



✦ Mute This Topic (https://groups.io/g/Rohde-and-Schwarz/ft/90639230?csrf=5513314409256117711&mute=1&p=Created%2C%2C%2C20%2C1%2C0%2C0)

EB200 - calibration Date (https://groups.io/g/Rohde-and-Schwarz/topic/90639230?p=Created%2C%2C%2C20%2C1%2C0%2C0)

#file-notice



Apr 23 (https://groups.io/g/Rohde-and-Schwarz/message/3870)

Dear Martin,

I have no information on the specific calibration details for the EB200, but a factory reset may be worth trying (page 5.1).

With best regards,

Raymond

=====

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stephous (/g/Rohde-and-Schwarz/profile/@stephous)

Apr 23 (https://groups.io/g/Rohde-and-Schwarz/message/3869)

Martin,

One more question: Your radio has a lithium battery. What condition is it in? Has it been replaced yet?

5.2.3 List of modules

Module	Description	Order Number
A3	Front Panel Control Unit EB200F1	4052.2600.02
A5	Processor EB200P1	4052.2800.02
A6	Preselection EB200V1	4052.2900.02
A7	Standard Frontend	1093.5491.02
A8	IF Section EB200Z1	4052.3106.02
A9	IF Panorama EB200SU (optional)	4052.3206.02
A11	DC/DC Converter	4052.3358.00
A12	RS232 Interface EB200R2	4052.4002.02
A12	LAN Interface EB200R4 (optional)	4052.9156.02
H1	LCD	4052.5009.00
LI-battery	Lithium battery (type: CR2477) in A5	4052.5673.00
RAM	EXPANSION MODULE	4052.3858.02

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stephous (/g/Rohde-and-Schwarz/profile/@stephous)

Apr 23 (https://groups.io/g/Rohde-and-Schwarz/message/3868)

Martin,

Question: How did the radio get into this configuration?

What comes to mind first is to reset your EB-200 and I have had to do this after my technicians got our radios completely nackered:

### 5.1.2 Re-establishing the original state, coldstart

A coldstart can be carried out by resetting the unit. All device settings (parameters, memory locations and UDP configuration) will thus be reset to the original state (factory setting). This may become necessary after a firmware update when certain versions are changed. A reset is made on the switched-on unit by briefly connecting connector X8, pin 31 on the rear panel to ground (eg by using a pair of tweezers).

### 5.1.3 Firmware Update

If a module is exchanged, a firmware update might be required.

In that case a diskette carrying the current firmware will be shipped together with the new module.

On the diskette there are also the "Release Notes" with instructions for the firmware installation.

The "Release Notes" describe also the changes for this specific option.

The firmware can also be downloaded via the following Internet address:

<http://www.rohde-schwarz.com>

You probably ran this test: Make sure that BITE is not disabled.

### 3.10 TEST key

The "short test" is run while the key is held down.

During the "short test" an amplitude modulated line spectrum (64-MHz grid) is fed-in behind the antenna input and the receiver is tuned to the line frequency which is the closest to the current receive frequency. Then the complete receive-path from the antenna input of the tuner is measured up to the AF-processing and weighted.

If all data are within the permissible limits, the message "TEST OK SIGNAL PATH" is output. If the measured level is not in the expected range, the message "SENSITIVITY OUT OF RANGE" is output.

If so, what were the results?

And you probably checked 3.18.3.1:

**REF LEVEL** The reference level determines the largest level value to be represented. It can be set in the range of 0 to 110 dBµV in steps of 10 dB. Also intermediate values can be set via remote control or by means of direct number input.

**DISPLAY LIMITS** Display range of the spectrum: eg -20 dBµV to 60 dBµV

Initially the upper value of the DISPLAY limits is firmly linked to the reference level.

If, however, the SW option EB200FS (Field Strength Measurement) is fitted, the upper value of the DISPLAY LIMITS can be configured independent of the reference level. In this case it can be varied in the range from 0 to 250 dB in 10-dB increments. Shifting the display range to values near 250 dB is only necessary if very high antenna k-factors are to be taken into account.

The lower value is calculated from the upper value of the DISPLAY limits minus the current RNG.

