

Receiver Self-Test



Materials	2
Configuration file (Self-Test)	3
Magnetic Channels testers	4
Electric Channels Tester.....	5
GPS connection	6
Battery connection	7
Start Test	8
Field QC in EMpower	9
Acceptance Report	10
Technical Support Contact	11

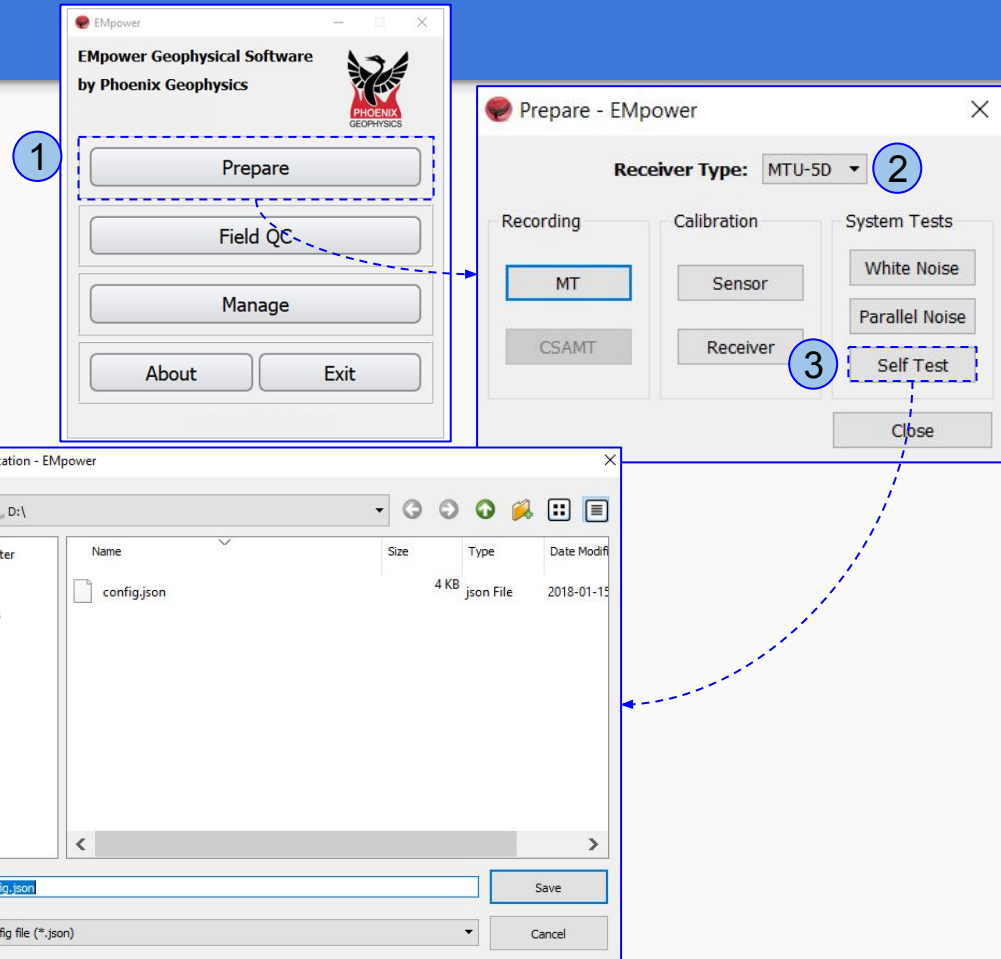
Materials



Qty	Description
1	Computer with an EMpower license and SD card reader
1	SD card
1	Receiver under test
3	Magnetic channels test jig
1	GPS antenna and tripod assembly
1	GPS signal cable, GPS antenna to receiver
1	Self Test Jig
5	Test lead Banana to Banana 2 Black, 2 Red, and 1 Yellow
1	12V cable, Battery to Receiver
1	12V Battery

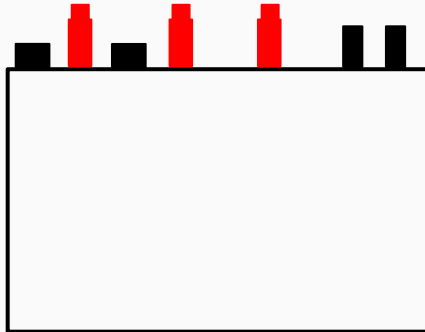
Configuration file (Self-Test)

1. Open EMpower and click the **Prepare** button
2. Select the **Receiver Type**
3. Click the **Self-Test** button
4. Insert the **SD card** in the computer's SD card slot or use a USB memory card reader.
 - Click **File** menu / **Save** or **Ctrl+S**
([see the Quick Start user manuals](#))



Magnetic Channels testers

Connect the magnetic channels testers to each magnetic channel of the receiver (H1, H2, H3)

