

# CCS Technical Documentation

## RH-10 Series Transceivers

# Service Tools






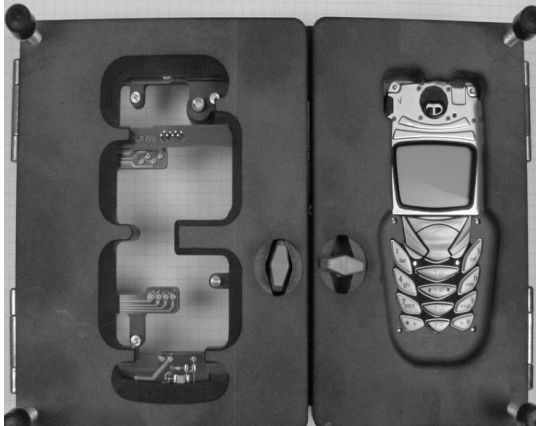

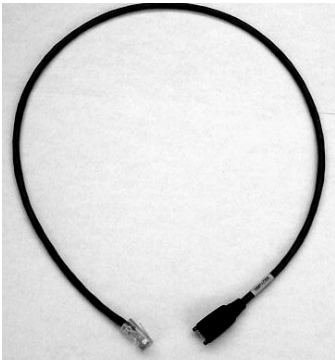
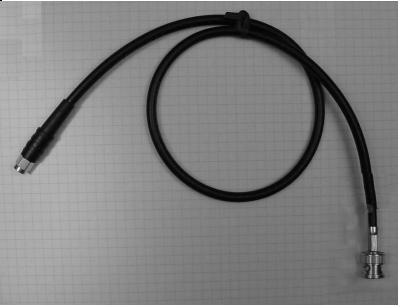
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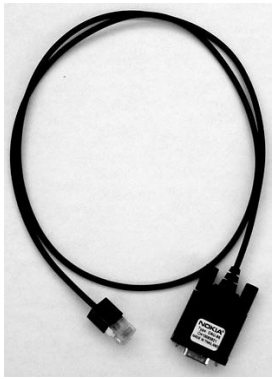





## Service Tools List

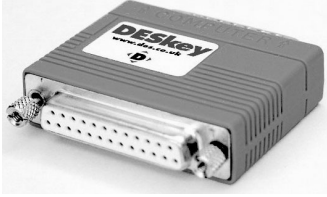
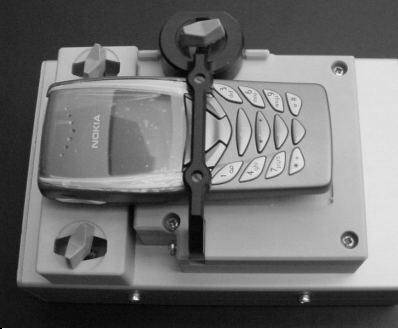
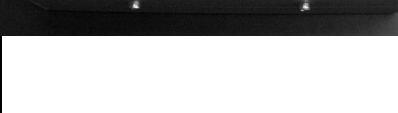
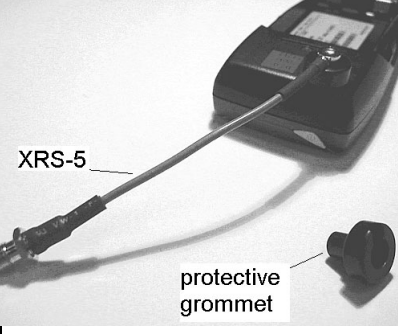

	<p>JBV-1 Docking Station</p>	<p>0770298</p>	<p>The Docking Station is needed for Mbus, Fbus, RF, and audio connections. This setup allows connection between flash promoters. When the audio box is connected, it has to be connected to the phone's audio connector. The Docking Station can be powered by FPS-8 or external power supply.</p>
	<p>DA-5 Docking Station Adapter</p>	<p>0770523</p>	<p>Works in concert with JBV-1 Docking Station.</p>
	<p>FLA-47 Flash Adapter</p>	<p>0770508</p>	<p>Flash Adapter allows continuous maximum power supply for the phone from an external power supply. The Flash Adapter allows Mbus/Fbus connections. The Flash Adapter is protected against over-voltage, over-current, and cross-connection. The Flash Adapter provides a regulated voltage to the phone. <i>Note: The flash adapter is designed for flashing only.</i></p>

