

PAMS Technical Documentation

RAE-2 Series

Chapter 6

Service SW and Tuning Instructions

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Service Software

General

Wintesla software is used to perform service functions of the RAE-2N* PDA. This SW consists of Wintesla service software and product specific DLL's (Dynamically Linked Libraries). Both the CMT (Cellular Mobile Telephone) and the PDA (Personal Digital Assistant) have their own DLL's, but those DLL's are delivered as one SW package. To run WinTesla SW, a parallel port software protection device (PKD-1) has to be connected. TDF-4 box must be connected to PC as described on following pages to perform the CMT flashing functions. If only controls of the CMT and the PDA are necessary, RAE-2N* can be controlled using equipment setup described in the Wintesla RS chapter. The test functions send test messages from PC to MS and receive results and show them in the PC display. The messages to the CMT and the PDA can be sent via DAU-9C cable. The DLR-2 cable can send messages only to the PDA.

Note: if this software is to be run on laptops, the power saving feature MUST be switched off.

Hardware requirements for Windows 3.1x

The recommended minimum hardware standard to run Service Software is any computer which is 386 33 MHz or greater with at least 4 MB of memory and VGA type display (640 x 480). This assumes that only the WinTesla with After Sales Support Modules is active, i.e. other Windows packages are not running in the background.

Hardware requirements for Windows 95

The recommended minimum hardware standard to run Service Software is any computer which has Pentium processor, memory 8 MB and meets HW requirements recommended by Microsoft.

Software Environment of the Support Modules

The Service Software user interface is intended for the following environments: Microsoft Windows 3.1x (enhanced mode) and Windows 95 environment running in enhanced mode. Support for Microsoft NT may be added, if required. Detailed information about Windows and application usage can be found from the Microsoft Windows Version 3.1 Users Guide chapter one (Windows Basics) and chapter two (Application Basics).

As an ordinary Windows application, the main idea in the user interface is that selections are made with menus, push buttons and shortcut keys. Selections can be done by using keyboard and/or mouse. There is always a status bar displayed at the bottom of the main window which contains information about current actions.

Required Servicing Equipment

- Computer: At least IBM 80386 or compatible with one unused serial port (COM1 or COM2)^{*)}, one parallel port (LPT1), hard disk recommended
- Operating System: DOS Version 3.2 or later
- If PCLStart in use: DOS 6.22 and IBM 80486 or compatible
- Display: Any 80–character text display
- Service software version for 3.5” disk (product code: 0774080)

Rest of the needed service equipment depends on what kind of operations service personnel wants to perform. Different configurations are described later in this chapter.

^{*)} Note: A number of PC's of an older generation use the Intel, National Semiconductor, or United Microelectronics IC 8250 as the serial port UART. This is a comparatively inefficient circuit for current purposes and does not necessarily support the M2BUS adapter at 9600 baud. The newer UART's NS16450 and NS16550AF of National Semiconductor offer solutions for these problems.

Installation

Mechanical Connections

Caution: Make sure that you have switched off the PC and the printer before making connections.

Caution: Do not connect the PKD-1 key to the serial port. You may damage your PKD-1 !

The software controls RAE-2N via a separate adapter connected to the serial port of the PC, and to the communicator's bottom connector (DAU-9C cable).

Attach the dongle PKD-1 to the parallel port 1 (25-pin female D-connector) of the PC. When connecting PKD-1 to the parallel port, be sure that you insert the computer side of the PKD-1 to the PC (male side). If you use a printer on parallel port 1, install the PKD-1 between the PC and your printer cable.

The PKD-1 should not affect devices working with it. If some errors occur (errors in printing are possible) please try printing without the PKD-1. If printing is OK without the PKD-1 please contact your dealer. We will offer you a new PKD-1 in exchange for your old one.

The program is delivered on a diskette and is copy protected with a dongle PKD-1. It must be present in parallel port when using Service software.

Installing the software on PC Hard Disk

The program can also be installed on the hard disk, which is recommendable to obtain a maximum data access rate.

Keep the original diskette safe to enable upgrading of the program !

If you plan to use PCL Start service software, you must install it before installing Service software, see PCL Start installation instructions.

To install the new Service software program, follow the steps below:

-
1. insert the new Service software diskette into drive A: of your computer
 2. start Windows, and open File Manager
log into drive a: *type A: and press <Enter>*
 3. start INSTALL.EXE and *type C: and press <Enter>*
install Service software to drive C:

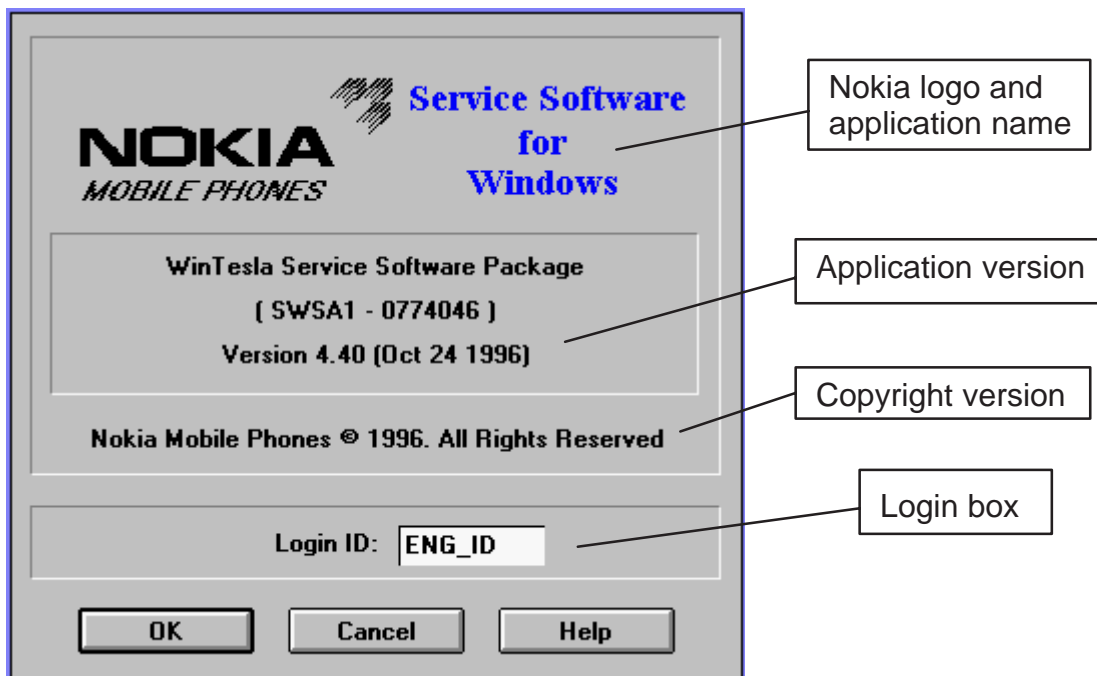
To install product specific DLL's, take your RAE-2N DLL disks, and repeat the steps above.

