-protection windscreen
WS-16

This screen protects the microphone against rain for a short period of time. The rainproof performance of this windscreen is designed to satisfy the **IPX3 water-resistant** specifications.

All-weather windscreen
WS-15

This windscreen is designed for outdoor installations. It helps to reduce wind noise and is equipped with rainproof features that satisfy the **IPX3 water-resistant** specifications. It is used with a microphone extension cable.

(WS15006 mounting adapter and EC-04 series cable required separately)

*For All-weather windscreen WS-15, use of ST-81 is recommended.

All-weather Windscreen Tripod
ST-81

Designed for use with an all-weather windscreen, this tripod is suitable for unattended measurements.

Specifications

Max. Height	2150 mm
Min. Height	1350 mm

Products for sound level measurements at wind power plants

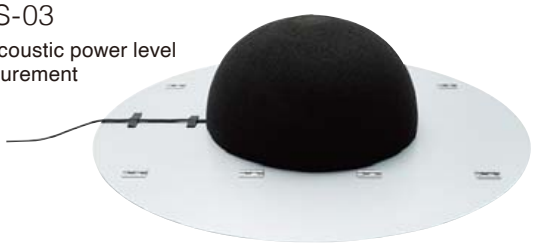
Dual Windscreen for Wind Turbine Noise Measurement

TWS-01

Windscreen

KWS-03

For acoustic power level measurement



Dual-structure windscreen minimizes influence of wind noise during wind turbine noise measurements

Compliant with noise meter installation height specifications in "Manual for Measurement of Noise from Wind Power Generation Installations" issued by Ministry of the Environment in 2017.
Designed for use with High Precision Sound Level Meter NL-62A (with low-frequency measurement function) or High Precision Sound Level Meter NL-52A (Use with General Purpose Sound Level Meter NL-42A also possible).

Measurement system for noise from wind power generation installations

Dual Windscreen for Wind Turbine Noise Measurement
TWS-01

Acoustic power level measurement system (JIS C 1400-11*2)

Windscreen
KWS-03

Microphone Extension Cables
EC-04 Series

- **Class 1 Sound Level Meter**
  NL-62A, NL-52A
- **Octave, 1/3 Octave Real-Time Analysis Program**
  NX-62RT, NX-42RT
- **Waveform Recording Program**
  NX-42WR
- **Waveform Analysis Software**
  AS-70
- **Data Management Software for Environmental Measurement**
  AS-60/60RT

*2 Wind power generation systems – Part 11: Measurement method for assessing acoustic radiation characteristics of wind turbines

Evaluation Guide to Solve Low Frequency Noise Problems

[Reference values to identify whether the phenomena is ascribable to low-frequency noise when performing low-frequency sound measurements]

*Excerpt from "Handbook to Deal with Low Frequency Noise" issued in June 2004 by the Office of Odor, Noise and Vibration, Environment Management Bureau, Ministry of the Environment

Reference values for complaints of rattling

1/3 Octave-band center frequency (Hz)	5	6.3	8	10	12.5	16	20	25	31.5	40	50
1/3 Octave-band sound pressure level (dB)	70	71	72	73	75	77	80	83	87	93	99

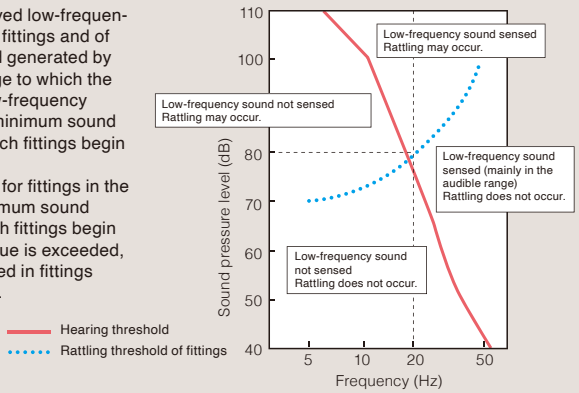
Reference values for complaints of mental and physical discomfort
The reference values are as listed in the table below and include the G-weighted sound pressure level of L_G = 92 (dB).

