

Programmes After Market Services NPC-1 Series Transceivers

Service Tools

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Module Jig (MJS-18, 0770299)

This jig allows phone PWB -level service and troubleshooting.

Electric circuits have to be protected against over-voltage and over-current.

Product Code

MJS-18: 0770299

Figure 1: View of Module Jig MJS-18

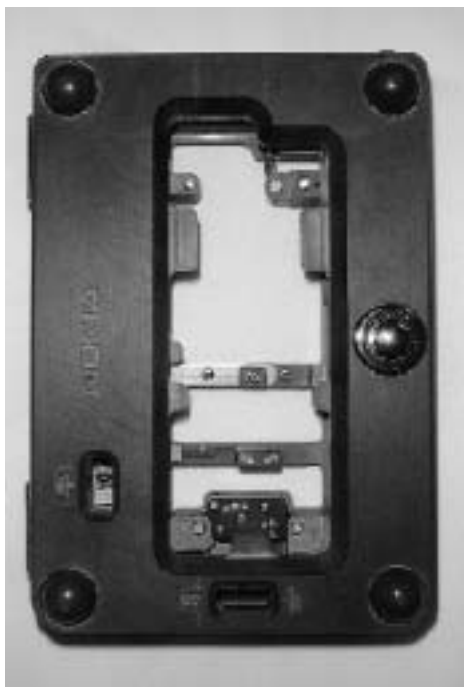


Table 1: Spare parts for MJS-18

Item	Description	Type Designation	Code	Supplier
1	Fuse T2A	5x20		
2	Test prope	GSS-19-3.9-G	540A007	IDI
3	Test probe	GKS079 301050A1300	540Y001	INGUN
4	RF probe	HRC2901-021002	978F005	SMK
5	System Connector Assembly		5460043	Molex

POS Dongle (FLS-4, 0774263)

The POS flash concept needs the Flash Adapter and cable between the phone and the FLS-4.

Product Code

FLS-4: *0774263*

Figure 2: View of POS Dongle, FLS-4



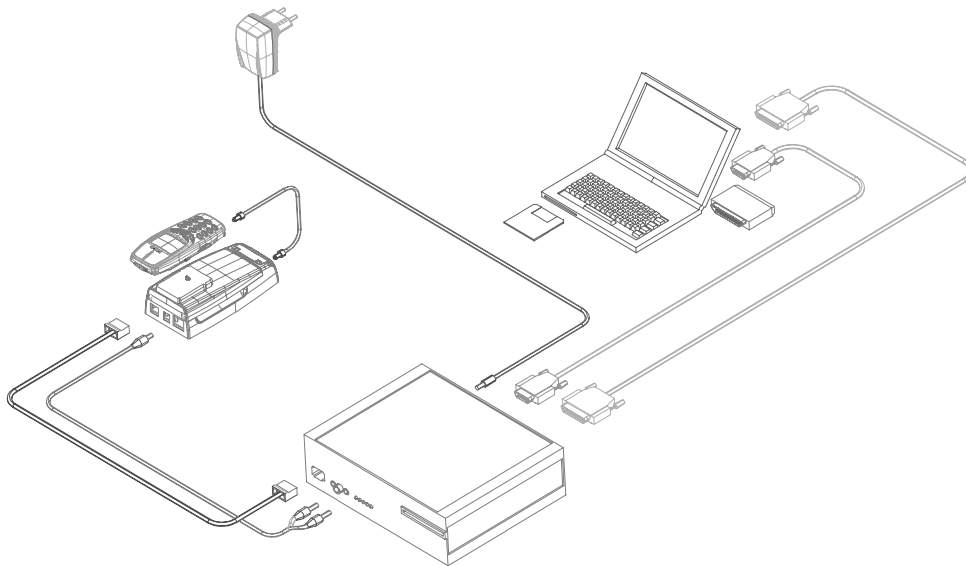
FPS-8 Flash Prommer for heavy flash (0080321, sales pack)

The FPS-8 flash prommer is used for heavy flashing.

Product Code

FPS-8: *0080321*

Figure 3: View of Flash Prommer for heavy flash, FPS-8



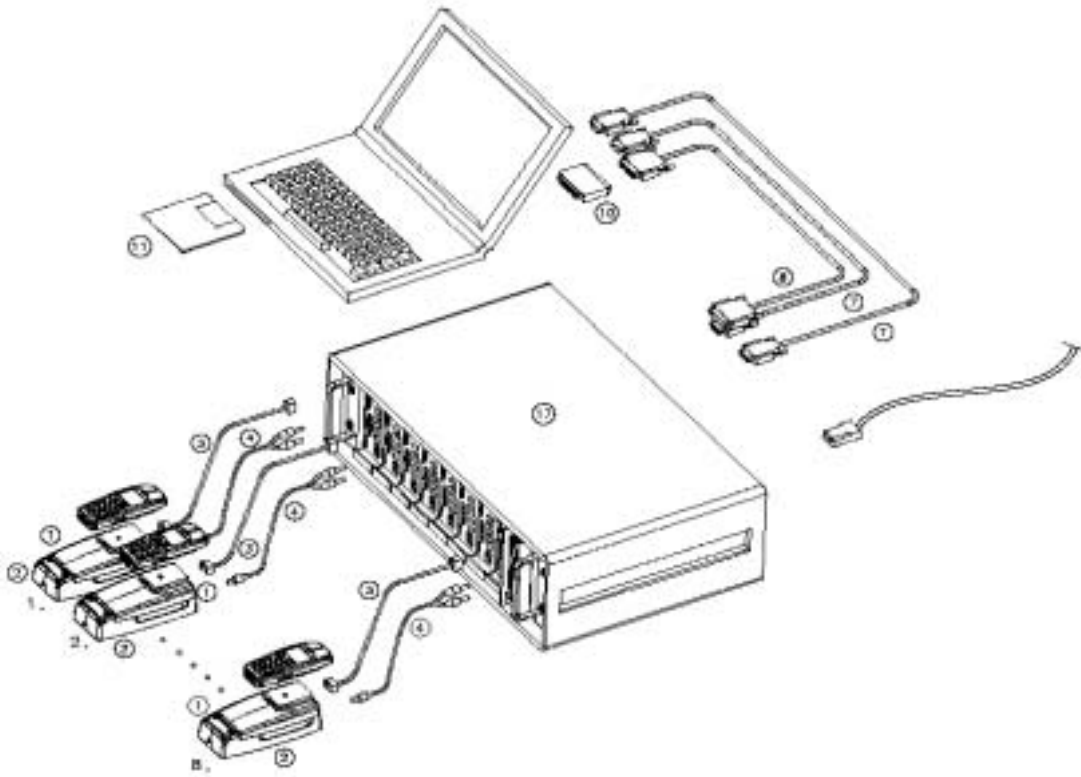
FPS-8C Flash Prommer for heavy parallel flash (0080396)

The FPS-8C Flash Prommer is used for heavy parallel flashing.

