DEBUG GUIDE
V300/V525/V600
LEVEL 3

INDEX

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Revised by: Luis A. Lázaro   04-05-04

Version – 1.2: Modified process to replace flash, added how write Bluetooth address		Written by: Juan A. Ortiz Revised by: Luis A. Lázaro
Version – 1.3; Modified process to recovers flash, replaced software name's file from image file to Reflash file	12-05-04	Written by: Juan A. Ortiz Revised by: Luis A. Lázaro
Version – 1.4; Modified process to replace flash, added how write Subsidy Lock	04-06-04	Written by: Juan A. Ortiz Revised by: Luis A. Lázaro

NO POWER UP

Connect the PCB to Radiocomm with USB´s cable: 5-00-74-10000 and supply it with external supply (4.2 v)

Push the button for power up, is the consumption is about 50mA?

— Yes → Reflash the PCB with cable P/N:SKN6311A with shortcut in Pin 13 and Pin 14, switch on?

— Yes → END

— No →

— No →

The consumption is about 120mA and after down to 50mA?
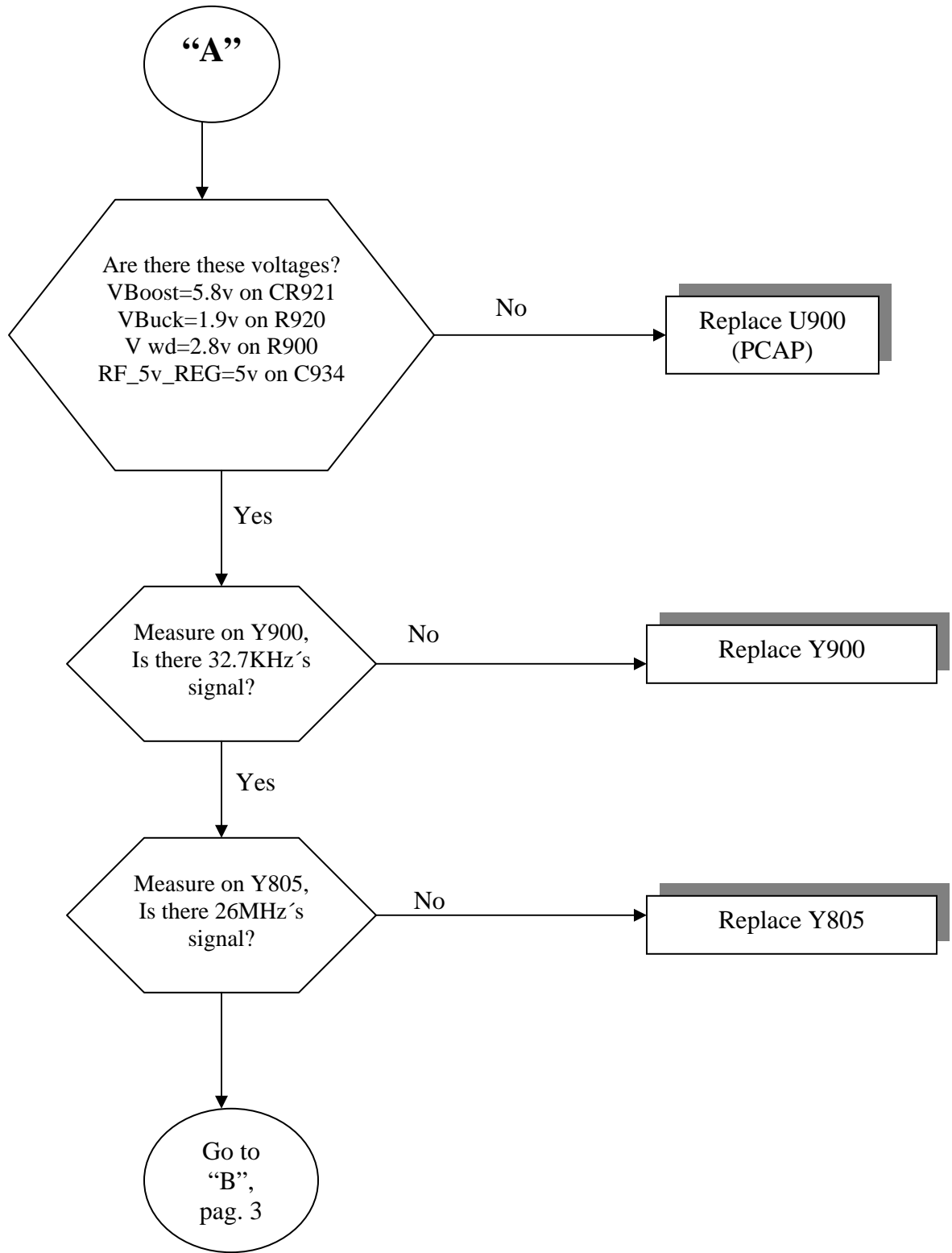
— Yes → Resolder the U900 (PCAP), swicth on?

