





Dear Customer!

Congratulations on the purchase of your RogaDAQ2 SC. This Product has been carefully designed and engineered to provide you with a precise and reliable data acquisition instrument. Please read this instruction manual before using the product, and keep it at hand for reference.

You're ROGA-Instruments-Team

1. Introduction

<u>1.1 System Requirements</u> PC with compatible OS and one available USB-connector (USB1.0, 1.1 or USB 2.0)

1.2 Included Parts

Following parts are included:

- 1 RogaDAQ2 2-Channel-DAQ
- 1 USB-cable
- 1 CD ROM
- 1 carrying case

1.3 Safety Information- read before use!

Caution: The unit is only suitable for low voltage measurements. Under no circumstance should voltages (AC or DC) above 40 Volt peak be connected to any input or output. Please enable the IEPE supply only while an IEPE compatible sensor is connected to that input, as other devices may be destroyed by the IEPE voltage of up to 28V.

The IEPE supply may also cause interference if there is no sensor connected.

2. Getting started

2.1 Connecting hardware

2.1.1 PC connection:

Use the supplied USB-cable to connect the RogaDAQ2 to an available USB port on your PC.

2.1.2 Analog Input

Connect your signal or sensor to the analog inputs (in 1 and in 2) using the supplied BNC cable



2.2 Installation

Start your PC. Microsoft Windows ME, Windows 2000, Windows XP or above should be installed. These operating systems do not require additional drivers. The RogaDAQ2 will be automatically detected and installs it as *USB-Audio-Device*.

You may now use your RogaDAQ2 with any software supporting Windows PC soundcards.

3. Making Measurements

3.1 Scaling

The RogaDAQ2 outputs the analog signals as signed 16bit PCM data with a range of -32.768 to +32.767. The maximum values represent the maximum input range (e.g. +32.767 = 5V; -32.768 = -5V). The input range is defined as peak voltage, not rms.

Not all software applications detect the supported sampling rates properly. Please make sure to only use the supported sampling rates as outlined in the specifications section.

3.3 Setup & Sensor supply

As first make sure that the RogaDAQ2 is enabled for two channel mode in the sound card properties:



Sound	Microphone Array Properties
Playback Recording Sounds	General Custom Levels Advanced
Select a recording device below to modify its settings: Microphone Realtek High Definition Audio Working Line In Realtek High Definition Audio Not plugged in Microphone Array RogaDAQ2 SVolt SN0174 Working	Default Format Select the sample rate and bit depth to be used when running in shared mode. 2 channel, 16 bit, 48000 Hz (DVD Quality) 👻 Exclusive Mode I Allow applications to take exclusive control of this device I Give exclusive mode applications priority
Configure Set Default Properties OK Cancel Apply	Restore Defaults OK Cancel Apply

RogaDAQ2 NVH Analyzer & Recorder

The **AC/DC** on/off function can be used to enable or disable the high pass filter for the channels, by using the "Mute On/Off" check box at the Windows soundcard properties.



General Cus	tom Levels	Advanced		
Microphor	ne Array	-	25 🚺	
			-	- 1

The **IEPE on/off** function can be used to enable or disable the IEPE 24V/4mA constant current supply for direct connection of ICP* compatible sensors, by using the "AGC or Bass boost (Loudness) On/Off" check box at the Windows soundcard properties.



General	Custom	Levels	Advanced			
V Lou	Idness					
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4. Care and Maintenance

This equipment does not require scheduled or preventive maintenance. If you handle it with care, it will be a reliable tool.

Should your RogaDAQ2 require cleaning, use a damp cloth or mild cleaning fluid. Take care not to get any fluid in or around the connectors.

If your RogaDAQ2 requires manufacturer inspection and calibration, please contact your vendor.



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5. Troubleshooting:

In case you experience problems with your RogaDAQ2:

- Check that it is correctly recognized and installed by Windows. A **USB- Audio device** should be found under **Audio**, **Video and Game controller** in the *device manager*.

