

# R&S®NGL20x / R&S®NGM20x

## Release Notes

### Firmware Version 03.034.10



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The software makes use of several valuable open source software packages. For information, see the "Open Source Acknowledgment" provided with the product.

The following abbreviations are used throughout this document: R&S® NGL20x/NGM20x is abbreviated as R&S NGx20x.

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# 1 Information on the Current Version and History

## 1.1 Version 01.107

Version	Improvements
01.107	First Release NGL Series

## 1.2 Version 01.118

Version	Improvements
01.118	First Release for end customer - general improvements and additional features
01.118A	WLAN disclaimer for K0 option

## 1.3 Version 01.135

Version	Improvements
01.135	<p>First Release NGM Series</p> <p>NGL Change Log:</p> <ul style="list-style-type: none"> <li>- ARB editor improvements</li> <li>- changed label for digital input</li> <li>- changed slope behavior for digital input</li> <li>- corrected displayed resolution for CR</li> <li>- corrected message after default settings</li> <li>- corrected persistence behavior of network configuration</li> <li>- corrected time stamps for logging &gt;10h</li> <li>- improved current limit during RAMP</li> <li>- fixed potential touch lock misbehavior</li> <li>- improved internal resistance control</li> <li>- improved statistics handling</li> <li>- optimized PowerOn sequence for display</li> <li>- SCPI command improvements</li> <li>- trigger sense protection on voltage jump</li> <li>- show reboot message after option key installation</li> <li>- GUI stability improvements</li> <li>- updated color scheme for warning messages</li> <li>- updated default settings for wireless LAN</li> <li>- updated display for Ri and Cr</li> <li>- updated handling of default settings</li> <li>- improvement of USB handling</li> </ul>

Version	Improvements
	- update of web site

## 1.4 Version 02.005

Version	Improvements
02.005	<p>NGL/NGM Change Log:</p> <ul style="list-style-type: none"> <li>- Enable OS version on SCPI device footprint</li> <li>- Enable specific channel context per SCPI connection</li> <li>- Fix: adapted backlight control for improved lifetime</li> <li>- Fix: corrected start time for logging span</li> <li>- Fix: digital output behavior</li> <li>- Fix: enable multiple concurrent SCPI connections</li> <li>- Fix: encoder usage for target values</li> <li>- Fix: energy measurement accuracy</li> <li>- Fix: file handling for FastLog related to USB</li> <li>- Fix: file handling for logging</li> <li>- Fix: file handling for screenshots</li> <li>- Fix: file handling in ARB editor</li> <li>- Fix: GUI label for time settings</li> <li>- Fix: GUI menu order for trigger settings</li> <li>- Fix: GUI settings for csv delimiter</li> <li>- Fix: GUI usability on touch input</li> <li>- Fix: inhibit for one-channel devices</li> <li>- Fix: interpolation on last ARB point</li> <li>- Fix: inverted logic for gated on trigger in 1+2</li> <li>- Fix: restore default files after factory reset</li> <li>- Fix: sense protection warning with RAMP active</li> <li>- Fix: show impedance during CC mode</li> <li>- Fix: trigger behavior</li> <li>- Fix: visualization of data via SCPI</li> <li>- Improved handling of slow USB flash drives for FastLog</li> <li>- Show file information on long press in file manager</li> <li>- Update webpage</li> </ul>

## 1.5 Version 02.016

Version	Improvements
02.016	<p>NGL/NGM Change Log:</p> <ul style="list-style-type: none"> <li>- Added Access to Manual in Website</li> <li>- Added Service Data Dump</li> <li>- Corrected Duration for Logging Mode</li> <li>- Disable Auto-Range on Range-Set</li> <li>- Fixed USB voltages</li> <li>- Improved Calibration Date Update</li> <li>- Improved Responsiveness for Auto Range via SCPI</li> </ul>

Version	Improvements
	<ul style="list-style-type: none"> <li>- Improved Stability for ARB Editor</li> <li>- Improved Stability for Feature Arbitrary</li> <li>- Improved Stability for Feature Ramp</li> <li>- Improved Stability for Gated Output</li> <li>- Improved Stability for Output Delay</li> <li>- Improved Stability for Trigger System</li> <li>- Improvements for Digital IO</li> <li>- Improvements for Recall Settings</li> <li>- Reduce latency for OVP</li> <li>- "**RST" to not reset IP address</li> <li>- Updated Bootloader to Improve Configuration for Display</li> <li>- Updated Device Information Screen</li> <li>- Updated UI According to Corporate Design</li> </ul>

## 1.6 Version 03.034

Note: The update to version 03.034 a factory reset including a purge of the user data on internal memory is recommended. Please make sure to backup user data stored on internal memory as well as the device settings. For details please see section 3 below.

