ROHDE&SCHWARZ

Test and Measurement
Division

Release Notes

Firmware Release 3.32 (XP)

with Service Pack 5

for R&S ESCI EMI Test Receivers

and R&S ESPI Test Receivers

Release Note Revision: 5

Printed in the Federal
Republic of Germany

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History

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02 August 2004	1	Service Pack 1
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General Topics

Firmware Update

Generation of the update disk set

The files needed for the firmware update are grouped according to the disk contents:

Disk 1:   disk1.bin   (self-extracting ZIP file; needs to be renamed to disk1.exe before unpacking)
Disk 2:   data3.cab   (packed contents of disk 2, will be automatically unpacked by FW update)
Disk 3:   data4.cab   (packed contents of disk 3, will be automatically unpacked by FW update)
Disk 4:   data5.cab   (packed contents of disk 4, will be automatically unpacked by FW update)
Disk 5:   data6.cab   (packed contents of disk 5, will be automatically unpacked by FW update)
Disk 6:   data7.cab   (packed contents of disk 6, will be automatically unpacked by FW update)
Disk 7:   data8.cab   (packed contents of disk 7, will be automatically unpacked by FW update)
Disk 8:   data9.cab   (packed contents of disk 8, will be automatically unpacked by FW update)
Disk 9:   data10.cab   (packed contents of disk 9, will be automatically unpacked by FW update)

Please note that the difference in disk number and filename of the corresponding archive file is by intention, not by chance!

The contents of disk 1 are packed in a self-extracting ZIP file and need to be unzipped.
For this purpose the following steps are necessary:

1. Create a temporary directory on your local PC (e.g. MyTemp on drive C:)

2. Copy disk1.bin into that directory and rename it to disk1.exe

3. Execute disk1.exe. Under Windows 95/98/NT/2000 this is done best using the following sequence:

    <CTRL><ESC> - RUN – C:\MyTemp\Disk1 - <ENTER>

    or

    <CTRL><ESC> - AUSFÜHREN – C:\MyTemp\Disk1 - <ENTER> for a German Windows version.

    The files will be unzipped

4. Delete disk1.exe from the temporary directory.
    The temporary directory will now contain the following files:

data1.cab	data1.hdr	data2.cab	ikernel.ex_	layout.bin
RestInst.exe	Setup.exe	Setup.ini	setup.inx	ISSetup.exe

    Please make sure that all the filenames are spelt correctly on your disks before you try to use them for the firmware update. Especially the trailing underscore ('_') as used in ikernel.ex_ **is essential for correct operation of the update program.**

5. Copy the contents of the temporary directory onto update disk #1.

The contents of the other disks are already packed in the format required by the firmware update program and need no further processing. The files only need to be copied onto disks #2 to #9, the number in the filename (minus 1) indicating the corresponding disk number (data3.cab => disk #2 etc, data4.cab => disk#3, etc.).

Preparing an installation via LAN or USB stick:

If the installation is performed via LAN or USB stick please set up a directory structure as shown on the right.

Copy all files as mentioned in the previous section in the directories Disk1 – Diskxx.

The directory path shall not contain more the 64 characters.

Performing the firmware update on the instrument

The firmware update process is performed in the following steps:

1. Switch the instrument on and wait until the Analyzer has resumed operation.
2. For updates from LAN or USB use the SETUP | NEXT | FIRMWARE UPDATE | UPDATE PATH softkey to specify any path for the location of the disk directory (e.g. F:\MyTemp). For floppy usage the default A:\ must not be changed
3. Press SETUP → NEXT → FIRMWARE UPDATE
4. Confirm the query "Do you really want to update the firmware?" with OK
5. Insert update disk #1 to #9 as requested (for LAN or USB just confirm the copy process)
6. The instrument will perform several automatic shutdowns, until the new firmware is installed properly.
   Do not switch the instrument off until the update process has been finished completely.

After switching on the instrument for the first time after a successful firmware update, the following system message might occur once:

> System Message
> CDS: Error...

In this case the unit needs to be switched off and on again. In addition, the system error correction data has to be recorded again (CAL key and then CAL TOTAL softkey). The system message does not appear again during further power-on cycles.

Known Problem during firmware update with R&S ESCI-B20 and R&S ESPI-B20 (flash disk):
At the final step of the setup, backup files are stored for the 'Analyzer Firmware Backup' (option during the start-up of the instrument). This backup is only available for analyzers equipped with hard discs. Therefore an error message "Addfolder icon failed" occurs twice if the R&S ESCI-B20 or R&S ESPI-B20 is installed.
Workaround: Accept that message via the 'OK' button twice. The firmware update will continue without any problem!

