

# **INSTRUCTION MANUAL**

UV-22Viewer

**UV-22**




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<http://www.rion.co.jp/english/>



## FOR SAFETY

In this manual, important safety instructions are specially marked as shown below. To prevent the risk of injury to persons and severe damage to the unit or peripheral equipment, make sure that all instructions are fully understood and observed.

 <b>Caution</b>
●

Disregarding instructions printed here incurs the risk of injury to persons and/or damage to peripheral equipment.

<b>Important</b>
●

Disregarding instructions printed here incurs the risk of damage to the product.



<b>Note</b>
●

Mentioned about the tips to use this unit properly. (This messages do not have to do with safety.)

## Caution

Do not play the disc in a CD player!

The CD-ROM containing this software is not a music CD. Inserting the disc in a CD player poses the risk of excessive volume levels that can cause hearing damage and damage to the CD player.

## Important

About the Microsoft Windows operating system

This manual does not provide general information on how to use the Microsoft Windows operating system. For general information about selecting commands and making settings in dialog boxes, refer to the documentation and online help of Microsoft Windows.

Examples for computer screens shown in this manual are for illustration purposes only. The actual appearance of screens may differ, depending on the version of the Microsoft Windows operating system and the computer environment.

- \* Company names and product names mentioned in this manual are usually trademarks or registered trademarks of their respective owners.

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### (1) Definition and Scope

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The user must ensure that all persons using the software are fully aware of all conditions of this agreement. Any violation will be the responsibility of the user.

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- (1) RION CO., LTD. guarantees that the software is supplied on media that have no substantial defect, and that the software contains the functions that are explicitly listed in the specifications. If the software does not operate according to specifications or if any problems described above that are the responsibility of RION CO., LTD. are detected and RION CO., LTD. is informed of this fact within 90 days from the purchase date of the software, RION CO., LTD. will undertake to remedy the problems free of charge.
- (2) If the software does not operate according to specifications due to causes that are not the responsibility of RION CO., LTD., RION CO., LTD. will undertake to remedy the problems on a fee-paying basis.

## 6. Limitation of Warranty

The user agrees to the following limitations of warranty.

- (1) RION CO., LTD. does not guarantee that the software is fit for any particular purpose of the user, whether stated explicitly or implicitly, or that the software is free of errors. RION CO., LTD. does not provide any other kind of warranty except as stated in this agreement. RION CO., LTD. does not accept responsibility for any kind of damage, whether direct or indirect, tangible or intellectual, that may arise from the use of the software or the failure of the software to perform any function.
- (2) Under no circumstances will the responsibility of RION CO., LTD. as stated in "5. Warranty" exceed the equivalent of the price that the user paid for the software.

## 7. Duration

This agreement is valid until terminated. The user can terminate the agreement at any time by destroying the software and associated documentation and deleting all copies from the computer where the software was installed. The agreement also terminates when the user violates any of the conditions herein. In this case, the user also must destroy the software and associated documentation and delete all copies from the computer where the software was installed.

## 8. Jurisdiction

Any disputes or litigation arising from this agreement will be under the jurisdiction of the Tokyo District Court.



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# Outline

The UV-22Viewer Software is supplied with the Interface Unit UV-22 on a single CD-ROM disc and is designed specifically for use with the UV-22. The software supports setup control, measurement value display, and other functions for the Sound Level Meter Unit UN-14 and Vibration Meter Unit UV-15 linked to the UV-22. The connection between UV-22 and a computer can be established via a USB or Ethernet link.

## Main functions

Control settings and display instantaneous value (updated every second) for linked UN-14

Control settings and display instantaneous value (updated every second) for linked UV-15

Input user filter values for linked UN-14/UV-15

Operation control: The software supports control of one UV-22 unit.

Via the UV-22 unit, the software can control up to 16 UN-14 and UV-15 units.

## Precautions

- Suitable ID numbers must have been assigned to UN-14 and UV-15 units linked to the UV-22.

The ID number serves to uniquely identify a device in the system. Make sure that ID number settings do not conflict. If there is more than one device in the system with the same ID number, correct operation is not possible.

- Use the AC adapter NC-99 to power the system during communication.

## Operating environment

### Supported operating systems:

Microsoft Windows 2000

Microsoft Windows XP

Microsoft Windows Vista

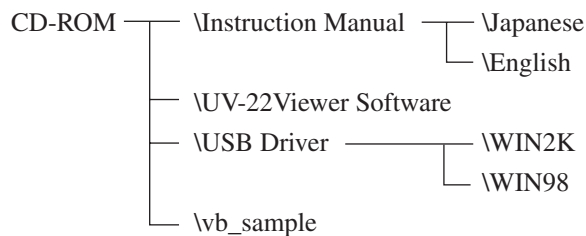
CPU: Intel (R) Celeron (TM) processor 800 MHz or higher

RAM: 256 MB or more

# Preparations

It is recommended that you insert the CD-ROM into the disc drive of your computer and copy the entire folder and file structure from the CD-ROM to the hard disk.

## CD-ROM folder structure



## Instruction Manual folder

Contains the documentation for the UV-22 and the UV-22Viewer in electronic format.

## UV-22Viewer Software folder

Contains the UV-22Viewer application software.

## USB Driver folder

Contains the USB driver.

