

2. Specification

Not applicable

3. Operation Instruction and Installation

Main Function

Item	Description
OS	Android V5.1 (Lollipop)
RF	—
Battery	4000mAh
Base Band	1.3GHz Quad
Other RF	GPS, Glonass BT4.0, USB 2.0, WIFI 802.11 b/g/n SISO
Camera	5MP AF (Main). 2M FF(Front)
LCD	7.0" WXGA LCD, 1280X800
RAM	1.5GB LPDDR3 RAM + 8GB eMMC
Sensor	Accelerometer , Grip
Accessory	Charger: 5V, 1A Headset (Option)

9. Reference Abbreviate

Reference Abbreviate

- **AAC**: Advanced Audio Coding.
- **AVC** : Advanced Video Coding.
- **BER** : Bit Error Rate
- **BPSK**: Binary Phase Shift Keying
- **CA** : Conditional Access
- **CDM** : Code Division Multiplexing
- **C/I** : Carrier to Interference
- **DMB** : Digital Multimedia Broadcasting
- **EN** : European Standard
- **ES** : Elementary Stream
- **ETSI**: European Telecommunications Standards Institute
- **MPEG**: Moving Picture Experts Group
- **PN** : Pseudo-random Noise
- **PS** : Pilot Symbol
- **QPSK**: Quadrature Phase Shift Keying
- **RS** : Reed-Solomon
- **SI** : Service Information
- **TDM** : Time Division Multiplexing
- **TS** : Transport Stream

1. Safety Precautions

1-1. Repair Precaution

Before attempting any repair or detailed tuning, shield the device from RF noise or static electricity discharges.

Use only demagnetized tools that are specifically designed for small electronic repairs, as most electronic parts are sensitive to electromagnetic forces.

Use only high quality screwdrivers when servicing products. Low quality screwdrivers can easily damage the heads of screws.

Use only conductor wire of the properly gauge and insulation for low resistance, because of the low margin of error of most testing equipment.

We recommend 22-gauge twisted copper wire.

Hand-soldering is not recommended, because printed circuit boards (PCBs) can be easily damaged, even with relatively low heat. Never use a soldering iron with a power rating of more than 100 watts and use only lead-free solder with a melting point below 250°C (482°F).

Prior to disassembling the battery charger for repair, ensure that the AC power is disconnected.

Always use the replacement parts that are registered in the SEC system. Third-party replacement parts may not function properly.

1.Safety Precautions

1-2. ESD(Electrostatically Sensitive Devices) Precaution

Many semiconductors and ESDs in electronic devices are particularly sensitive to static discharge and can be easily damaged by it. We recommend protecting these components with conductive anti-static bags when you store or transport them.

Always use an anti-static strap or wristband and remove electrostatic buildup or dissipate static electricity from your body before repairing ESDs.

Ensure that soldering irons have AC adapter with ground wires and that the ground wires are properly connected.

Use only desoldering tools with plastic tips to prevent static discharge.

Properly shield the work environment from accidental electrostatic discharge before opening packages containing ESDs.

The potential for static electricity discharge may be increased in low humidity environments, such as air-conditioned rooms. Increase the airflow to the working area to decrease the chance of accidental static electricity discharges.

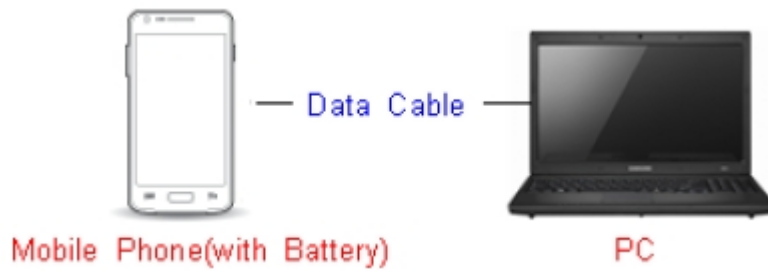
6. Level 1 Repair

6-1. S/W installation

6-1-1. Required items in order to install S/W

- Installation program: Downloader Program ([Odin3 v3.09.exe](#))
- Mobile Phone
- Data Cable
- Mobile device specific S/W: Binary files

✳ Settings

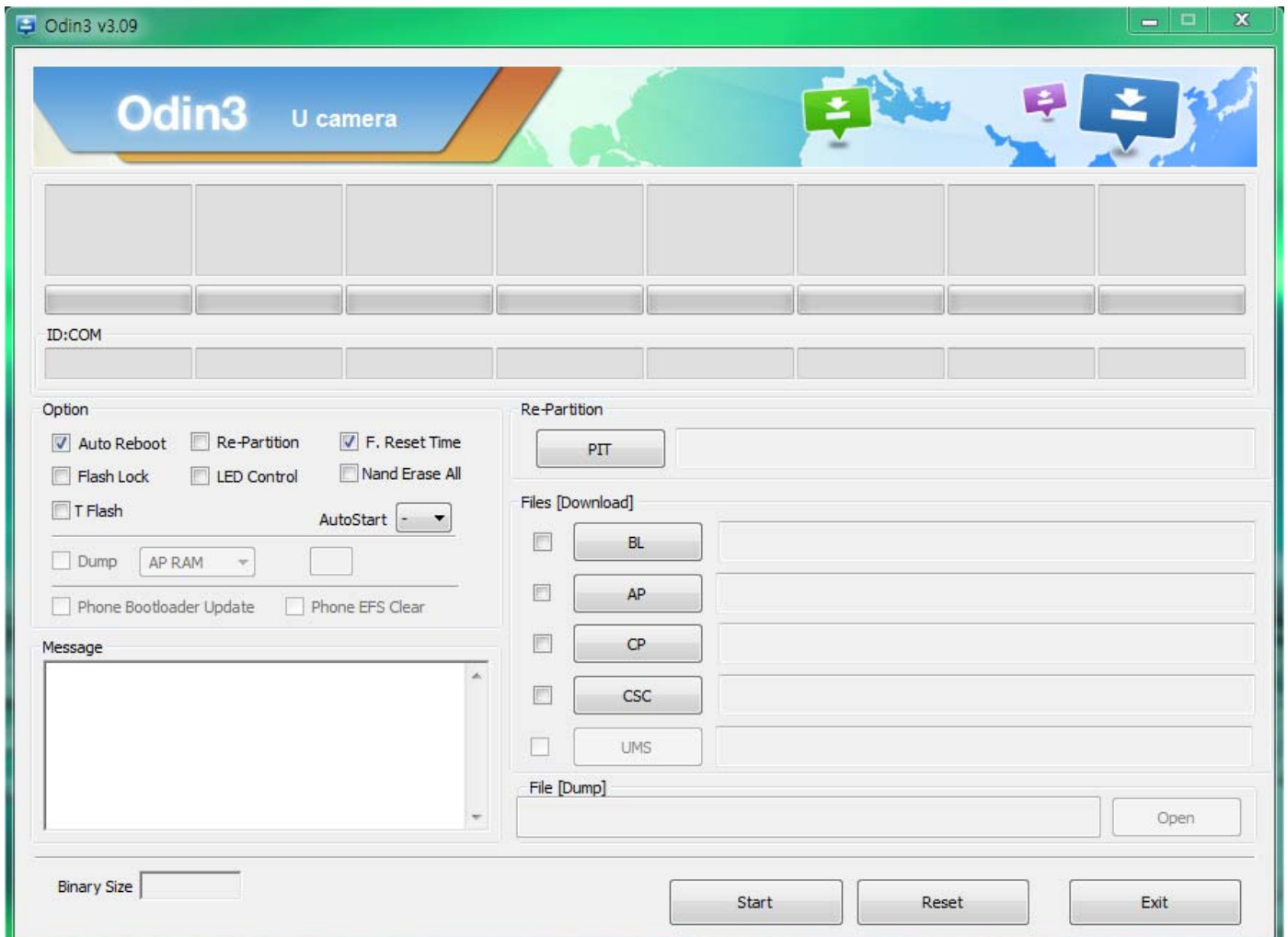


Data Cable : GH39-01710D

6. Level 1 Repair

6-1-2. S/W Installation Program (Downloader program)