Select RogaDAQ2 SC as default device under Properties of Sound and Audio devices

- Some application software requires manual selection of the recording and playback device. Please refer to the manual or help function of your application software.

If you continue to experience problems, please contact your vendor.

6. Specifications (typical, fs=48kHz, f=1kHz,-3dBFS unless otherwise noted)

Analog Inputs	
Impedance	: 1 Mega ohm, single ended BNC
IEPE/ICP* sensor supply	: 24V/4mA
Input ranges	: +/- 5V (other ranges RFQ)
Resolution	: 24bit Sigma Delta ADC
Frequency Response	: DC-20kHz +/-0.15dB
Sample rates	: 48kHz
	& (64 kHz, 96 kHz one channel Ultra Sonic version)
Overall accuracy	: better 1%
Gain error	: less than 0.1%
THD	: less than 0.01%
Dynamic range	: 96dBA
Channel separation	: better 90dB
SFDR	: -115dB
Aliasing rejection	: better 90dB (to 0.4x fs)
Miscellaneous	
PC-interface	: USB1.1 & 2.0 compatible
Power supply	: USB powered: 5V, 480mA
Temperature range	: +0°C to +50°C
Dimensions	: 150mm*82mm*32mm
Weight	: approx. 150g



Getting started with DEWESoft FFT Analyser

For Windows Vista users:

Before you setup the DEWESoft program under Windows vista, please make sure that the at the control panel; user account the "User Account is turned off".



At the CD ROM media you will find the DEWESoft6.xx_Fullinstaller.exe Please double click to this file, and select "DEWESoft for Demo mode" than click next.



etup Type Select the setup type that best suits your needs.	NEWES
Set the type of setup you prefer to install DEWESo	ft 6.5 .
1. DEWESoft standard	Description
3. DEWESoft for VGPS mode 4. DEWESoft for DEWEConfig mode	prepared for Demo mode.

For Modal & FRF Analysis please check the DEWESoft FRF Option.



Select Features	
Select the options you want to install.	PENESO
Select which options to install for DEWESoft.	
DEWESoft Option FRF	Description
DEWESoft Option NET addons	Installs option FRF (frequency response function), which runs as a DCOM application on top of DEWESoft.
allShield	Select All Clear All
tallShield	

Please follow the installer until DEWESoft being installed.

After the setup you will find 2 icons on the Desktop; please click to DEWEsoft6x icon.

In the next step it is necessary to define the DAQ device in the analyser software by using "System" and "Hardware Setup"

Uncheck all "Dewetron Modules" and select the Audio card at the Analog device pop up window. In case of connected RogaDAQ2 at the PC, you can select the RogaDAQ2.



Hardware	setup										6
Analog	CAN	GPS	Video	Math	Timing	Alarms	Analog out	NET	Plugins	Licensing	
Analog Audio Card F	device card OUND	ping	1000	▼ ?		tron modu se MDAQ/I se PAD mo se DAQN m	Analog out les DAQP modules dules nodules			Licensing	
Audio Mikr	o devices ofonarray	(RogaDAQ	2 SC_PT §	▼ ∨1.01							
Registratio DEN	on status NO									<u> </u>	Cancel

The "Registration status DEMO" does not have any restrictions for further measurements and is timely unlimited.



In the next step please click to the "Measure" icon; here you can set the sampling rate, and change the engineering units > "SETUP Set ch.x"

deasu	ure <u>A</u> n	alyse	Setup	Overview		‡ + Recorder	E Store	Stop		-	
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e dir	ectory	unders DE			E	Stop storing after					
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By using the "Overview" button it is possible to design many analysis windows.



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RogaDAO2 NVH Analyzer & Recorder



If you have any further questions, please refer to the online help DEWESoft manual, or contact:

ROGA-Instruments Sales Office for Measurement Solutions

Steinkopfweg 7; D-55425 Waldalgesheim Germany Phone: +49 (0) 6721 - 9844 - 54 Fax: +49 (0) 6721 - 9844 - 74 E-Mail: info@roga-instruments.com

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