Product Code

FPS-8C: 0080396

Figure 4: View of Flash Prommer for heavy parallel flashing



Docking Station (JBV-1, 0770298) and Docking Station Adapter (MJF-2, 0770300)

The Docking Station and Docking Station Adapter are needed for Mbus, Fbus, RF and Audio connections. This setup allows a connection between flash prommers. When the audio box is connected, it has to be connected to the phone's audio connector. The Docking Station can be powered by the FPS-8 or an external power supply.

Product Code

JBV-1: *0770298*

MJF-2: *0770300*

Spare parts for MJF-2 test pin: *540Y207*(test probe code)

Figure 5: View of Docking Station, JBV-1



Figure 6: Docking station and docking station adapter



Galvanic Contact (GAC-1, 0770301)

The GAC-1 adapter is needed for the RF connection. The GAC-1 adapter makes galvanic connections to assembled handset RF-switches possible. Via this adapter, the handset is connected to the RF measuring and test equipment.

Note: Unnecessary usage of the handset's RF-switch must be avoided.

Product Code

GAC-1: 0770301

Figure 7: View of Galvanic Contact, GAC-1



Coupler (CPL-1, 0770287)

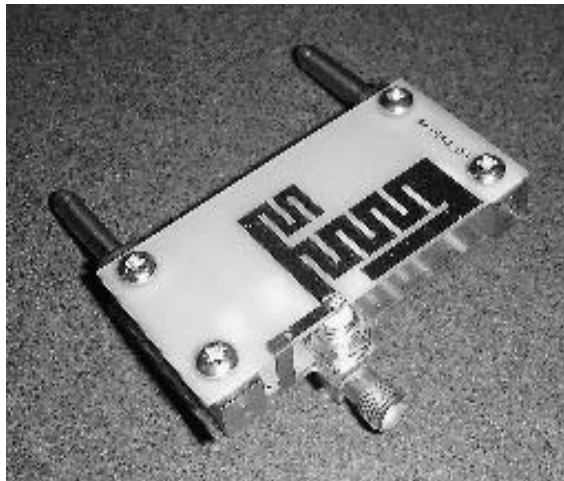
The Coupler has been developed for antennas' go/no go testing.

Note: Tuning is not allowed with the CPL-1.

Product Code

CPL-1: 0770287

Figure 8: View of Coupler, CPL-1



Audio box (JBA-8, 0770320)

The Audio Box is needed for audio connections. The box must support DCT4 Janette audios.

Service Audio box JBA-8. The Service Audio box provides an interconnection between the phone's system connector (XEAR, XMIC) through a fixed audio cable and Audio tester with a BNC-BNC coax. The connection to a PC can be made with the service battery, through a DAU-9 cable. The Service Audio Box JBA-8 is used for service purposes.

Product Code

JBA-8: *0770320*

Figure 9: View of Audio Box, JBA-8



Audio Cable (ADS-4, 0730222)

The Service Cable between the phone and the Service Audio Box.

Product Code

ADS-4: *0730222*

Figure 10: View of Audio Cable, ADS-4)



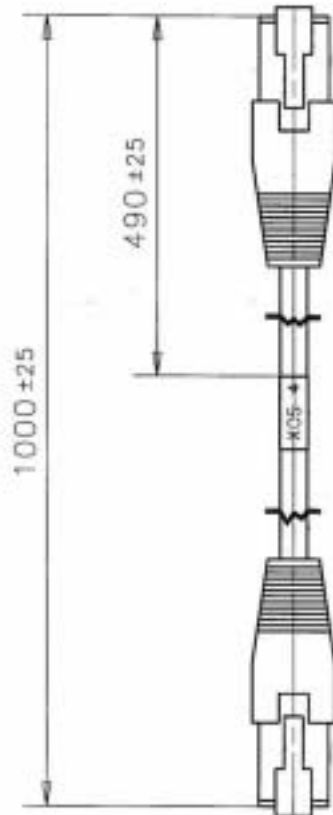
Mbus/Fbus Cable (XCS-4, 0730178)

The Mbus/Fbus cable connects the phone and the flash box.

Product Code

XCS-4: 0730178

Figure 11: View of Mbus/Fbus Cable, XCS-4



Flash Adapter (FLA-13, 0770297)

The Flash Adapter allows a continuous maximum power supply for the phone from an external power supply: the ACP-8. The service battery allows Mbus/Fbus connections. The Flash Adapter must be protected against over-voltage, over-current and cross-connections. The Flash Adapter has to be regulated.

Note: The Flash Adapter is not to be used for handset testing, and is only meant for flashing

Product Code

FLA-13: 0770297

Spare parts for FLA-13 test pin: 540Y207 (test probe)

