# Nokia Customer Care NHL-9, RM-69 Series Transceivers

# **5 - Service Tools**

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### JBV-1 Docking Station and DA-6 Adapter

The JBV-1 docking station has been designed for calibration and software update purposes. The DA-6 docking station adapter establishes signal connections to the phone. JBV-1 and DA-6 are used as one unit.

#### JBV-1 main electric functions include:

- adjustable VBATT calibration voltage, current measurement limit voltage "VCHAR", current measurement calibration current "ICHAR"
- adjustable ADC calibration voltage via BTEMP and BSI signal
- BTEMP and BSI calibration resistor

In calibration mode JBV-1 is powered by external power supply 11–16V DC. In flashing power for the phone can be taken from FPS-8.

### DA-6 docking station adapter

DA-6 is a docking station adapter for assembled NHL-9 phones. DA-6 supports testing, flashing, energy management calibration. If used together with SA-15, also RF function testing is possible.

#### DA-6 main features include:

- compatibility with JBV-1
- easy phone attachment and detachment
- reliable phone locking
- switch for reliable detection of phone attachment
- replaceable test pins
- internal SIM holder with interface to phone SIM reader

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### View of JBV-1



View of DA-6



### SA-15 Antenna Coupler

RF antenna coupler is used together with DA-6 docking station adapter. When used with DA-6, SA-15 enables RF function tests in GSM bands 900, 1800 and 1900 MHz.

#### SA-15 features include:

- easy attachment to DA-6 without the use of any additional tools
- RF connection to phone under test

#### View of SA-15



### MJ-5 Module Test Jig

Module test jig MJ-5 is designed for TB6 module testing. It can be used for flashing and RF-, battery-, system-, radio- and SIM reader testing.

#### View of MJ-5



The nominal supply voltage for MJ-5 is 4-12 VDC.

Note! Never insert or detach the TB6 module when the supply voltage is connected to the module test jig!

### **RJ-4 Soldering Jig**

RJ-4 soldering jig is used for soldering and as a rework jig for TB6 module.

### View of RJ-4



### SS-49 Camera Tool

The camera removal tool SS-49 is used to remove the camera from its locking connector.

### View of SS-49



## SS-14 Domesheet Assembly Jig

SS-14 domesheet is a jig for domesheet assembly. It is used for the right-hand side qwerty-keyboard.

### View of SS-14



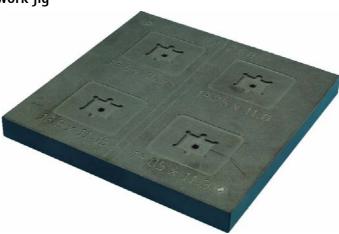
### SES-3 Rework Kit

The SES-3 rework kit is used for PA Chip (LGA type component) rework and includes rework Jig MJS-76, SES-3 stencil and SPS-1 soldering paste spreader.

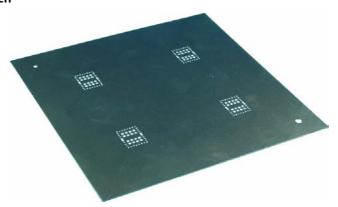
The sales pack includes:

- MJS-76 rework Jig
- SES-3 stencil
- SPS-1 soldering paste spreader

### View of MJS-76 rework jig



### View of SES-3 stencil



### FPS-8 Flash Prommer (Sales Pack)

The flash prommer FPS-8 is used with e.g. DA-6 and JBV-1. Power is supplied to FPS-8 from the universal power supply.

The sales pack includes:

- FPS-8 flash prommer
- FPS-8 activation sheet
- Universal power supply
- AXS-4 service cable (D9-D9)
- Printer cable

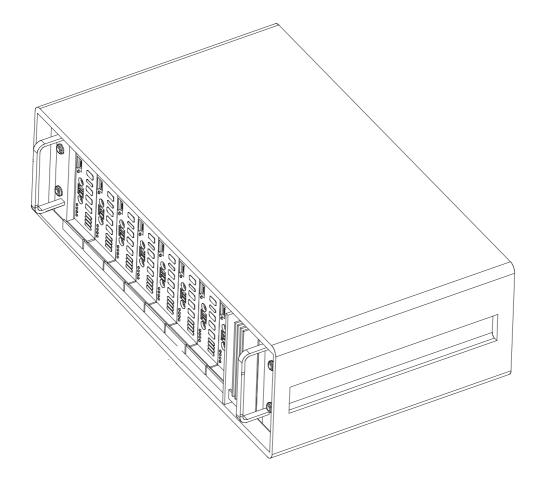
#### View of FPS-8



### FPS-8C Parallel Flash Prommer (Sales Pack)

The parallel flash prommer FPS-8C is used with DA-6 and JBV-1. With FPS8C, flash programming can be done to a maximum of 8 phones. FPS-8C consists of eight SF11C programming cards. SF11C card is functionally identical to FPS-8.