1/3 Octave-band center frequency (Hz)	10	12.5	16	20	25	31.5	40	50	63	80
1/3 Octave-band sound pressure level (dB)	92	88	83	76	70	64	57	52	47	41

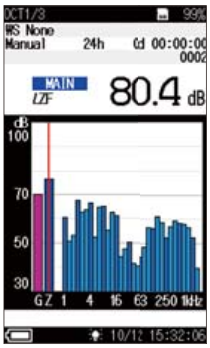
Evaluations of perceived low-frequency noise

[Range of perceived low-frequency sounds and range of low-frequency sounds to which the fittings respond]

Evaluations of perceived low-frequency noise for rattling in fittings and of rattling or other sound generated by fittings within the range to which the fittings respond to low-frequency sound are based on minimum sound pressure levels at which fittings begin rattling.
The rattling threshold for fittings in the graph shows the minimum sound pressure level at which fittings begin rattling. When this value is exceeded, rattling will be observed in fittings susceptible to rattling.



The octave, 1/3 octave real-time analysis program NX-62RT enables analysis of low-frequency sounds, the results of which can be compared to reference vales in evaluations of rattling of fittings and mental and physical discomfort.



1/3 octave band analysis screen (low range)

Specifications

			Sound Level Meter (class 1) NL-62A 	**Sound Level Meter (class 1)** NL-52A 	**Sound Level Meter (class 2)** NL-42A 
Applicable standards			IEC 61672-1: 2013/2002 class 1 ANSI/ASA S1.4-2014/Part 1 class 1 JIS C 1509-1: 2017 class 1		IEC 61672-1: 2013/2002 class 2 ANSI/ASA S1.4-2014/Part 1 class 2 JIS C 1509-1: 2017 class 2
			ISO 7196 : 1995	–	
			CE marking		
Measurement functions			Simultaneous measurement of the following items, with selected time weighting and frequency weighting		
	Processing (main ch)		Instantaneous sound pressure level: L_p Equivalent continuous sound pressure level: L_{eq} Sound exposure level: L_E Maximum sound pressure level: L_{max} Minimum sound pressure level: L_{min} Percentile sound levels: L_N (0.1 to 99.9 %, 0.1-increment steps, max. 5 values)		
	Processing (sub ch)		Instantaneous sound pressure level: L_p		
	Additional processing		One of the following can be selected: C-weighted equivalent continuous sound level: L_{Ceq} G-weighted average sound level: L_{Geq} C-weighted peak sound level: L_{Cpeak} Z-weighted peak sound level: L_{Zpeak} I-time-weighted average sound level: L_{AIeq} Max. value of I-time-weighted average sound level: L_{AImax} Power average of max. level in time weighted sound level interval L_{Atm5} *Because additional processing frequency characteristics are linked to sub channel frequency characteristics, L_{Atm5}, L_{AIeq}, L_{AImax} can be selected when A characteristics are selected for sub channel. When C, G, or Z characteristics are selected, L_{Ceq} and L_{Cpeak}, L_{Geq}, and L_{Zpeak} can be selected for additional processing.	In addition to main processing items, one of the following can be selected for simultaneous processing: C-weighted equivalent continuous sound level: L_{Ceq} C-weighted peak sound level: L_{Cpeak} Z-weighted peak sound level: L_{Zpeak} I-time-weighted equivalent continuous sound level: L_{AIeq}*2 Maximum I-time-weighted equivalent continuous sound level: L_{AImax}*2 The power average of the maximum level of each 5 second interval: L_{Atm5} The frequency weighting for the additional processing synchronizes with the frequency weighting of the sub-channel,so when the sub-channel has A-weighting, L_{Atm5} can be selected. When C-weighting (Z-weighting) is selected, the additional processing L_{Ceq} and Lcpeak (L_{Zpeak}) are selectable	