Figure 12: View of Flash Adapter, FLA-13



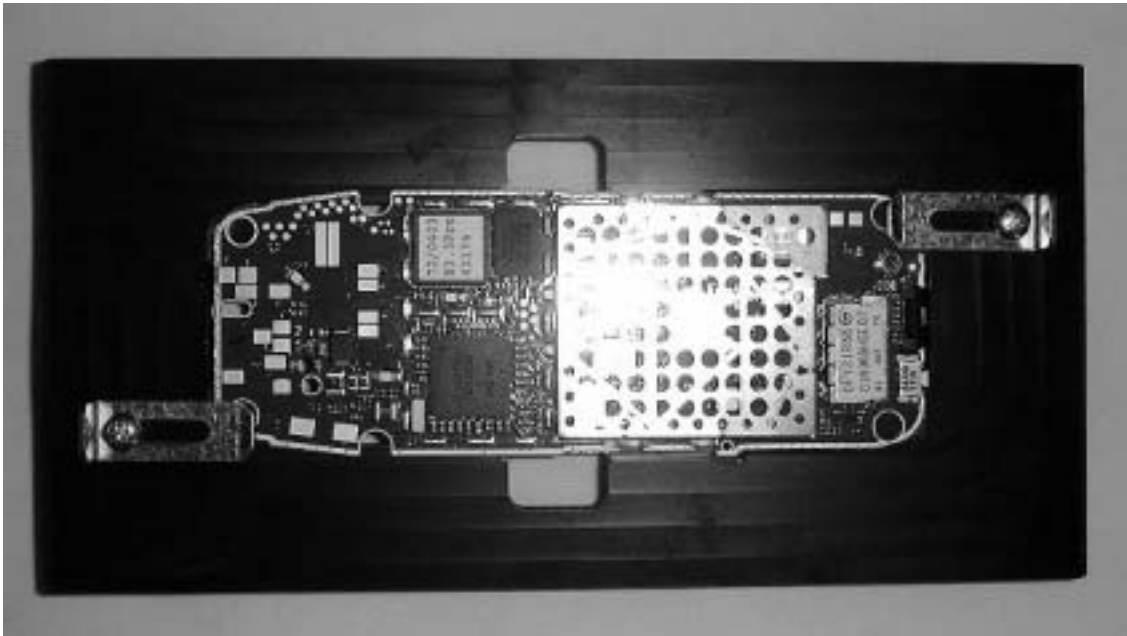
Soldering Jig (MJS-27, 0775287)

The Soldering Jig is used to hold the PWB during repair and troubleshooting.

Product Code

MJS-27: 0775287

Figure 13: View of Soldering Jig, MJS-27



Printer Cable (AXP-8, 073F000)

The Parallel Printer Cable connects the parallel connector of the PC and the "PARALLEL INPUT" of FPS-8 or FPS-8C.

Product Code

AXP-8: 073F000

Figure 14: View of Printer Cable, AXP-8



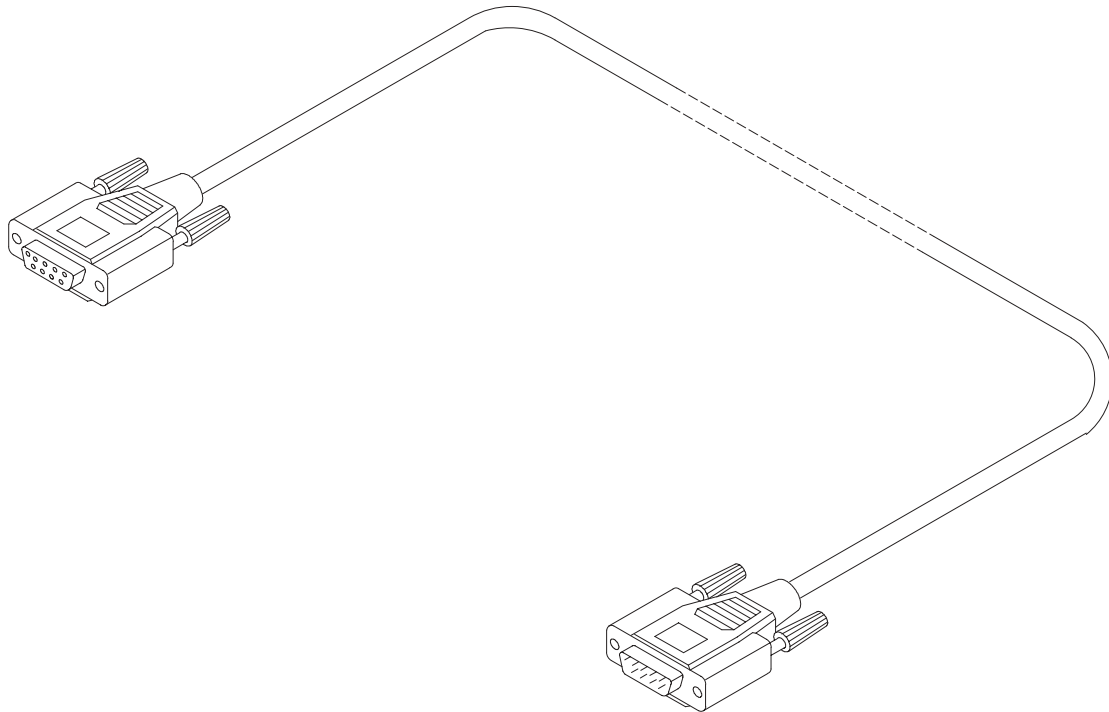
D9-D9 Cable (AXS-4, 0730090)

The D9-D9 cable AXS-4 is used to connect two 9 pin D connectors, for example, between a PC and a TDF-4 security box.

Product Code

D9-D9 Cable AXS-4: *0730090*

Figure 15: View of D9-D9 Cable AXS-4



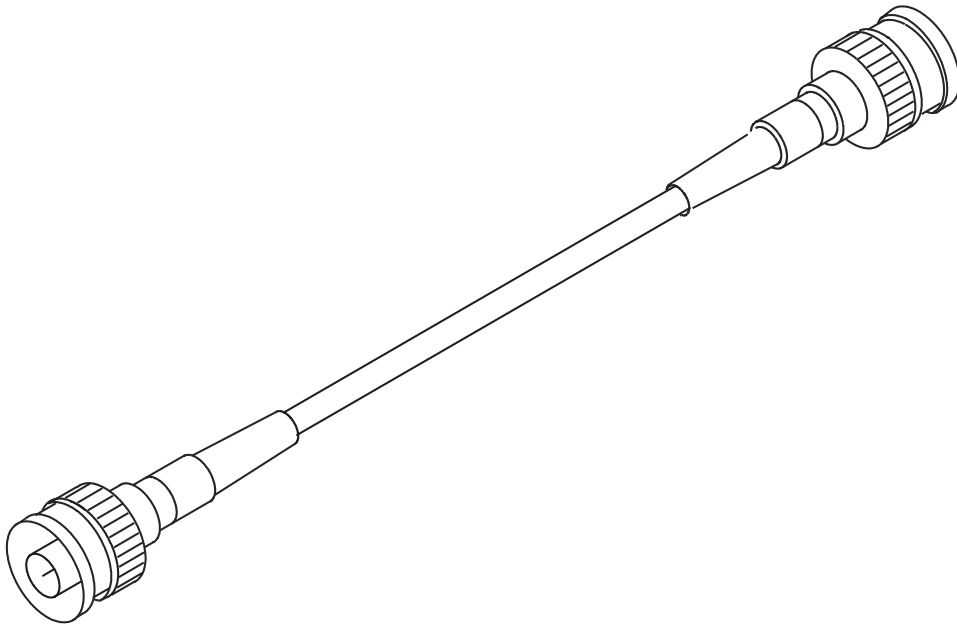
Audio Cable (ADS-3, 0730197)

The Audio Cable connects to the Audio box JBA-6.