WIN2K: For Windows 2000/XP/Vista

WIN98: For Windows 98 SE

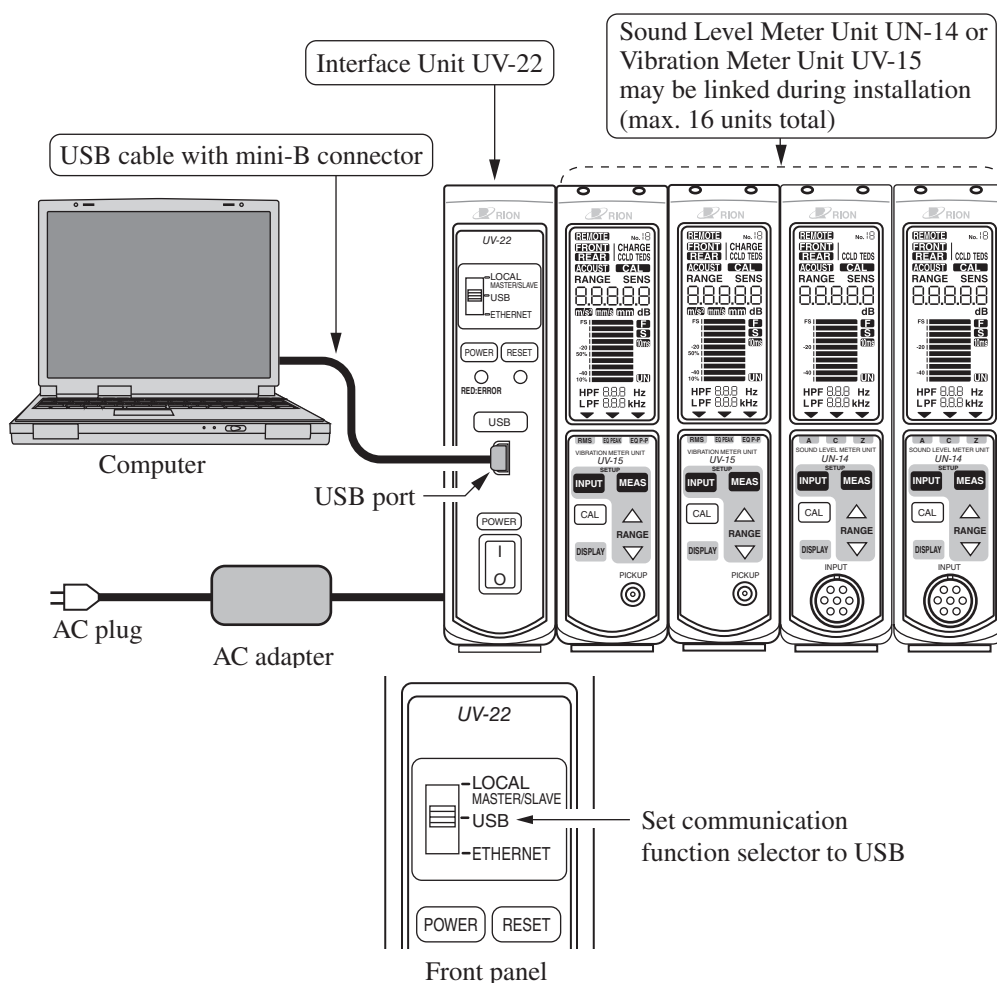
## vb\_sample folder

Contains sample software for retrieving data from the UV-22 using the DOD command. The software is written in Visual Basic.

# Installation

Install the USB driver on the computer as follows.

1. Start up the computer. Close any other software that is running.
2. Make sure that the POWER switch of the UV-22 is set to OFF and that the communication function selector on the front panel is set to USB.
3. Plug the USB cable into the USB port of the UV-22 and plug the other end of the cable into the USB port of the computer. Then turn on power to the UV-22.



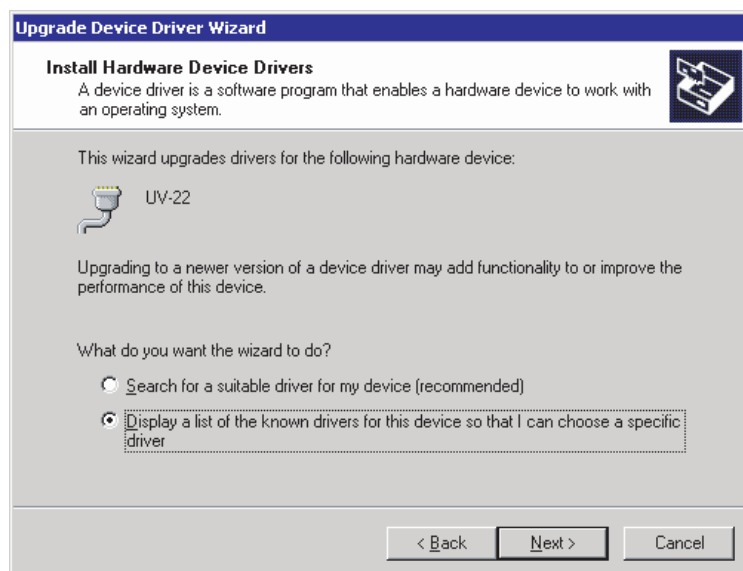
- \* The USB driver can be installed also while the UV-22 is linked to UN-14 and UV-15 units.

After a while, a window such as shown below will appear on the computer screen.

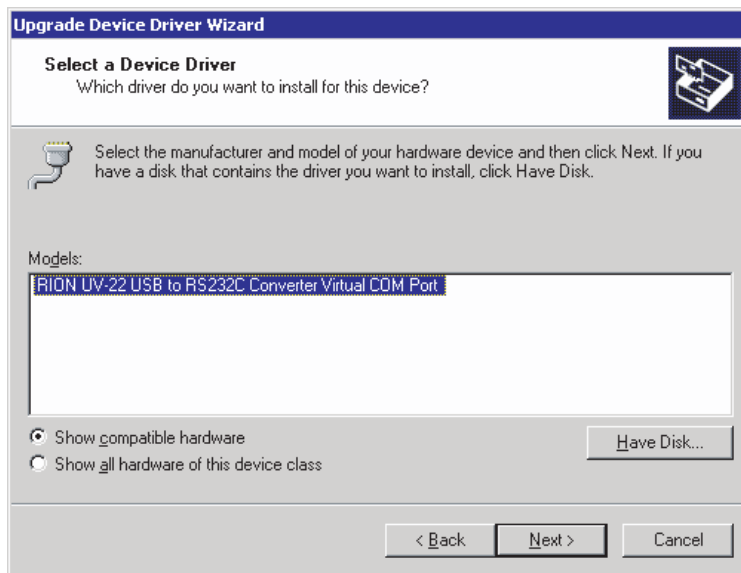
Example of the USB driver installation using Windows 2000



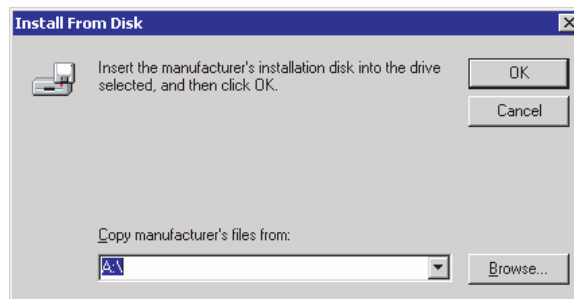
Click the [Next] button.



Select [Display.....driver] and click the [Next] button.

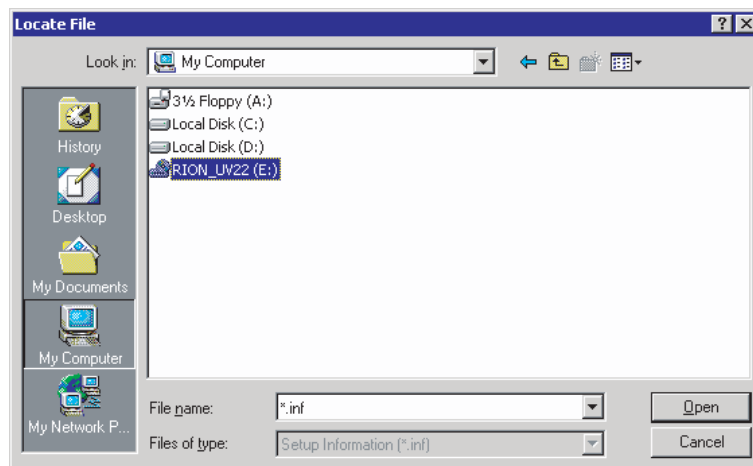


Select [Show compatible hardware] and click the [Have Disk...] button.