And you tried resetting the receiver via remoted control: 3.18.4.4

#### Softkeys

**RESET** Reset to the Rohde & Schwarz default settings. The same function is triggered via remote control by the command \*RST.

**PROTECT** Branches to the password entry menu

**SW OPT** Branches to the menu for SW options

And you tried running the long test: 3.18.4.5

**LONGTEST** Starts a complete unit testing procedure

At the LONGTEST all test spectrum lines are scanned. At first two runs with attenuator and the bandwidth 150 kHz and/or 15 kHz are carried out. With that the preselection is bypassed first and feeding-in takes place directly at the Frontend. If both of the runs supply an error-free result, a third run with disconnected attenuator is carried out. If also this run does not supply any errors, a short test is carried out with the current receive frequency.

As a result the OK message "TEST OK , RF RANGE AND SIGNAL PATHES" or an error report is output. The error reports are determined as follows:

1. or 2. test run reports errors:

If all measuring frequencies report errors the message "SENSITIVITY OUT OF RANGE" is generated. Otherwise it is checked whether all measurement points produce errors at a specific bandwidth. In this case the message "IF PREFILTER WIDE DEFECTIVE" or "IF PREFILTER NARROW DEFECTIVE" is generated.

If the error fits into neither category a list with up to 4 faulty frequencies and an error message like eg "LEVEL TOO HIGH AT 128 MHZ" is output.

1st and 2nd test runs do not report any error, 3rd test run reports error:

If all measuring frequencies report errors the message "SENSITIVITY OUT OF RANGE" is generated. Otherwise error messages for those preselection ranges are generated in the frequency range of which faulty measuring points are located.

Because this is an early software defined radio the calibration routine is run through the serial port or LAN by sending strings to the main processor which hosts the DSP. R&S may still provide this service in Germany.

The test / report traces are stored in the error queue:

#### 4.5.17 TEST subsystem

The self-test can be run with two different test routines. The basic test runs continuously in the background and tests the test points inside the module. Based on this test, a "short test" or a "long test" can be triggered. In the short test, a line spectrum is fed in at the antenna input and the receiver is set to the line frequency nearest to the receive frequency. The complete receive path from the antenna input of the tuner to the level evaluation is then measured and evaluated. In the long test, each line frequency of the test spectrum is set and measured.

#### TEST? SHORt|LONG, REPort|QUIet

Triggering the "short test" or "long test"

##### Parameters:

SHORt|LONG                    carry out short test | long test  
REPort|QUIet                error messages in plain text are generated | not generated

##### Note:

When the test was triggered with REPort plain text error messages will be stored in the error queue. They can be queried with SYStem:ERRor?.

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Martin

Apr 23 [🔗 \(https://groups.io/g/Rohde-and-Schwarz/message/3867\)](https://groups.io/g/Rohde-and-Schwarz/message/3867)

Yes thank You - this is the one without the ugly disclaimer ;-)  
And the circuits ...

This file is searchable, but there is no word like "calib".

My problem is the calibration of the displayed dBm, which is about 6 dB too low throughout the whole band (measured with a HP11667A and a NRP22-Sensor).

Best regards

Martin

**Von:** Rohde-and-Schwarz@groups.io <Rohde-and-Schwarz@groups.io> **Im Auftrag von** stephous via groups.io

**Gesendet:** Samstag, 23. April 2022 04:49

**An:** Rohde-and-Schwarz@groups.io

**Betreff:** Re: [Rohde-and-Schwarz] EB200 - calibration #file-notice

Hi Martin,

Do you have the manual with detailed instructions (see attached)?