Product Code

Audio Cable ADS-3: *0730197*

Figure 16: View of Audio Cable ADS-3



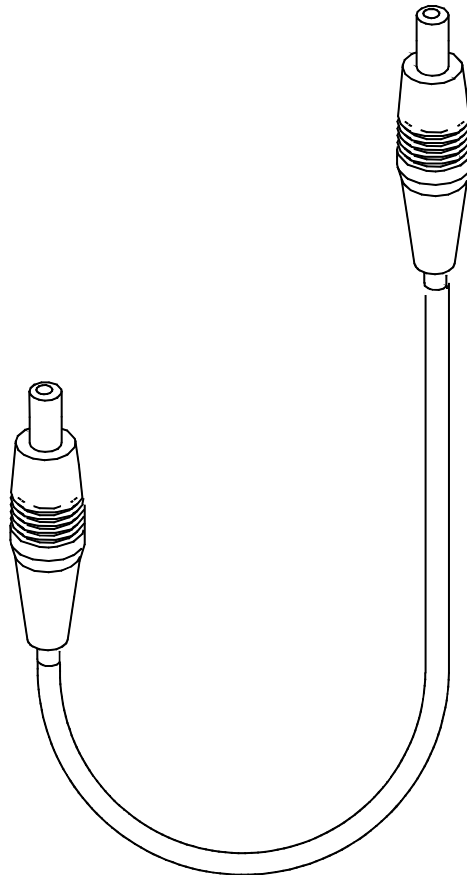
DC Cable (SCB-3, 0730114)

The DC Cable SCB-3 is used to connect the Service Battery to the charger connection Vin of the phone when doing the charger calibration service procedure.

Product Code

DC Cable SCB-3: *0730114*

Figure 17: View of DC Cable SCB-3



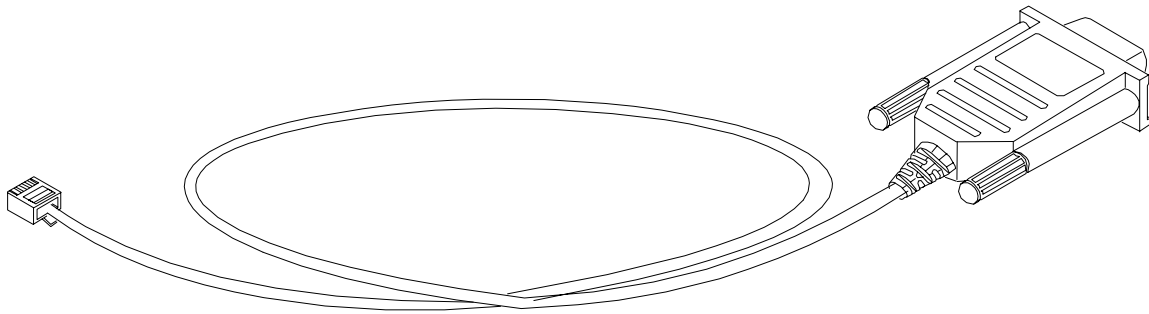
MBUS Cable (DAU-9S, 0730108)

The MBUS Cable DAU-9S has a modular connector, and is used with the service Audio Box JBA-4 or a modular T-adapter.

Product Code

MBUS Cable DAU-9S: *0730108*

Figure 18: View of MBUS Cable DAU-9S



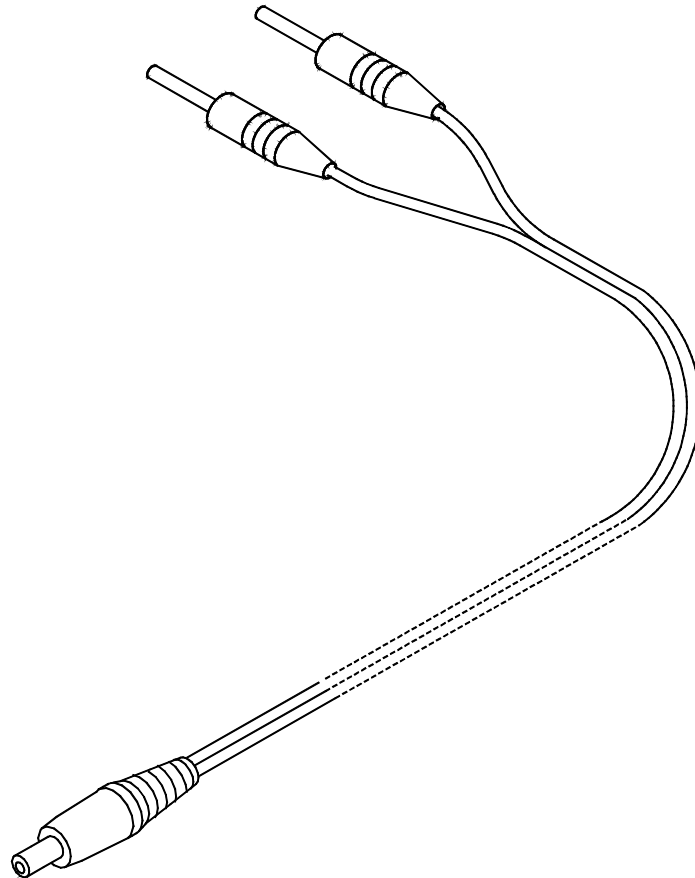
Power Cable (PCS-1, 0730012)

The Power Cable PCS-1 is used to connect the JBT-1 and JBS-19 module jigs to an external power supply. It can also be used with FPS-4.