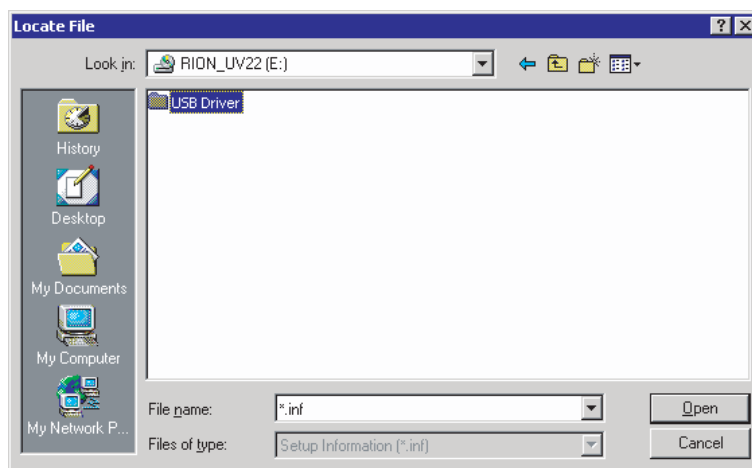


Click the [Browse...] button.

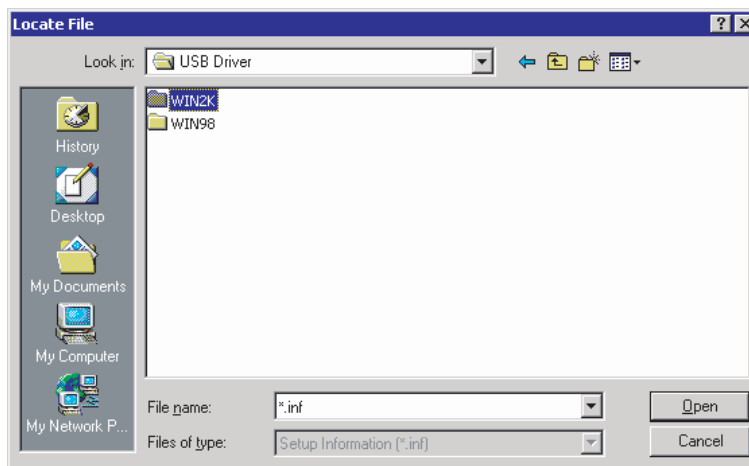




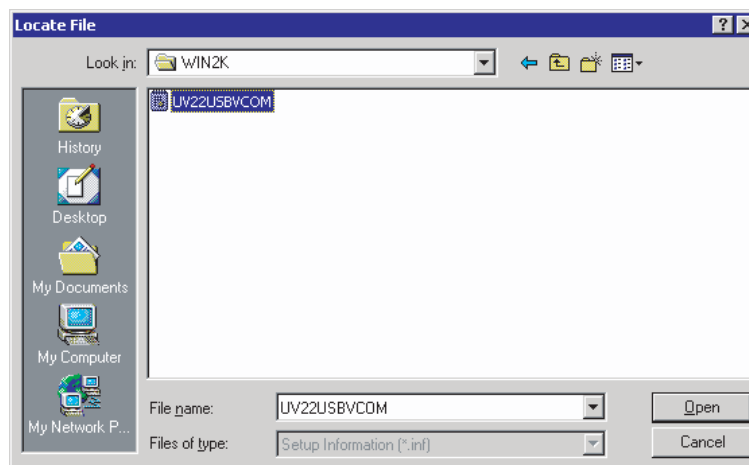
Select the "CD-ROM(RION\_UV22)" folder under the "My computer" folder and click the [Open] button.



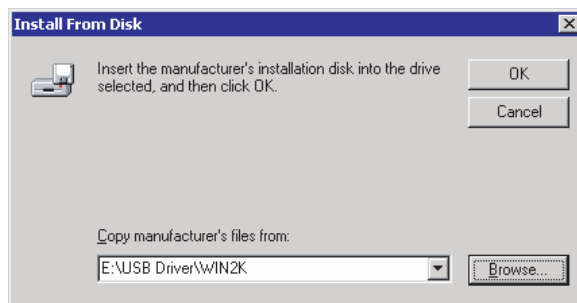
Select the "USB Driver" folder and click the [Open] button.



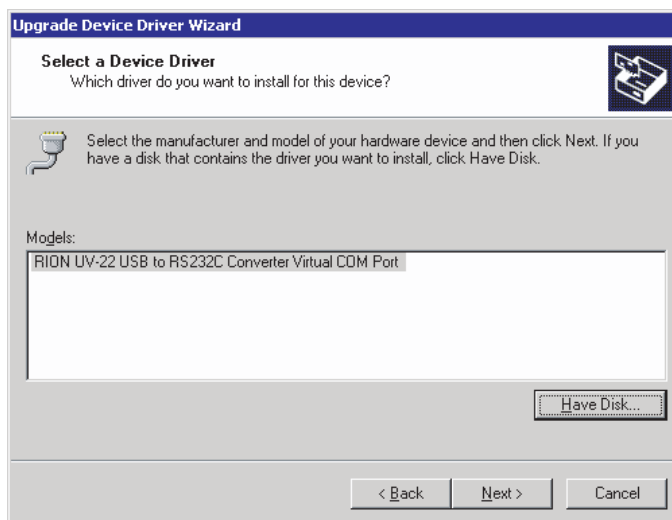
Select the "WIN2K" folder and click the [Open] button.



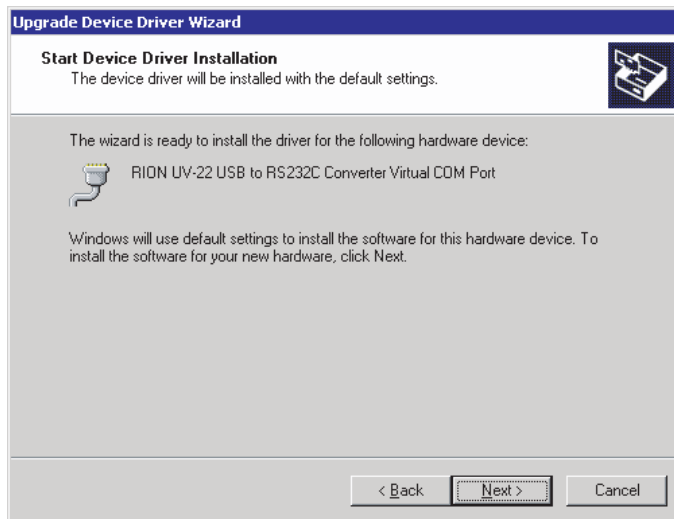
Select the "UV22USBVCOM" icon and click the [Open] button.



Click the [OK] button.



Click the [Next] button.