- Open up the S/W Installation Program by executing the "**Odin3 v3.09.exe**"

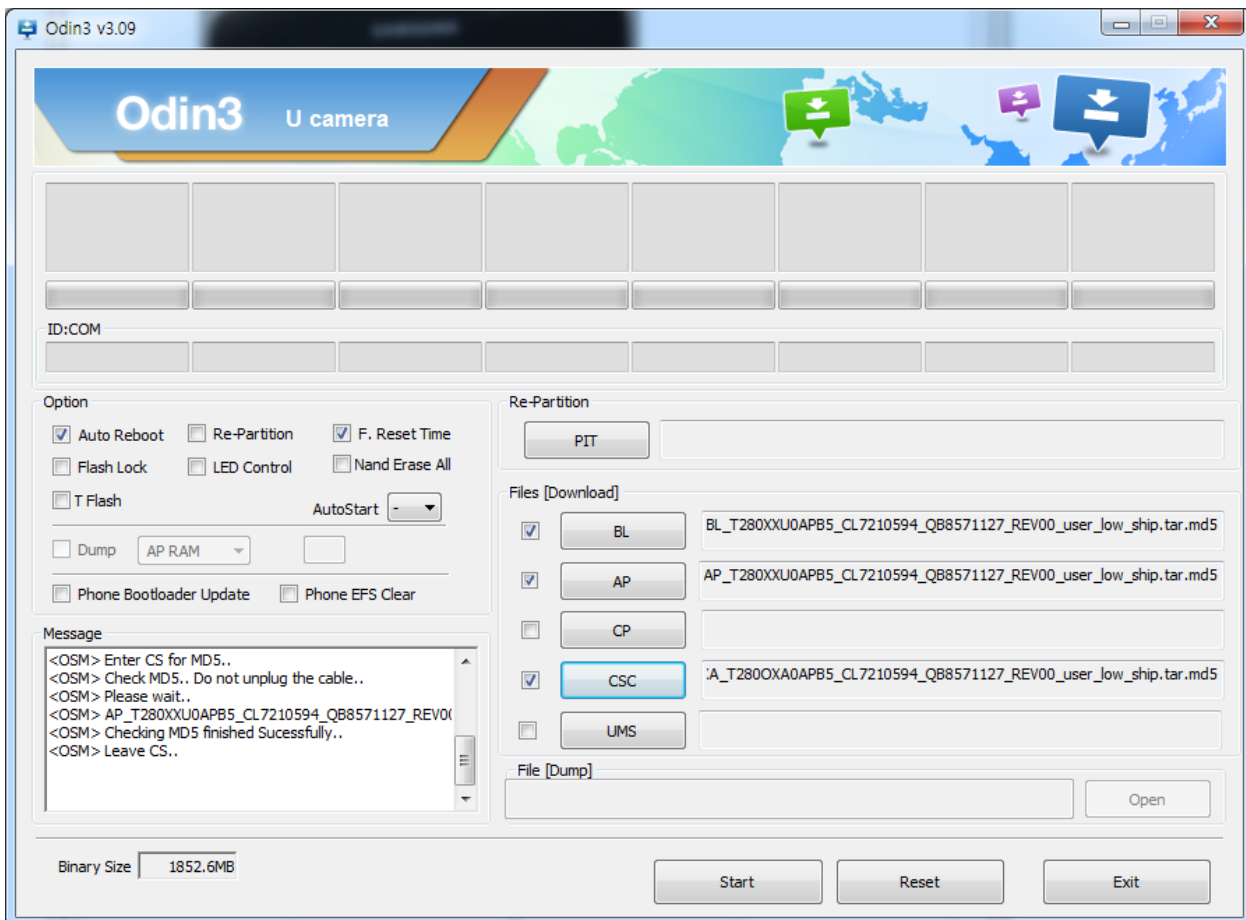


6. Level 1 Repair

1. Enable the check mark by click on the following options,

- Check Auto Reboot, Re-Partition, and F. Reset Time
- Check PIT
- Check BOOTLOADER, PDA, and CSC Files

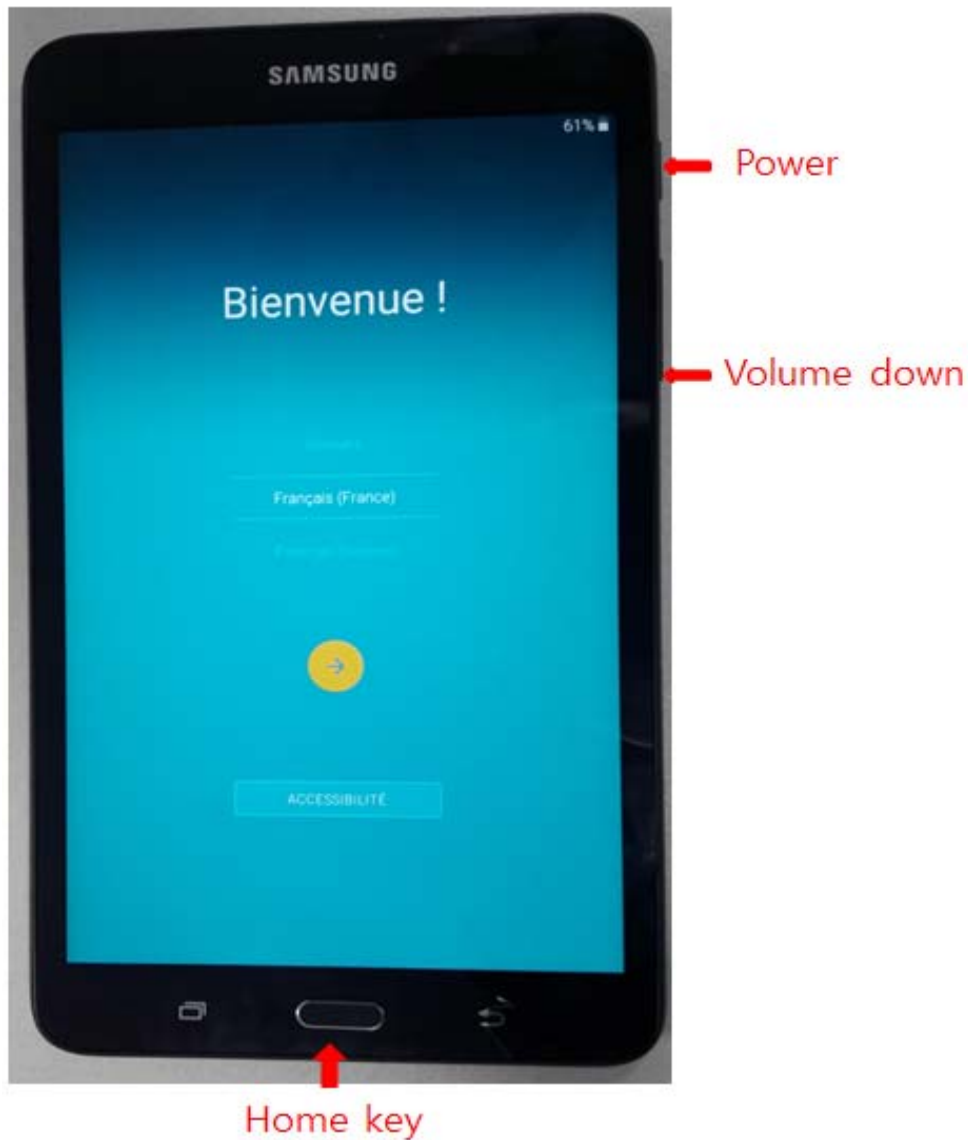
* Note : "Odin v3.09 or above" checks MD5 checksum just after file selection.