Product Code

Power Cable PCS-1: *0730012*

Figure 19: View of Power Cable PCS-1



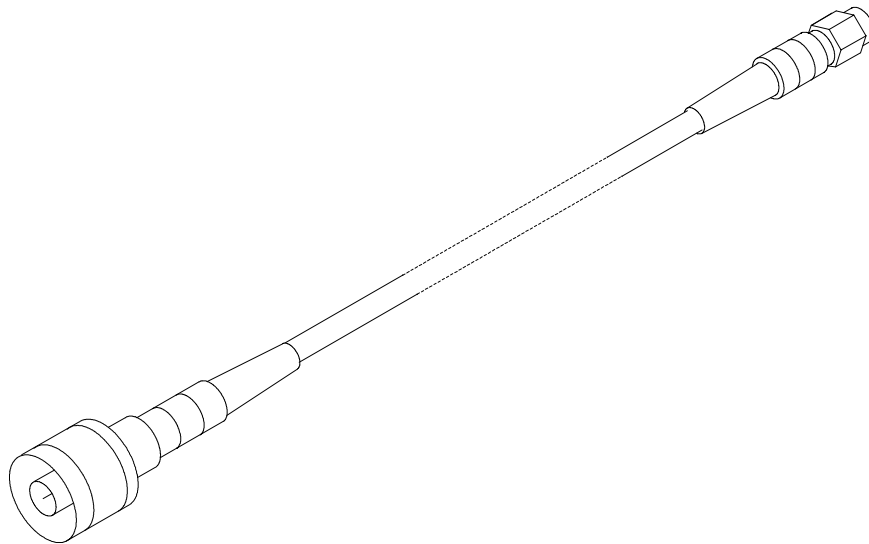
RF Cable (XRF-1, 0730085)

The XRF-1 RF cable is used to connect the MJS-9 Test frame to the RF measurement equipment.

Product Code

RF Cable XRF-1: *0730085*

Figure 20: View of RF Cable XRF-1



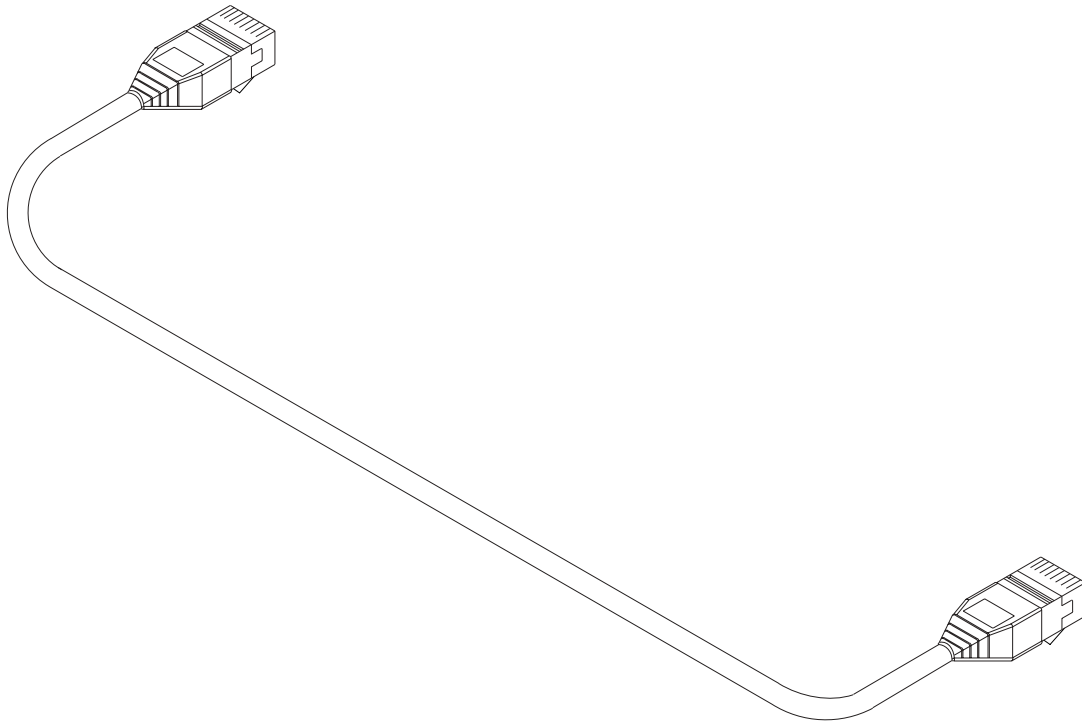
Service Cable (XCS-4, 0730178)

The XCS-4 Service Cable is a modular cable for flashing DCT4 products.

Product Code

Service Cable XCS-4: *0703178*

Figure 21: View of Service Cable XMS-3



Power Pack, (DDC-10, 0670405)

The Power Pack is designed to provide the phone with power via FLA-13. The phone's own battery can be used in DDC-10.

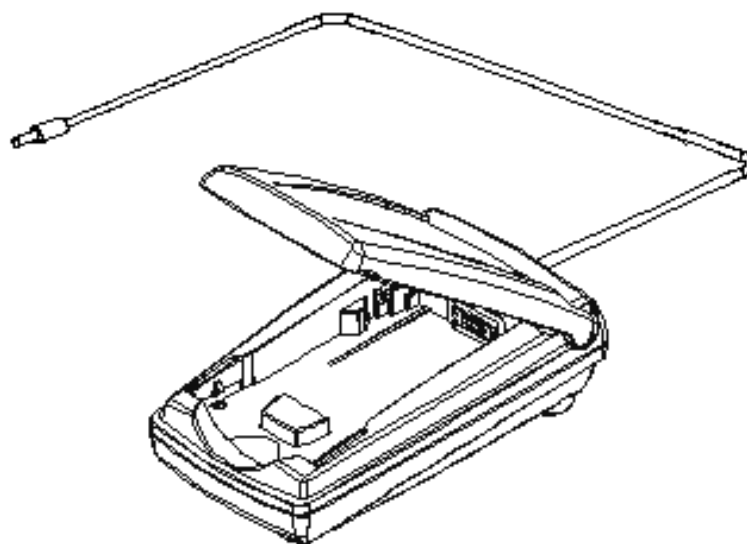
Note: DDC-10 allows battery charging. When it is used as a charger, the power pack need to be disconnected.

Note: When DDC-10 is used as a Power Pack, battery charging is not allowed!

Figure 22: DDC-10 Power Pack



Figure 23: View of Power Pack, DDC-10



Note: Do not plug in cable in charger receptacle.

SW Security Device (PKD-1, 0750018)

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

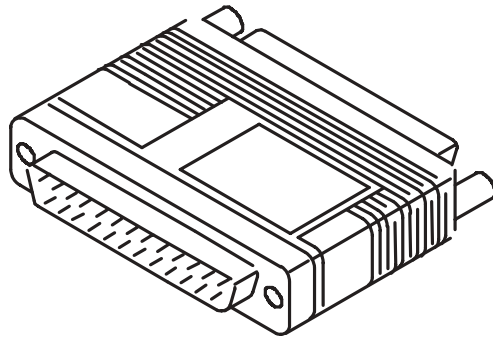
Caution: Make sure that you have switched off the PC and the printer before making connections.

