

# Firmware Release 4.08

For the Power Sensors  
R&S®NRP-Z51/-Z52/-Z55

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## ***1) Important Notes***

This package contains the firmware for the power sensor R&S®NRP-Z51/-Z52/-Z55. Each firmware update consists of one file: application firmware and boot loader are merged together. This file should be downloaded into the sensors to get the latest functionality. The firmware release 4.08 is suitable for all R&S®NRP thermal power sensors (-Z51/-Z52/-Z55) already delivered. The firmware for the R&S®NRP base unit as well as the firmware for other R&S®NRP-Zxx power sensors is available as a separate package.

## ***2) Installation Software***

Use the Firmware Update program tool from the R&S®NRP toolkit to load the new firmware for the power sensor R&S®NRP-Z51/-Z52/-Z55. The toolkit is supplied on a CD-ROM together with the sensors. It is also available on the internet under [www.nrp.rohde-schwarz.com](http://www.nrp.rohde-schwarz.com).

## ***3) 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 is required. 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.

## ***4) Connection between PC and R&S®NRP-Zxx***

For the connection between the PC and the R&S®NRP sensor, use the R&S®NRP-Z3 active USB adapter or the R&S®NRP-Z4 passive USB adaptor.

## ***5) Procedure of a firmware update***

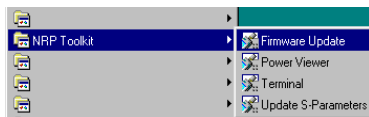
- Preparation  
Install the R&S®NRP toolkit software onto the PC prior to operation of the sensor.
- Connection
  - ✓ Connect the R&S®NRP power sensor to the PC using either R&S®NRP-Z3 or R&S®NRP-Z4.
  - ✓ Unplug any other R&S®NRP power sensor or R&S®NRP base unit from the PC.
  - ✓ After connecting the power sensor, the PC should identify the new USB hardware and assign the appropriate device driver from the R&S®NRP Toolkit (brief message appears in a small window after first connect to the used PC).



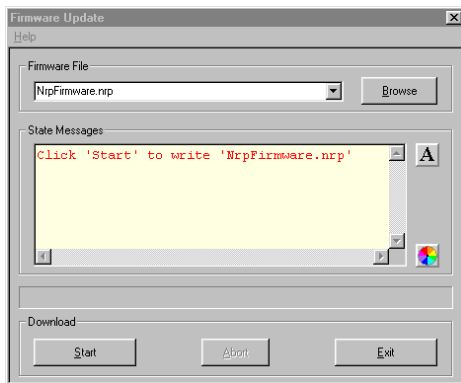
If you forgot to install the R&S®NRP Toolkit software beforehand, Windows will not succeed to find a USB driver for the power sensor. If this happens, the R&S®NRP-Zxx is highlighted by a yellow exclamation mark in the Windows device manager. In this case, proceed as follows:

- 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.
- Select the R&S®NRP-Zxx in the list of hardware components and complete the driver installation.
- Unplug the power sensor and reconnect it.

- Updating the application firmware



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



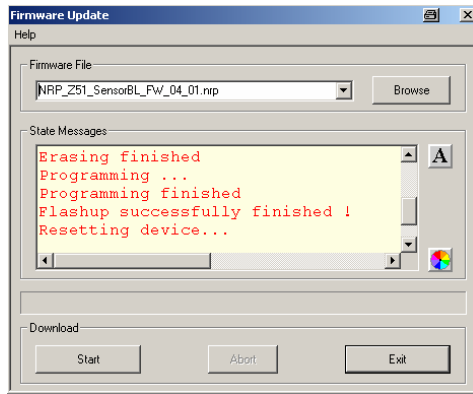
The dialog box on the left is displayed next.

- ✓ Search for the file named `NRP_Z5x_FW_BL_04_08.nrp` by using the **Browse** button or enter the file name (including the directory path) of the application firmware in the **Firmware File** box
- ✓ Click the **Start** button to start the file transfer. The update is performed automatically.

Note:



- ✓ Do not disconnect the power sensor from the PC.
- ✓ Neither connect nor disconnect the power supply for the active adapter R&S®NRP-Z3.
- ✓ **Always wait until the reset of the device is finished!**
- ✓ Exit the Firmware Update program only after it has been completely executed.



- ✓ During the update process, the State Messages box informs you of the progress. The update has been completed successfully if the message 'Device <Type Designation><Serial Number> is active' appears.
- ✓ After a successful update you can use the power sensor immediately for measuring.



**Potential problems**

- ✗ *Error in the compatibility and consistency checks*  
*In this case, the update is aborted and an error message is displayed.*
  - *Unplug and reconnect the USB sensor*
  - *Restart the firmware update*
- ✗ *When performing the firmware upgrade the first time on a PC, the installation of the unknown USB device R&S NRPFU is required. The **Found New Hardware Wizard** opens:*
  - *Click the **Next** button*
  - *Click the **Finish** button*
  - *Abort and close the firmware update tool*
  - *Unplug and reconnect the USB sensor*
  - *Restart the firmware upgrade*



## **6) *New and modified Functions*** (since release 4.02)

- The sensors now fully support the NRP-Power analysis with the R&S@SMF Scalar network analysis can be performed by means of the SMF100A signal generator with the SMF-K28 power analysis option plus an NRP-Zx power sensor. All available features of the power analysis are supported by the NRP-Zx power sensors.

## **7) *Problems Eliminated*** (since release 4.02)

- Remote command 'system:info? "SW BUILD"' delivers correct information string

## ***Appendix: Contact to our hotline***

Any questions and ideas concerning the instrument are welcome to our hotline:

Phone: ++49-1805-124242

FAX: ++49-89-4129-13777

e-mail: [CustomerSupport@rsd.rohde-schwarz.com](mailto:CustomerSupport@rsd.rohde-schwarz.com)