6. Level 1 Repair

2. Enter into Download Mode

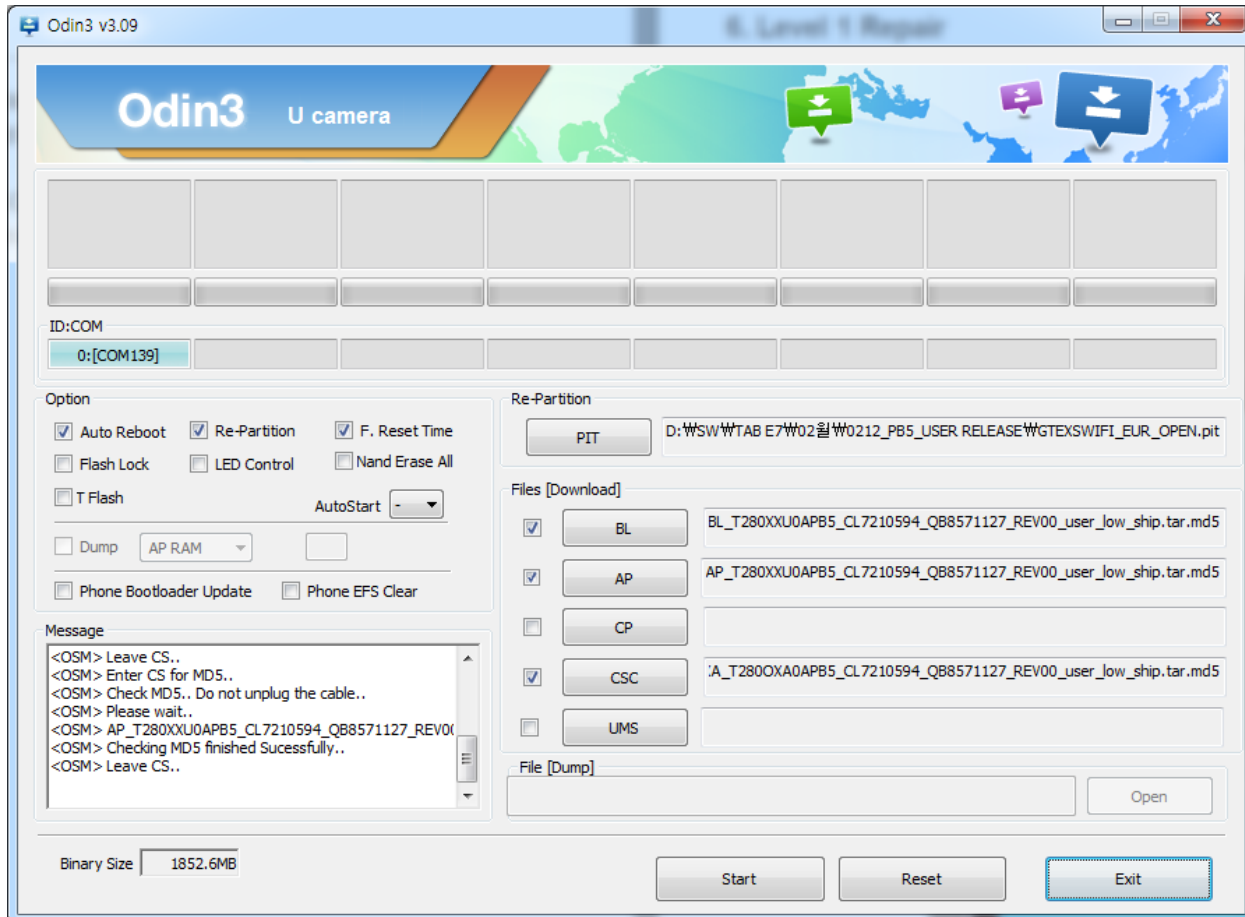
- Enter into Download Mode by pressing Volume Down button, Home button and ON/OFF Button simultaneously followed by pressing Volume up button as a direction of the phone.