Click the [Next] button.



The USB driver installation is complete.

# Connections

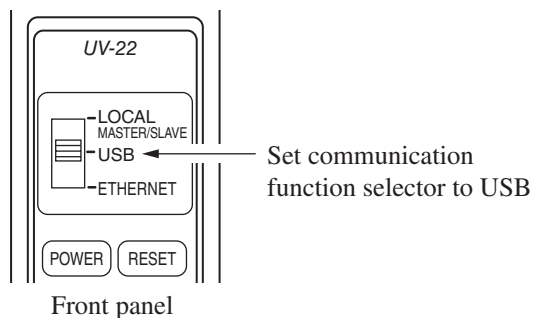
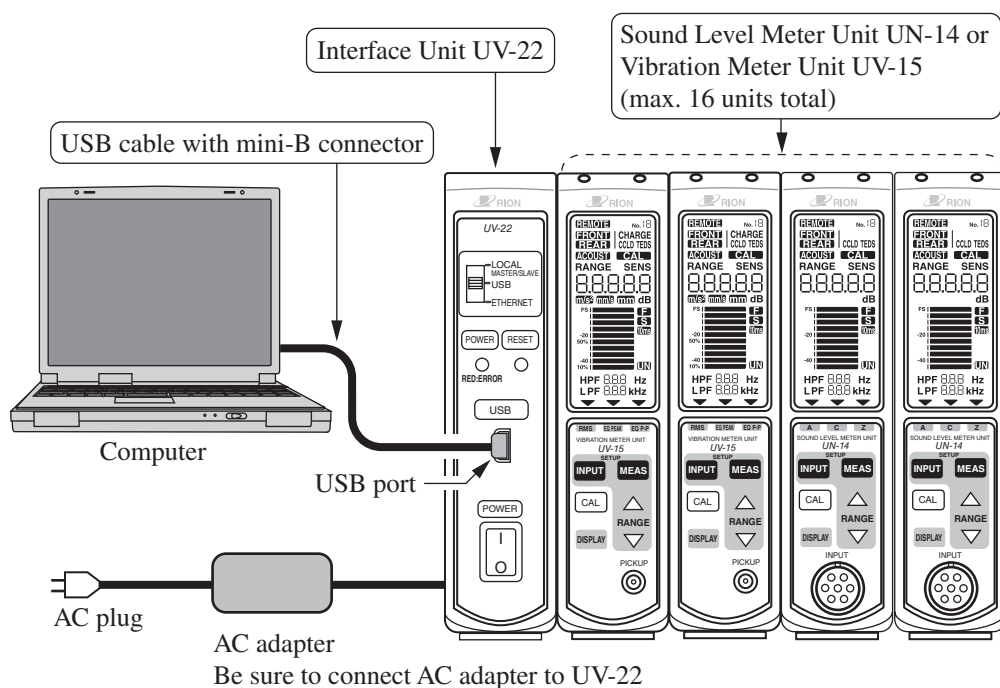
Make connections as required, according to the type of interface to be used.

## Connections for USB link

To use the UV-22, connect the AC adapter to the UV-22.

If the Battery Unit BP-17 is part of the system, connect the AC adapter to the BP-17.

In this case, leave the POWER switch of the UV-22 constantly set to ON.

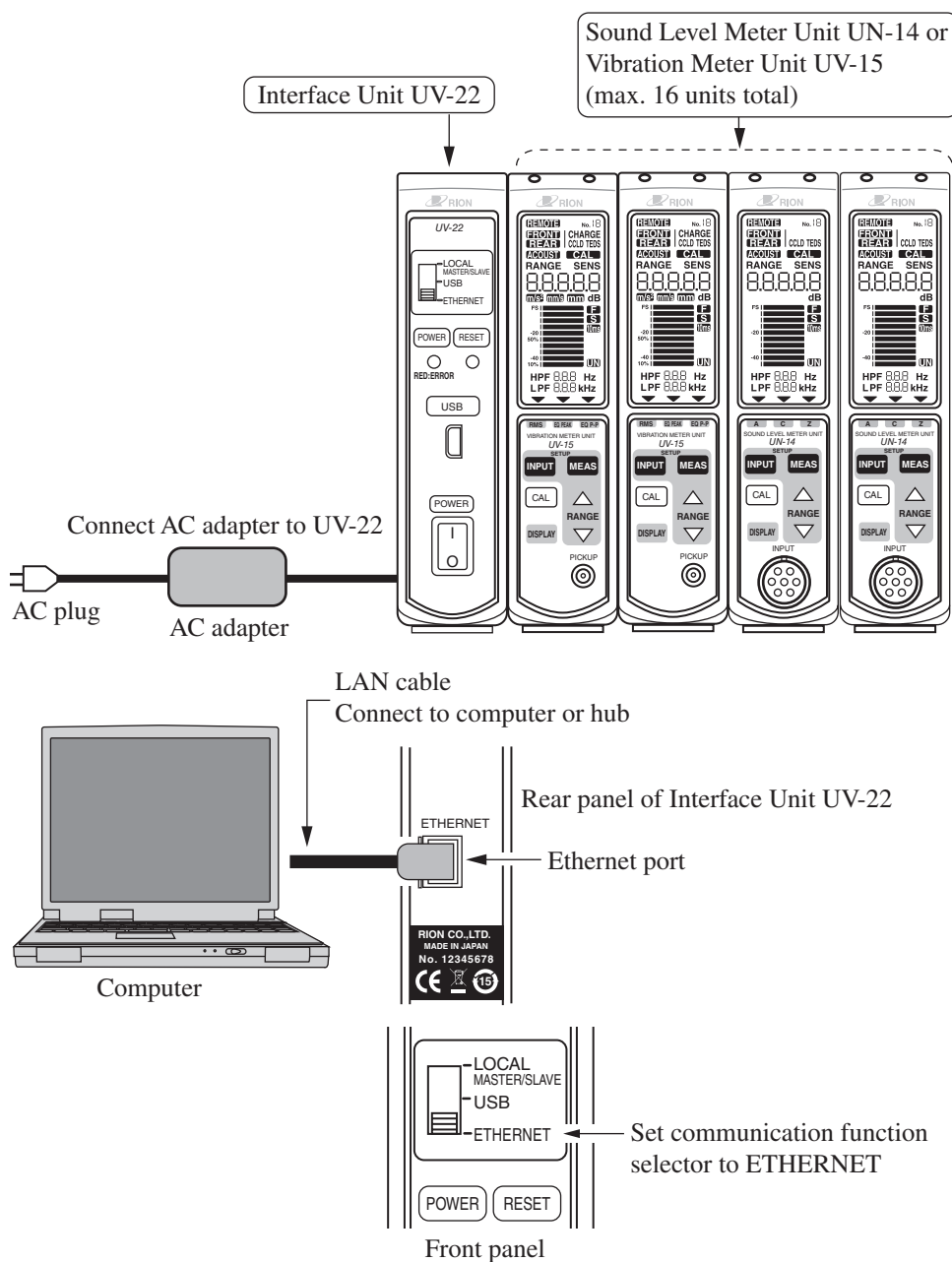


## Connections for LAN link

To use the UV-22, connect the AC adapter to the UV-22.