	<p>MJS-59 Module Jig</p>	<p>0770366</p>	<p>The purpose of the MJS-59 module service jig is to provide a method of component-level testing, by applying voltage from an external power supply when the phone engine is out of its mechanics. The engine module and UI module of RH-10 can be tested with MJS-59.</p> <p>RF connection is established through a replaceable GAC-5 connector. Two SMA-type connectors are available for audio testing using ADS-7 cables. This type of connection eliminates the need for external audio splitter.</p> <p><i>Note: The nominal supply voltage for the MJS-59 is +4.1V. The supply voltage must not exceed +5.0V.</i></p>
	<p>FPS-8 Flash Prommer</p>	<p>0080321</p>	<p>The Flash Prommer FPS-8 is used for heavy flash.</p> <p>Includes ACF-8 AC charger (0680032). Includes AXS-4 D9-D9 cable (0730090).</p>
	<p>ADS-6 Audio Cable</p>	<p>0730241</p>	<p>The Audio Cable connects to the Audio Box JBA-8.</p>
	<p>ADS-7 Audio Cable</p>	<p>0730261</p>	<p>ADS-7 Audio Cable is for use with MJS-59 Module Jig. Audio is split at the module jig, eliminating the need for a separate audio box in this configuration.</p>

 <p>The image shows a white rectangular device labeled 'JBA-8 Audio Test Box'. It features several ports and switches: 'POWER IN' with a power button, 'LOOP/HEAR OUT' and 'XMIC IN' with circular connectors, 'AUDIO LOOP ON - OFF' with a toggle switch, and 'JBA-8 ID ON - OFF' with another toggle switch. The front panel is divided into 'AUDIO CONNECTORS' and 'MODE SWITCHES'.</p>	<p>JBA-8 Audio Box</p>	<p>0770320</p>	<p>The JBA-8 is required for audio testing.</p>
 <p>The image shows a black, flexible cable with two RJ45-style connectors at each end, coiled on a white background.</p>	<p>XCS-4 Mbus/Fbus Cable</p>	<p>0730178</p>	<p>The XCS-4 Service Cable is a modular cable for flashing DCT4 products when using FPS-8.</p>
 <p>The image shows a black, flexible cable with a single connector at one end, coiled on a white background.</p>	<p>XRS-6 RF Cable</p>	<p>0730231</p>	<p>RF Cable XRS-6 is used to connect the service tools to RF measuring equipment.</p>
 <p>The image shows a grey parallel printer cable with a D-sub connector on one end and a different connector on the other.</p>	<p>AXP-8 Printer Cable</p>	<p>073F000</p>	<p>The Parallel Printer Cable connects the parallel connector of the PC and the parallel input of the FPS-8.</p>
 <p>The image shows a black, flexible cable with connectors at both ends, laid out on a white background.</p>	<p>SCB-3 DC Cable</p>	<p>0730114</p>	<p>The DC Cable SCB-3 is used to connect the Service Box to the charger connection Vin of the phone when doing the charger calibration service procedure.</p>