— Yes → END

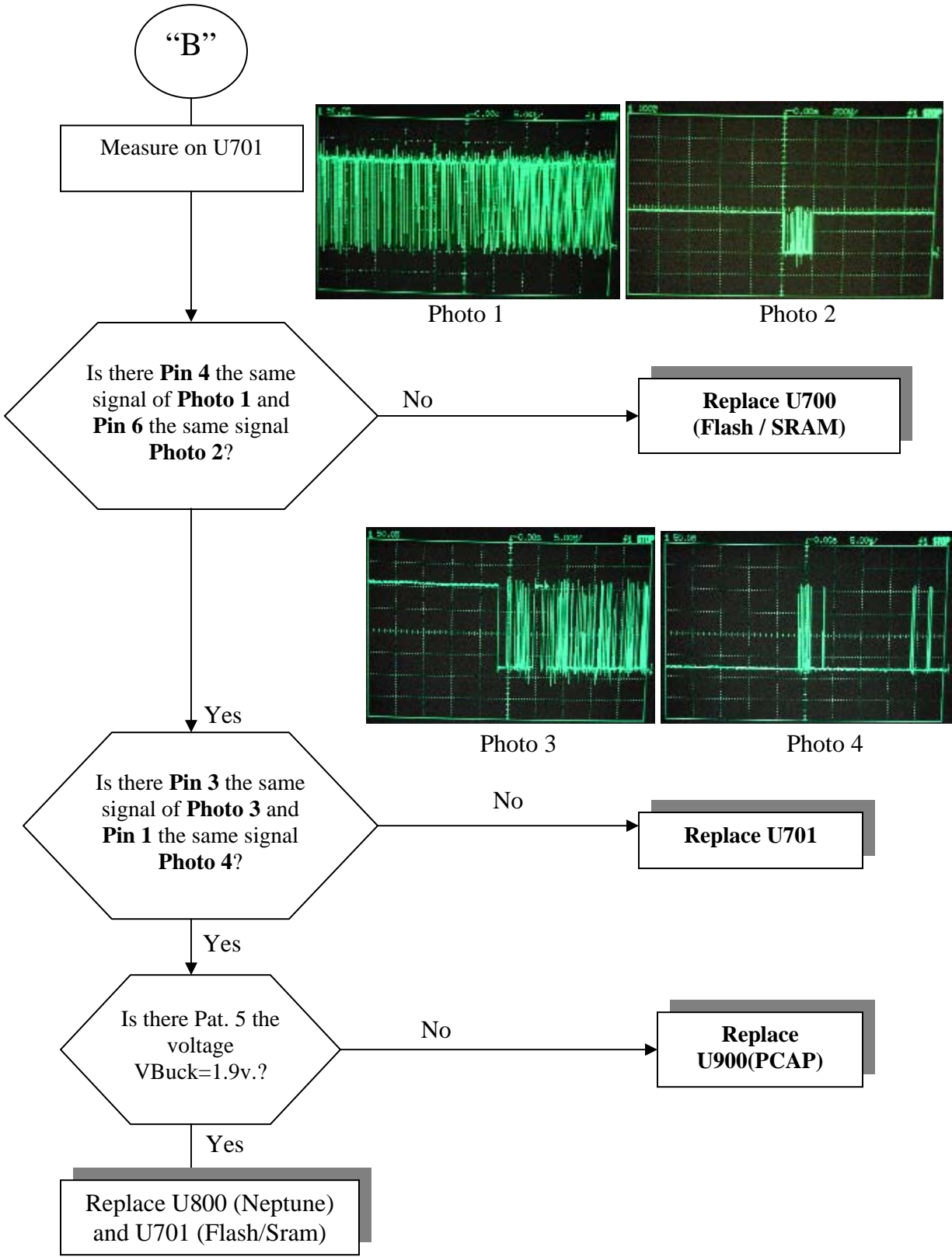— No →

The consumption is about 120mA?

— Yes → Replace the keypad mylar

— No →

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"A"

Are there these voltages?
VBoost=5.8v on CR921
VBuck=1.9v on R920
V wd=2.8v on R900
RF_5v_REG=5v on C934

No → Replace U900 (PCAP)

Yes ↓

Measure on Y900,
Is there 32.7KHz´s signal?