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

Product Code

SW Security Device PKD-1: 0750018

Figure 24: View of SW Security Device PKD-1



Flashing and Testing Setups

POS flash (FLS-4, 0081482 - Setup 1)

This setup is made for the Point-of-Sale but it can also be used in service centers. The purpose of this is to make flashing as easy as possible at the POS's and prevent the unnecessary handset flow to service.

Product Code

POS Dongle, FLS-4 (US): 0081482
 POS Dongle, FLS-4 (APAC): 0081481
 POS Dongle, FLS-4 (E/A): 0081483

Figure 25: View of POS flash

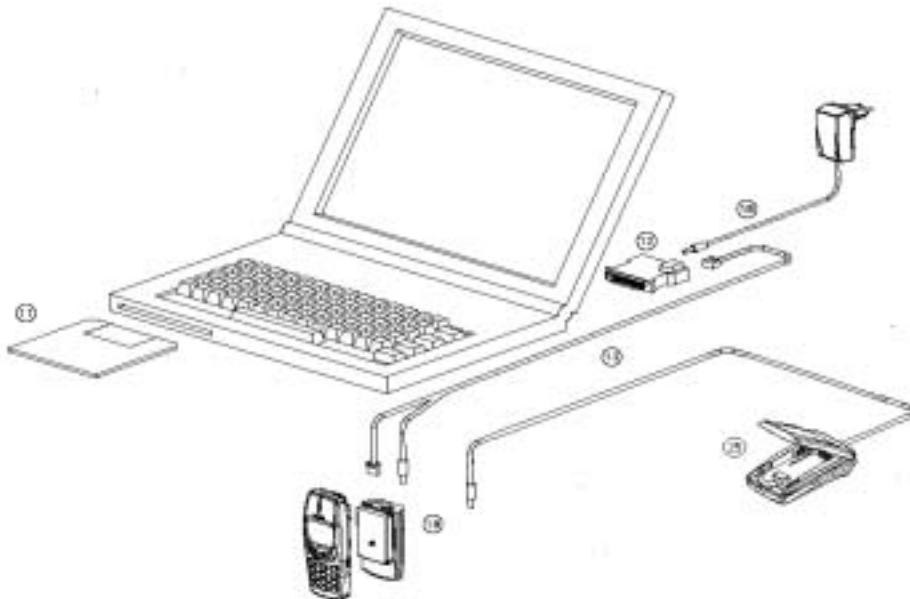


Table 2: Service tool setup 1

Item	Name	Type	Code
11	Service SW CD-ROM for NPC-1		8406941
12.	POS dongle (US)	FLS-4 (US)	0081482
	POS dongle (APAC)	FLS-4 (APAC)	0081481
	POS dongle (E/A)	FLS-4 (E/A)	0081483
13.	Service cable	XCS-1	0730218
18.	Travel charger	ACP-8U	0675196
19.	Flash Adapter	FLA-13	0770297
25	Power Pack	DDC-10	0670405

Flashing, testing and tuning with covers on (Setups 2a, 2b and 2c)

Tightened performance specifications require more precise equipment and methods for testing and alignment. Manual tuning cannot provide accurate results for NPC-1 products, which means that this task has to be automated.

These setups are intended to be used with either Phoenix or Darium SW. With the Phoenix SW it is possible to do manual testing and automated tuning. With Darium, it is possible to do automated testing and tuning.

Table 3: Service tools setup 2a, 2b and 2c

ITEM	NAME	TYPE	CODE
1.	Docking Station	JBV-1	0770298
2.	Docking Station Adapter	MJF-2	0770300
3.	Service cable	XCS-4	0730178
4.	DC cable	PCS-1	0730012
5.	DC cable	SCB-3	0730114
6.	Flash loading adapter	FPS-8	0080321
7.	D9-D9 Cable	AXS-4 (included in FPS-8 sales pack)	0730090
8.	Printer cable	IEEE1284 Parallel Cable, AXP-8 (included in FPS-8C sales pack)	073F000
9.	AC charger	ACF-8 (included in FPS-8 sales pack)	0680032
10.	Software protection key	PKD-1	0750018
11.	Service SW CD-ROM for NPC-1		8406941
14.	RF cable	XRF-1	0730085
16.	Audio box	JBA-8	0770320
20.	RF probe	GAC-1	0770301
21.	RF coupler	CPL-1	0770287
22	Security Box	TDS-6	0770181
24.	Audio Cable	ADS-4	0730222

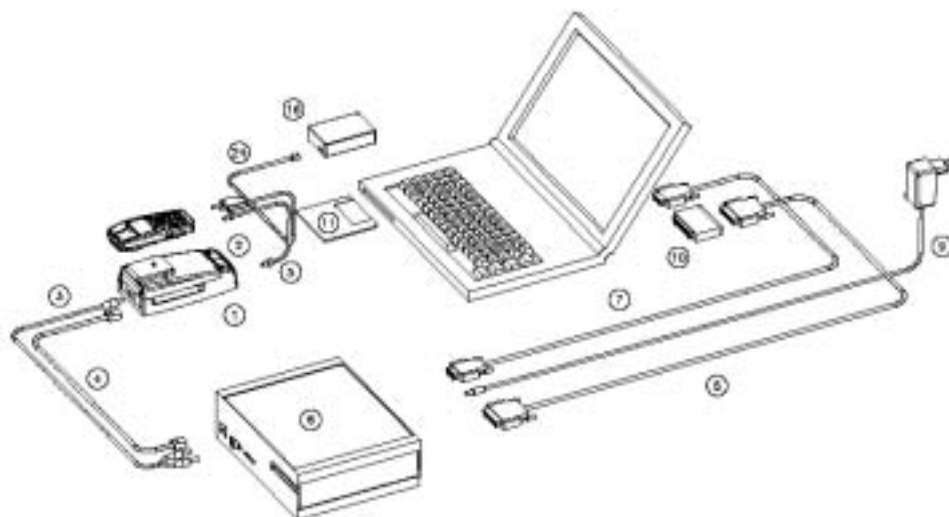
Tuning and call testing need an external power supply.