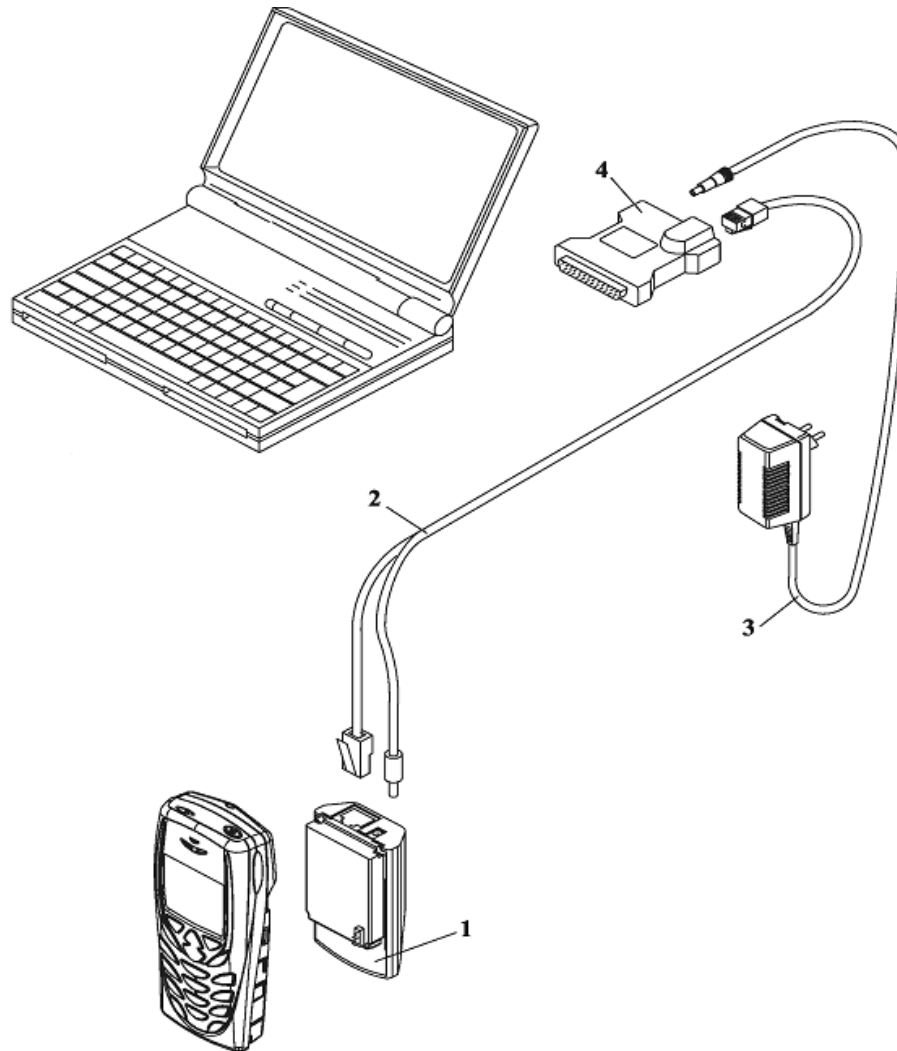
	<p>DAU-9S MBus Cable</p>	<p>0730108</p>	<p>The Mbus Cable DAU-9S has a modular connector, used with the MJS-59 Module Jig.</p>
	<p>PCS-1 Power Cable</p>	<p>0730012</p>	<p>The Power Cable PCS-1 is used to connect the MJS-59 Module Jig to an external power supply.</p>
	<p>XCS-1 Interface Cable</p>	<p>0730218</p>	<p>The Interface Cable XCS-1 is used to connect the FLS-4S dongle to an FLS adapter. It provides data connection as well as power.</p>
		<p>0770543</p>	<p>IDI type of test probe pins for DA-5 and FLA-47, S-0-J-2.2-G., bag of 10</p>
	<p>FLS-4S POS Flash</p>	<p>0080543</p>	<p>The Point of Sale (POS) Flash is a low-cost software upgrade tool. This requires the XCS-1 Interface Cable, FLA-47 Flash Adapter, and ACP-8U Power Supply for operation.</p>



	<p>PKD-1 SW Security Device</p>	<p>0750018</p>	<p>SW Security Device is a piece of hardware enabling the use of the service software when connected to the LPT (parallel port) of the PC. A dongle is required for use of the service software. A printer or any such device can be connected to the PC through the dongle, if needed.</p> <p><i>Cautions: Make sure that you have switched off the PC and the printer before making connections. Do not connect the PKD-1 to the serial port. You may damage your PKD-1.</i></p>
	<p>JBU-11 Docking Station</p>	<p>0775294</p>	<p>The Docking Station and RF Adapter RC1 are needed for Mbus, Fbus, and RF connections. The Docking Station also may be used without RC1 if RF output is not desired. The Docking Station may be powered by the FPS-8 setup or by an external power supply.</p> <p><i>Note: Toggle the DC power supply switch to correct mode before applying power.</i></p>
	<p>RC1 RF Adapter</p>	<p>0775296</p>	<p>Used with the Docking Station JBU-11, above. The RC1 uses the GAC-5 for RF interface.</p>
	<p>XRS-5 RF Connector</p>	<p>0730228</p>	<p>XRS-5 (shown at left in drawing) is used for readings, in conjunction with the BBS-10 service battery.</p> <p><i>Note: Use with protection grommet, pictured at lower right.</i></p>
	<p>GAC-5 RF Connector</p>	<p>0770473</p>	<p>GAC-5 is used with JBU-11/RC1 and MJS-59 to make RF connections. This connector is included with both tools; however, it is available separately as a user-replaceable part in the event of damage. The connector and both jigs are designed to accept a micro in-line attenuator. This permits attenuation as close to the source RF as possible.</p>

