

SMTi JTAG Repair Tool Manual ver.03

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General information

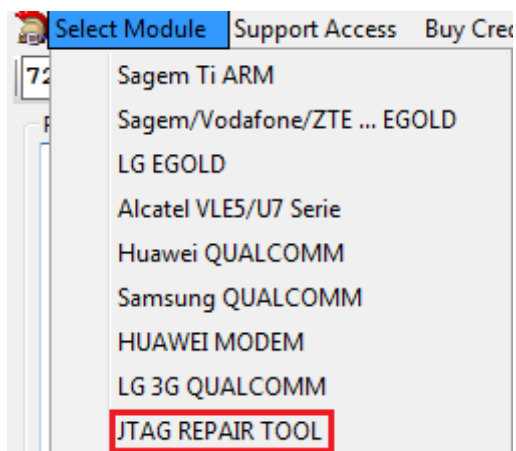
SMTi JRT is used to repair damaged software using JTAG technology in devices based on processors ARM9, ARM11, Xscale. These injuries are manifested by a lack of communication with the computer USB, and thus prevent the uploading of new software because it was damaged Boot Loader, which is responsible for the communication device to the PC.

The market is already such equipment but SMTi JRT distinguished feature of these devices Check Bad Sectors and Calculate Space. These functions are intended to before programming the new Boot Loader, check the area which is in the Flash memory partition is responsible for Boot'a. This makes it possible to circumvent the bad sectors in the memory, and upload correct Boot Loader, and thus repaired by a hundred percent.

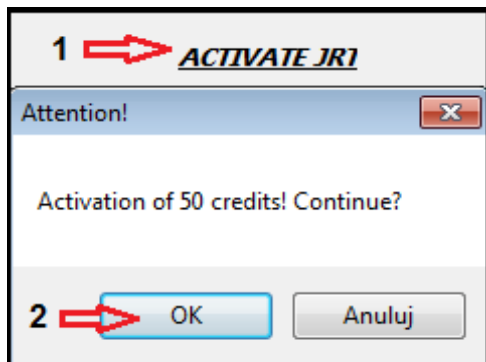
Activation for JTAG Repair Tool Module

JRT Activation Module costs 50 credits and is possible from within **SMTi**
To activate a new module in the program SMTi the user must choose:

1. Select Module
2. JTAG REPAIR TOOL

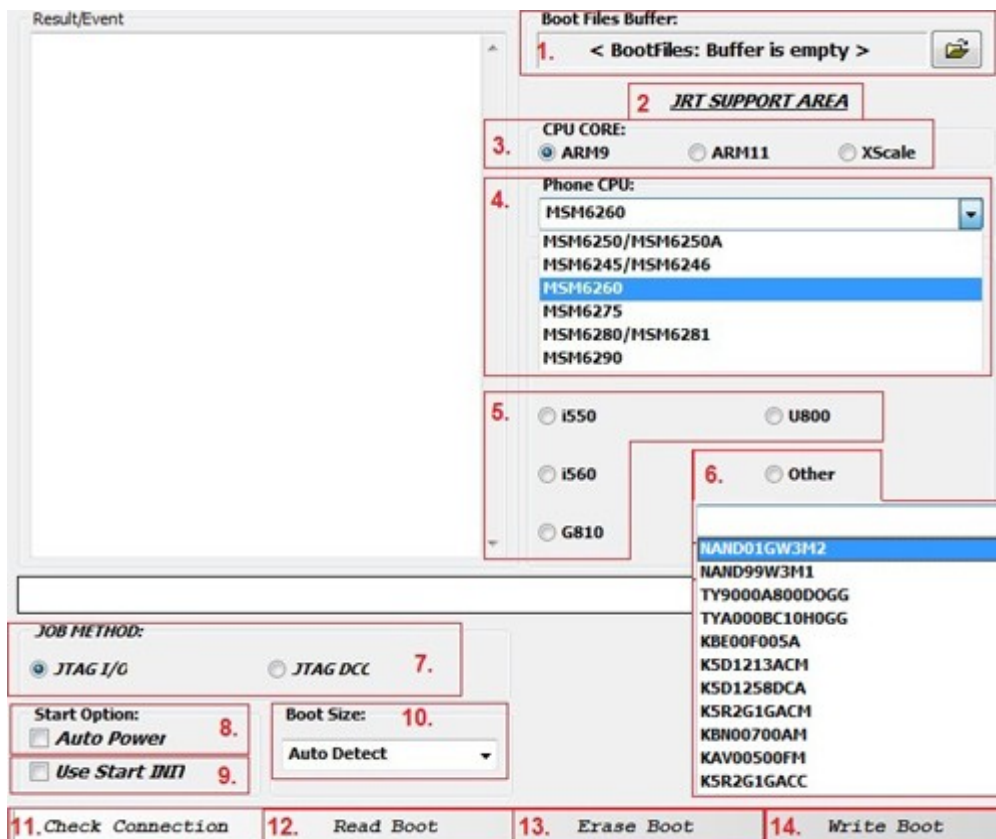


3. Click **ACTIVATE JRT** and next **OK**



After proper activation ACTIVATE JRT disappear, and your account will be charged 50 credits. From now on, you can take full advantage of the JTAG module Rrepair Tool.