No → Replace Y900

Yes ↓

Measure on Y805,
Is there 26MHz´s signal?

No → Replace Y805

↓

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"B"

Measure on U701

Photo 1

Photo 2

Is there **Pin 4** the same signal of **Photo 1** and **Pin 6** the same signal **Photo 2**?

No → **Replace U700 (Flash / SRAM)**

Yes

Photo 3

Photo 4

Is there **Pin 3** the same signal of **Photo 3** and **Pin 1** the same signal **Photo 4**?

No → **Replace U701**

Yes

Is there Pat. 5 the voltage VBuck=1.9v.?

No → **Replace U900(PCAP)**

Yes

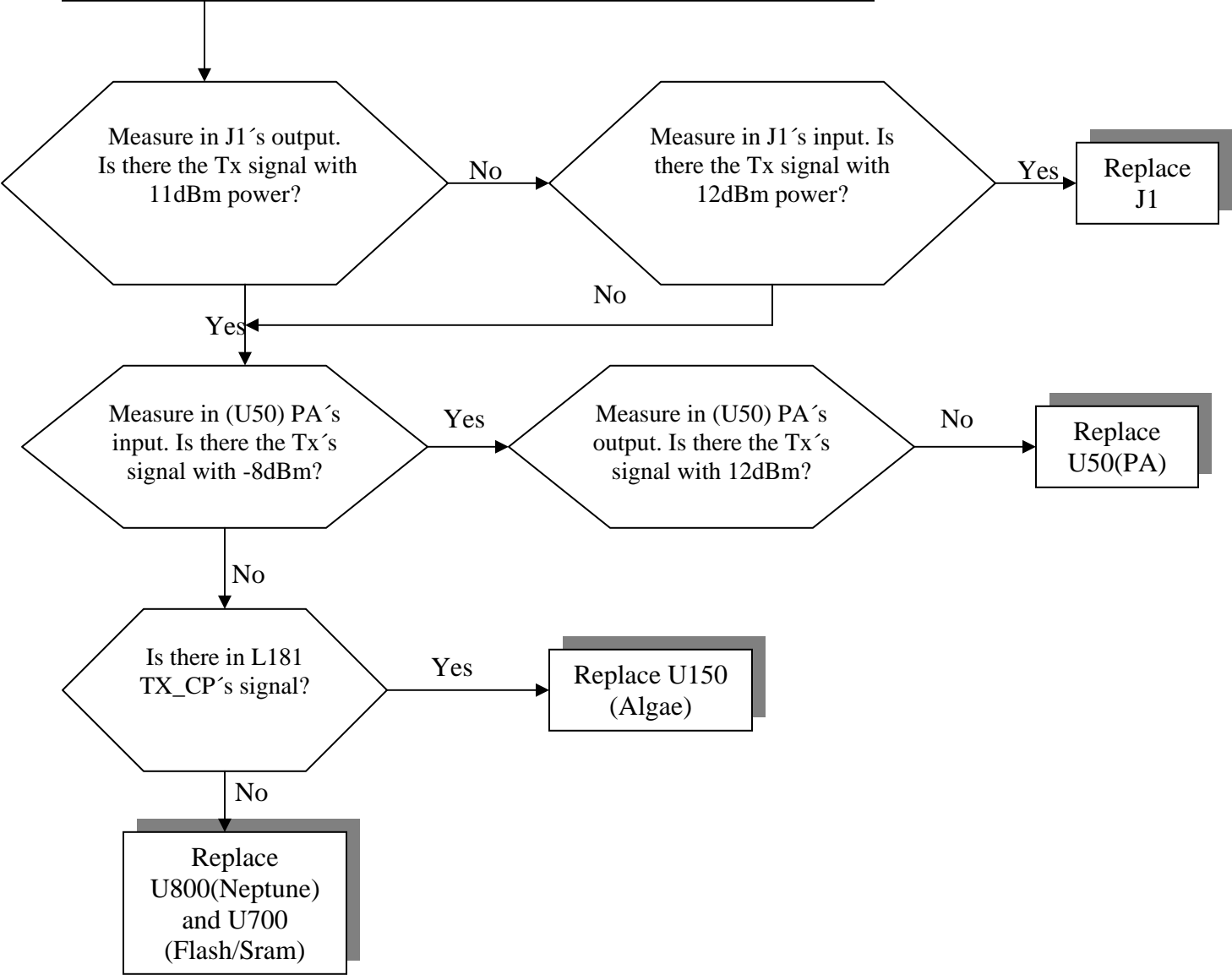Replace U800 (Neptune) and U701 (Flash/Sram)