Common Properties of the User Interface

This chapter describes how the User Interface CLF must appear to the user. The User Interface **MUST** be capable of being driven without the use of a mouse, as the service engineer rarely has space on the bench to use a mouse.

Login Dialog

When the Service Software application is invoked, by checking on the Service Software icon, the **Login** dialog box will be displayed on the screen.



Nokia logo and application name bitmap (–)

Displays Nokia logo and name of the application.

Application version static text (–)

Contains the name and version of the application.

Copyright notice static text (–)

Copyright is informed as: **“Nokia Mobile Phones (c) 1996. All Rights Reserved”**.

Login Box edit box (–)

The user Login ID edit box, where the user enters his faultlog user name. (See Faultlog User Guide)

OK button (default key)

The user name is stored in memory and the dialog box is closed. When the dialog box is closed, the application starts.

Cancel button (ESC)

The Dialog box is closed and application is started, but the Faultlog feature is disabled.

Help button (F1)

Activates the Windows Help application and displays context sensitive Help.

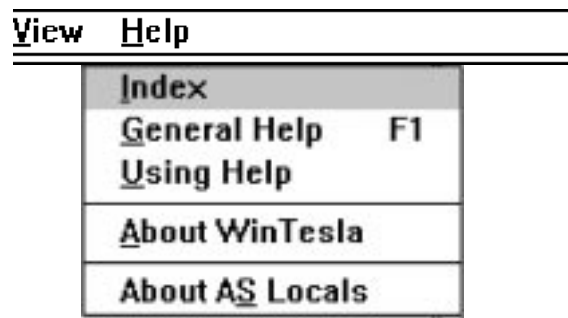
Main Window

When Wintesta opens the basic screen, product specific DLL's must be activated using mouse to select Product → Open

- If you want to control the CMT side, select RAE–2
- If you want to control the PDA side, select RAE2PD

Using Help

When DLL's are active , menu bar contains several items, including help texts, as shown in the picture below.



Instructions for service software use can be found in the help texts. Step by step instructions for complex operations like SW upgrades and tunings can be found in the end of this chapter.

SW Update Concepts

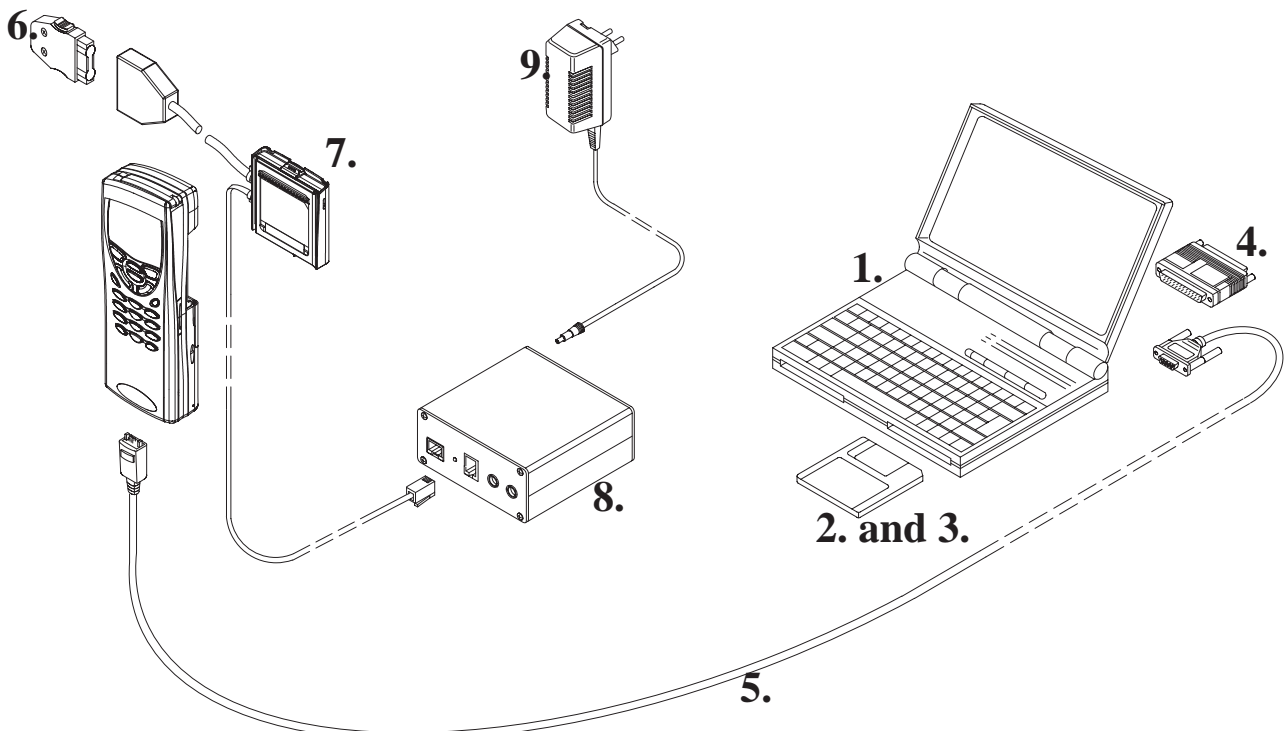
The following lists describe the equipment which can be used in the RAE-2 software update. Nokia RAE-2 contains two main processors, one for the PDA (Personal Digital Assistant) and one for the CMT (Cellular Mobile Telephone). Both of these main processors have their own SW package, and to ensure proper functionality between softwares both the CMT and the PDA SW upgrade must be done.

Service points can perform the PDA SW upgrade only by using WinTesla RS method. the PDA SW upgrade using multimedia card is limited only to services with PKD1-CS or PKD-1NS SW protection key.