Description of the function



1. **Boot Files Buffer:** place for boot repair file selected.
2. **JRT SUPPORT AREA:** support area for boot files, pinouts, flash files etc ...
3. **CPU CORE:** CPU family type selected
4. **Phone CPU:** CPU type selected
5. Auto select the type of Flash memory in a damaged device.
Models in the program are not a complete list of supported models by JRT!
Always check JRT SUPPORT AREA for description of the JTAG and Boot Repair.
Full list is given on the product support web and the support forum.
6. **Other:** Manual selection of the type of Flash memory in a damaged device.
7. **JOB METHOD:** Choosing the type of work the JTAG interface.

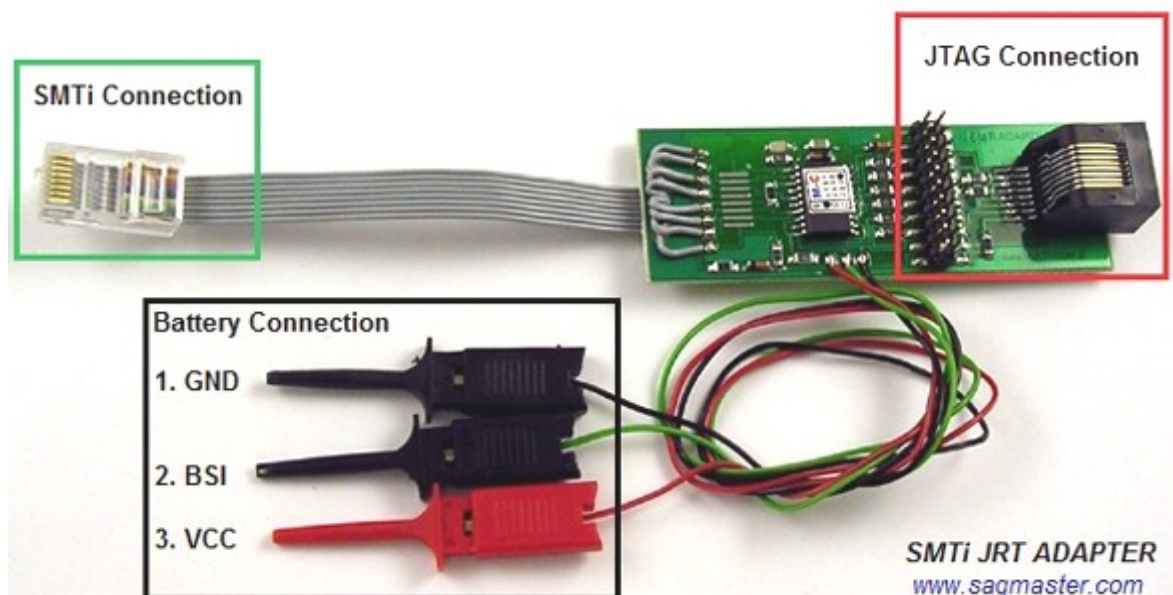
- 8. Start Option Auto Power:** Feature that allows you to start the phone by the program
- 9. Use Start INIT:** The option to load the program LOADER SMTi zero if the sector flash memory is erased. Recommended Erase Boot execution and then select Use the Start INIT before programming the new Boot Loader.
- 10.Boot Size:** Choose the size of the Boot Loader to be read from the device. .
- 11.Check Connection:** Checking the correct connection JTAG'a to the device.
- 12.Read Boot:** This function allows the Boot Loader to read from the device
- 13.Erase Boot:** Function to delete the Boot Loader. Always after erasing the Boot Loader disconnect and reconnect the power supply in the damaged unit, and then before programming the new Home Use Boot'a select **INIT and JTAG DCC**
- 14.Write Boot:** Function to upload a new Boot Loader

SMTi JRT ADAPTER

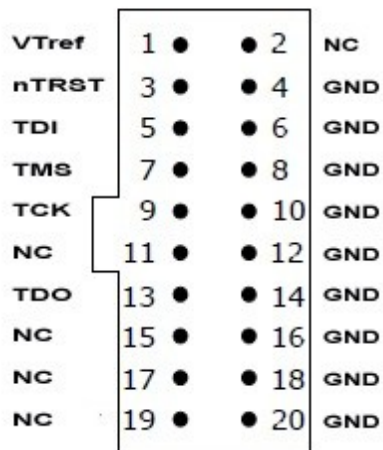
SMTi JRT adapter is recommended for communication with the match because of Logistics SMTi for different types of processors. No adapter is used can result in errors in communication.