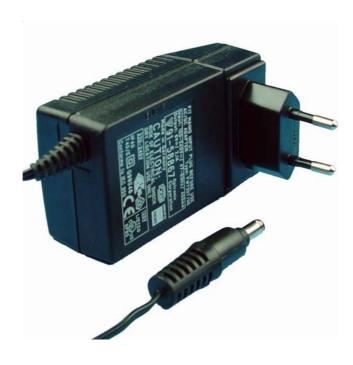
#### View of FPS-8C



### **ACF-8 Universal Power Supply**

ACF-8 universal power supply is used to power FPS-8. ACF-8 has 6 V DC and 2.1 A output.

### View of ACF-8



### SF-5 POS (Point Of Sales) Flash Adapter

SF-5 POS flash adapter is used in POS (Point of Sales) environment for software updating. It provides controlled supply voltage and necessary connections between the phone and the flash prommer. It substitutes for the phone's standard battery during the software update.

#### View of SF-5

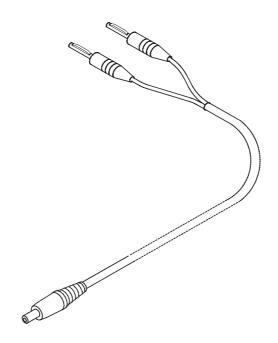


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### FLC-2 DC Cable

The FLC-2 is used to supply an operating voltage to SF-5 POS adapter when used with the FPS-8 flash prommer.

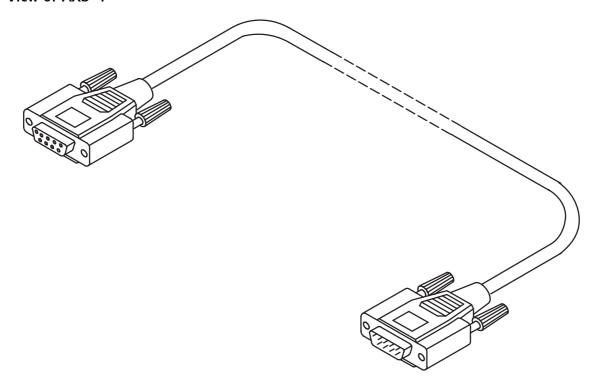
#### View of FLC-2



### **AXS-4 Service Cable**

The AXS-4 D9-D9 service cable is used to connect two 9 pin D connectors e.g. between PC and FPS-8. Cable length is 2 meters.

### View of AXS-4



### XCS-1 Service Cable

The XCS-1 service cable is used to connect FLS-4S to SF-5.

### View of XCS-1



### PKD-1 SW Protection Key

SW protection device (dongle) is a piece of hardware enabling the use of the service software when connected to the parallel (LPT) port of the PC. Without the dongle it is not possible to use the service software. Printer or any such device can be connected to the PC through the dongle if needed.

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

making connections!

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

### View of SW protection device



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### FLS-4S POS (Point Of Sales) Flash Prommer (Sales Pack)

FLS-4S is a dongle and flash prommer incorporated into one package, developed for POS use.

#### View of FLS-4S



### **PCS-1** Power Cable

The PCS-1 power cable (DC) is used to e.g. connect JBV-1 to FPS-8 or MJS-5 to external power supply.

### View of PCS-1



### XRF-1 RF Cable

RF cable XRF-1 is used to connect e.g. the module jig MJ-5 to RF measurement equipment.

### View of XRF-1



### **DAU-9S MBUS Cable**

The MBUS Cable DAU-9S has a modular connector, and it is used between PC's serial port and e.g. module jig MJ-5.

### View of DAU-9S



### CA-55 DC Cable

The DC Cable CA-55 is used to connect e.g. JBV-1 to the phone charging connector during energy management calibration. The older SCB-3 cable can be used for this purpose as well.

#### View of SCB-3



### XCS-4 Modular Cable

XCS-4 is a shielded cable modular cable for flashing and service purposes.

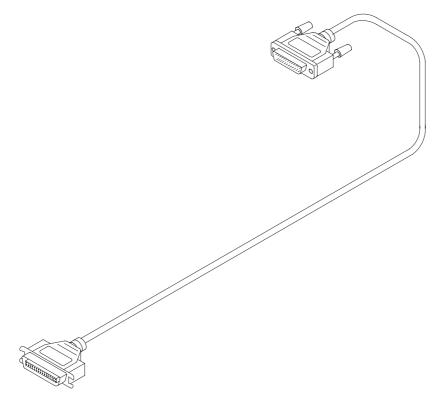
### View of XCS-4



### **Printer Cable**

This cable is used to connect the PC to FPS-8.

### View of printer cable





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