## Flashing and Testing Setup

### POS Flash Setup 1



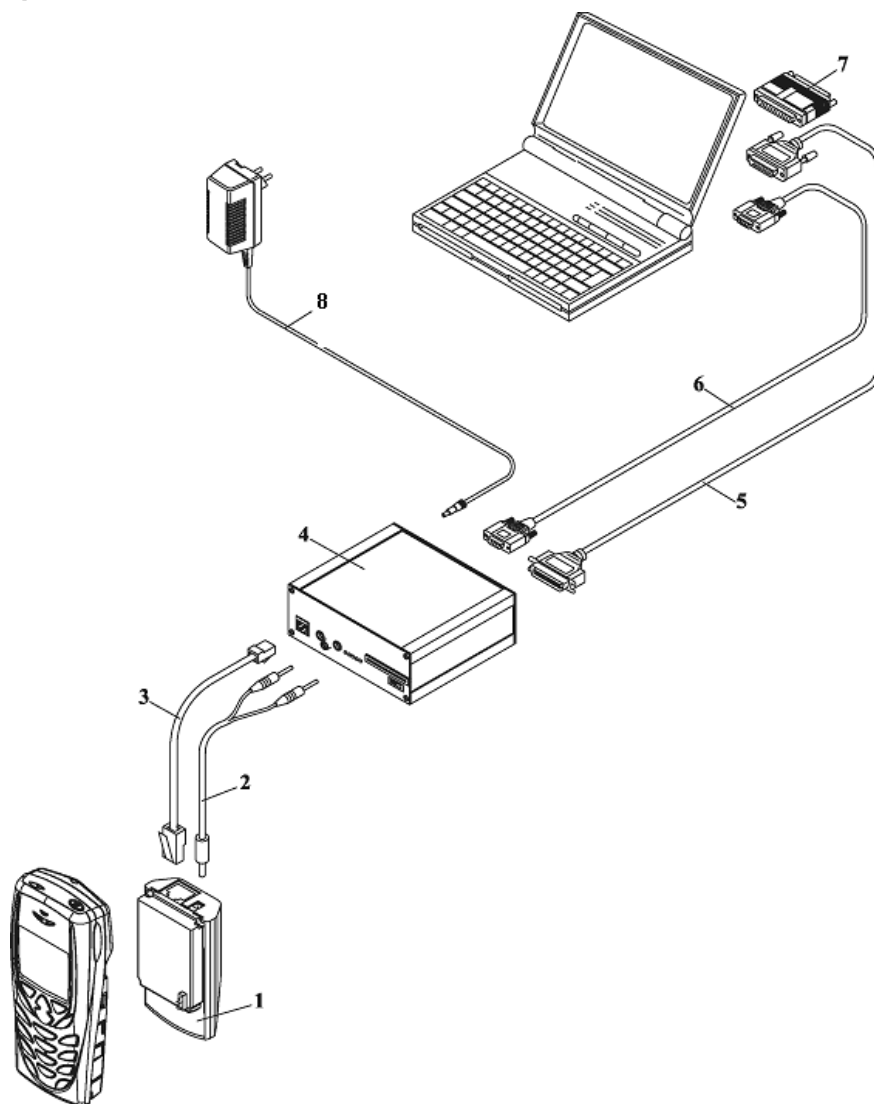
Item	Name	Type	Code
1	POS Flash Adapter	FLA-47	0770508
2	Interface Cable	XCS-1	0730218
3	AC Charger	ACP-8F	0680032
4	POS Flash dongle	FLS-4S	0080543
	Software		

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

Tightened performance specifications require more precise equipment and methods for testing and alignment. Manual tuning can't provide accurate results for RH-10 products, which means that this task has to be automated.