If the Battery Unit BP-17 is part of the system, connect the AC adapter to the BP-17.

In this case, leave the POWER switch of the UV-22 constantly set to ON.



**Important**

Use only the optional AC adapter NC-99.

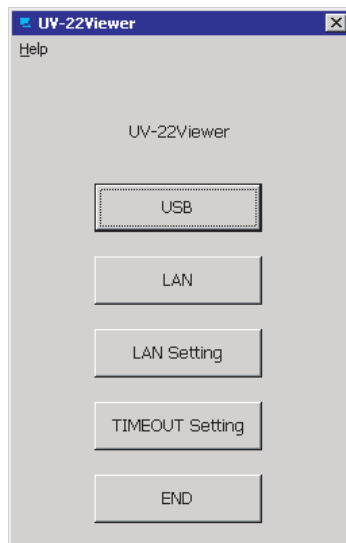
Using any other AC adapter can result in malfunction and damage.

# Starting the Application

Select the UV22Viewer.exe icon and double-click on it.

## Startup screen

When the UV22Viewer.exe application is started, a startup screen such as shown below appears.



Startup screen

The startup screen has the following buttons.

- USB button  
Use USB link to connect to UV-22 and bring up the input settings screen.
- LAN button  
Use LAN link to connect to UV-22 and bring up the input settings screen.  
Before using LAN communication for the first time, LAN settings must be made using the LAN Setting screen.
- LAN Setting button  
Use USB link to connect to UV-22 and bring up the LAN Setting screen.



- **TIMEOUT Setting button**  
Bring up the screen for setting the timeout interval for communication with the UV-22.
- **END button**  
Terminate the application.

Note
If a communication error occurs, check the various settings and cable connections, and restart the computer and the UV-22.

The startup screen also contains the following menu.

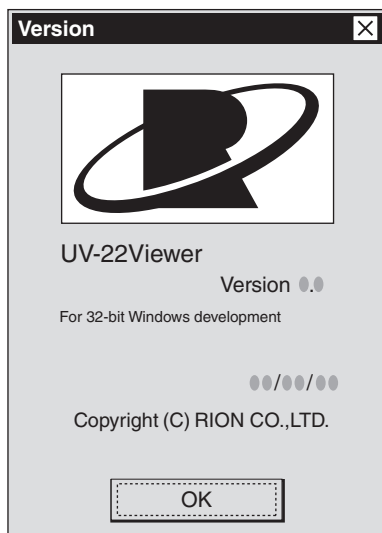
- Help menu

Selecting the Help menu gives access to the following sub menu.

Version sub menu: Brings up the version screen.

From the startup screen or the input setting screen, select [Help > Version] to bring up the version screen. The screen shows the program version and other information.

It also contains the button shown below.



Version screen

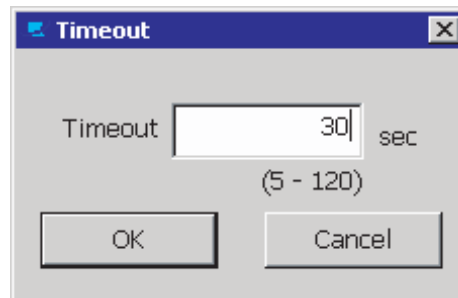
- OK button

Closes the version screen.

## Timeout setting screen

Clicking the TIMEOUT Setting button on the startup screen brings up a screen such as shown below.

The Timeout setting screen lets you set the timeout interval for communication with the UV-22.



Timeout setting screen

The following item can be set from this screen.

- Timeout

Sets the timeout interval for communication with the UV-22. The setting range is 5 to 120 seconds in 1-second intervals.

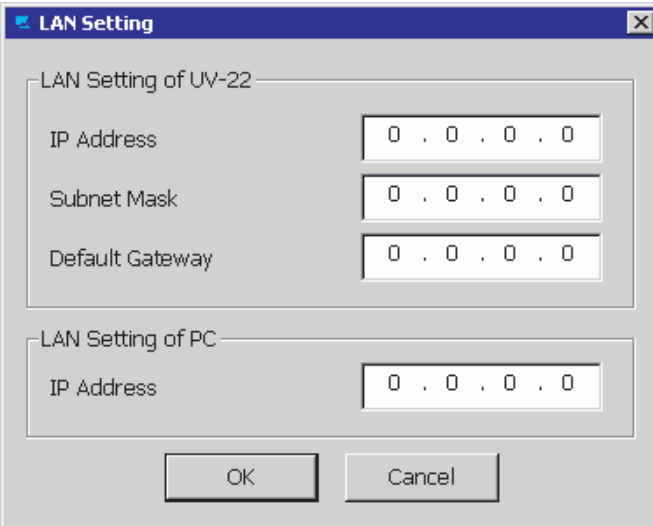
Note
When using a LAN link, network traffic and communication conditions can affect the transmission. A setting of 30 seconds or higher is recommended.

## LAN Setting screen

Clicking the LAN Setting button on the startup screen initiates a communication to the UV-22 via the USB link.

If the communication can be established successfully, the LAN Setting screen appears.

The LAN Setting screen serves to make LAN related settings for the UV-22 and for the computer.



The screenshot shows a Windows-style dialog box titled "LAN Setting". It is divided into two main sections. The first section, "LAN Setting of UV-22", contains three input fields: "IP Address", "Subnet Mask", and "Default Gateway". Each of these fields contains the text "0 . 0 . 0 . 0". The second section, "LAN Setting of PC", contains one input field labeled "IP Address" which also contains "0 . 0 . 0 . 0". At the bottom of the dialog are two buttons: "OK" and "Cancel".

LAN Setting screen

The LAN Setting screen gives access to the following items.

- UV-22 LAN settings

This section comprises the following items. The settings are saved in the UV-22.

- IP address

Specifies the IP address of the UV-22.

- Subnet mask

Specifies the subnet mask of the UV-22.

- Default gateway

Specifies the default gateway of the UV-22.

- PC LAN settings

This section comprises the following item. The setting is saved in the computer.

- IP address

Specifies the IP address of the UV-22 that the computer should look for when connected via LAN.

(Use the same IP address as entered in the UV-22 LAN settings section.)

The LAN Setting screen contains the buttons described below.

- OK button

Clicking this button after changing the UV-22 LAN settings will send a command string to the UV-22 that updates the setting.

Clicking this button after changing the PC LAN settings will change the connection target for LAN communication.

- CANCEL button

Closes the LAN Setting screen without making any changes.