6. Level 1 Repair

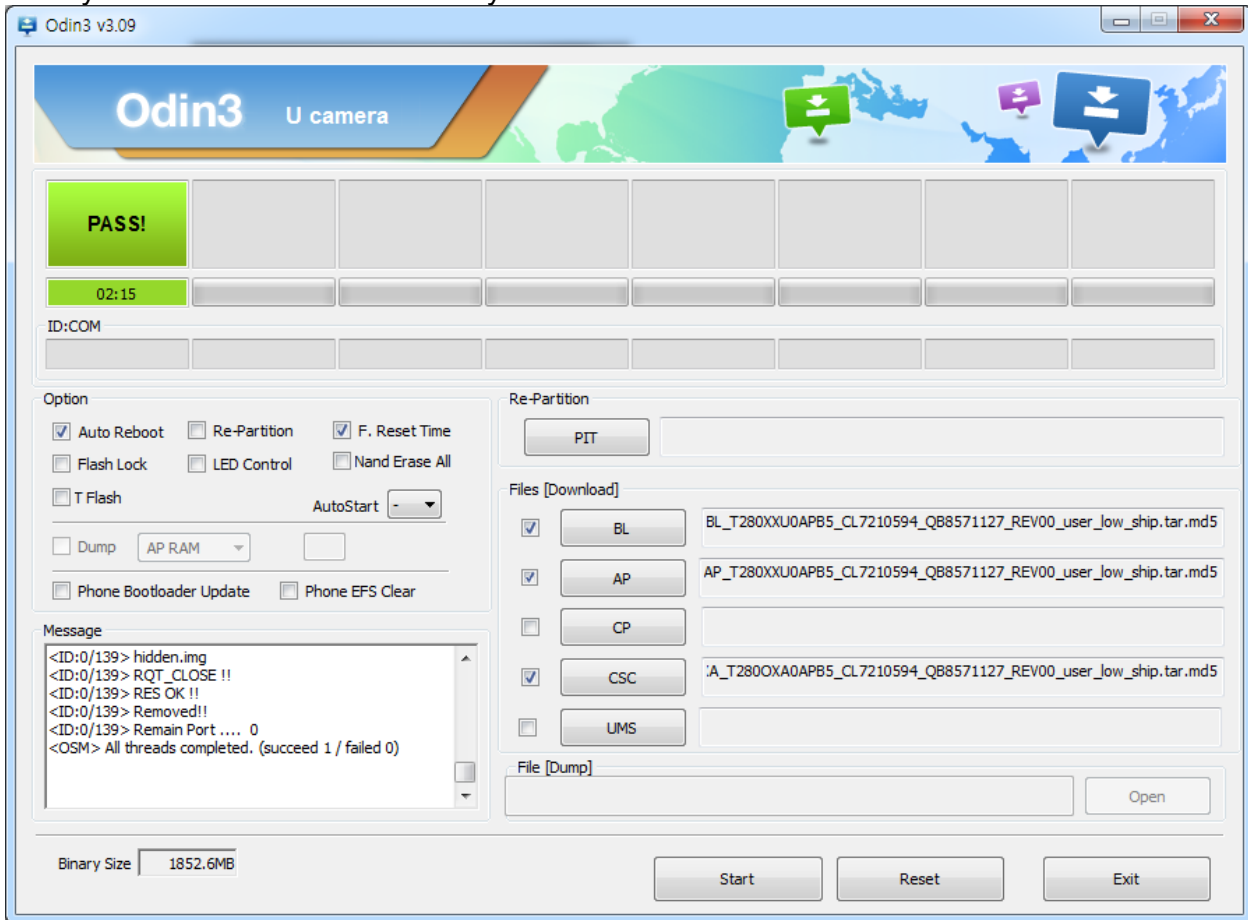
3. Connect the device to PC via Data Cable.

Make sure that the one of communication ports [ID:COM] box is highlighted in sky blue. The device is now connected with the PC and ready to download the binary files in it.



6. Level 1 Repair

- Start downloading the binary files into the device by clicking Start button on the screen. The green colored "PASS!" sign will appear on the upper-left box if the binary files have been successfully downloaded into the device.



- Disconnect the device from the Data cable.
- Once the device boots up, you can check the version of the binary file or name by pressing the following code in sequence;
The first, Please write (+30012012732+ on calculator and then ***#1234#**

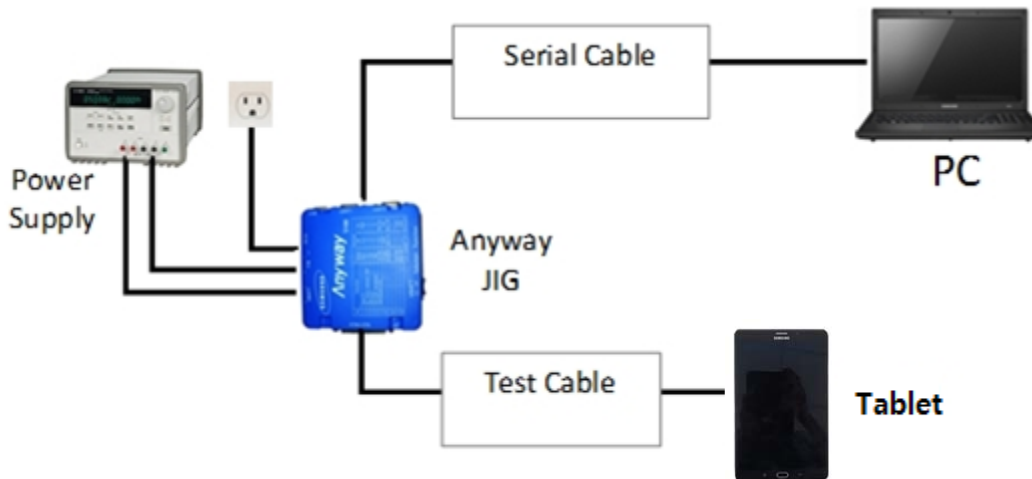
You can perform Factory Reset by Settings → Accounts → Backup and reset

6. Level 1 Repair

6-2 IMEI writing

6-2-1 Preparation

- New IMEI writing Program has been released.
- Supported Model : Models which CAB files are uploaded on HHPsvc INI File category, instead of ini file.
- Refer to below IMEI writing procedure.
- **H/W**



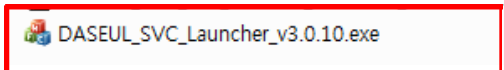
- S/W

① Library Install	To use Daseul, library files should be installed. Refer to SVC Bulletin “(11-82) Daseul (New IMEI writing Program) Library Install guide_rev1.0”
② Launcher	DASEUL_SVC_Launcher_v3_0_25 or higher -Uploaded on HHPsvc Notice
③ Runtime File	1. DASEUL_Runtime_Ver_3.1.139.0.CAB or higher -Uploaded on HHPsvc Notice 2. Make 'ModelName' folder at the same position with launcher & Runtime file.
④ Model File	Copy Model File under the 'Model Name' folder

