# PAMS Technical Documentation NPM-9 Series Transceivers

# **Service Tools**



# **CONTENTS**

JBV-1 Docking Station and MJF-6 Adapter	4
RF-Coubler CPL-4: measured losses	5
Product Code	5
View of JBV-1 and MJF-6 together	5
MJS-46 Module Jig	6
Product Code	6
View of MJS-46	6
MJS-47 Soldering Jig	7
Product Code	7
View of MJS-47	7
LRK-1 Rework Kit	8
Sales package code	8
View of MJS-54 and SES-1	8
FPS-8 Flash Prommer (Sales Pack)	9
Sales package code	9
View of FPS-8	9
FPS-8C Parallel Flash Prommer (Sales Pack) - optional	10
Sales package code	10
View of FPS-8C	10
ACF-8 Universal Power Supply	11
Product Code	11
View of ACF-8	11
FLA-18 POS (Point Of Sale) Flash Loading Adapter	12
Product Code	12
View of FLA-18	12
FLC-2 DC Cable	13
Product Code	13
View of FLC-2	13
AXS-4 Service Cable	14
Product code	14
View of AXS-4	14
XCS-1 Service Cable	15
Product code	15
View of XCS-1	15
SW Security Device PKD-1	16
Product Code	16
View of SW Security Device	16
FLS-4 POS (Point Of Sale) Flash Device (Sales Pack)	17

Product Code	17
View of FLS-4	17
PCS-1 Power Cable	18
Product Code	18
View of PCS-1	18
XRF-1 RF Cable	19
Product code	19
View of XRF-1	19
DAU-9S MBUS Cable	20
Product Code	20
View of DAU-9S	20
SCB-3 DC Cable	21
Product Code	21
View of SCB-3	21
XCS-4 Modular Cable	22
Product code	22
View of XCS-4	22
Printer Cable	23
Product code	23
View of Printer Cable	23

## **JBV-1 Docking Station and MJF-6 Adapter**

The JBV-1 Docking Station has been designed for calibration and software update use. The MJF-6 Docking Station Adapter makes signal connections to the phone. JBV-1 and MJF-6 are used as one unit.

JBV-1 main electric functions are:

- 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
- signals from FBUS to the phone via parallel jig
- control via FBUS or USB
- Flash OK/FAIL indication

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 or external power supply 11-16V DC.

MJF-6 main electric functions are:

- phone recognizing from BTEMP
- filters of FBUS signals
- SIM CARD reader

#### RF-Coubler CPL-4: measured losses

Rohde & Schwarz CMU 200 Phoenix Service Software

Estimated Output levels: EGSM 32 dBm and GSM1800 29dBm

#### EGSM GSM1800

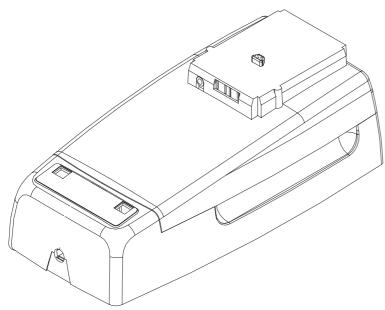
Ch	Loss		Ch	Loss	
	TX	RX		TX	RX
975	6.1 dB	5 dB	512	3.7 dB	3 dB
31	5.1 dB	6 dB	700	3.1 dB	4 dB
124	4.4 dB	6 dB	885	3.0 dB	6 dB

#### **Product Code**

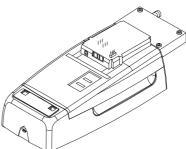
JBV-1 Docking Station: 0770298

MJF-6 Docking Station Adapter: 0770317

#### View of JBV-1 and MJF-6 together



CPL-4 RF-Coupler: 0770343 CPL-4 is used with JBV-1 and MJF-6 for making RF coupler connection from the phone to measurement equipment.



## MJS-46 Module Jig

The MJS-46 Module Jig is used for testing of UI/system/RF-module\*.