Use this procedure to set Tx in any band (GSM, DCS, etc). Main difference between setting bands is:
- Set band with Radiocomm.
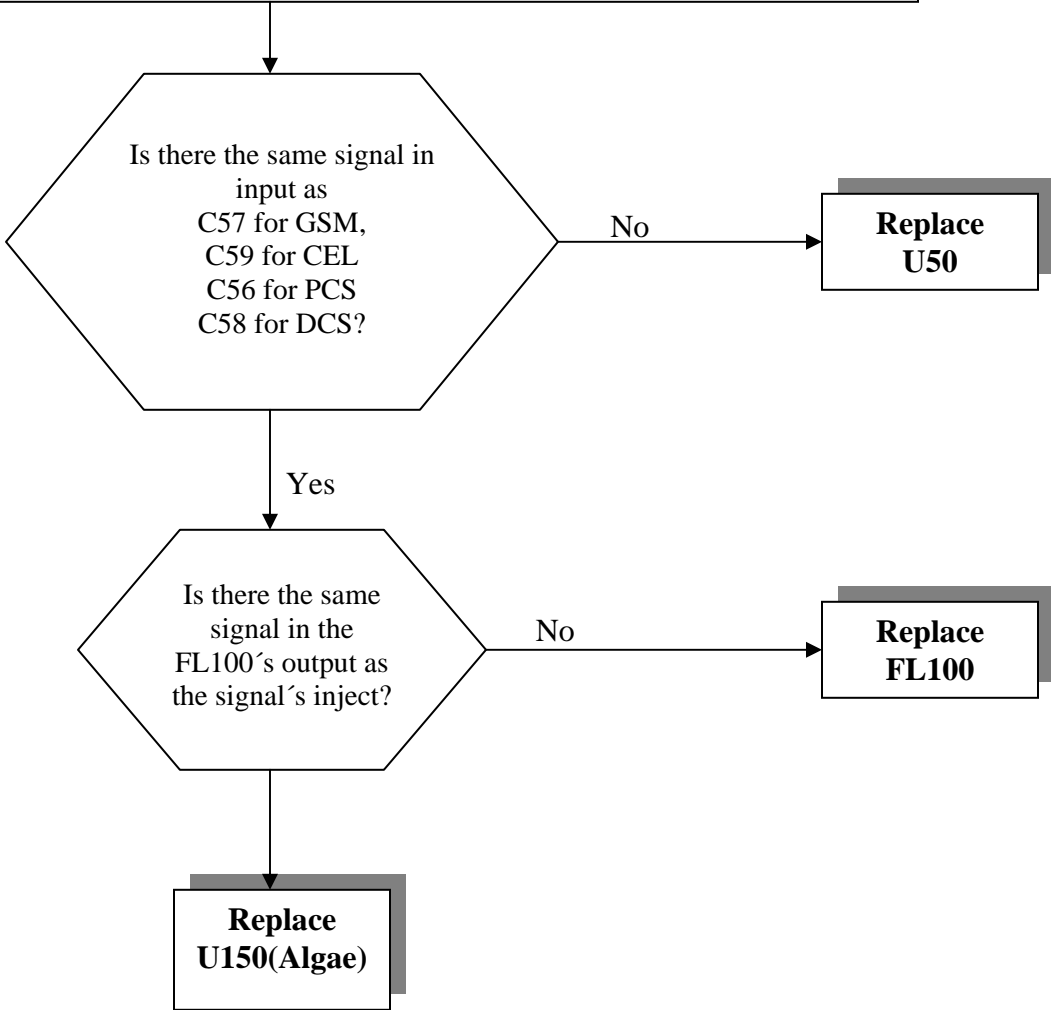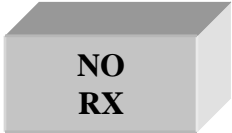- Set channels (accordingly to band selected) with Radiocomm.

Connect the PCB to Radiocomm with USB´s cable: 5-00-74-10000 and supply it with external supply (4.2 v)
Put it to transmit with 10 of LEVEL PA and select
00- All zeroes, in window CARRIER, select the band and channel.