NOTE! All power supplies are designed to be used in Finland or in countries with the same voltage (230 AC) and the same AC plug. More information about power supplies with different voltages and plugs will be available later

Equipment for Nokia RAE-2 the PDA Flash programming

Wintesla RS



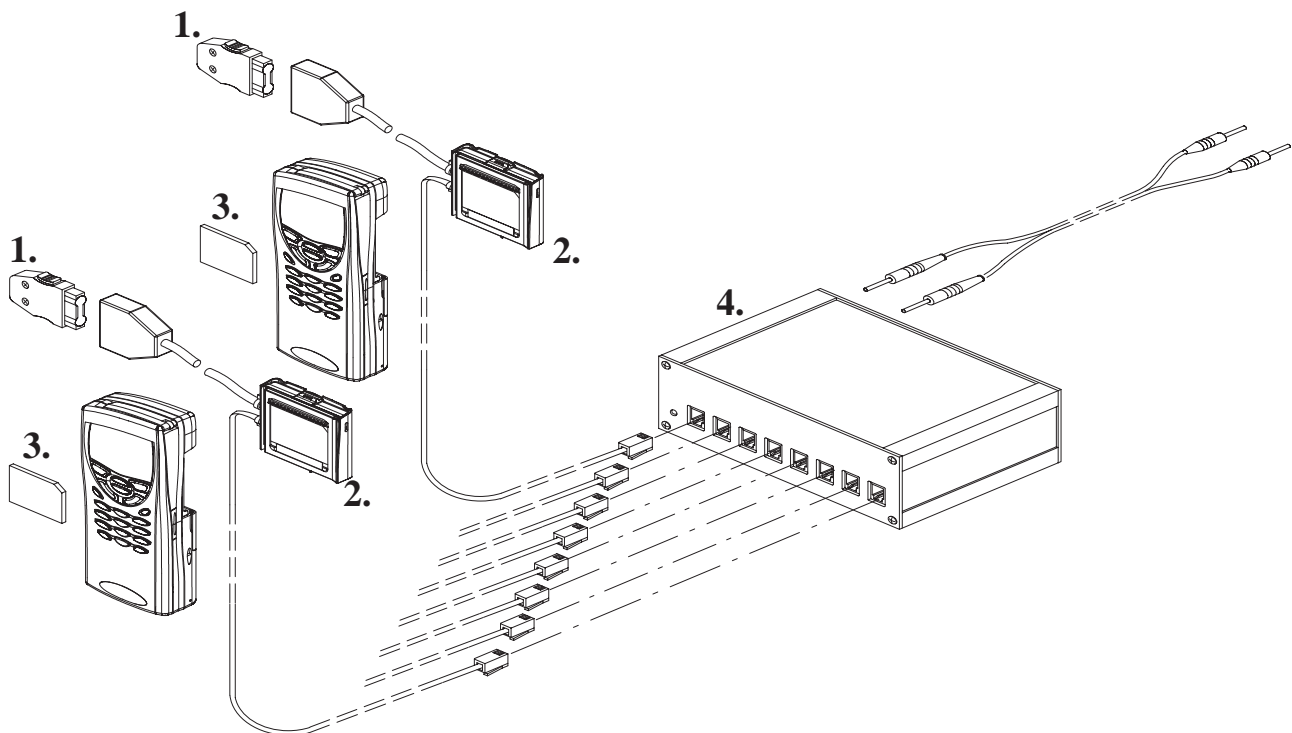
List of required equipment:

Item:	Service accessory:	Product code:
1	PC environment 486 processor or newer WIN3.11/Win 95 (NT is not supported) OS	
2	Wintesla service SW	0774046
3	RAE-2N* Wintesla DLL package	0774126
4	PKD-1 SW protection key	0750018
5	DLR-2 cable or DAU-9C cable	0730138*
6	PKD-4F the PDA Flash programming dongle	
0750124		
7	BBS-5 Service battery	0770117
8	FLA-7 Flash Loading Adapter	0770119
9	ACL-3E power supply (FLA-7's power supply)	0680015

*) Product code for DAU-9C. DAU-9C can control both the PDA and the CMT, DLR-2 can control only the PDA.

Multimedia card

This setup can be used only if you have a PKD-1CS or PKD-1NS SW protection key.



Equipment list

(All product codes on the list include only one piece of equipment)

Item:	Service accessory:	Product code:
1	Eight PKD-4F the PDA Flash programming dongle's	0750124
2	Eight BBS-5 Service batteries	0770117
3	Eight Flash Multimedia cards	4340513
4	One power junction unit JBP-8	0770141
**	One lab. power supply (Output curr. min. 3A, output voltage 4.1 V)	

See details how to create Multimedia cards with the PDA SW upgrade capability in SW update instructions.

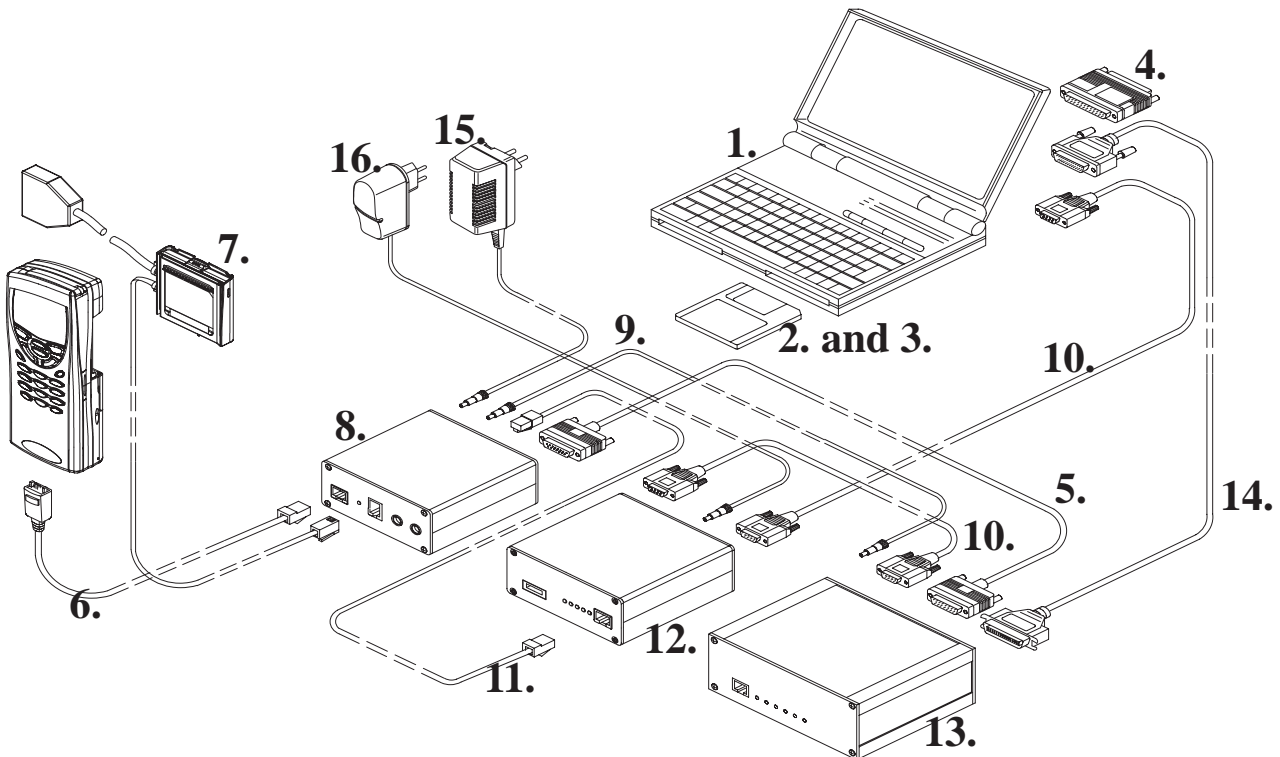
Equipment for RAE-2N the CMT SW Upgrade

Complete Equipment for RAE-2N* the CMT SW Upgrade

NOTE!