#### **Product Code**

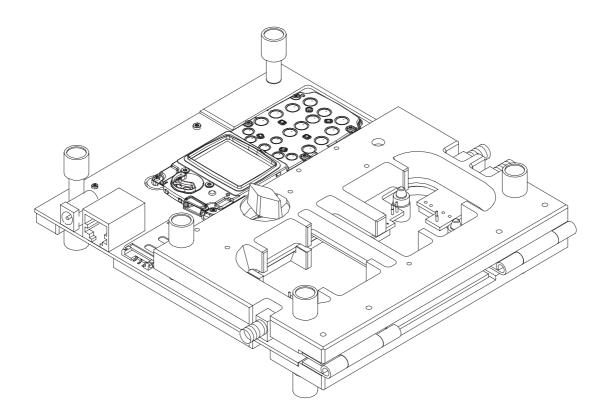
MJS-46 Module Jig:

0770316

NOTE: This jig comes with UI module 9490306 for NHM-7. To be able to service NPM-9, you need UI module 0201817 for APAC and 0201868 for Europe.

When installing the UI module, you need to bend the 2 UI module fixings apart (on both sides of the LCD).

#### View of MJS-46



\*Note: The nominal supply voltage for MJS-46 is +8.0 V.

The supply voltage must not exceed +12.0 V (min 5V).

(MJS-46 has overvoltage protection).

For flashing with FPS-8, it is possible to bypass the regulator

(jumper).

# **MJS-47 Soldering Jig**

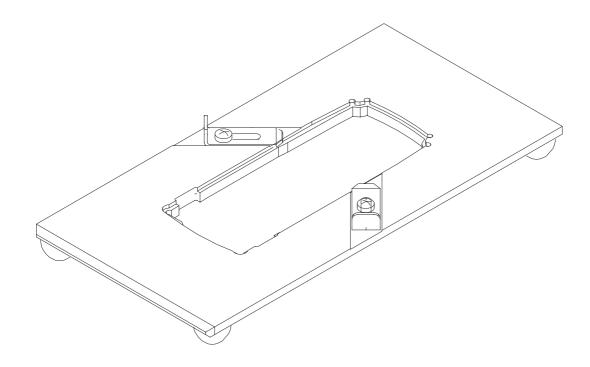
The Soldering Jig MJS-47 is used for soldering and as a rework jig for system module.

# **Product Code**

MJS-47 Module Jig:

0770342

#### View of MJS-47



#### **LRK-1 Rework Kit**

The LRK-1 Rework Kit is used for PA Chip (LGA type component) rework and includes Rework Jig MJS-54, SES-1 Stencil and SPS-1 Soldering Paste Spreader.

The sales pack includes:

MJS-54 Rework Jig: 0770349

SES-1 Stencil: 0770348 SPS-1 Soldering Paste Spreader: 0770381

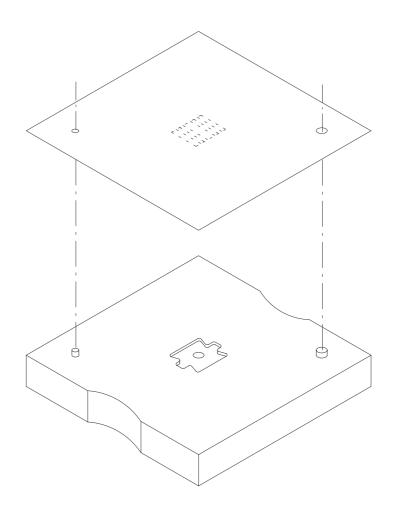
Note: Not included in sales package.

SPI- 1 Soldering Paste Injector 0770380

Sales package code

LRK-1 Rework Kit: 0080465

View of MJS-54 and SES-1



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

The Flash Prommer FPS-8 is used with e.g. FLA-18 and JBV-1. Power is supplied to FPS-8 from the Universal Power Supply.

