

# Firmware Release 1.16

For the Power Sensor  
R&S®NRP-Z81

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## 1) Important Notes

This package contains the firmware for the power sensor R&S®NRP- 81. Each firmware update consists of one file. This file should be downloaded into the sensors to get the latest functionality. The firmware release 1.16 is suitable for all power sensors R&S®NRP –Z81 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- Z81. 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). (Follow the link under

### Related Products

- R&S® NRP-Z Sensors

From there, select Downloads → Tools and download the latest R&S® NRP Toolkit package )

## 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 megabytes of free space on the hard disk and must be installed prior to the update process.

## 4) Connection between PC and R&S®NRP-Z81

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

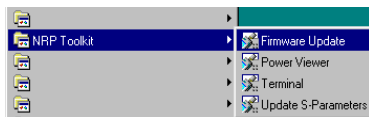
- Preparation  
Install the R&S®NRP toolkit software onto the PC prior to operation of the sensor.
- Connection
  - ✓ Connect the R&S®NRP power sensor to the PC using either R&S®NRP-Z3 or R&S®NRP-Z4.
  - ✓ Unplug any other R&S®NRP power sensor or R&S®NRP base unit from the PC.
  - ✓ After connecting 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).



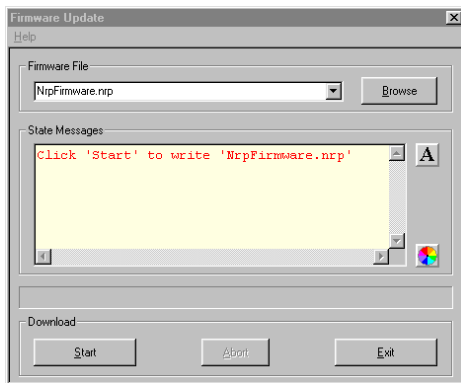
If you forgot to install the R&S®NRP Toolkit software beforehand, Windows will not succeed to find a USB driver for the power sensor. If this happens, the R&S®NRP-Z81 is highlighted by a yellow exclamation mark in the Windows device manager. In this case, proceed as follows:

- 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-Z81 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.



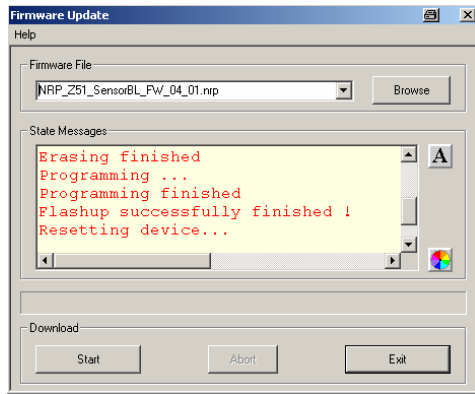
The dialog box on the left is displayed next.

- ✓ Search for the file named `NRP_Z81_01.16.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.

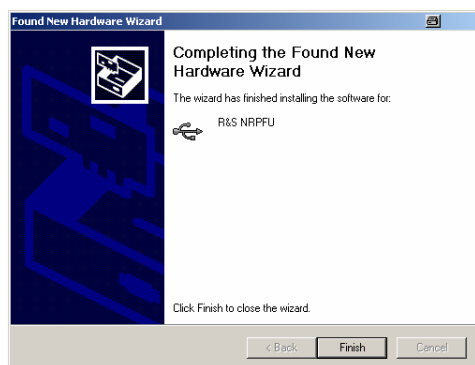


- ✓ During the update process, the State Messages box informs you of the progress. The update has been completed successfully if the message 'Device <Type Designation><Serial Number> is active' appears.
- ✓ After a successful update you can use the power sensor immediately for measuring.



**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 1.08)

- High-Resolution Scope-Mode (down to 200ps per tracepoint)
- Normalized PDF (Power Density Function)
- Power average result in parallel to the statistics measurements PDF/CCDF

***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)