If you already have DCT3 SW upgrade equipment and you want to change it to be capable to perform RAE-2N the CMT SW upgrade The you already have most of the equipment on your desk.

The complete equipment list and the list of equipment which is needed to change DCT3 SW upgrade equipment to perform RAE-2N the CMT SW upgrade are illustrated in next two figures.



Complete equipment list

Item:	Service accessory:	Product code:
1	PC environment 486 processor or newer	

WIN3.11/Win 95 (NT is not supported) OS		
2	Wintesla service SW	0774046
3	RAE-2N* Wintesla DLL package	0774126
4	PKD-1 SW protection key	0750018
5	AXS-5 cable	0730091
6	SCH-8 cable	0730137
7	Service battery BBS-5	0770117
8	FLA-7 Flash loading adapter	0770119
9	DC power cable SCF-7	0730141
10	Two AXS-4 cables	0730090
NOTE! One AXS-4 cable included to Flash prommer (FPS-4) sales package		
11	Modular cable XCM-1	4626131
12	Flash security box TDF-4	0770106
	Flash prommer FPS-4 sales package	0085095

The following items are included in FPS-4 sales package:

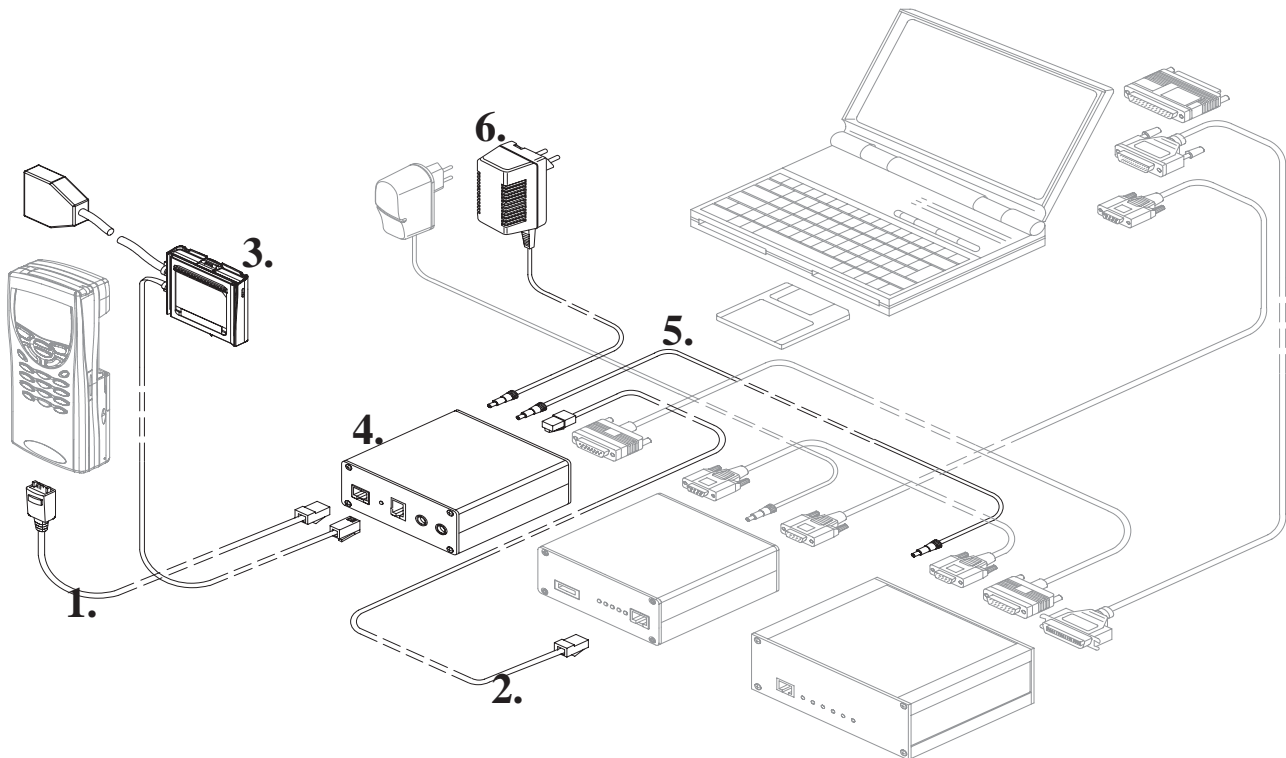
13	FPS-4 Flash prommer	
14	Centronics cable	0730029
15	ACL-3E power supply	0680015

NOTE! FPS-Item 4 Must be ordered with memory extension modules:

	1*SRAM type SF6	0200742
	4*FLASH type SF7	0200743
16	ACH-6E power supply (TDF-4's power supply)	0675084

Upgrade Equipment for RAE-2N* the CMT SW Upgrade

Here is the equipment list in case you already have Nokia 61XX/51XX SW update capability.



Item:	Service accessory:	Product code:
1	SCH-8 cable	0730137
2	Modular cable XCM-1	4626131
3	Service battery BBS-5	0770117
4	FLA-7 Flash loading adapter	0770119
5	DC power cable SCF-7	0730141
6	ACL-3E power supply	0680015
	RAE-2N* Wintesla DLL package	0774126

NOTE ! One ACL-3E is included to Standard (FPS-4) sales package. If FPS-4 has been delivered with other kind power supply then ACL-3E is needed).

Software update Instructions

Previous pages introduced all possible configurations that can be used in RAE-2N* software upgrade. The following chapters contain detailed step-by-step instructions how to perform this upgrade.

In case that equipment is not working properly:

- Check that connections are made according to instructions.
- Switch the power off from the boxes and PC and restart the whole system.
- Clean the contact surfaces.

PDA Software Upgrade

Wintesla RS

Currently the PDA Software upgrade with Wintesla (running on Win95) lasts approximately 8 min 30 sec. If Wintesla is running on Windows 3.11 upgrade time approximately double (18 minutes).