Diagram of the adapter is available for download under the button: JRT SUPPORT AREA.

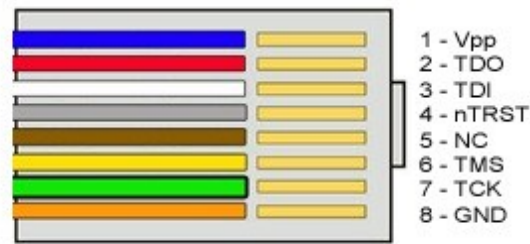
You can order the adapter on support page www.sagmaster.com or in resellers web pages.



SMTi JTAG ADAPTER



SMTi JTAG RJ45 MALE



SMTi JTAG RJ45 FEMALE



Repair of the device with damaged Boot Loader

1. Connect the JTAG output from the damaged device to JRT Adapter, or directly to SMTi box
2. Select CPU family type (3)
3. Select the type of CPU (4) and the device (5) if the repaired unit is not on the list, you must manually select the type of flash memory (6)
4. Connect the power supply to the repaired device and press POWER ON
To connect the power adapter can be used with the measurement of power consumption, will see whether the CPU is able to work or not. You can also use the power derived from SMTi, in this case the CPU state can be made by measuring the voltage meter on one of the points: V-JTAG, V-TREF, V_MSMP, VPD, VREG_MSMP. In devices with two types of CPU (TYPE - PDA) should be given a separate power supply to the point PS_HOLD 2.6V, or a different value if it is given in the description of the JTAG pins. The PDA phones, it is important to attach the phone mode DOWNLOAD
5. Click on Check Connection (11), validate the connection and communication SMTi with the device. If it is OK. This dialog box, see

Example - I8510 CPU MSM6281

Check Connection:

Found Target, Target Info:

- HW_REVISION_NUMBER: 0xA00C00E1

6. Select the correct file to repair the Boot Loader and load it into a buffer (1)
7. Click on the Write Boot (14), if the communication is OK. dialog box, see :

Example - I8510 CPU MSM6281

Write Boot:

Found Target, Target Info:

- HW_REVISION_NUMBER: 0xA00C00E1
- MCP NAND ID: EC 76
- Chip: Samsung K9k1208d0c(u0a)/K9K1G08/ 512 Mbit

Flash Map:

- Block Count: 0x1000
- Block Size: 0x20 pages
- Page Size: 0x200 bytes
- Total Page Size: 0x210

Calculate Space ...Done!

Write Partition:

- 0:AMSS ...Success!
- 0:OEMSBL2 ...Success!
- 0:OEMSBL1 ...Success!
- 0:QCSBL ...Success!
- 0:MIBIB ...Success!

Solution to the problem of communication

1. When you try to check the connection Check Connection (11) shows only:

Check Connection:

Target Not Found!

- a.) Please verify the power connection to repaired .device
- b.) Check that by pressing the POWER ON on one of the checkpoints: (V-JTAG, V-TREF, V_MSMP, VPD, VREG_MSMP) occurs in line voltage the type of CPU (2.6V MSM.), or the power of the ammeter, if there is power consumption. If the voltage or power consumption occurs only when you press the Power On, hold the button and follow the Erase Boot (13) disconnect power and reconnect the device. Now press the Power On, select the Use the Start INIT (9) and press the Write Boot (14)

2. When you try to upload a new Boot Loader dialog box is displayed:

Write Boot:

Found Target, Target Info:

- HW_REVISION_NUMBER: 0xA00C00E1

- a.) Keep the Power On button and follow the Erase Boot (13) disconnect power and reconnect the device. Now press the Power On, select

Use Start INIT (9) and press the Write Boot (14)

3. When you try to upload a new boot loader, or delete Boot'a displayed:

Erase Boot / Write Boot:

Found Target, Target Info:

- *HW_REVISION_NUMBER: 0x301C00E1*

- *MCP NAND ID: 00 00*

- *Chip: Unsupported!*

- a.) Check the correct CPU type selection and the type of flash memory
- b.) Connect the power supply unit from SMTi, or JRT Adapter, select Auto Power (8) and press Erase Boot (13), the program will ask you to press and hold the Power On button naprawianym the device - to be confirmed to do this by clicking on "YES".
If everything done correctly, the program will erase Boot'a.
After this operation, disconnect power and reconnect the device.
Now press the Power On, select the Use the Start INIT (9) and press the Write Boot (14)
Note: Auto Power (8) does not work properly on phones with two CPUs (TYPE-PDA)

Information about Read Boot option

Read Boot: This function allows the Boot Loader to read from the device.

With this option if you use:

- a.) to the device is not available to support members JRT Boot Loader recovery.
- b.) After uploading the Boot Loader recovery unit is still no communication
USB to a computer, or have other problems with the device.

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