6. Level 1 Repair

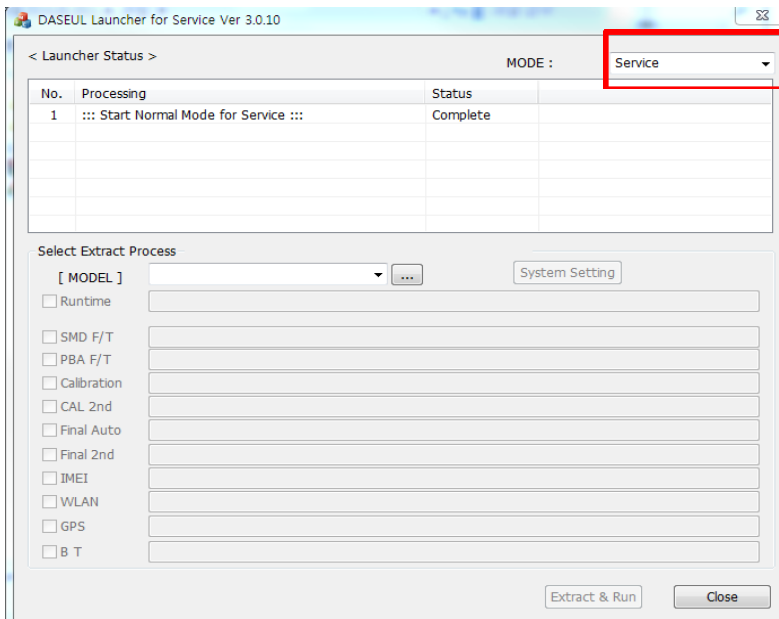
6-2-2 IMEI writing Process

1. Run DASEUL_SVC_Launcher_v3.0.10.exe

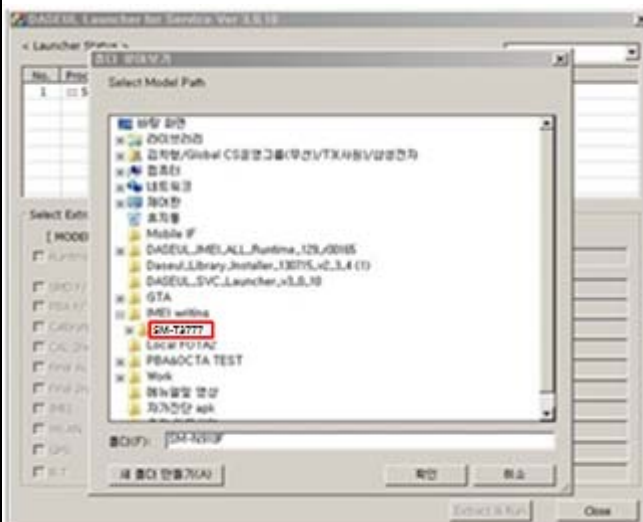


2. Select Service Mode

3. Click Extract & Run

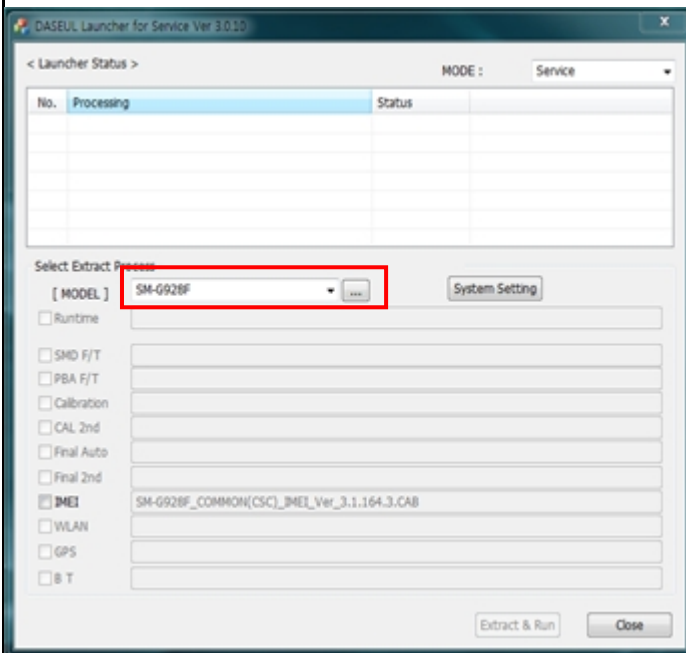


3. Click and Select folder where the Launcher exists



6. Level 1 Repair

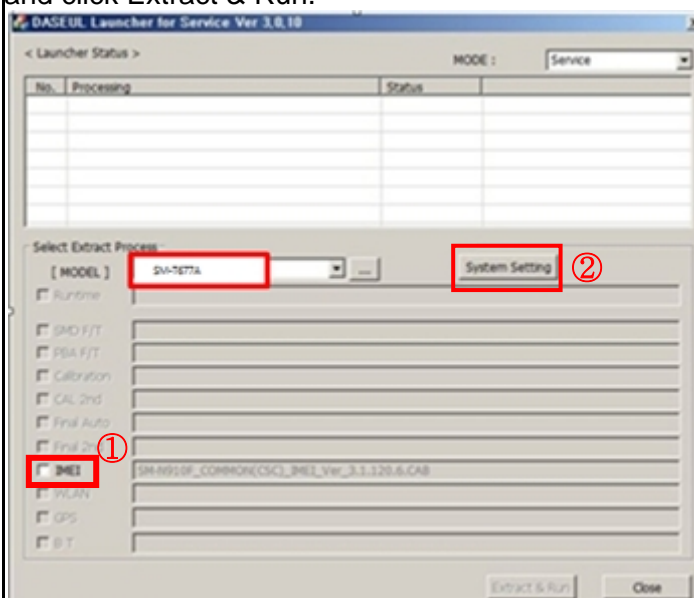
4. Select Model



5. Check IMEI and click System Setting

※Once you setup the setting, you don't have to

do it again, unless there is change. From second run of the IMEI program, check IMEI and click Extract & Run.



6. Level 1 Repair

6. Check IMEI Write / IMEI Check and click IMEI SVC & Repair Option.

Set System Configuration
Set System Configuration Dialog...

Test Process

[Process]	[Master]	[Slave]
SMD F/T	<input type="checkbox"/>	<input type="checkbox"/>
PBA F/T	<input type="checkbox"/>	<input type="checkbox"/>
Calibration	<input type="checkbox"/>	<input type="checkbox"/>
Calibration 2ND	<input type="checkbox"/>	<input type="checkbox"/>
Final Auto	<input type="checkbox"/>	<input type="checkbox"/>
Final Auto 2ND	<input type="checkbox"/>	<input type="checkbox"/>
Final Manual	<input type="checkbox"/>	<input type="checkbox"/>
IMEI Write	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IMEI Check	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MDL +2nd Ched	<input type="checkbox"/>	<input type="checkbox"/>
MDL Rework	<input type="checkbox"/>	<input type="checkbox"/>
IMEI Read	<input type="checkbox"/>	<input type="checkbox"/>
STA Write	<input type="checkbox"/>	<input type="checkbox"/>
STA Check	<input type="checkbox"/>	<input type="checkbox"/>
STA Reset	<input type="checkbox"/>	<input type="checkbox"/>
WLAN	<input type="checkbox"/>	<input type="checkbox"/>
GPS	<input type="checkbox"/>	<input type="checkbox"/>
BT	<input type="checkbox"/>	<input type="checkbox"/>
WLAN	<input type="checkbox"/>	<input type="checkbox"/>
Power Off-On before WLAN	<input type="checkbox"/>	<input type="checkbox"/>
Bluetooth	<input type="checkbox"/>	<input type="checkbox"/>
LCIA	<input type="checkbox"/>	<input type="checkbox"/>
Merge 2G3G Block Rad.	<input type="checkbox"/>	<input type="checkbox"/>

Test Condition

Calibration
Real CAL Cycle: on every default: CALs

Calibration Mode :

CAL2nd Mode :

Final
Supply RF Signal by :

Reset Loss Correction Count

Test Mode :

WLAN
Test Mode :

IMEI
Use RFSM
Use Second PC
Save ODS
Merge Felica Cal
OQC Reset
IBI Reset

System Config.