NOTE! Remember to backup user data before SW upgrade. All user data must be removed from the device after SW upgrade. After that user data backups can be restored to the device.

Steps to perform upgrade:

1. Insert service battery BBS-5. Remember to check that the switch on the battery is turned to 'Test' position (Check the label under the battery for position information).
2. Connect PKD-4F to service battery.
3. Connect DLR-2 (or DAU-9C) cable to PC's serial (COM) port.
4. Connect other end of DLR-2 (or DAU-9C) to Nokia 9110 bottom connector.
5. Start Wintesla software.
6. Select 'Open' from Wintesla command menu.
7. Select RAE2PD from the list.
8. Press "OK".
9. Update settings:
 - 9..a Speed: 115200 (If Wintesla is running in WIN3.11 then use: 57600).
 - 9..b Port: Com1 (or 2 depending of your setup).
 - 9..c Choose RS protocol.

10. Press "OK".
11. Insert Service battery's power cable to FLA-7.
12. Once Wintesla informs "the PDA responding in BIOS mode" press ok. Otherwise press "cancel" and start again from step 9.
13. Select memory -> SW update.
14. Select wanted image (*.hdr).
15. Press ok.
16. Once programming is done service SW will prompt ' SW update successful'. Cables can now be disconnected.
17. Now the PDA software is updated. Format the file system by pressing SHIFT-TAB-F and connect BLN-3 battery at the same time. This will remove all user data from the device.

NOTE: Make sure that backup file you have created is stored in a secure location before formatting file system.

Multimedia card

This procedure is possible only with PKD-1CS or PKD-1NS SW protection key. For security reasons this procedure is not authorized with other PKD-1 SW protection keys.

Creating Flash programming Multimedia card

Note! You need to have PC which has Wintesla version 3.0 or newer. See chapter 3.3 for information about installation. You also need to have PKD-1 CS/NS SW protection key connected to your PC.

1. Insert empty Flash Multimedia card to RAE-2N* Multimedia card slot
2. Insert service battery. Remember to check that Testmode switch is turned to Testmode position (Check the label under the battery for position information).
3. Connect DLR-2 (or DAU-9C) cable to PC's serial (COM) port.
4. Connect other end of DLR-2 (or DAU-9C) to RAE-2N* bottom connector.
5. Start Wintesla software from Windows desktop.
6. Select Product -> Open from Wintesla command menu.
7. Select RAE2PD from the list.
8. Press ok.
9. Update settings:
 - 9..a Speed: 115200 (If Wintesla is running in WIN3.11 then use: 57600).

- 9..b Port: Com1 (or 2 depending of your setup).
- 9..c Use RS protocol.
10. Press ok.
11. Insert Service battery's power cable to FLA-7.
12. Once Wintesla informs "the PDA responding in BIOS mode" press ok. Otherwise press "cancel" and start again from step 9.
13. Select memory → Write Memory Card from menus.
14. Choose correct Multimedia card image file and press OK.
15. Select Memory→Update Memory Card NMP ID
16. Disconnect Multimedia card.

the PDA SW Update with Multimedia card

NOTE! Remember to backup user data before SW upgrade. All user data must be removed from the device after SW upgrade. After that user data can be restored to the device.

1. Insert Multimedia card to RAE-2N* Multimedia card slot.
2. Insert service battery BBS-5.

NOTE! Check that the switch on BBS-5 is turned to 'Normal' position (Check the label under the battery for position information)

3. Connect PKD-4F dongle to BBS-5 Service Battery.
4. Connect BBS-5 Service Battery power cable to Power Junction Unit JBP-8 or to flash loading adapter FLA-7.
5. Programming starts automatically and will last approximately 2 minutes .
6. Once programming is done remove all user generated data from the device by pressing SHIFT-TAB-F.

NOTE: Make sure that backup file you have created is stored in a secure location before formatting file system.

the CMT Software Upgrade

General

the CMT software upgrade is currently possible only by using software upgrade equipment described earlier.

Equipment Setup instructions

1. Once TDF-4 box is first time used it has to be activated according to instructions which come inside the TDF-4 package.
2. Connect boxes, cables and PC according to connection drawing (Appendix).
3. Install FPS4 Prommer SW (release 2.00 or newer) Installation diskettes (Product code 8400041) come with FPS-4S (Sales pack)
4. Run setup (type "setup .").
5. Answer setup program's questions according to your environment.

Setting up the PC

1. Install WinTesla (version 5.31 or newer, rather at least 5.34) Floppy disks can be ordered with product code 0774046
2. Install dongle drivers (combined Win3.1x, 95 and NT)
http://casw-www.ca.nmp.nokia.com/swline/WinTesla/wt_dngl.htm
3. Install the CMT & the PDA DLL's
Order 3.5" floppy disks using product code 0774126

Programming with Wintesla interface

When the system has been set up, SW upgrade can be preformed according to following instructions.

1. Insert BBS-5 service battery. Remember to check that switch on the battery is in 'Test' position (Check the label under the battery for position information).
2. Connect SCH-8 cable to FLA-7's "service cable" connector.
3. Connect power cable to FLA-7's "service battery communicator" connector.

4. Connect SCH-8 cable to N9110's bottom connector by using bottom connector adapter.
5. Turn the CMT on by pressing power button.
6. Start Wintesla software.
7. Select Product → Open → RAE2.
8. Press F5 to initialize phone in local mode.
9. Select Software → Flash Phone.
10. New dialog opens.
11. Select software image: Press "Load image" button.
12. Select PPM image: Press "Load PPM" button.
13. Check from the PDA display that Relink –connection is ready.
14. Press "Flash" button.
15. Once program is prompting for restoring user data choose either YES or NO.

NOTE! If you select YES user data (the CMT profile settings, Voice mail number, Welcome graphics, dealer&operator setting and divert number settings) will be saved to file.

16. Programming starts.
17. When service SW asks you to check that phone is on, switch the phone on if necessary.
18. Flash authority ID, Factory setup values and user settings (optional) are updated.
19. After flash programming completed message you can close the flash dialog.
20. Disconnect Nokia 9110.

Troubleshooting for the CMT SW upgrade

If something went wrong during flashing:

1. Switch the phone on and scan the CMT with CTRL-R.
2. Flash again without restoring user settings.
3. Restore user settings that were read during first attempt by using 'Dealer→SCM&User settings' Select file with "Select File" button and then press 'Save' button.

If you have a dead the CMT:

1. Do not try to switch phone on.
2. Use Product→Open→RAE-2. Wintesla will prompt you 'Found COMBOX without phone, open flash only menu?' Answer Yes and then use Software →Flash Phone.