Firmware installation of the R&S FS-K7 FM demodulator software

The R&S FS-K7 FM demodulator software package is included in the basic instrument firmware. It therefore needs no separate firmware update procedure.

Enabling the option via option key code entry

For activation of the R&S FS-K7 a license key for validation must be entered. The license key is printed either on a label on the rear panel of the R&S ESPI or delivered as a part of the R&S FS-K7 option package. The key sequence for entering the license key is:

SETUP - GENERAL SETUP – OPTIONS - INSTALL OPTION

Use the numeric keypad to input the option key number and press ENTER.

➢ On a successful validation the message 'option key valid' will appear.

➢ If the validation failed, the option software is not installed.

Modified Functions

The following functions are modified in version 3.32 SP3:

1. Receiver: Number of stored results per trace increased to 1 Mio.

The maximal number of measured frequencies is limited to 1.000.000. A maximum of 3 x 1.000.000 values (1.000.000 per detector) can be stored for postprocessing (was 100.000 before).

2. Receiver: Downrange limit for Quasipeak Detector

The level limit for the autoranging function has been increased. Attenuation is now decreased earlier to get a better signal to noise ratio.

3. Receiver: Audio not longer disabled with Quasipeak settling time

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Problems Eliminated

The version numbers in brackets indicate the version in which the problem was observed for the first time.

Problems eliminated with Service Pack 1

1. (V3.32)   **Measurement in Receiver scan mode too fast**
The measurement time in scans started from below 150 kHz could be faster than defined in the scan table.

2. (V3.32)   **Level of Display line could not be changed (Receiver mode)**
The Level value of a display line was fixed.

3. (V3.32)   **Changing from a Setup, Hardcopy or File Menu to another menu needed two keystrokes**

Problems eliminated with Service Pack 2

1. (V3.32)   **Limit Lines could not be deactivated**

2. (V3.32)   **Final Measurement with wrong receiver settings (Receiver mode)**
When the scan table has been edited before starting a scan, the final measurement could be performed with wrong settings, e.g. resolution bandwidth.

Problems eliminated with Service Pack 3

1. (V3.32)   **Storing Scan Traces in View Mode (Receiver Mode)**
Traces stored in VIEW mode could sometimes not be restored.

2. (V3.32)   **Spurious with Auto Preamp at 203 kHz (Receiver Mode)**
When running a scan with Auto Preamp ON, a spurious could be displayed at 203 kHz.

3. (V3.32)   **Switching between Receiver and Mixed mode could modify scan table**
Different settings in the scan table could be modified by switching from Receiver mode to Mixed mode and vice versa.

4. (V3.32)   **The RBW could be switched unintentionally from 8 MHz to 120 kHz (ESPI-K50)**
The 8 MHz channel filter could be switched to another RBW when changing the receiver frequency.

Problems eliminated with Service Pack 4

1. (V3.32)   Preselector not in Signal path after power on
With some instruments it could happen that the preselector was not in the signal path after power on. Switching the preselector off and on solved the problem.

Problems eliminated with Service Pack 5

15. (V3.32)   Update of receiver results in bargraph missing whilst in marker track mode
After a scan with different attenuations and moving with the marker into another scan range, the receiver results are not updated correctly. Changing the marker (step up/down) in the same range solved the problem.

16. (V3.32)   Scan with max hold / Scan with max hold and limit line evaluation
The max hold mode also with threshold scan is corrected.

17. (V3.32)   Switching from Receiver to Spectrum the RF attenuation is not set correctly
Changing the RF attenuation in spectrum mode again solved the problem.

18. (V3.32)   Performance of scan with a trace with quasi peak detector in view state
The additional settling time for the quasi peak detector is not any longer added if the traces with quasi peak are in view mode.

Known Problems

none

Modifications to the Operating Manual

The order numbers for the current manual sets for R&S ESCI are

- 1166.6004.11-01
  1166.6004.81-01 (German)

- 1166.6004.12- 01
  1166.6004.82-02 (English).

- 1166.6004.19-01
  1166.6004.89-02 (English, letter format).

The order numbers for the current manual sets for R&S ESPI (XP) are

- 1164.6459.11-01
  1164.6459.81-01 (German)

- 1164.6459.12-01
  1164.6459.82-01 (English).

- 1164.6459.19-01
  1164.6459.89-01 (English, letter format).

The corresponding PDF-Files for the operating manuals are separately available on our web page.

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