Language :

Line Name :

Line Type :

Smart Cloud Cell

of Phone :

Start Number of UI :

Start Number of Jig :

IP Address : 10.244.246.156

SKD Mode

MultiSharing(CMWS)

Developer Mode

Advanced Separating(ADS)

Operation Condition

7. Check SVC , User Ticket No and click OK

IMEI SVC && Repair Option

FTR

Rework

Korean SVC

SVC

SELA MIAMI

Local FOTA Check

DEVELOPE

Repair Board

SVC Factory Reset

Romania SVC

Argentina SKD

Initial PGM(SVC)

Turkey

ATT Rework

Slovakia SVC

IMEI Clear(Factory)

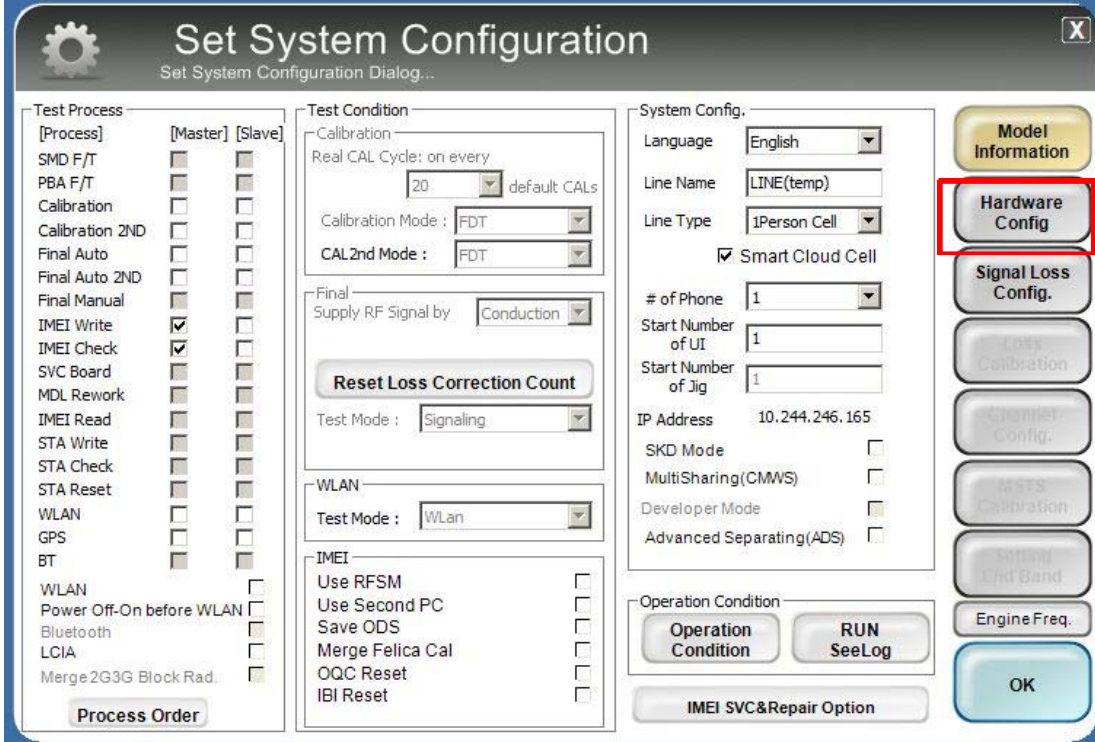
GED 2nd Inspection

Outgoing Inspection Check

SBSC(PBA) SVC

6. Level 1 Repair

8. Click Hardware Config



Set System Configuration
Set System Configuration Dialog...

Test Process

[Process]	[Master]	[Slave]
SMD F/T	<input type="checkbox"/>	<input type="checkbox"/>
PBA F/T	<input type="checkbox"/>	<input type="checkbox"/>
Calibration	<input type="checkbox"/>	<input type="checkbox"/>
Calibration 2ND	<input type="checkbox"/>	<input type="checkbox"/>
Final Auto	<input type="checkbox"/>	<input type="checkbox"/>
Final Auto 2ND	<input type="checkbox"/>	<input type="checkbox"/>
Final Manual	<input type="checkbox"/>	<input type="checkbox"/>
IMEI Write	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IMEI Check	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SVC Board	<input type="checkbox"/>	<input type="checkbox"/>
MDL Rework	<input type="checkbox"/>	<input type="checkbox"/>
IMEI Read	<input type="checkbox"/>	<input type="checkbox"/>
STA Write	<input type="checkbox"/>	<input type="checkbox"/>
STA Check	<input type="checkbox"/>	<input type="checkbox"/>
STA Reset	<input type="checkbox"/>	<input type="checkbox"/>
WLAN	<input type="checkbox"/>	<input type="checkbox"/>
GPS	<input type="checkbox"/>	<input type="checkbox"/>
BT	<input type="checkbox"/>	<input type="checkbox"/>
WLAN	<input type="checkbox"/>	<input type="checkbox"/>
Power Off-On before WLAN	<input type="checkbox"/>	<input type="checkbox"/>
Bluetooth	<input type="checkbox"/>	<input type="checkbox"/>
LCIA	<input type="checkbox"/>	<input type="checkbox"/>
Merge 2G3G Block Rad.	<input type="checkbox"/>	<input type="checkbox"/>

Test Condition

Calibration
Real CAL Cycle: on every
20 default: CALs
Calibration Mode: FDT
CAL2nd Mode: FDT

Final
Supply RF Signal by: Conduction

Reset Loss Correction Count

Test Mode: Signaling

WLAN
Test Mode: WLAN

IMEI
Use RFSM
Use Second PC
Save ODS
Merge Felica Cal
OQC Reset
IBI Reset

System Config.

Language: English
Line Name: LINE(temp)
Line Type: 1Person Cell
 Smart Cloud Cell

of Phone: 1
Start Number of UI: 1
Start Number of Jig: 1
IP Address: 10.244.246.165

SKD Mode
MultiSharing(CMWS)
Developer Mode
Advanced Separating(ADS)

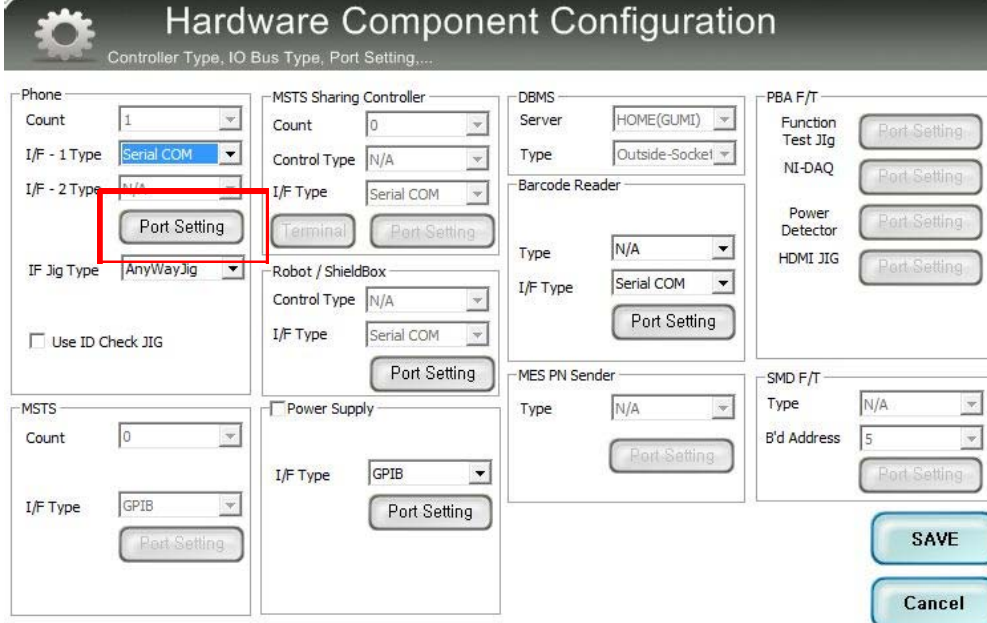
Operation Condition

Operation Condition

IMEI SVC&Repair Option

Model Information
Hardware Config
Signal Loss Config.
Loss Calibration
Channel Config.
MSTS Calibration
Setting End Band
Engine Freq.
OK

9. Click Port Setting



Hardware Component Configuration
Controller Type, IO Bus Type, Port Setting,....