3. This time user settings can not be read. After flashing 'Restore Default User Settings' dialog is opened and you can select which default settings you want to download to the CMT.
4. Later you can use 'Dealer->SCM&User settings' to return your the CMT settings if you have earlier saved them to a file. the CMT settings can be saved by using 'Dealer->SCM&User settings' and 'Read Phone' button.

RF Tuning Instructions

General

All tuning operations of the RAE-2 are carried out using the service software. The service software turns the phone into the locals mode, in which the phone can be outwardly controlled via the MBUS interface. This MBUS interface can be found from the bottom of the phone.

Tuning is based on the software communicating with the D/A and A/D converters of the phone. In some instances the phone processor will also calculate the required correction parameter.

The tuning values of the phone reside on the EEPROM. The contents of the EEPROM can be read by the service software and saved as a file. This is advisable when there is need to retain that information, e.g. in view of replacement of the circuit. The program also enables writing the default parameters on the EEPROM, in which case all tuning steps should be carried out.

During tuning, proceed as follows:

- Take care not to damage sensitive measuring instruments with excessive RF power.
- Carry out all tuning steps in the shortest possible time to avoid excessive heating of RF units.
- Perform all tuning steps in the order presented.
- Never try to mask a fault by tuning it out!

Required Equipment

- PC/AT computer with service software; see separate section for instructions on installation and use.
- Service accessories; see equipment setup lists.
- Multimeter or DVM.
- GSM radio telephone test station or separate measuring equipment as follows:
 - RF generator
 - pulse power meter
 - spectrum analyzer
 - attenuator and branching unit

Equipment Setup

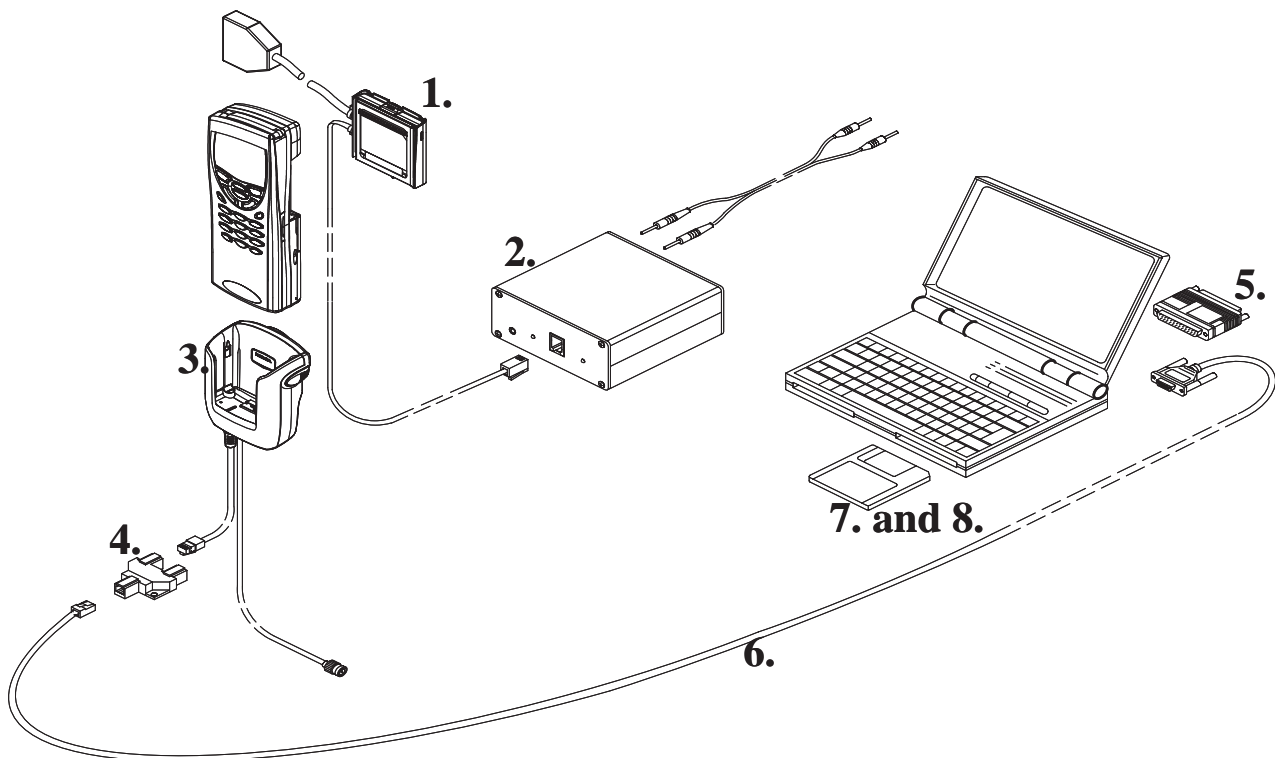
Caution: Make sure that you have switched off the PC and the printer before making connections !

Caution: Do not connect the PKD-1 key to the serial port. You may damage your PKD-1 !

Attach the protection key PKD-1 to parallel port one (25-pin female D-connector) of the PC. When connecting the PKD-1 to the parallel port be sure that you insert the PC end of the PKD-1 to the PC (male side). If you use a printer on parallel port one, place the PKD-1 between the PC and your printer cable.

Next see the following lists for correct equipment. Different equipment is needed when tuning phone without removing covers or when tuning phone with covers removed.