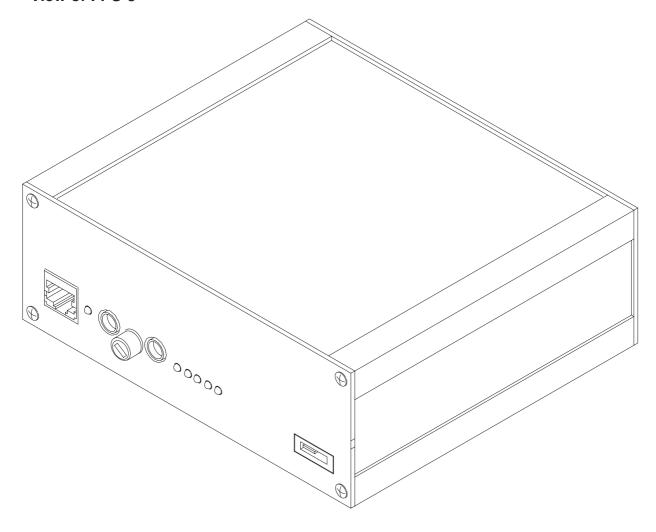
The sales pack includes:

- FPS-8 Flash Prommer	0750123
- FPS-8 Activation Sheet	9359289
- Universal Power Supply	0680032
- AXS-4 Service Cable (D9-D9)	0730090
- Printer cable	0730029

# Sales package code

FPS-8 Flash Prommer: 0080321

#### View of FPS-8





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

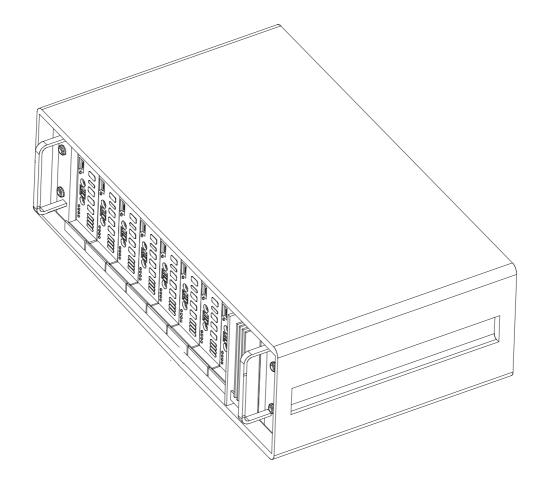
The Parallel Flash Prommer FPS-8C is used with MJF-6 and JBV-1. Flash programming can be done to maximum of 8 phones parallel. FPS-8C consists of eight SF11C programming cards. SF11C card is functionally identical to FPS-8.

# Sales package code

FPS-8C Parallel Flash Prommer:

0080396

#### View of FPS-8C



# **ACF-8 Universal Power Supply**

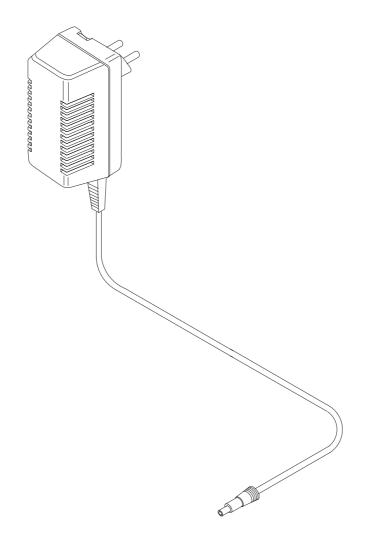
ACF-8 Universal Power Supply is used to power FPS-8. ACF-8 has 6 V DC and 2.1 A output.

#### **Product Code**

ACF-8 Universal Power Supply:

0680032

#### **View of ACF-8**



# FLA-18 POS (Point Of Sale) Flash Loading Adapter

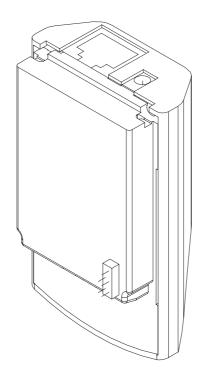
The POS Flash Loading Adapter FLA-18 is used in place of the phone's normal battery during service, to supply a controlled operating voltage.