Microphone	Type		UC-59L	UC-59	UC-52
	Sensitivity level		–27 dB	–27 dB	–33 dB
Measurement range			A-weighting: 25 dB to 138 dB C-weighting: 33 dB to 138 dB G-weighting: 43 dB to 138 dB Z-weighting: 50 dB to 138 dB C-weighting peak sound level: 60 dB to 141 dB Z-weighting peak sound level: 65 dB to 141 dB	A-weighting: 25 dB to 138 dB C-weighting: 33 dB to 138 dB Z-weighting: 38 dB to 138 dB C-weighting peak sound level: 55 dB to 141 dB Z-weighting peak sound level: 60 dB to 141 dB	
Inherent noise	A-weighting		17 dB or less	17 dB or less	19 dB or less
	C-weighting		25 dB or less	25 dB or less	27 dB or less
	G-weighting		35 dB or less	–	
	Z-weighting		42 dB or less	30 dB or less	32 dB or less
Frequency range			1 Hz to 20 kHz	10 Hz to 20 kHz	20 Hz to 8 kHz
Frequency weighting			A, C, G and Z	A, C, and Z	
Time weighting			F (Fast) and S (Slow), I (Impulse) and 10 s	F (Fast) and S (Slow)	
Level range			Single range (Linearity range: 113 dB)		
	Bar graph display range max		Max. 110 dB (20 to 130 dB)		
	Switching of bar graph display		Set the upper / lower limit in 10 dB increments.		
RMS detection circuit			Digital processing method		
Sampling cycle			20.8 µs: (L_p, L_{eq}, L_E, L_{max}, L_{min}, L_{peak} : sampling frequency: 48 kHz) 100 ms (0.1s): (L_N)		
Correction functions			Windscreen correction: Compliant with IEC 61672-1, JIS C 1509-1 and ANSI/ASA S1.4 standards when the windscreen is installed.		
			Diffuse sound field correction: Correction of frequency characteristics in order to comply with standards (ANSI/ASA S1.4) in diffuse sound field.		
Delay time			The meter can be set to start measuring a specified time (OFF, 1, 3, 5 or 10 s) after the start button has been pressed or when a user-set trigger is exceeded.		
Back erase function			When the PAUSE key is pressed to pause measurement, the preceding (user selectable) 0, 1, 3 or 5 s data are excluded from processing.		
Display			Backlit semitransparent color TFT LCD display WQVGA (400 x 240 dots) *LCD with touch panel (Capacitive Touch Panel)		
			Numerical display update frequency: 1 s Bar graph update frequency: 100 ms		
Store					
	Manual		Data for measurement results are stored manually in single address increments.		
		Number of data	Internal memory: max. 1 000 sets, SD Card: depends on the capacity of the SD Card*1		
	Auto*2		Instantaneous values (L_p mode) and processed values (L_{eq} mode) are stored continuously and automatically at preset intervals.		
		L_p sampling cycle	100 ms (0.1 s), 200 ms (0.2 s), 1 s, $L_{eq\ 1s}$ and user selected time (up to 24 hours)		
		L_{eq} sampling cycle	10 s, 1, 5, 10, 15, 30 min, 1, 8, 24 h, and user selected time (up to 24 hours)		
		Measurement Time	Max. 1 000 h in Auto L_p storage mode, max. 100 000 addresses in Auto L_{eq} storage mode (depends on the capacity of the SD card)*1		
Data recall			Allows viewing of stored data		
Setup memory			Up to five setup configurations can be saved in internal memory, for later recall Start up via file settings previously stored on SD card possible		