No Tx

Measure in J1´s output. Is there the Tx signal with 11dBm power? → No → Measure in J1´s input. Is there the Tx signal with 12dBm power? → Yes → Replace J1

No

Yes

Measure in (U50) PA´s input. Is there the Tx´s signal with -8dBm? → Yes → Measure in (U50) PA´s output. Is there the Tx´s signal with 12dBm? → No → Replace U50(PA)

No

Is there in L181 TX_CP´s signal? → Yes → Replace U150 (Algae)

No

Replace U800(Neptune) and U700 (Flash/Sram)

NO
RX

Use this procedure to set Tx in any band (GSM, DCS, etc). Main
difference between setting bands is:
-    Set band with Radiocomm.
-    Set channels (accordingly to band selected) with Radiocomm.
Connect the PCB to Radiocomm with USB´s cable: 5-00-74-10000 and
supply it with external supply (4.2 v)
Inject a signal (-50 dBm GSM channel or -50 dBm DCS cannel) to
external connector (J1).

Is there the same signal in
input as
C57 for GSM,
C59 for CEL
C56 for PCS
C58 for DCS?

No → **Replace U50**

Yes

Is there the same
signal in the
FL100´s output as
the signal´s inject?

No → **Replace FL100**

Replace U150(Algae)

MOTOROLA

**Procedure
flash´s replace**

**"Invalid
Battery"**

FOLLOW THIS PROCEDURE TO REPLACE THE FLASH AND MICROPROCESOR

REQUIREMENTS: FOR THIS PROCEDURE WE USE,
WINDOWS 2000, PST 6.8 AND RADIOCOMM 7.1.1 ALWAYS

1. - Download this software with this cable P/N: 5-00-74-10000

TRIPLETS_G_0B.08.8F9R_RFO_RFDI_image.shx.

2. - To restore the BD Address (Bluetooth Device Address), with Radiocomm 7.1.1
- Put the PCB in suspend mode.
- Click in "GSM 2"
- In STELEM/RDELEM write that information:

Bluetooth Address Element ID	00AB
Record #	0001
Record Offset	0000
Length	0006
Data	XXXXXXXXXXX *Note

*Note: BD ADDR, can be found at approval label on the rear housing. BD ADDR is unique to each phone.
-Click on STELEM

3.- Then restore IMEI, with Radiocomm 7.1.1:
- Put the PCB in suspend mode.
- Click in "GSM 2"
- In STELEM/RDELEM write that information:

Element ID	0004
Record #	0001
Record Offset	0000
Length	0009
Data	xxxxxxxxxx IMEI *Note

*Note: Example for writing an imei:

Pcb´s Imei   3 5 0 9 0 7 2 0 8 0 6 3 0 5 9

For write in Data: 0 8 3 A 0 5 0 9 2 7 8 0 6 0 0 3 9 5
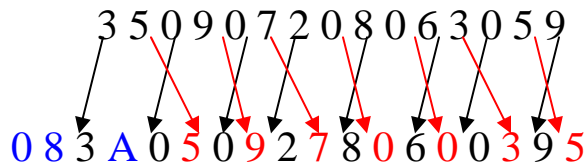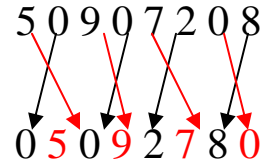
-Click on STELEM

4. - Then restore Subsidy Lock, with Radiocomm 7.1.1:
- Put the PCB in suspend mode.
- Click in "GSM 2"
- In STELEM/RDELEM write that information:

Element ID	0349
Record #	0001
Record Offset	0000
Length	0009
Data	xxxxxxxxxx Subsidy Lock *Note

*Note: Example for writing a subsidy lock:

Pcb´s subsidy lock

5 0 9 0 7 2 0 8

For write in Data:

0 5 0 9 2 7 8 0

-Click on STELEM

5. - Then restore all NVM elements, with Radiocomm 7.1.1

6. - Download this software with this cable P/N: 5-00-74-10000

TRIPLETS_G_0B.09.1DR_reflash.shx

7. - After downloading last software's version, phasing the transceiver with GPGATE and Master Reset and Master Clear.

To read the NVM / Seem Elements from a golden unit:
1. - Connect the transceiver to Internal Radiocomm, INITIALIZE it and SUSPEND it.
2. - Select PHONE and NV/SEEM.
3. - In PRODUCT select the platform.
4. - Select READ.
5. - Save the NVM / elements with a product's name

Recover the reflash

.- This procedure must be used for no power up, power down in standby itself or "blocked", failures.

REQUIREMENTS: FOR THIS PROCEDURE WE USE,
WINDOWS 2000, PST 6.8 AND RADIOCOMM 7.1.1 ALWAYS

1. - Download this software with this cable P/N: 5-00-74-10000 and push keys # and * and the power up.

TRIPLETS_G_0B.09.1DR_reflash.shx

2. - Then restore all NVM elements, with the Radiocomm 7.1.1

3. - After downloading last software's version, phasing the transceiver with GPGATE and Master Reset and Master Clear.