#### **Product Code**

FLA-18 POS Flash Loading Adapter:

0770318

#### View of FLA-18



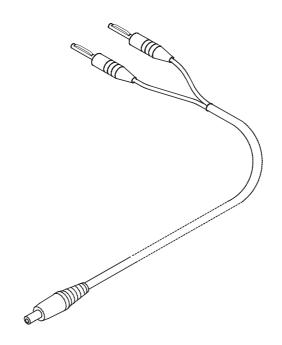
# **FLC-2 DC Cable**

The FLC-2 is used to supply a controlled operating voltage.

**Product Code** 

FLC-2 DC Cable: 0730185

View of FLC-2





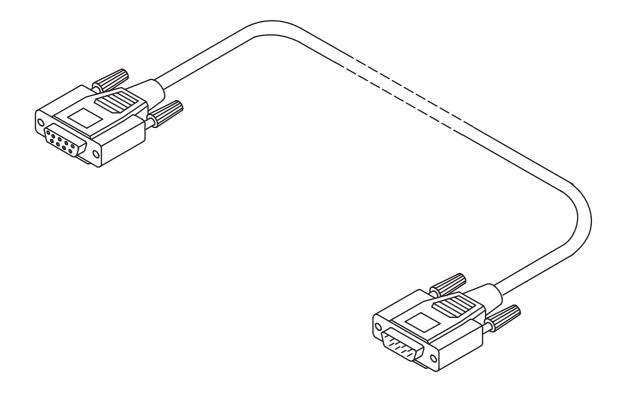
# **AXS-4 Service Cable**

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.

#### Product code

AXS-4 D9-D9 Service Cable: 0730090

#### View of AXS-4



# **XCS-1 Service Cable**

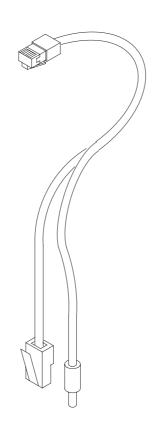
The XCS-1 Service Cable is used to connect FLS-4 to FLA-18.

**Product code** 

XCS-1 Service Cable:

0730218

View of XCS-1



# **SW Security Device PKD-1**

SW security device is a piece of hardware enabling the use of the service software when connected to the parallel (LPT) port of the PC. Whithout the dongle present 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.

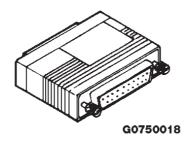
Caution: Make sure that you have switched off the PC and the printer before making connections!

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

#### **Product Code**

SW Security Device PKD-1: 0750018

#### **View of SW Security Device**



# FLS-4 POS (Point Of Sale) Flash Device (Sales Pack)

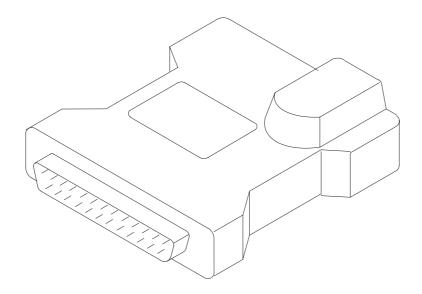
FLS-4 is a dongle and flash device incorporated into one package, developed specifically for POS use.

#### **Product Code**

Sales Pack - Europe/Africa 0081483 Sales Pack -APAC 0081481

Sales Pack - Americas 0081482

#### View of FLS-4



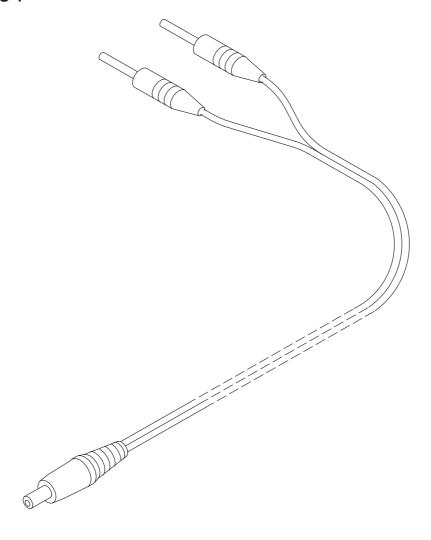
# **PCS-1 Power Cable**

The PCS-1 Power Cable (DC) is used to connect e.g. JBV-1 to FPS-8.