Important
When the unit is to be connected to a company network or similar, consult the network administrator regarding the appropriate settings for IP address, subnet mask, and default gateway.
On a LAN, the actual communication speed (throughput) will depend on data traffic and communication conditions.
The operation keys on the UN-14/UV-15 remain active also while using the UV-22Viewer software. If settings are changed with the keys while operation is controlled by the UV-22Viewer software on the computer, a mismatch between the settings as managed by the software and the actual UN-14/UV-15 settings may occur.

## Instantaneous value display and setup screen

When a connection to the UV-22 has been successfully established by clicking the USB or LAN button on the startup screen, the instantaneous value display and setup screen as shown below appears. The screen shows instantaneous values and also gives control over various setup items.

INPUT SETTING			MEASURE SETTING			USER FILTER		
			INPUT		Sensitivity			
No.1	42.5	dB	No.1	FRONT	-33.3	dB/pa		
No.2	41.1	dB	No.2	FRONT	-33.3	dB/pa		
No.3	43.0	dB	No.3	FRONT	-33.3	dB/pa		
No.4	---		No.4	---	---			
No.5	---		No.5	---	---			
No.6	---		No.6	---	---			
No.7	0.0	m/s <sup>2</sup>	No.7	FRONT CCLD	1.11	mV/m/s <sup>2</sup>		
No.8	0.0	m/s <sup>2</sup>	No.8	FRONT CCLD	1.11	mV/m/s <sup>2</sup>		
No.9	---		No.9	---	---			
No.10	---		No.10	---	---			
No.11	---		No.11	---	---			
No.12	---		No.12	---	---			
No.13	---		No.13	---	---			
No.14	---		No.14	---	---			
No.15	---		No.15	---	---			
No.16	---		No.16	---	---			

Instantaneous value display and setup screen

The instantaneous value display and setup screen contains the buttons described below.

- CAL ON/CAL OFF button

Clicking this button turns calibration mode at UN-14/UV-15 units linked to the UV-22 on and off.

If the button is clicked while showing "CAL ON", calibration mode is turned on.

If the button is clicked while showing "CAL OFF", calibration mode is turned off.

If a setting was changed, this button is not available.

- SEND button

Click this button to send any changed settings to the UV-22.

The button becomes available when a setting was changed.

- CANCEL button


Click this button to cancel any changed settings.

The instantaneous value display and setup screen also contains the following menu.

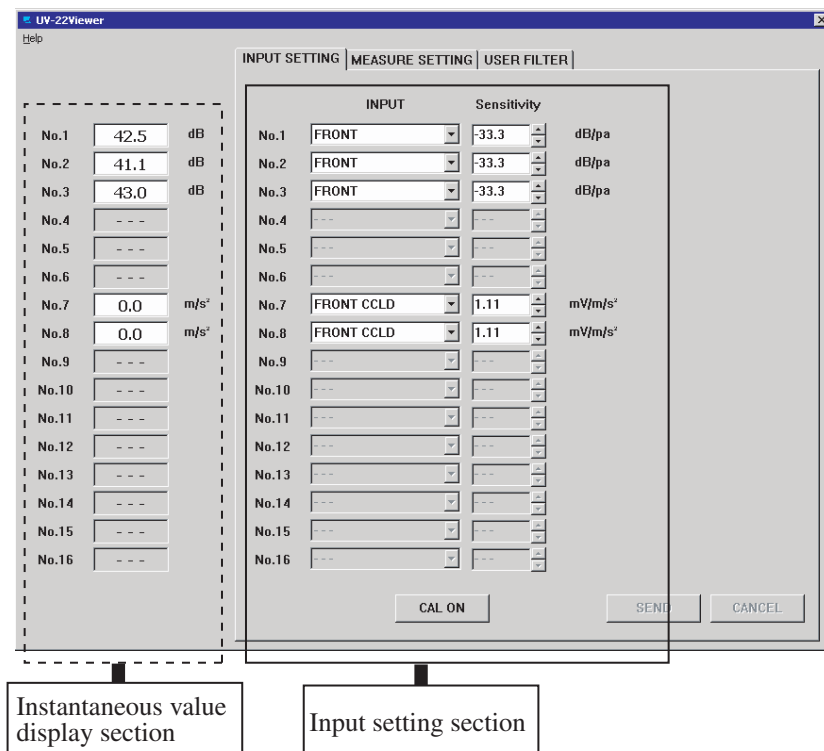
- Help menu

Selecting the Help menu gives access to the following sub menu.

- Version sub menu: Brings up the version screen.

To close the instantaneous value display and setup screen, click the  button at the right end of the window title bar.

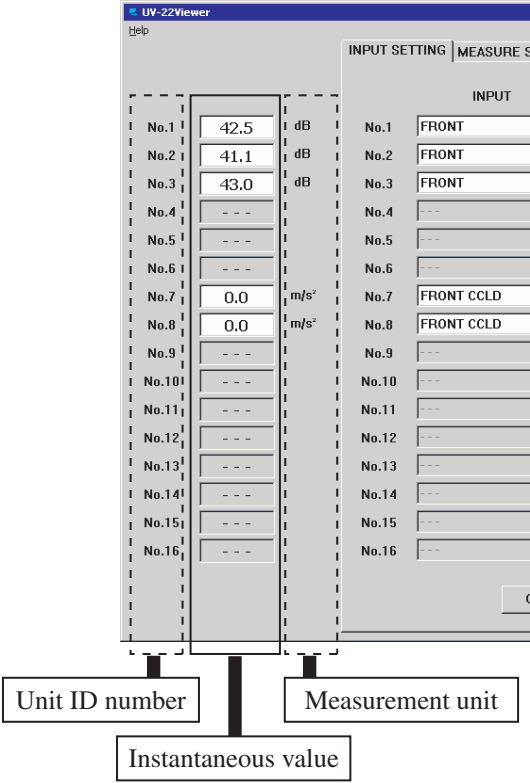
The instantaneous value display and setup screen is divided into the instantaneous value display section and the input setting section.



Layout of instantaneous value display and setup screen

# Contents of instantaneous value display section

The instantaneous values of units linked to the UV-22 are shown here.  
The indication is updated every second.  
The display supports up to 16 units.



Instantaneous value display section (detail)

Note
Depending on communication conditions, updating may not always occur at 1-second intervals.

The "No." field corresponds to the ID number assigned to the linked unit.  
The indication field shows the instantaneous value of the unit (UN-14/UV-15) linked to the UV-22. The background color of the field indicates the current status.

- Normal status: Background is white.
- OVER (overload) status: Background is red.

If there is no unit at a specific ID number, the field only shows "---".



The measurement unit field shows which unit applies to the value shown in the indication field. The following indications are possible.

- No equipment connected:  
Unit field is blank.
- UN-14 connected:  
Unit field shows "dB".
- UV-15 connected:  
Unit field shows "m/s<sup>2</sup>", "mm/s", or "mm" depending on setting.