Phone
Count: 1
I/F - 1 Type: Serial COM
I/F - 2 Type: N/A
IF Jig Type: AnyWayJig
 Use ID Check JIG

MSTS Sharing Controller
Count: 0
Control Type: N/A
I/F Type: Serial COM
Terminal

Robot / ShieldBox
Control Type: N/A
I/F Type: Serial COM

Power Supply
 Power Supply
I/F Type: GPIB

MSTS
Count: 0
I/F Type: GPIB

DBMS
Server: HOME(GUMI)
Type: Outside-Socket

Barcode Reader
Type: N/A
I/F Type: Serial COM

MES PN Sender
Type: N/A

PBA F/T
Function Test Jig
NI-DAQ
Power Detector
HDMI JIG

SMD F/T
Type: N/A
B'd Address: 5

6. Level 1 Repair

10. Select Port Number and SAVE

Set IO BUS Configuration

Phone IO Bus Setting

Common

BaudRate: 115200
 Data Bit: 8
 Parity: No
 Stop Bit: 1

No.	Port #1
1	1

SAVE
 Cancel

11. Click OK to proceed

Set System Configuration

Set System Configuration Dialog...

Test Process

[Process]	[Master]	[Slave]
SMD F/T	<input type="checkbox"/>	<input type="checkbox"/>
PBA F/T	<input type="checkbox"/>	<input type="checkbox"/>
Calibration	<input type="checkbox"/>	<input type="checkbox"/>
Final Auto	<input type="checkbox"/>	<input type="checkbox"/>
Final Manual	<input type="checkbox"/>	<input type="checkbox"/>

IMEI Process

IMEI Write	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IMEI Check	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MDL +2nd Check	<input type="checkbox"/>	<input type="checkbox"/>
MDL Rework	<input type="checkbox"/>	<input type="checkbox"/>
IMEI Read	<input type="checkbox"/>	<input type="checkbox"/>

WLAN
 Power Off-On before WLAN
 Bluetooth

Test Condition

Calibration
 Real CAL Cycle: on every 20 default: CALs
 Calibration Mode: Dynamic

Final
 Supply RF Signal by: Conduction

Test Signal Mode: Signaling
 Developer Mode

IMEI

Use RFSM	<input type="checkbox"/>
Use Second PC	<input type="checkbox"/>
Save ODS	<input type="checkbox"/>

IMEI SVC&Repair Option

System Config.

Language: English
 Line Name: LINE(temp)
 Line Type: Block Cell
 # of Phone: 1
 Start Number of Jig: 1
 IP Address: 10.244.114.62

Operation Condition

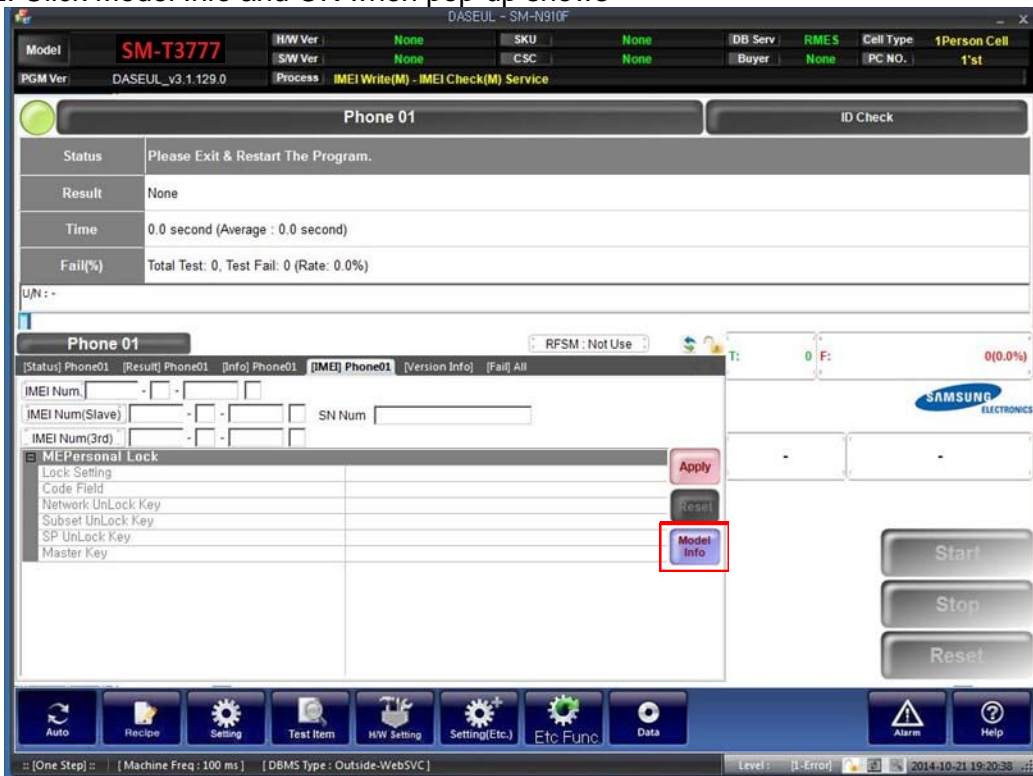
Operation Condition

Model Information
 Hardware Config
 Signal Coes Config
 Channel Config
 Start Calibration
 Setting Test Band

OK

6. Level 1 Repair

12. Click Model Info and OK when pop-up shows



13. Click OK



6. Level 1 Repair

14. Input SKU_CODE and BUYER, then click Save button.

✧ Refer to HHPsvc→IMEI Review to check SKU Code and buyer

CSC	N0980CM1ANB5
PDA	N0980MU1ANB5
Software2	1
LPD	
Contents	
DMB	
SKU_CODE	SM-T3777ZWABRI
BUYER	
Material_Code	
Boot	
Factory Software	N0980MI116NR1

2nd Func. Test (AT&T) STA Option
 Factory Reset+Check Don't DB Upload Tizen Download
 Pre Product Packing Rework Android Download
 Main Repair

Buttons: Save, Load, Cancel

15. Input IMEI Number and click Apply

Model: SM-T3777 | HW Ver: None | SW Ver: None | CSC: None | DB Serv: RMES | Cell Type: 1Person Cell

PGM Ver: DASEUL_v3.1.129.0 | Process: IMEI Write(M) - IMEI Check(M) Service

Phone 01 | ID Check

Status: Please Exit & Restart The Program.