Service tool setup 2a

This setup is for testing and tuning (RF testing and tuning is not possible) and EM (Energy Management) calibration.

When EM calibration is being done, the JBV-1 needs to be powered by 12V from an external power supply. EM calibration can also be done by connecting the JBV-1 to a PC using a DAU-9S cable.

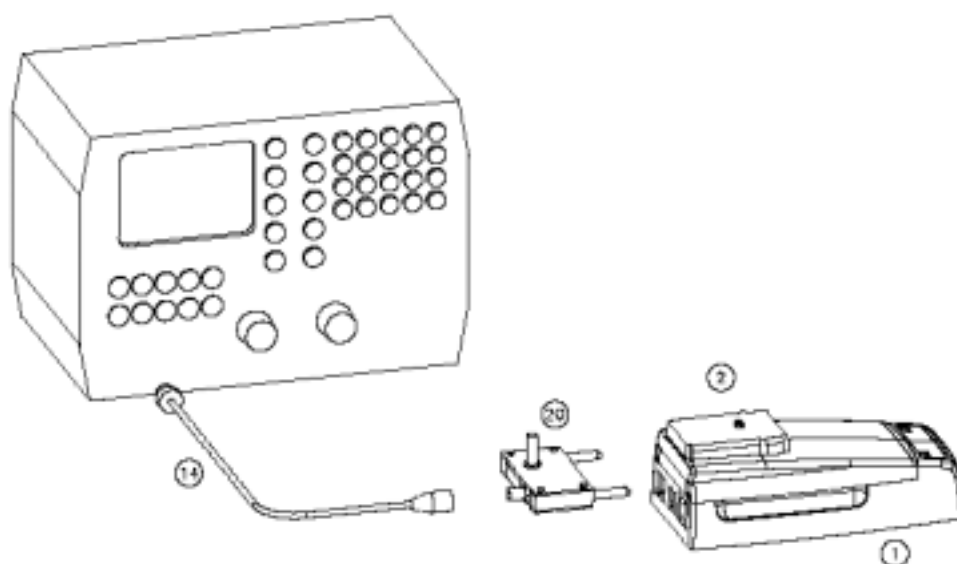
Figure 26: Service tool setup 2a



Service tool setup 2b

With this setup, RF testing and tuning is possible.

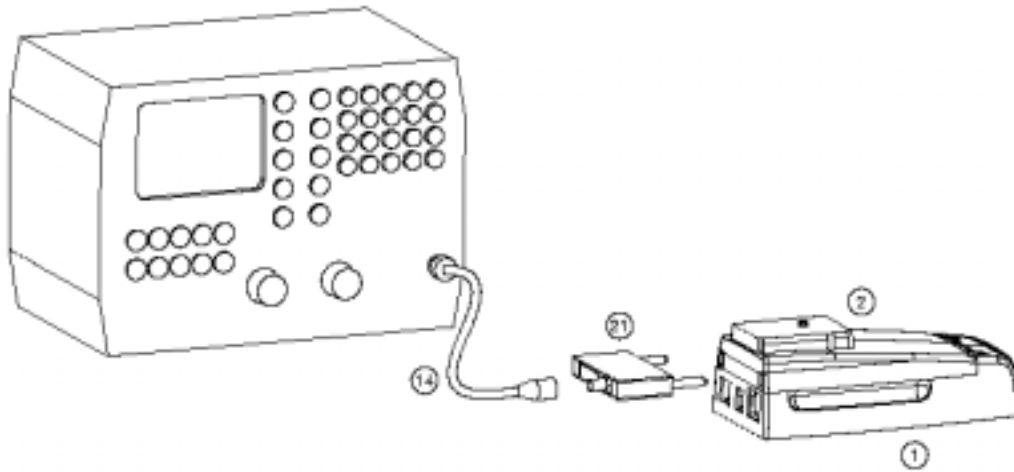
Figure 27: Service tool setup 2b



Service tool setup 2c

This setup makes antenna go/no go testing possible.

Figure 28: Service tool setup 2c

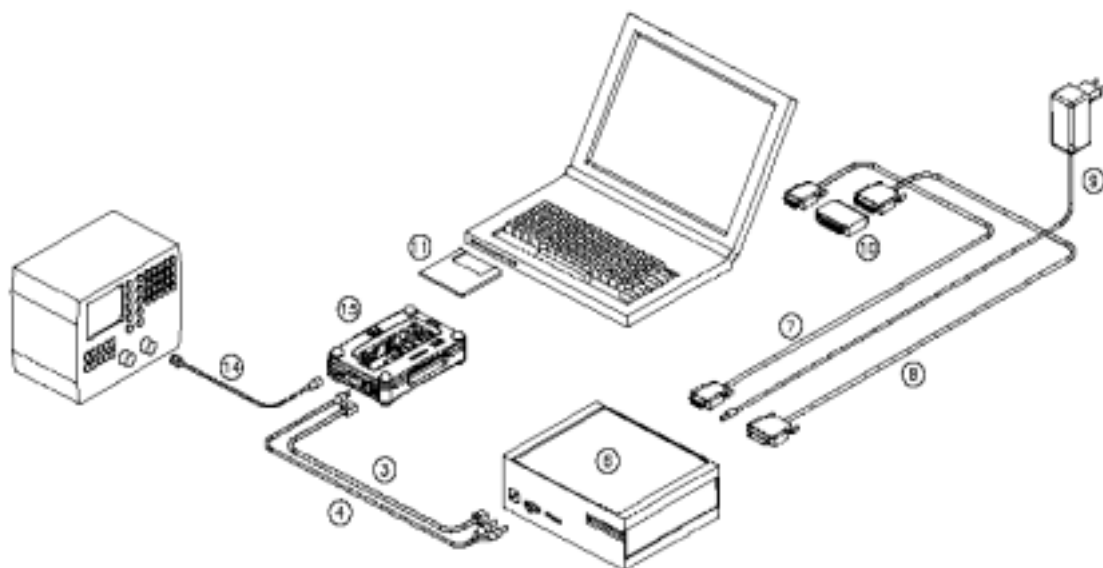


Flashing and testing with covers off (Setup 3)