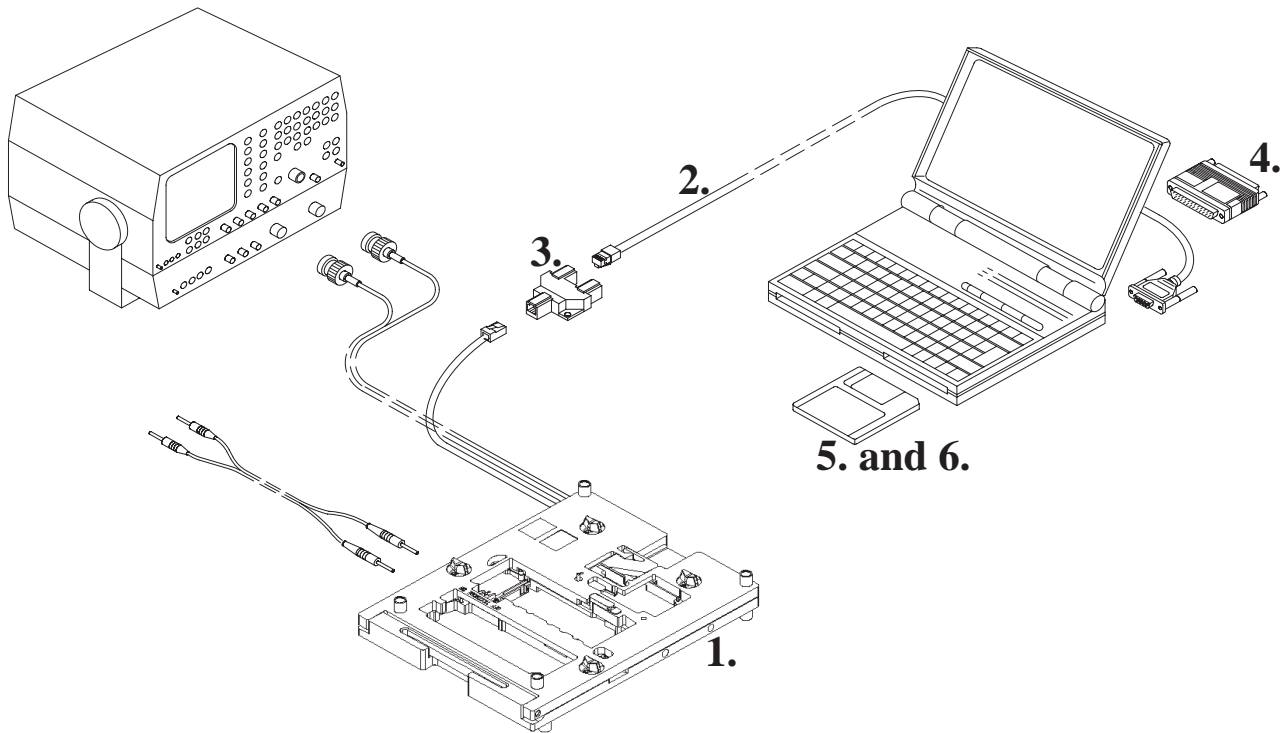
Equipment Setup for RF Tuning RAE-2 Phone Without Removing Covers



Item:	Service accessory:	Product code:
1	Service battery BBS-5	0770117
2	Calibration Unit JBE-1 (*)	0770118
3	Service Car Kit HCR-2	0770146
4	Modular T-adaptor	4626134
5	Software protection key PKD-1	0750018
6	MBUS cable DAU-9S	0730108
7	Wintesa Service SW	0774060
8	WinTesla product specific DLL's for RAE-2N*	0774126
**	Laboratory power supply 3A/12V (adjustable)	

*) Never use FLA-7 for tunings.

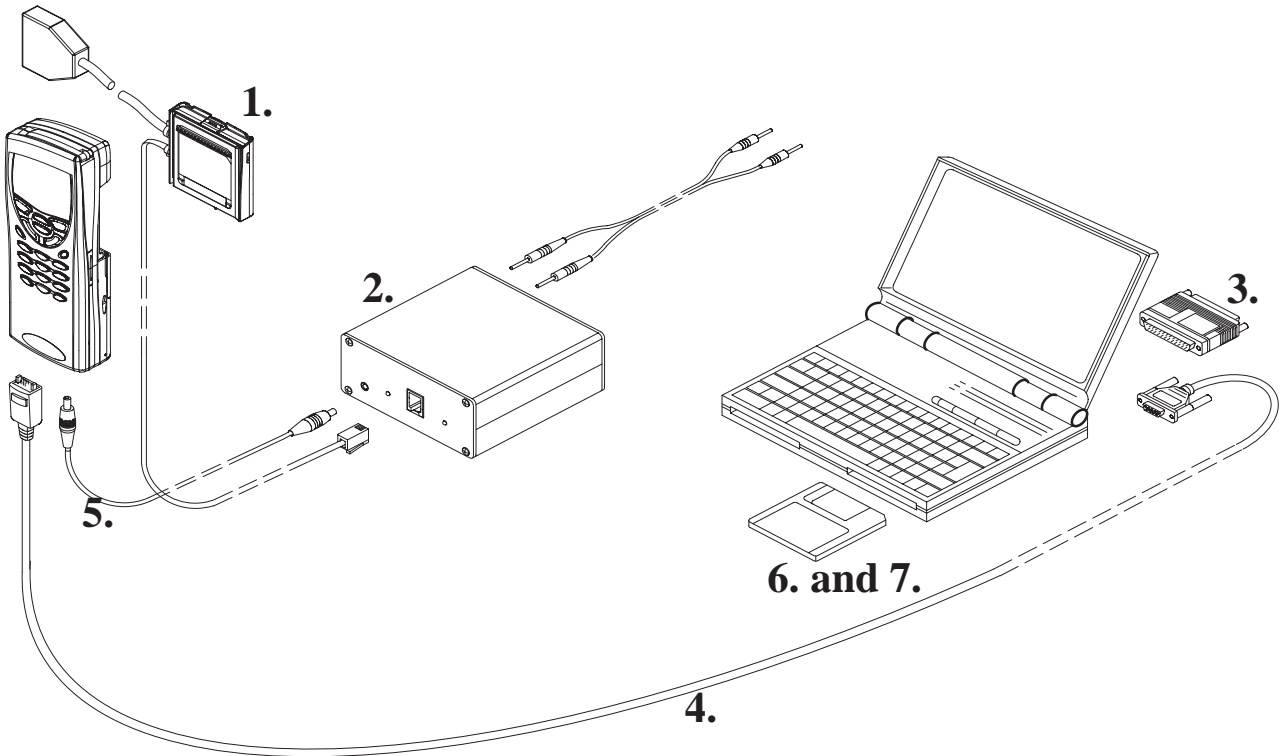
Tuning RF with covers Off –using Module Jig MJS-4



Item:	Service accessory:	Product code:
1	Module Jig MJS-4	0770116
2	MBUS cable DAU-9S	0730108
3	Modular T-adaptor	4626134
4	Software protection key PKD-1	0750018
5	Wintesla Service SW	0774046
6	WinTesla product specific DLL's for RAE-2N*	0774126
**	Laboratory power supply 3A/12V (adjustable)	

Tuning EM without removing covers

NOTE: EM values can not be tuned in module jig MJS-4



Item:	Service accessory:	Product code:
1	Service battery BBS-5	0770117
2	Calibration Unit JBE-1	0770118
3	Software protection key PKD-1	0750018
4	MBUS cable DAU-9C	0730138
5	DC cable SCB-3	0730114
6	Wintesa Service SW	0774046
7	WinTesla product specific DLL's for RAE-2N*	0774126
**	Laboratory power supply 3A/12V (adjustable)	

Tuning Steps

RX Calibration (AGC + AFC)

Reference values for the received signal strength meter are program tuned.
RSSI reference signal level programming:

- Select *Tuning* → *RX Calibration*
- Connect RF generator to service jig antenna connector at 947.067710 MHz.
- Adjust signal generator level to –55 dBm + cable attenuation.
- Press *OK* button
- Adjust signal generator level to –80 dBm + cable attenuation.
- Press *OK* button.