Version	Improvements
03.034	<p>NGL/NGM Change Log:</p> <ul style="list-style-type: none"> <li>- New Feature: Graphical View</li> <li>- New Feature: Channel List Commands</li> <li>- New Feature: Blocking read of readback values via SCPI "read" command.</li> <li>- Updated of Fast Log sample rates.</li> <li>- Reduced ARB dwell time to 10h</li> <li>- Improved startup performance.</li> <li>- Improved auto range behavior.</li> <li>- Improved stability of log feature.</li> <li>- Improved stability of network configuration.</li> <li>- Improved stability of startup after very short mains blackout.</li> <li>- Improved stability of trigger system.</li> <li>- Improved UI presentation.</li> <li>- Improved behavior of ARB execution.</li> <li>- Improved behavior on output off during execution of ARB.</li> <li>- Improved usability of ARB editor.</li> <li>- Improved behavior on output off during execution of Ramp.</li> <li>- Improved energy visualization.</li> <li>- Improved stability of battery simulator.</li> <li>- Support NGL HW CI 06.07</li> <li>- Update menu entries with R&amp;S standard terms.</li> </ul>

## 1.7 Version 03.034.10

Note: The update to version 03.034.10 a factory reset including a purge of the user data on internal memory is recommended. Please make sure to backup user data stored on internal memory as well as the device settings. For details please see section 3 below.

Version	Improvements
03.034.10	NGL/NGM Change Log: <ul style="list-style-type: none"><li>- New Option B301</li><li>- Improved GUI lock feature</li></ul>

## 2 Modifications to the Documentation

The current documentation is up-to-date.

## 3 Firmware Update

### 3.1 Update Information

Firmware updates for the R&S NGx20x are available as download from the Rohde & Schwarz web page <http://www.rohde-schwarz.com>.

The installation file R&S NGx20x is named **NGxx\_03\_034\_10.rsu**.

Attention: Microsoft browsers (Internet Explorer and Edge) rename the **rsu** files automatically to **zip** files. Please rename the downloaded **zip** file back to **rsu**.

Attention: Downgrade to older SW Version is highly NOT recommended.

### 3.2 Backup User Data (Recommended)

For a clean update it is recommended to perform a factory reset including a purge of the user data on internal memory. Please make sure to backup user data stored on internal memory as well as the device settings.

To copy internal files to an external drive, the File Manager can be used:

1. Press Menu button
2. Select File Manager
3. Attach external USB drive to R&S NGx20x and select external file system (left column) in the of the File Manager
4. Select user data files stored on internal memory (right column) and use the button "← Copy" to copy them to the external drive.
5. Repeat step 4 for all files in folders that contains user data you want to keep.

To save the device configuration to an RDS file:

6. Attach external USB drive
7. Press Menu button
8. Select Save/Recall Device Settings
9. Select Save Settings to file
10. Select the external drive
11. Enter a name for the settings file and press Save
12. Wait for the USB drive to finish writing

To restore the saved user data and device configuration, see section 3.4.

### 3.3 Updating the Firmware

After the update, it is recommended to do a factory reset including a purge of the internal user data. To prevent loss of user data, please follow steps in section 3.2.

To update the firmware:

1. Press Menu button
2. Open Device Menu → Device Update
3. Navigate to update file (RSU file)
4. Press "UPDATE" button

To check the installed firmware version:

1. Press Menu button
2. Open Device Menu → Device Information

The firmware version is shown in the Information dialog.

After the update, it is recommended to do a factory reset including a purge of the internal user data (please see section 3.2 to prevent loss of data):

3. Press Menu button
4. Select Save/Recall Device Settings
5. Select Factory Reset
6. Press Yes to confirm factory reset execution
7. Press Yes to confirm a purge of the internal user data
8. Wait for the device to reboot

### 3.4 Restore User Data (Recommended)

To reload device settings from an RDS file:

1. Attach external USB drive containing the RDS file
2. Press Menu button
3. Select Save/Recall Device Settings
4. Select Recall Settings from file
5. Select the external drive
6. Navigate to the RDS file
7. Press Load button

To restore user data files from an external drive, the File Manager can be used:

1. Press Menu button
2. Select File Manager
3. Attach external USB drive to R&S NGx20x containing user data and select external file system (left column) in the of the File Manager
4. Select user data files stored on external memory (left column), the target folder on the internal drive (right column) and use the button "➔ Copy" to copy user data to the internal drive.
5. Repeat step 4 for all files in folders that contains user data you want to restore.

### 3.5 Emergency Update of Firmware

If described firmware update (3.2) did not work, please use emergency update procedure:

1. Insert an USB memory stick (FAT32) with the latest firmware update file (RSU file) downloaded from the R&S website.
2. Press Enter (Encoder) and Output button
3. Power up the device
4. Wait for 5 seconds.
5. Release Enter (Encoder) and Output button
6. After 10 seconds the update process starts automatically

If the emergency update did not work, please contact customer support team.

## 4 Recommendations on Secure Operation

The R&S NGL20x and NGM20x are designed to operate at local workplaces or in secured networks (LAN). They should not be accessible from the internet, because this is a potential security risk. As an example, attackers could misuse or damage your device.

Please always install the latest firmware.

It is highly recommended that you work closely with your IT department or system administrator to ensure compliance with your company policies when connecting devices to your company's network.

## 5 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.

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