			Sound Level Meter (class 1) NL-62A	**Sound Level Meter (class 1)** NL-52A	**Sound Level Meter (class 2)** NL-42A
Waveform recording*2*3					
	File format		Uncompressed waveform WAVE file		
	Sampling frequency		Select 48 kHz, 24 kHz or 12 kHz		
	Data length		Select 24 bit or 16 bit		
Outputs					
	DC output		Outputs DC signals processed using the selected frequency and time weighting characteristic		
		Output voltage	2.5 V, 25 mV / dB at bar graph display full scale		
	AC output		Outputs AC signals processed using frequency weighting characteristics selected from A, C, Z, G weighting (G-weighing available for NL-62A only)		
		Output voltage	1 V (rms values) at bar graph display full scale		
	Comparator output*2		Turns on when the open-collector output exceeds the set value (max. applied voltage 24 V, max. current 60 mA, allowable dissipation 300 mW).		
USB			Allows USB to be connected to a computer and recognized as a removable disk Allows USB to be controlled via communication commands		
RS-232C communication			Allows for RS-232C communication via use of a dedicated cable		
Data continuous output*2					
	Type of data	Instantaneous value	L_p		
		Processed value	L_{eq}, L_{max}, L_{min}, L_{peak}		
	Output interval		100 ms (0.1 s)		
Power requirements			Four IEC R6 (size AA) batteries (alkaline or rechargeable batteries) or external power supply		
	Battery life (23 ˚C)		Alkaline battery LR6 (AA): 16 h Ni-MH secondary battery: 16 h At the maximum *Depends on the setting	Alkaline battery LR6 (AA): 26 h Ni-MH secondary battery: 25 h At the maximum *Depends on the setting	
	AC adapter		NC-98E		
	External power voltage		5 to 7 V (rated voltage: 6 V)		
	Current consumption		Approximately 120 mA (normal operation, rated voltage)	Approximately 90 mA (normal operation, rated voltage)	
	Power consumption		Approx. 3 W (during normal operation while using AC adapter, on 100 V side)		
Ambient conditions		Temperature	−10 °C to 50 °C		
		Humidity	10 to 90 % RH (non-condensing)		
Dustproof / water-resistant performance*4			IP code: IP54 (except for microphone) See precautions regarding waterproofing		
Dimensions, weight			Approx. 255 (H) x 76 (W) x 33 mm(D), approx. 400 g (with batteries)	Approx. 250 (H) x 76 (W) x 33 mm(D), approx. 400 g (with batteries)	
Supplied accessories			Storage case x 1, Windscreen WS-10 x 1, Windscreen fall prevention rubber x 1, Hand strap x 1, LR6 (AA) alkaline batteries x 4, SD card 512 MB x 1	Storage case x 1, Windscreen WS-10 x 1, Windscreen fall prevention rubber x 1, Hand strap x 1, LR6 (AA) alkaline batteries x 4, SD card 512 MB x 1 (NX-42EX preinstalled model only)	

Options

Product name	Product number	Compatible models
Extended function program (Inst.on 512 MB SD card)	NX-42EX	NL-52A/42A
Waveform recording program*2 (Inst.on 2 GB SD card)	NX-42WR	NL-62A/52A/42A
Octave, 1/3 octave real-time analysis program*2 (Inst.on 512 MB SD card)	NX-42RT	NL-52A/42A
Octave, 1/3 octave real-time analysis program (Inst.on 512 MB SD card)	NX-62RT	NL-62A
FFT analysis program*2 (Inst.on 512 MB SD card)	NX-42FT	NL-62A/52A/42A
SD Card 512 MB	MC-51SD1	
SD Card 2 GB	MC-20SD2	
SD Card 32 GB	MC-32SP3	
AC adapter (100 V to 240 V)	NC-98E	
Battery pack	BP-21A	
Microphone extension cables	EC-04 (from 2 m)	
BNC-Pin output code	CC-24	
Comparator output cable	CC-42C	
RS 232C serial I/O cable	CC-42R	
USB cable (A-mini B)	-	
Sound calibrator	NC-75	
Pistonphone	NC-72B	
All-weather windscreen	WS-15	
Windscreen mounting adapter	WS15006	
Rain-protection windscreen	WS-16	
Sound level meter tripod	ST-80	
Tripod extension rod (For ST-80)	ST-80-100	
All-weather windscreen tripod	ST-81	
Data management software for environmental measurement	AS-60	See p. 7.
Data management software for environmental measurement (Includes the octave and 1/3 octave data management software)	AS-60RT	
Data management software for environmental measurement (Includes the vibration level data management software)	AS-60VM	
Data management software for environmental measurement (Includes the 1/3 octave data and vibration level data management software)	AS-60VMRT	
Waveform analysis software*3	AS-70	NL-62A/52A/42A

*1 Use Rion fully guaranteed products. *2 NX-42EX required for NL-52A/NL-42A (sold separately) *3 NX-42WR required (sold separately).
*4 Protection against harmful dust and water splashing from any direction.

Precautions regarding waterproofing

Before use, verify that the rubber bottom cover and the battery compartment lid are firmly closed.
To maintain the water and dust proof rating, internal packing replacement is required every five years (at cost).