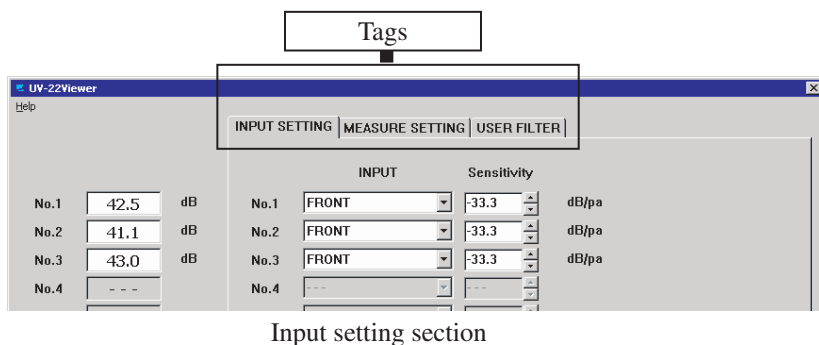
## Contents of input setting

This section allows making input settings, measurement settings, and user filter settings for equipment connected to the UV-22.

The section has three categories. Select the respective category by clicking the appropriate tag at the top.

- To select the input setting category, click the INPUT SETTING tag.
- To select the measurement setting category, click the MEASURE SETTING tag.
- To select the user filter setting category, click the USER FILTER tag.

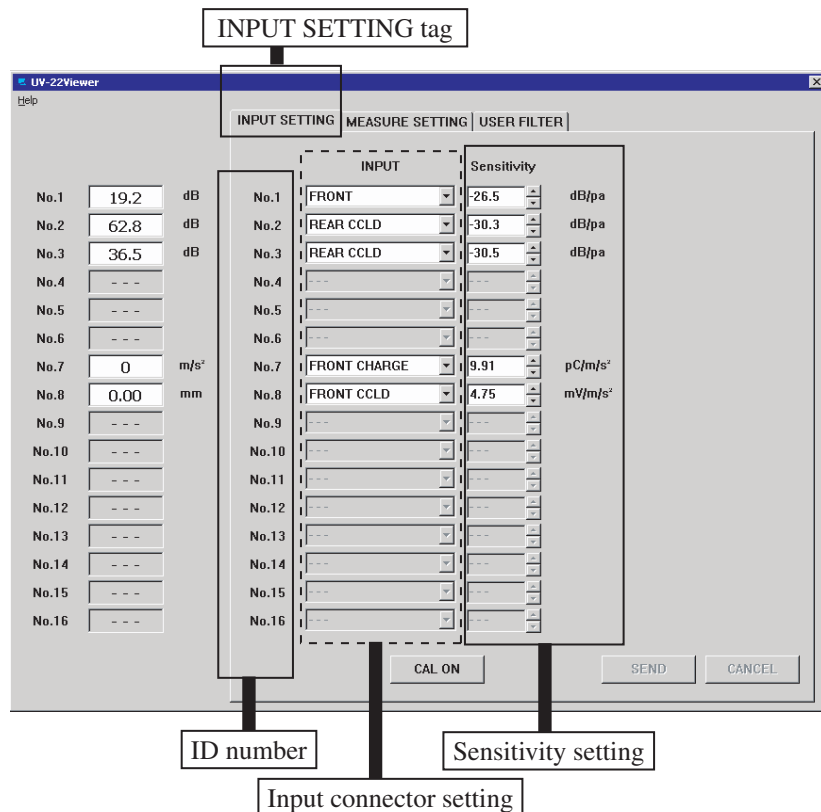
If any setting has been changed, the tags for the other categories will not be available.



Input setting section

## Input setting category

Clicking the INPUT SETTING tag brings up the input setting category. Here you can make input related settings.



Input setting category

The "No." field corresponds to the ID number assigned to the unit linked to the UV-22.

The INPUT field lets you specify input connector related settings of the UN-14/UV-15 unit linked to the UV-22.

If there is no unit at a specific ID number, the INPUT field only shows "---".

If there is a unit at a specific ID number, but the obtained input value is not within specifications, the unit indication will be blank.

Depending on the selected INPUT setting, TEDS communication mode is enabled in the following cases.

- Connected unit is UN-14 and REAR CCLD TEDS is selected
- Connected unit is UV-15 and FRONT CCLD TEDS is selected

When the INPUT setting is changed to TEDS communication mode, changing the Sensitivity value is not possible, and the field becomes blank (because the Sensitivity value is not yet determined at that point). When you subsequently click the SEND button, TEDS communication starts. When TEDS communication is completed, the Sensitivity value will be obtained and will be shown in the Sensitivity field.

If TEDS communication has failed, the message "TEDS communication failed" along with the ID number of the device is shown.

To use the TEDS sensor for setting the sensitivity value to a specific value, select the following setting:

- UN-14: REAR CCLD
- UV-15: FRONT CCLD

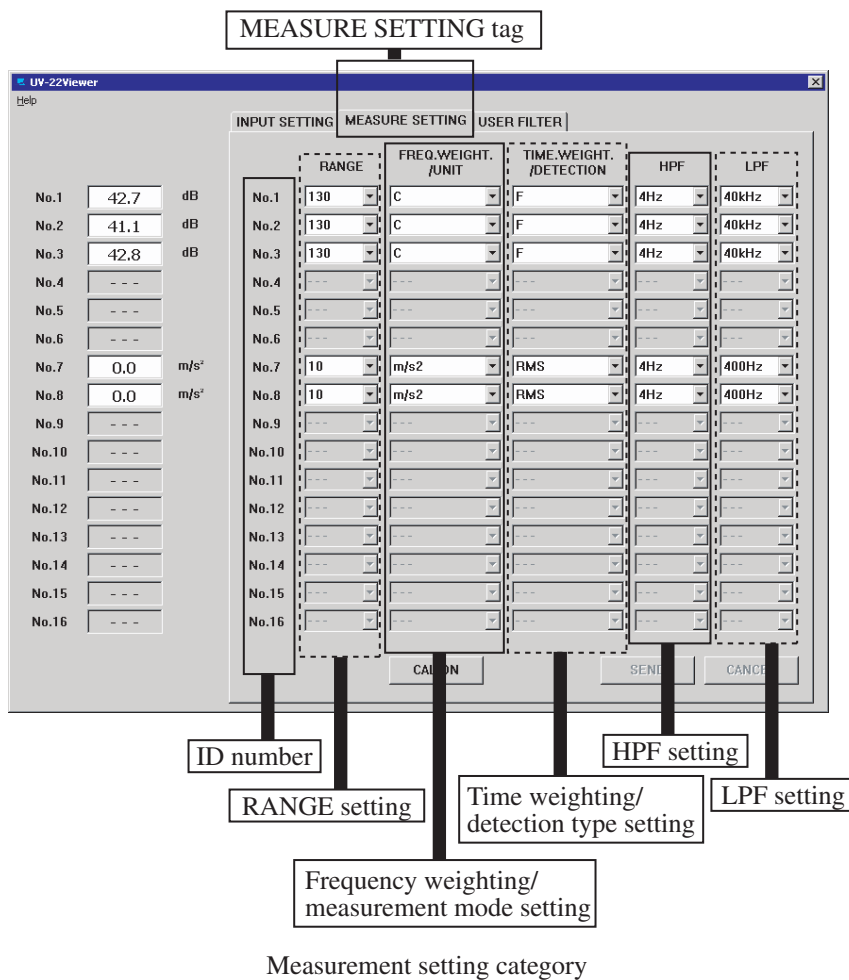
The Sensitivity field shows the respective sensitivity setting of the UN-14 or UV-15 unit. If there is no unit at a specific ID number, the field only shows "---" and cannot be changed. The unit indication is also blank.