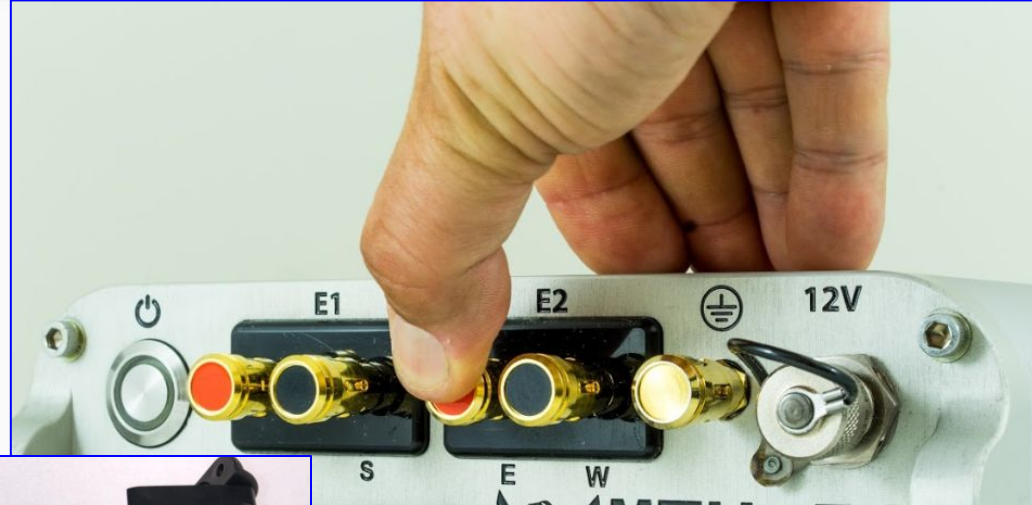
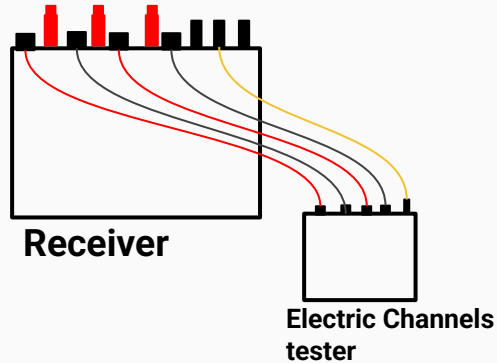


Receiver



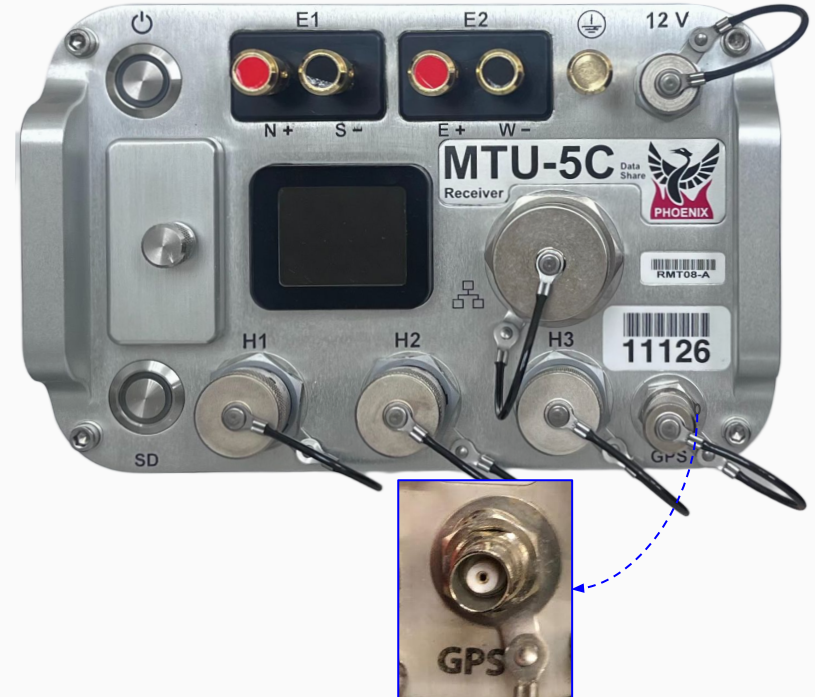
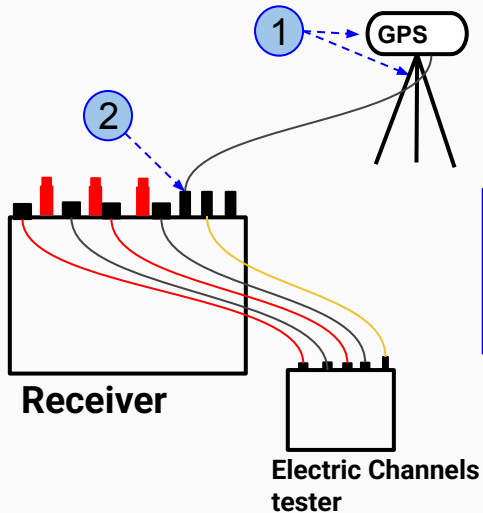
Electric Channels tester