Result: None

Time: 0.0 second (Average : 0.0 second)

Fail(%): Total Test: 0, Test Fail: 0 (Rate: 0.0%)

UN: -

IMEI Num: 111111 - 111111

IMEI Num(3rd): - - -

IME Personal Lock: Lock Setting, Code Field, Network UnLock Key, Subset UnLock Key, SP UnLock Key, Master Key

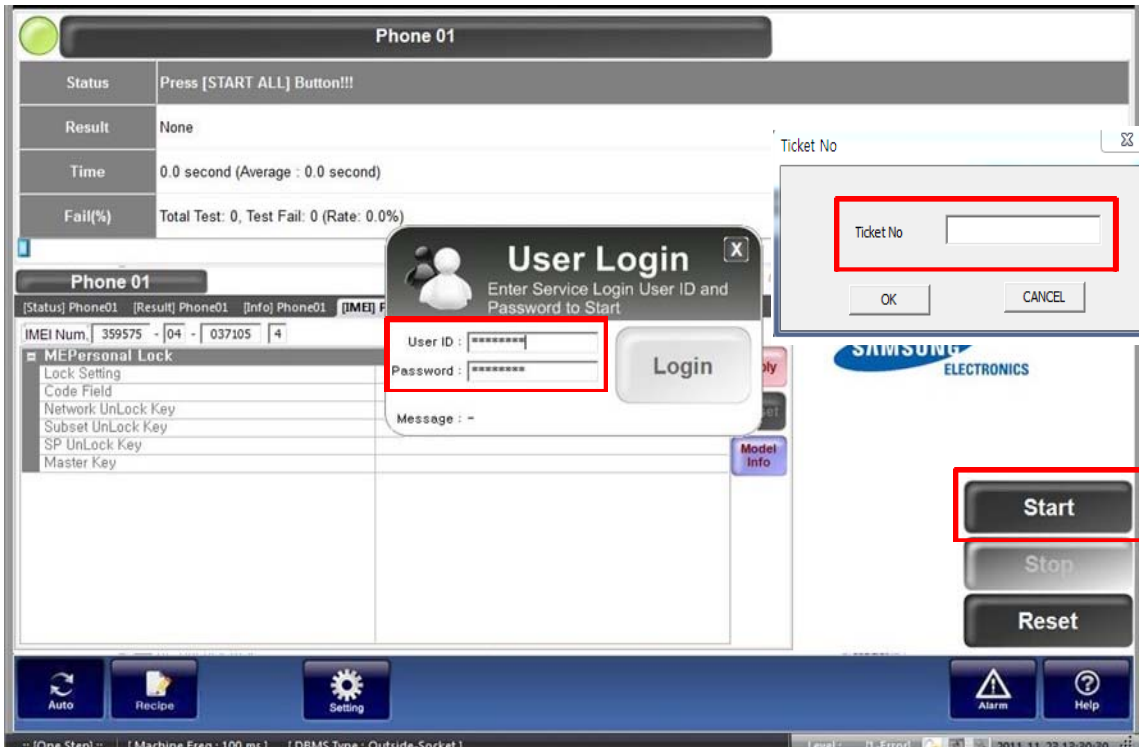
Buttons: Apply, Reset, Model Info, Start, Stop, Reset

Bottom Bar: Auto, Recipe, Setting, Test Item, HW Setting, Setting(Etc.), Etc Func, Data, Alarm, Help

Level: [Error] | 2014-10-21 19:21:38

6. Level 1 Repair

16. ① Click Start, and input IMEI writing ID and Password → ② input Ticket No

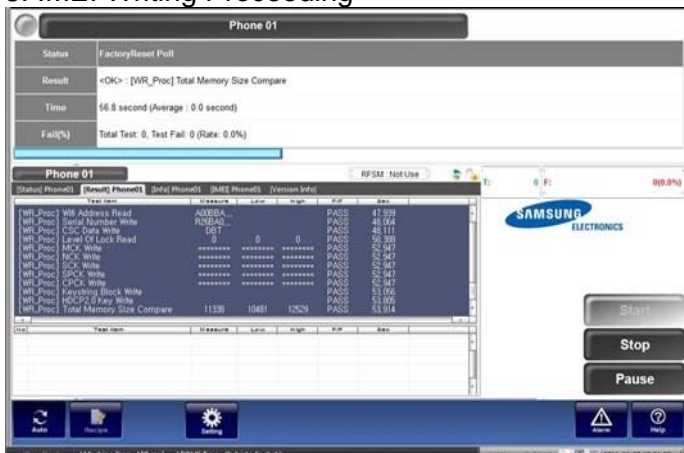


17. Connect the phone to Anyway JIG

※ When you connect the phone, the phone should be turned off.

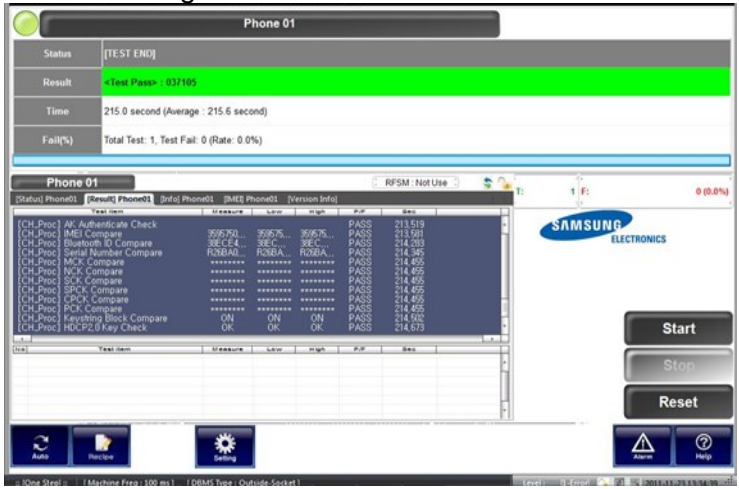
After connecting the phone, the phone will be booted automatically.

18. IMEI Writing Proceeding



6. Level 1 Repair

19. IMEI Writing Success



Phone 01

Status: [TEST END]

Result: <Test Pass> - 037105

Time: 215.0 second (Average : 215.6 second)

Fall(%): Total Test: 1, Test Fail: 0 (Rate: 0.0%)

Phone 01 | RFSM : Not Use | 0 (0.0%)

Test Item	Measure	Lower	High	Pass	Fail
[CH_Proc] AK Authenticate Check				PASS	213.519
[CH_Proc] IMEI Compare	99970...	99975...	99976...	PASS	213.581
[CH_Proc] Bluetooth ID Compare	3EECE4...	3EEC...	3EEC...	PASS	214.203
[CH_Proc] Serial Number Compare	R0N8AD...	R0N8A...	R0N8A...	PASS	214.365
[CH_Proc] MCK Compare	*****	*****	*****	PASS	214.455
[CH_Proc] NCK Compare	*****	*****	*****	PASS	214.455
[CH_Proc] SCK Compare	*****	*****	*****	PASS	214.455
[CH_Proc] SPCK Compare	*****	*****	*****	PASS	214.455
[CH_Proc] SPCL Compare	*****	*****	*****	PASS	214.455
[CH_Proc] PCL Compare	*****	*****	*****	PASS	214.455
[CH_Proc] Keystroke Block Compare	ON	ON	ON	PASS	214.502
[CH_Proc] HDD/SSD Key Check	OK	OK	OK	PASS	214.673

Buttons: Start, Stop, Reset