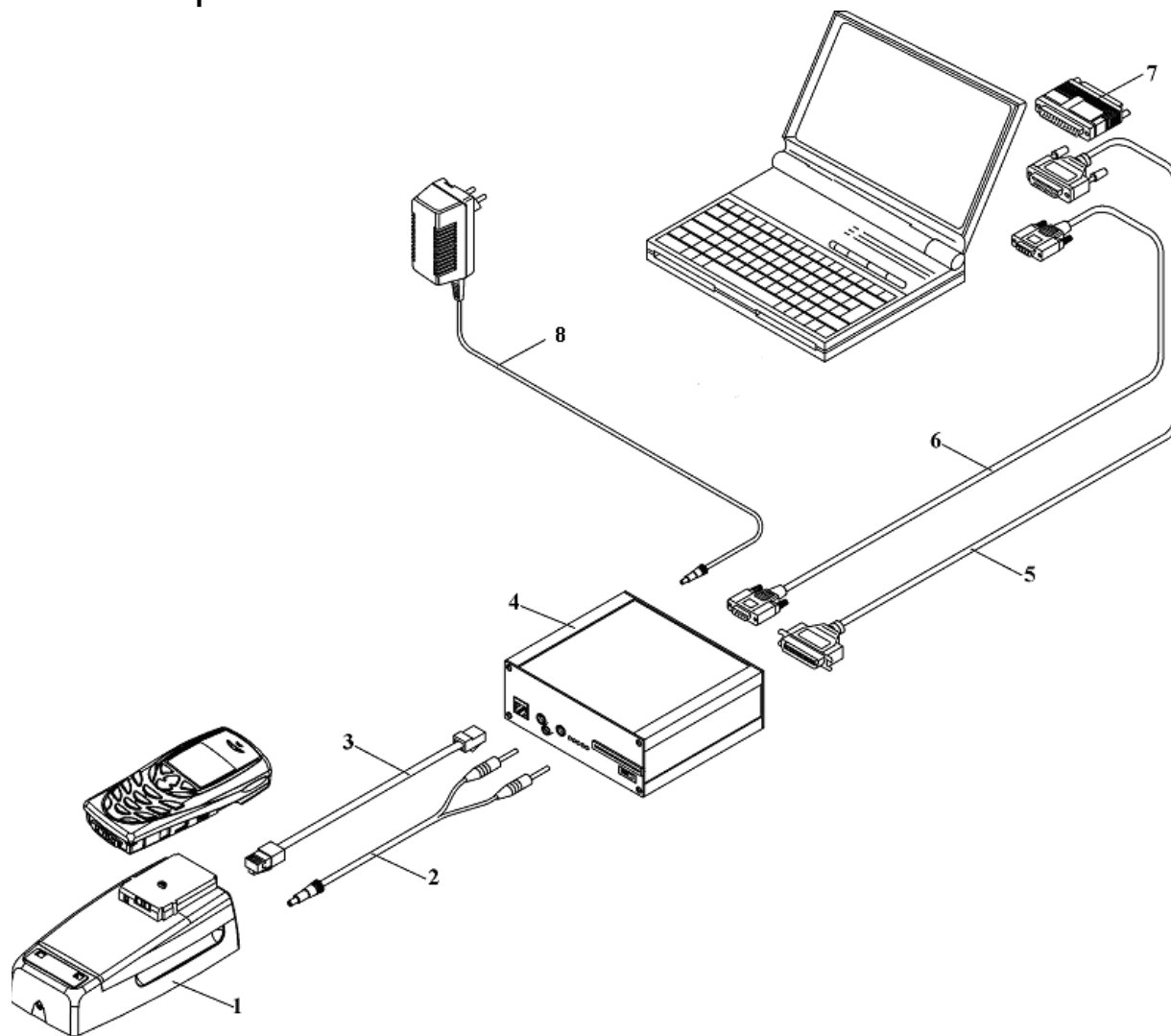
These setups are intended to be used either with Phoenix or Darium SW. With the Phoenix SW, it is possible to do manual testing and automated tuning. With Darium, it is possible to do automated testing and tuning.