Best Regards,  
Stephen

--

vy`73s

Martin (DF9LR)



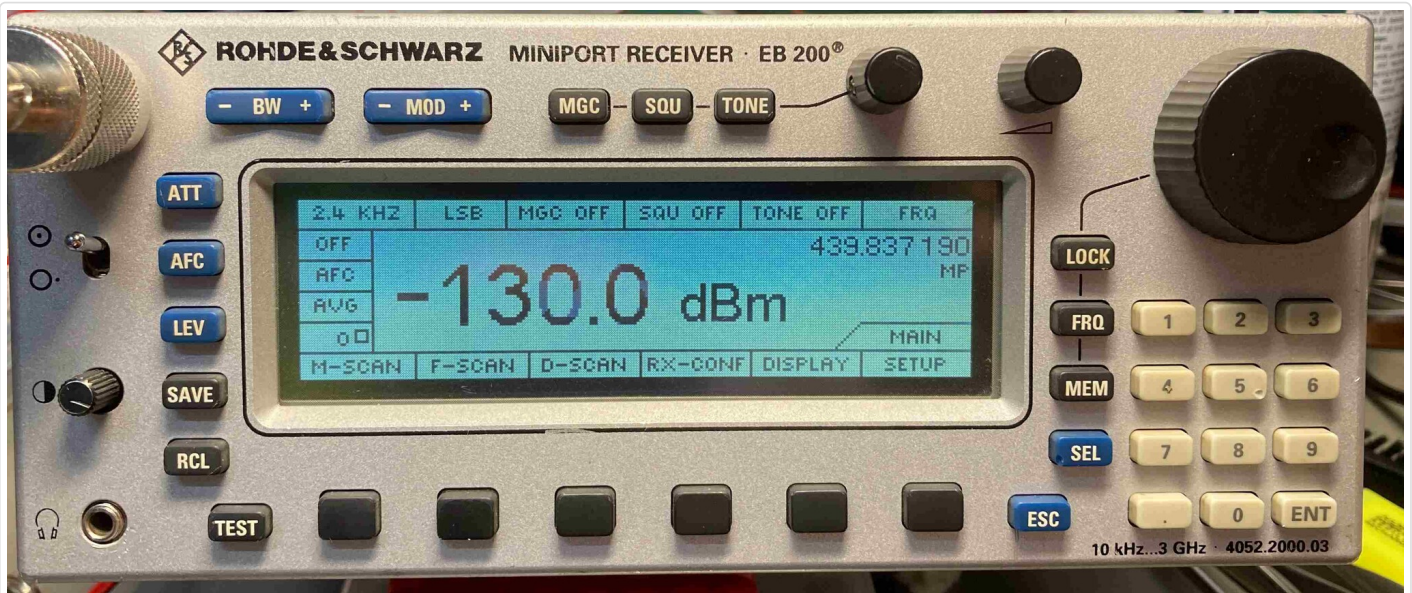
EB200 - Miniport Receiver 10 KHz - 3 GHz, 4052.2000.02, Operation manual.pdf

(<https://groups.io/g/Rohde-and-Schwarz/attachment/3867/0/EB200 - Miniport Receiver 10 KHz - 3 GHz, 4052.2000.02, Operation manual.pdf>)



EB200 - Miniport Receiver, 4052.2000.01, Circuits.PDF

(<https://groups.io/g/Rohde-and-Schwarz/attachment/3867/1/EB200 - Miniport Receiver, 4052.2000.01, Circuits.PDF>)



(<https://groups.io/g/Rohde-and-Schwarz/attachment/3867/2/EB200, Display dBm.jpg>)

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stephous (/g/Rohde-and-Schwarz/profile/@stephous)

Apr 22 (<https://groups.io/g/Rohde-and-Schwarz/message/3866>)

Hi Martin,

Do you have the manual with detailed instructions (see attached)?

Best Regards,  
Stephen



eb200\_manual.pdf

([https://groups.io/g/Rohde-and-Schwarz/attachment/3866/0/eb200\\_manual.pdf](https://groups.io/g/Rohde-and-Schwarz/attachment/3866/0/eb200_manual.pdf))

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Martin

Apr 22 (<https://groups.io/g/Rohde-and-Schwarz/message/3865>)

Hi,

for a EB200 with a deviation of 6dB in signal-strength, I need access to the calibration menu.  
Is there anyone out there, who knows the codes?

--

vy`73s

Martin

For more Information about the EB200 see the uploaded files.

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- (<https://groups.io/g/Rohde-and-Schwarz/topic/90585023?p=,,20,0,0,0::,,0,0,0,90585023>)
- (<https://groups.io/g/Rohde-and-Schwarz/topic/69247464?p=,,20,0,0,0::,,0,0,0,69247464>)

1 - 6 of 6