1. Use the Black wires to connect **South-South** and **West-West**
2. Use the Red wires to connect **North-North** and **East-East**
3. Use the Yellow wire to connect the Ground connectors



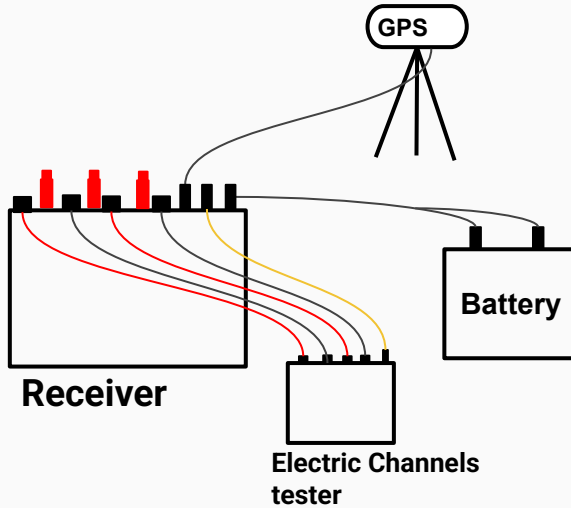
GPS connection

1. Assemble the **GPS** antenna with the **tripod**
2. Connect the GPS cable from the GPS antenna to the **Receiver**



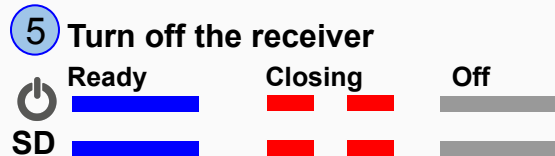
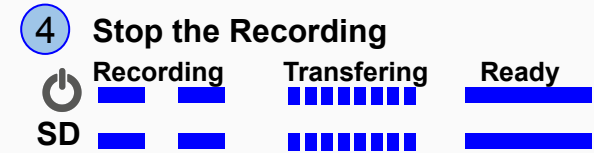
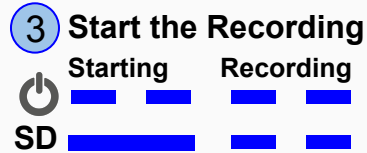
Battery connection

Use the battery cable to connect the MTU-5C receiver to the battery



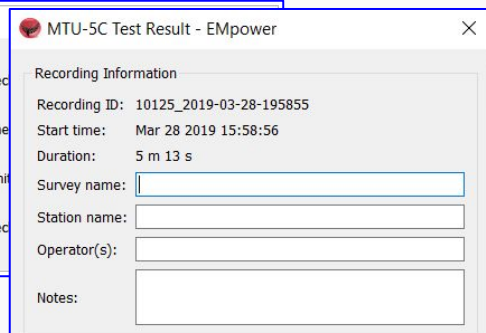
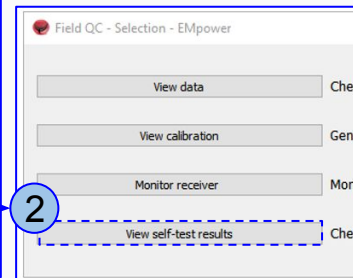
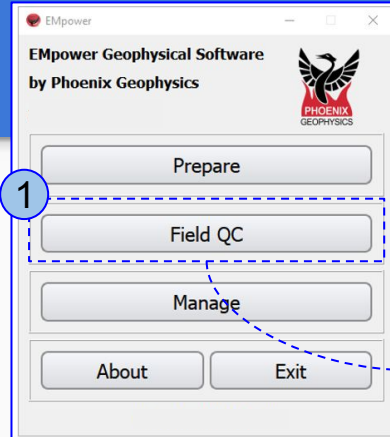
Start Test

1. Insert the **SD Card** into the receiver
2. Press the Power button briefly
 - Wait until the receiver is ready to record
3. To start the recording press the Power button briefly
4. After 5 minutes, stop the recording by pressing the **Power** button briefly and releasing it
5. To turn off the receiver press the Power button for 3sec and release it