Service software reports:

A Table of AFC Parameters:

AFC INIT Value
AFC Slope
PSW Slope

A Table for AGC Calibration:

AGC in 3 db steps 0...57 dB
DAC and voltage reading for each gain value

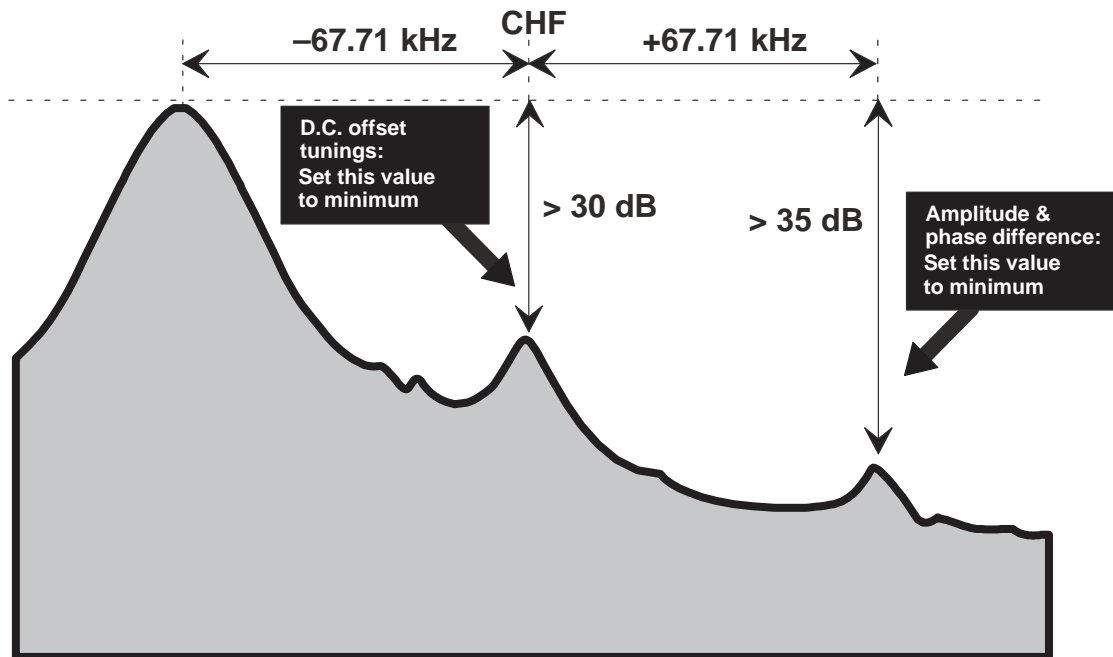
- Press *SAVE* button

I/Q Modulator Amplitude Balance and Phase Shift Tuning

The purpose of this tuning operation is to adjust the I/Q modulator d.c. offsets and the I/Q modulator amplitude balance and phase shift.

I/Q modulator d.c. offsets, amplitude balance and phase shift tuning:

- Select *Tuning* → *TX I/Q...*
- Select I/Q tuning values from PC's memory, phone's EEPROM or factory default values.
- Connect spectrum analyzer (with attenuator if needed) to service jig antenna connector.
- Check that TX power level is level 10, channel is 60 and TX data type is 1.
- Adjust spectrum analyzer centre frequency to 902 MHz, Span 200 kHz, Res BW 10 kHz, Video BW 1 kHz and Sweep time 0.5 s.



- Select the "TX I d.c. offset" option.
- Adjust the level of centre frequency (CHF signal) to minimum by varying D/A converter value with <- and -> buttons.
- The amplitude difference between CHF-67.7 kHz and CHF should be >30 dB.
- Select option "TX Q d.c. offset".
- Adjust the level of signal CHF to minimum by varying D/A converter value with <- and -> keys.
- Use the "Amplitude Difference" option.
- Adjust the level of signal CHF+67.7 kHz (902.06777 MHz) to minimum by varying D/A converter value with <- and -> keys.
- The amplitude difference between CHF+67.7 kHz and CHF-67 kHz should be >35 dB.
- Select the "Phase Difference" option.
- Adjust the level of signal CHF+67.7 kHz to minimum by varying D/A converter value with <- and -> keys.
- When values are correct press *SAVE* button.

Tuning of Transmitter Power Levels

This adjustment loads the power levels of the phone transmitter into the EEPROM. When doing this, a pulse power meter or spectrum analyzer must be used.

Power levels programming:

-
- Select *Tuning* → *TX Power...*
 - Select I/Q tuning values from PC's memory, phone's EEPROM or factory default values.
 - Set power supply voltage 3.7 V to module jig (MJS-4). When tuning without removing covers, supply 7.0V to JBE-1.
 - Connect pulse power meter or spectrum analyzer to antenna connector.
 - Check that channel is 60.
 - Adjust the power level (levels 5, 15 and 19) by clicking the + and – buttons, and change levels with ↑ and ↓ keys.

Power level	Tuning P _{OUT} /dBm (CH 60)
5	32.7
15	13.0
19	7.0
Base	–25.0

Note: If the base calculation feature is enabled, then the base level is calculated automatically.

- Press *Calculate* button to calculate all other levels.
- Once all TX levels are correct, press *SAVE* button.

Energy Management Calibration

NOTE: This can not be done in module jig MJS-4. EM calibration is possible only when phone is completely assembled.

- Connect DAU-9C cable and BBS-5 battery to RAE-2N phone
- Connect BBS-5 to the calibration unit JBE-1 and DC cable SCB-3 between phone and calibration unit.
- Connect JBE-1 to laboratory power supply which is adjusted to 7.0V
- Start Wintelsa service SW
- Select Tuning → Energy Management Calibration
- Run calibrations separately or all at once as described in the following list. Connect 10.5V to the calibration unit JBE-1 as prompted by service SW.
- Select calibrations:

Battery & charger default values

- Select 1. Run Battery & charger default values checkbox

Battery voltage

- Select 2. Battery voltage checkbox

Charger voltage

- Select 3. Charger voltage checkbox

Battery size

- Select 4. Battery size checkbox

Battery temperature

- Select 5. Battery temperature checkbox

Charge current

- Select 6. Charge current
- Select Save without confirmation, if you don't want confirm all the selected calibration values before saving
- Run calibrations by pressing Run button
- Set supply voltage back to 7.0 V

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