### Service Setup 2a



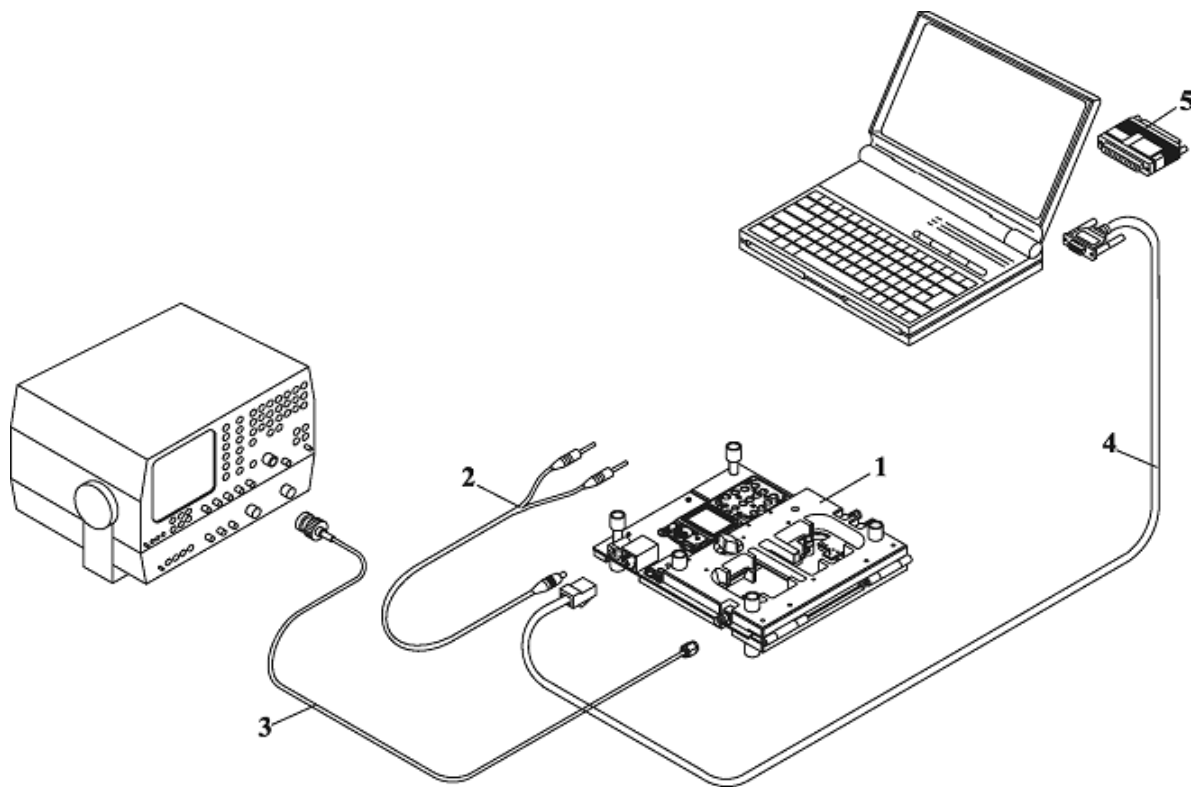
Item	Name	Type	Code
1	POS Flash Adapter	FLA-47	0770508
2	Power Cable (included in FLA-47 sales pack)	FLC-2	0730185
3	Mbus/Fbus Cable	XCS-4	0730178
4	Flash Prommer	FPS-8	0080321
5	Printer cable (included in FPS-8 sales pack)		073F000
6	D9-D9 cable (included in FPS-8 sales pack)		0730090
7	SW Security Device	PKD-1	0750018
8	AC charger	ACP-8F	0680032