**Product Code** 

PCS-1 Power Cable: 0730012

View of PCS-1



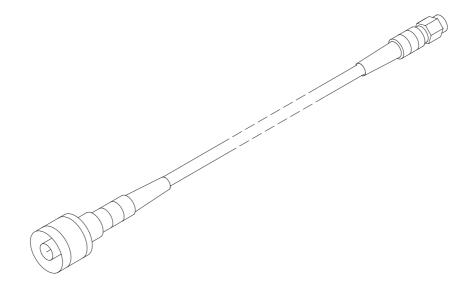
#### **XRF-1 RF Cable**

RF cable XRF-1 is used to connect e.g. Module Jig MJS-46 to RF measurement equipment..

Product code

XRF-1 RF Cable: 0730085

View of XRF-1





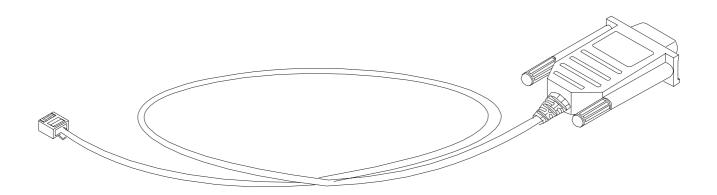
#### **DAU-9S MBUS Cable**

The MBUS Cable DAU-9S has a modular connector, and is used with between PC's serial port and e.g. Module Jig MJS-46.

**Product Code** 

DAU-9S MBUS Cable: 0730108

View of DAU-9S



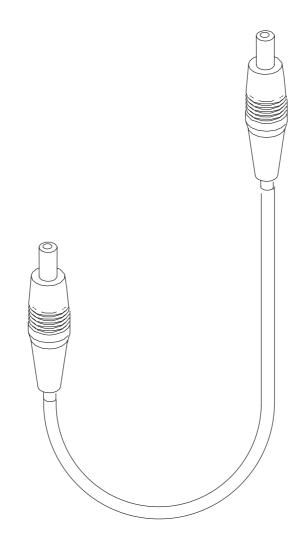
#### **SCB-3 DC Cable**

The DC Cable SCB-3 is used to connect e.g. JBV-1 to the phone.

**Product Code** 

SCB-3 DC Cable: 0730114

**View of SCB-3** 





# **XCS-4 Modular Cable**

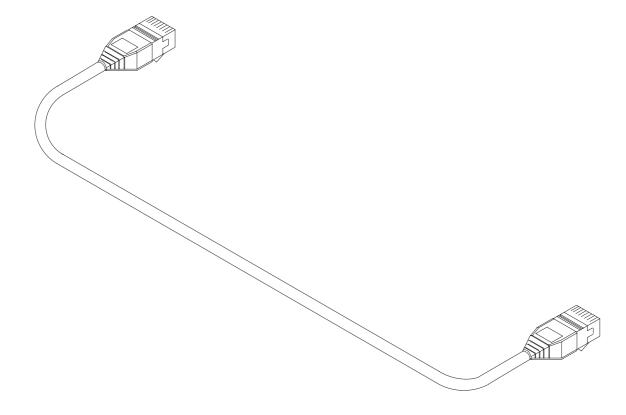
XCS-4 is a shielded cable (one specially shielded conductor) modular cable for flashing and service purposes.

#### Product code

XCS-4 Modular Cable:

0730178

#### View of XCS-4



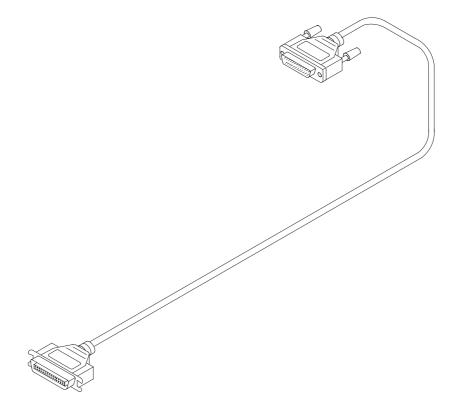
# **Printer Cable**

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

**Product code** 

Printer Cable: 0730029

**View of Printer Cable** 





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