If TEDS communication mode has been enabled by the INPUT setting, the sensitivity value cannot be changed.

## Measurement setting category

Clicking the MEASURE SETTING tag brings up the measurement setting category. Here you can select or display the following measurement related settings.

- UN-14: Range, frequency weighting characteristics, time weighting characteristics, HPF, LPF
- UV-15: Range, measurement mode (acceleration/velocity/displacement), detection type, HPF, LPF



The "No." field corresponds to the ID number assigned to the unit linked to the UV-22.

The RANGE field lets you select or display the range setting of the UN-14 or UV-15 unit linked to the UV-22. If there is no unit at a specific ID number, the RANGE field only shows "---" and cannot be changed.

The setting range depends on the device type.

- UN-14  
Range is determined by sensitivity setting.
- UV-15  
Range is determined by sensitivity setting and measurement mode.

If the frequency weighting/measurement mode setting was changed, the range is affected and the RANGE field therefore becomes blank. Set the RANGE value again.

The settings available for the frequency weighting/measurement mode (FREQ. WEIGHT./UNIT) field depend on the device type.

- UN-14  
Frequency weighting characteristics (A, C, Z) of UN-14 connected to UV-22 can be set.
- UV-15  
Measurement mode (m/s<sup>2</sup>, mm/s, mm) of UV-15 connected to UV-22 can be set.  
If the measurement mode setting was changed, the range is affected and the RANGE field therefore becomes blank. Set the RANGE value again.

If there is no unit at a specific ID number, the FREQ. WEIGHT./UNIT field only shows "---" and cannot be changed.

The settings available for the time weighting/detection type (TIME. WEIGHT./DETECTION) field depend on the device type.

- UN-14  
Time weighting characteristics (F, S, 10 ms) of UN-14 connected to UV-22 can be set.
- UV-15  
Detection type (RMS, EQPEAK, EQP-P) of UV-15 connected to UV-22 can be set.

If there is no unit at a specific ID number, the TIME. WEIGHT./DETECTION field only shows "---" and cannot be changed.

The HPF field allows setting a high-pass filter value for the unit connected to the UV-22. If there is no unit at a specific ID number, the HPF field only shows "---" and cannot be changed.

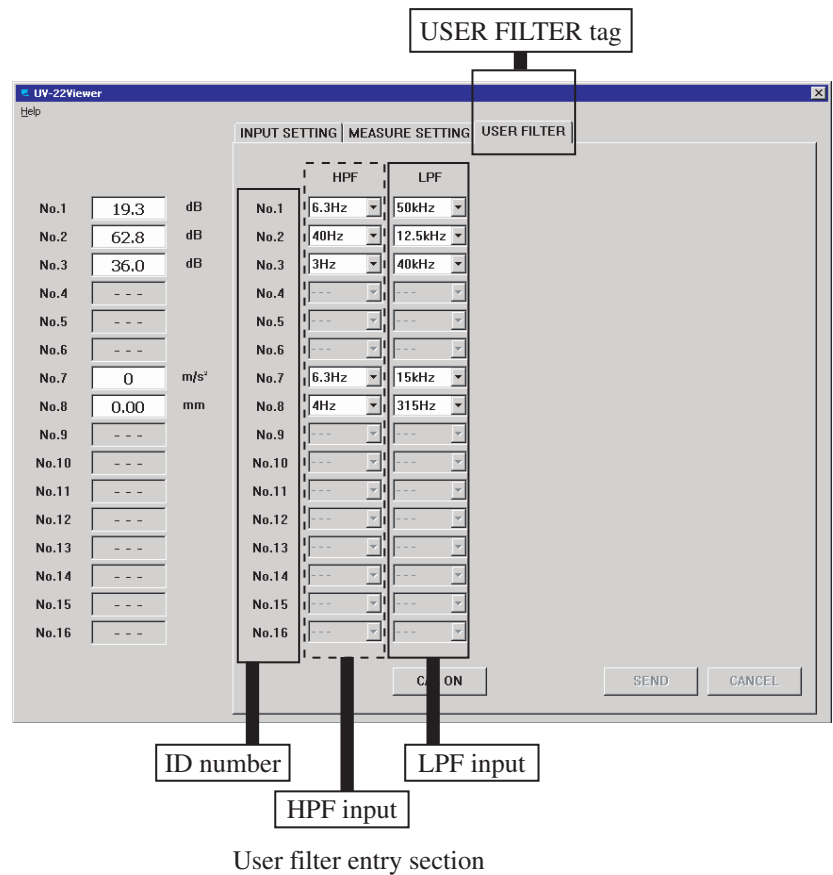
When a user filter value is entered, it will be added to the bottom of the list of choices.

The LPF field allows setting a low-pass filter value for the unit connected to the UV-22. If there is no unit at a specific ID number, the LPF field only shows "---" and cannot be changed.

When a user filter value is entered, it will be added to the bottom of the list of choices.

# User filter setting category

Clicking the USER FILTER tag brings up the user filter setting category. Here you can make settings for the user filter function.



The "No." field corresponds to the ID number assigned to the unit linked to the UV-22.

The HPF field allows specifying a high-pass filter value for the unit connected to the UV-22. If there is no unit at a specific ID number, the HPF setting cannot be changed.

The LPF field allows specifying a low-pass filter value for the unit connected to the UV-22. If there is no unit at a specific ID number, the LPF setting cannot be changed.



**Important**

To enable the user filter settings made here, the respective HPF or LPF setting must be selected in the HPF or LPF field under the MEASURE SETTING tag.

**Making a global setting**

By holding down the Shift key while changing the setting of an item, the setting can be made globally for all units of the same type.

When a global setting is made for a UN-14 unit, all other UN-14 units in the system will change to the same setting.

When a global setting is made for a UV-15 unit, all other UV-15 units in the system will change to the same setting.

**Note**

The following items cannot be set globally:

- Sensitivity field under INPUT tag
- RANGE field under MEASURE SETTING tag

When a global setting is made for HPF or LPF under the MEASURE SETTING tag, the setting affects only units of the same type for which the user filter function is enabled. The setting of units of the same type for which the user filter function is not enabled does not change.