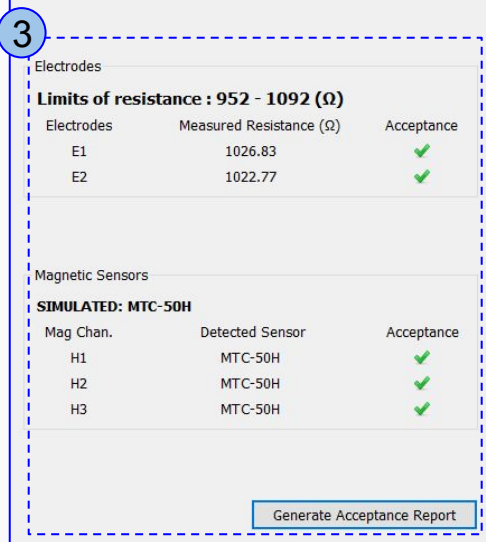


Field QC in EMpower

1. Open the **Field QC** module in EMpower
2. Select **View self-test results**
3. Review the results, there should be green check marks for every channel
4. If the **Acceptance** result shows a red cross 
 - Check the connections and repeat the test
 - If the receiver repeats the same result, contact Phoenix Geophysics for support (*see the last page*)



The 'MTU-5C Test Result - EMpower' window. It displays recording information: Recording ID: 10125_2019-03-28-195855, Start time: Mar 28 2019 15:58:56, Duration: 5 m 13 s. Below this are input fields for Survey name, Station name, Operator(s), and Notes.



The test results section of the MTU-5C Test Result window, labeled '3'. It shows results for Electrodes and Magnetic Sensors.

Limits of resistance : 952 - 1092 (Ω)		
Electrodes	Measured Resistance (Ω)	Acceptance
E1	1026.83	✓
E2	1022.77	✓

SIMULATED: MTC-50H		
Mag Chan.	Detected Sensor	Acceptance
H1	MTC-50H	✓
H2	MTC-50H	✓
H3	MTC-50H	✓

Generate Acceptance Report



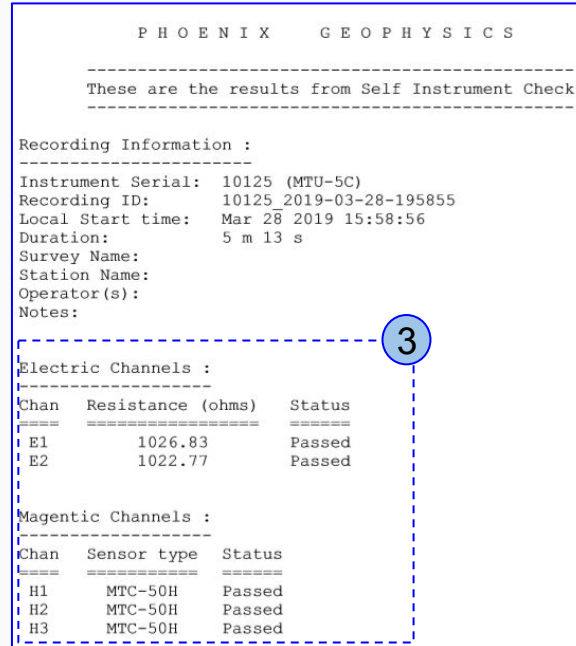
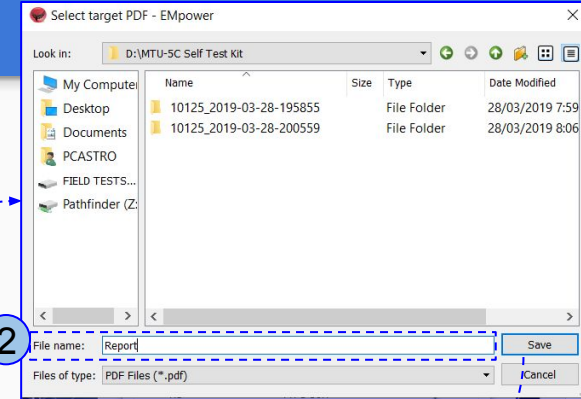
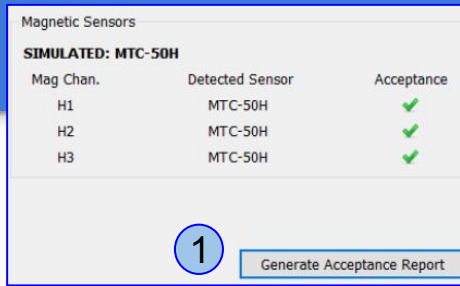
The test results section of the MTU-5C Test Result window, labeled '4'. It shows results for Electrodes.

Limits of resistance : 952 - 1092 (Ω)		
Electrodes	Measured Resistance (Ω)	Acceptance
E1	350986	✗
E2	1022.98	✓

Acceptance Report

To export the report:

1. Click the **Generate Acceptance Report** button
2. Type the file name (*PDF file*) and **Save**
3. Review the **Acceptance Report**





Please check out the [FAQs](#)

<https://phoenixgeophysics.freshdesk.com/>

Or email us at: support@phoenix-geophysics.com