**Service Setup 2b**



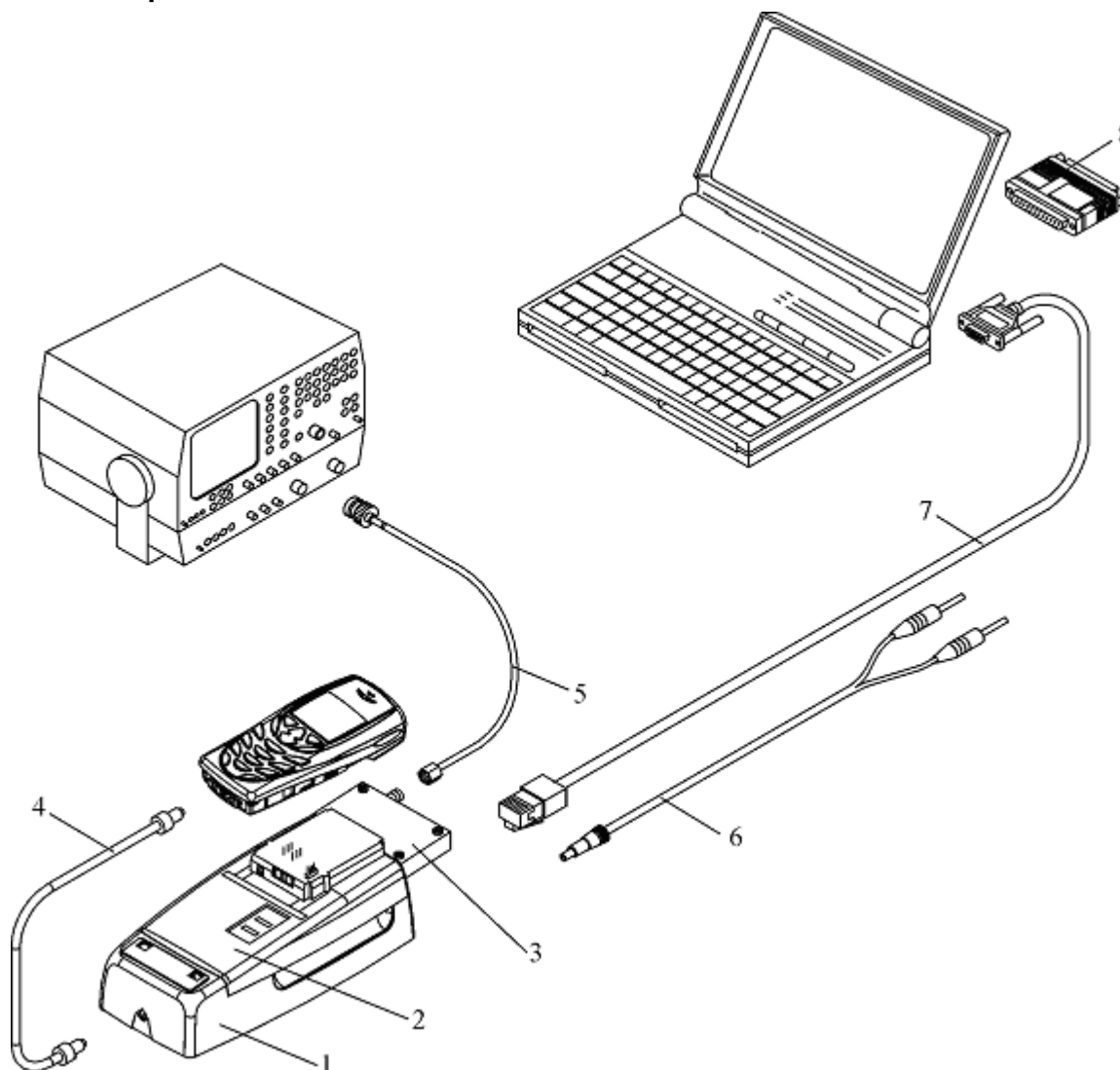
Item	Name	Type	Code
1	Docking Station Docking Station Adapter	JBV-1 DA-5	0770298 0770523
2	Power Cable	PCS-1	0730012
3	Mbus/Fbus Cable	XCS-4	0730178
4	Flash Prommer	FPS-8	0080321
5	Printer cable (included in FPS-8 sales pack)		073F000
6	D9-D9 cable (included in FPS-8 sales pack)		0730090
7	SW Security Device	PKD-1	0750018
8	AC charger	ACP-8F	0680032

### Service Setup 2c



Item	Name	Type	Code
1	Module Jig	MJS-59	0770366
2	Power Cable	PCS-1	0730012
3	RF Cable	XRS-6	0730231
4	MBus Cable	DAU-9S	0730108
5	SW Security Device	PKD-1	0750018

**Service Setup 2d**



Item	Name	Type	Code
1	Docking Station	JBV-1	0770298
2	Docking Station Adapter	DA-5	0770523
3	RF Connector	GAC-5	0770473
4	DC Cable	SCB-3S	0730114
5	RF Cable	XRS-6	0730231
6	Power Cable	PCS-1	0730012
7	MBus Cable	DAU-9S	0730108
8	SW Security Device	PKD-1	0750018

