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The following abbreviations are used throughout this document: $R\&S^{\textcircled{B}}$ PowerMeter NRP is abbreviated as R&S NRP.



Table of Contents

1	Information on the Current Version and History	. 3
1.1	Version 6.3	3
2	Modifications to the Documentation	. 4
3	Firmware Update	. 5
3.1	Update Information	5
3.2	Updating the Firmware	5
4	Customer Support	. 9

1 Information on the Current Version and History

1.1 Version 06.03.020

Firmware package contents

Component	FW version
Application	06.03.020
Boot Loader	05.03
Keyboard Controller	03.22

New Functionality

• Added support for 2-path sensors.

Fixed Issues

• None

Known Issues

- USBTMC: The RQS/MSS-Bit is not compliant to the IEEE 488.2 standard.
- USBTMC: The driver doesn't work reliably. When USBTMC is used, the connection sometimes breaks down.

2 Modifications to the Documentation

The current documentation is up-to-date.

3 Firmware Update

3.1 Update Information

3.1.1 Installation Software

Use the Firmware Update program module from the R&S NRP toolkit to load the new firmware for the R&S NRP. The toolkit is supplied on a CD-ROM together with the sensors. It is also available on the internet under http://www.rohde-schwarz.com/product/nrp.

3.1.2 Prerequisites concerning the PC

A 32-bit-WINDOWS operating system with USB support (WINDOWS 98SE/ME/2000/XP) must be installed. For the update process, one free USB port has to be available. The R&S NRP toolkit needs about 10 MByte of free space on the hard disk and must be installed prior to the update process.

3.1.3 Connection between PC and R&S NRP

For the connection between the PC and the R&S NRP, use a standard USB cable.

3.2 Updating the Firmware

- Preparation Install the R&S NRP toolkit software prior to operation of the instrument.
- Connection
 - ✓ Connect the R&S NRP to the PC by means of the USB cable.
 - ✓ Make sure that the R&S NRP is AC powered during the update process. Switch the R&S NRP off.
 - ✓ Unplug any other R&S NRP base unit or R&S NRP power sensor from the PC.

Start of the update procedure from a firmware version prior to version 3.01:

Firmware Update
When finished, please disconnect and restart

- ✓ Switch on the R&S NRP. The picture opposite appears on the display after a short time.
- ✓ In addition, the PC should have identified the new USB hardware and assigned the appropriate driver from the R&S NRP Toolkit to the R&S NRP (brief message in a small window).

Start of the update procedure from a firmware version 3.01 or later:

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Firmware Update	
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- ✓ Switch on the R&S NRP. The boot menu appears on the display only for a short time (2 sec.) before it continues with the normal start-up process.
- ✓ To switch to the Firmware Update mode, the soft key "Firmware Update" in the boot menu has to be pushed.
- While the Firmware Update mode is active, the picture opposite can be seen on the display.



If you forgot to install the R&S NRP Toolkit software beforehand, Windows will try in vain to find a USB driver for the R&S NRP. If this happens, the R&S NRP is highlighted by a yellow exclamation mark in the Windows device manager. In this case, proceed as follows:

- Abort the dialog for driver installation.
- Install the R&S NRP Toolkit from the CD-ROM. Then manually assign the USB driver from the toolkit to the R&S NRP.
- Go to Control Panel Add/Remove Hardware and start the hardware assistant to search for new components.
- Mark the R&S NRP in the list of hardware components and complete the driver installation.
- Switch off the R&S NRP and back on.

Updating the application firmware

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i 📻	Þ	Rower Viewer	
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NrpFirmware.nrp		•	<u>B</u> rowse
State Messages			
T			

✓ Start NRP Toolkit – Firmware Update from the Windows Start menu.

The dialog box on the left is displayed next.

- ✓ Search for the file named nrpt_06.03.020.nrp by using the [<u>B</u>rowse] button or enter the file name and the file path of the application firmware in the Firmware File box.
- Click the Start button to start the file transfer, which is performed automatically.

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- ✓ During the update, the State Messages box informs you of the progress. The update has been completed if the message 'Flashup successfully finished' appears.
- ✓ Then disconnect the R&S NRP from the PC and press the exit button or switch it off and back on.



Potential problems

 Error in the compatibility and consistency checks

> In this case, the update is aborted and an error message is output.

✓ Switch the R&S NRP off and back on and start the update again.

- Updating the boot loader
- ✓ The latest version of the boot loader is 05.03. You may skip this step if your boot loader is already up to date. In this case proceed with "Updating the firmware for the keyboard controller".

openbios_xx_xx.nrp

The boot loader update is similar to the update of the application firmware (see above).

 Instead of the application, however, you must load the new boot loader named

openbios_05.03.nrp

• Updating the firmware for the keyboard controller



This update is similar to the update of the application firmware (see above).

✓ Instead of the application, however, you must load the new controller firmware named

keyb_03.22.nrp

Attention!

At the end of the update process of the keyboard controller, the R&S NRP goes into the standby state and has to be switched on again manually. This is not an error.

4 Customer Support

Technical support - where and when you need it

For quick, expert help with any Rohde & Schwarz equipment, contact one of our Customer Support Centers. A team of highly qualified engineers provides telephone support and will work with you to find a solution to your query on any aspect of the operation, programming or applications of Rohde & Schwarz equipment.

Up-to-date information and upgrades

To keep your instrument up-to-date and to be informed about new application notes related to your instrument, please send an e-mail to the Customer Support Center stating your instrument and your wish. We will take care that you will get the right information.

USA & Canada

Monday to Friday	(except US public holidays)
8:00 AM – 8:00 PM	Eastern Standard Time (EST)
Tel. from USA	888-test-rsa (888-837-8772) (opt 2)
From outside USA	+1 410 910 7800 (opt 2)
Fax	+1 410 910 7801
E-mail	CustomerSupport@rohde-schwarz.com

East Asia

Monday to Friday	(except Singaporean public holidays)
8:30 AM – 6:00 PM	Singapore Time (SGT)
Tel.	+65 6 513 0488
Fax	+65 6 846 1090
E-mail	CustomerSupport@rohde-schwarz.com

Rest of the World

Monday to Friday	(except German public holidays)
08:00 - 17:00	Central European Time (CET)
Tel. from Europe	+49 (0) 180 512 42 42*
From outside Europe	+49 89 4129 13776
Fax	+49 (0) 89 41 29 637 78
E-mail	CustomerSupport@rohde-schwarz.com

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