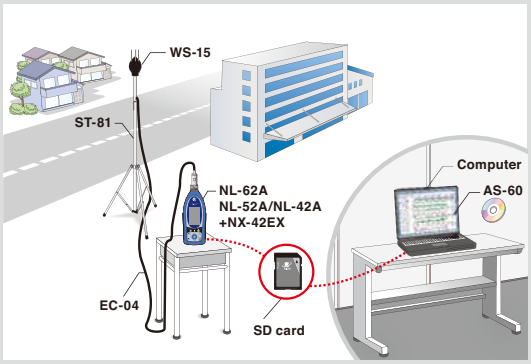
Precautions when transporting devices overseas

The NL-62A and NL-42A (excludes NL-52A) have not received China Compulsory Certification and cannot be exported to China (sold or transported). For more information, contact our sales representative.
Telephone number of sales office: +81-42-359-7888

Application Examples

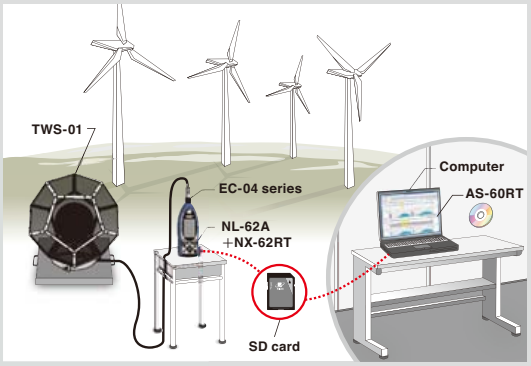
Environmental noise monitoring

The NL-62A, NL-52A, and NL-42A are capable of making continuous measurements for up to one month. They are ideally suited to environmental noise monitoring. The recorded data can be processed with the AS-60 data management software for environmental measurements, which enables data graphing, arithmetic processing, excluded sound processing, reports preparation, file output, and playback of real sound files.



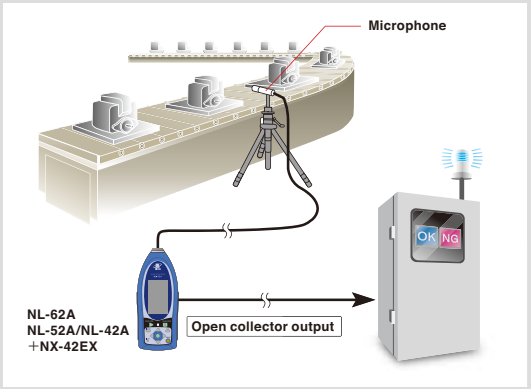
Noise measurements at wind power generation facilities

The NL-62A on its own measures sound over the broad 1 Hz to 20 Hz bandwidth. The NX-62RT performs octave and 1/3 octave band data analysis. The saved data can be loaded and displayed as an overlay graph together with the current analysis data. To manage data, users can also use the AS-60 data management software for environmental measurements, which performs 1/3 octave-band data management.



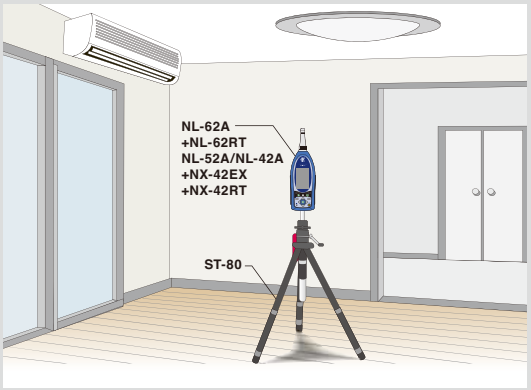
Defective product detection with sound pressure level measurements

The NL-62A, NL-52A, and NL-42A incorporate a comparator function for production inspections based on sound pressure level measurements. The open collector activates when measurements exceed a threshold value set in the main unit Menu screen. This open collector output can be used for on-site sound-based management or automatic in-line inspections (defective product detection).



NC value measurement

The NX-42RT/NX-62RT, an optional octave and 1/3 octave real-time analysis program for the NL-62A/52A/42A series, displays NC curves and calculates/tabulates NC values.



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