Table 4: Service Tool setup 3

ITEM	NAME	TYPE	CODE
3.	Service cable	XCS-4	0730178
4.	DC cable	PCS-1	0730012
6.	Flash loading adapter	FPS-8	0080321
7.	D9-D9 Cable	AXS-4, (included in FPS-8C sales pack	0730090
8.	Printer cable, IEEE1284 Parallel Cable	AXP-8 (included in FPS-8C sales pack)	073F000
9.	AC charger	ACF-8 (included in FPS-8 sales pack)	0680032
10.	Software protection key	PKD-1	0750018
11.	Service SW CD-ROM for NPC-1		8406941
15.	Module Jig	MJS-18	0770299
16.	Audio box	JBA-8	0770320

Figure 29: Service tool setup 3



Parallel Flash (Setup 4)

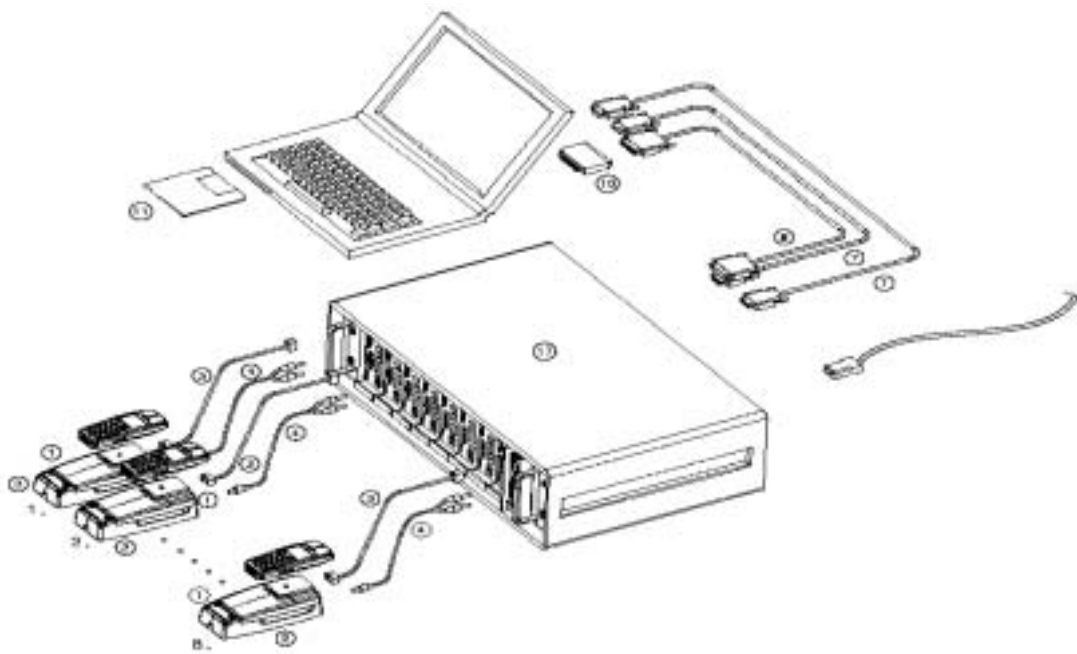
The Parallel Flash setup allows flashing eight individual handsets at the same time. This requires the PC to fulfil the following requirements: the PC has to have two physical serial ports (COM1 and COM2).

Service tool setup 4

Table 5: Service tool setup 4

ITEM	NAME	TYPE	CODE
1.	Docking Station	JBV-1	0770298
2.	Docking Station Adapter	MJF-2	0770300
3.	Service cable	XCS-4	0730178
4.	DC cable	PCS-1	0730012
7.	2 x D9-D9 Cable	AXS-4, (included in FPS-8C sales pack)	0730090
8.	Printer cable, IEEE1284 Parallel Cable	AXP-8 (included in FPS-8C sales pack)	073F000
10.	Software protection key	PKD-1	0750018
11.	Service SW CD-ROM		8406941
17.	FPS-8C	FPS-8C	0080396

Figure 30: Service tool setup 4



Warranty and user data transfer (Setup 5)

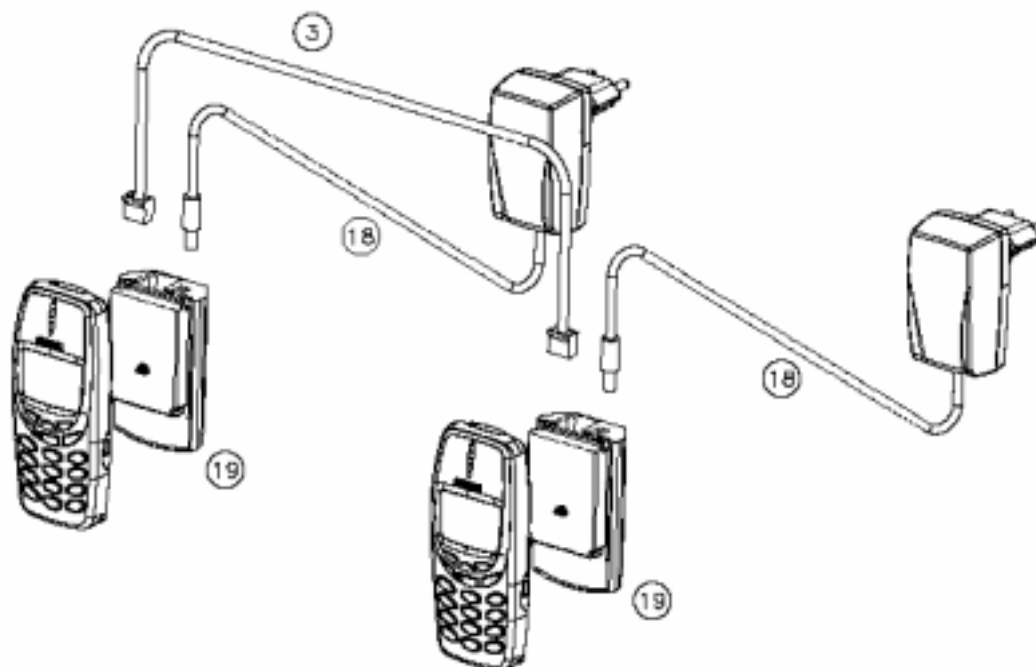
This setup is for Warranty Data and User Data transfer from phone to phone.

Service tool setup 5:

Table 6: Service tool setup 5

ITEM	NAME	TYPE	CODE
3.	Service cable	XCS-4	0730178
18.	Travel charger	ACP-8U (two)	0675196
19.	Flash Adapter	FLA-13 (two)	0770297

Figure 31: Service tool setup 5



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