



Ordering Guide

FALCOM Product List

June 2015

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June 2015

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PRODUCT NAME	OPTIONS	DESCRIPTION	NOTES
A) AVL DEVICES			
FOX3 Fields of application: Trucks, Buses, Light trucks, Special vehicles, Data logging	NONE	Quad Band GSM/GPRS module, high sensitivity GNSS receiver, 3-axis-motion-sensor ($\pm 8g$), internal antennas, external antenna connectors, 8pin (2x4) main connector, 6pin accessory connector, 2.5mm audio port and 10pin mini-USB connector. No installation cable included in standard delivery. It should be ordered separately. <u>Main Port 8pin (2x4) connector includes:</u> RX_0, TX_0 : 1 x Serial port V.24 (1st serial interface - SER0) V+ : 1 x Power supply (10.8 - 32.0 VDC) IGN : : 1 x Digital input (Ignition) I/O : : 3 x Multi-function inputs/outputs <u>Accessory Port 6pin (2x3) connector includes:</u> 1-Wire : 1 x 1-Wire port. RX_1/TX_1 : 1 x RS-232 port V24 level (2nd serial interface - SER1) I²C : : 1 x I ² C interface <u>10pin mini-USB connector includes:</u> USB : 1 x USB 2.0 port (DATA+, DATA-, USB detect) SPI : 1 x SPI interface (MOSI, MISO, CLK, CS) <u>Audio port:</u> 2.5mm jack : Microphone + Speaker	Certifications: CE, E1
FOX3-3G Fields of application: Trucks, Buses, Light trucks, Special vehicles, Data logging	NONE	Quad Band GSM/GPRS module with integrated UMTS/HSPA (3G bands: 900/2100 MHz for Europe and 850/1900 MHz for America) connectivity, high sensitivity GNSS receiver, 3-axis-motion-sensor ($\pm 8g$), internal antennas, external antenna connectors, 8pin (2x4) main connector, 6pin accessory connector, 2.5mm audio port and 10pin mini-USB connector. No installation cable included in standard delivery. It should be ordered separately. <u>Main Port 8pin (2x4) connector includes:</u> RX_0, TX_0 : 1 x Serial port V.24 (1st serial interface - SER0) V+ : 1 x Power supply (10.8 - 32.0 VDC) IGN : : 1 x Digital input (Ignition) I/O : : 3 x Multi-function inputs/outputs <u>Accessory Port 6pin (2x3) connector includes:</u> 1-Wire : 1 x 1-Wire port. RX_1/TX_1 : 1 x RS-232 port V24 level (2nd serial interface - SER1) I²C : : 1 x I ² C interface <u>10pin mini-USB connector includes:</u> USB : 1 x USB 2.0 port (DATA+, DATA-, USB detect) SPI : 1 x SPI interface (MOSI, MISO, CLK, CS) <u>Audio port:</u> 2.5mm jack : Microphone + Speaker	Certifications: CE pending

PRODUCT NAME	OPTIONS	DESCRIPTION	NOTES
FOX3/-3G-PROMOTION-KIT	NONE	See description FOX3/-3G-PROMOTION-KIT , page 21	
Accessories for FOX3/-3G			
B1	None	Rechargeable 1000 mAh Li-Polymer battery	
FAL-ANT-11	None	Combined Quad Band GSM 850/900/1800/1900 and active GPS antenna, incl. 2.5 m RG174 cable set with FAKRA-SMB connectors and double sided adhesive pad (not waterproof).	
FAL-ANT-12	None	Combined Penta Band (GSM 850/900/1800/1900, 2.1-2.5GHz) and active GPS antenna incl. 2.5 m RG174 cable set with FAKRA-SMB connectors and double sided adhesive pad (not waterproof).	FOX3-3G only
CA27	None	Main port programming cable with car charger. This cable connects to the main port of the FOX3 and consists of the 8pin (2x4) connector, RS-232 port and car charger. Cable length: 1.50 m.	
CA31	None	Main port extended installation cable (8/8 wires) with UCOM connector for interfacing JAZZ2/RFID. This cable connects to the main port of the FOX3/-3G and consists of the 8pin (2x4) connector, a 4pin (2x2) UCOM connector and 6 x open end wires. Cable length: 1.50 m.	
CA68	None	Main port extended installation cable (8/8 wires) with open ends. This installation cable consists of the 8pin (2x4) double row MOLEX connector and 8 x open end wires. Cable length: 1.50 m.	
CA70	None	Main port basic installation cable (3/8 wires) with open ends. This installation cable consists of the 8pin (2x4) connector and 3 x wires with open ends. Cable length: 1.50m.	
CA69	None	Accessory port cable (6/6 wires) for 1-wire and UCOM connector for interfacing additional JAZZ2/RFID. This cable connects to the accessory port of the FOX3/-3G and consists of the 6pin (2x3) connector, a 4pin (2x2) UCOM connector and 6 x open end wires. Cable length: 1.50 m.	
CA71	None	Accessory port cable (6/6 wires) with open ends. This cable connects to the accessory port of the FOX3/-3G and consists of the 6pin (2x3) connector and 6 x wires with open ends. Cable length: 1.50 m.	

Accessories for FOX3/-3G (continued)

	IOBOX-MINI	None	<p>I/O extension module for FOX3/-3G. It extends the functionality of the FOX3/-3G by additional 13 inputs/outputs. The cable "CA38-STEPPIII-KFZ-1,5M" is required for connection of the I/Os to the vehicle signals/external system. It has 16-wires with a cable length of 1,5 meter. This cable is not included in the IOBOX-MINI standard delivery, it has to be ordered separately.</p> <p>16pin MOLEX connector comprising :</p> <p>IN : 8 x Digital inputs OUT : 4 x Digital outputs ANA : 1 x Analogue input</p> <p>Hint: IOBOX-MINI can be used with FOX-IN/EN (with US option) and FOX3/-3G, however the RX and TX lines on the 16pin connector of the IOBOX-MINI are not supported when connected to the FOX3 device. These pins are available on the 6-pin accessory port. For more details, refer to the FOX3/-3G hardware manual.</p>	
	IOBOX-BT	None	BT4.0 + Bluetooth LE dual mode for FOX3	planned
	IOBOX-CAN	None	IOBOX-CAN provides an additional CAN-Bus interface and up to 8 x I/Os, to extend the functionality of your FOX3/-3G devices, for almost every application within the automobile industry.	
	RFID-A-B-EXT	None	12V-24V external passive RFID reader device ISO 14443, Type A/B. It consists of a 4pin (2x2) UCOM connector and 5.0 m cable length. It connects to the FOX3/-3G device via CA31 cable.	
	RFID-TAGS-PACK-TYPE-A	A	Passive RFID Transponder (Tag) Type A (10 pcs. or 100 pcs.).	

FOX3/-3G ACCESSORY MATRIX

Interfaces/ Accessories	Audio Interface	RFID Interface	RS-232 Interface	Bar-Code Scanner Interface	JAZZ2 Interface	SPI interface	1-Wire interface	Power	Car Charger	I ² C / 1-Wire	Notes
CA27			●						●		
CA31		●	●	●	●			●			
CA68			●					●			
CA70								●			
CA69		●	●	●	●		●			●	
CA71			●				●			●	

● - Available

PRODUCT NAME	OPTIONS	DESCRIPTION	NOTES
A) AVL DEVICES			
STEPPIII-UX-X-B1 Fields of application: Trucks, Buses, Special vehicles	X = CH	Standard version: Quad Band GSM/GPRS module, 50 channel high sensitivity GPS receiver, 3-axis-motion-sensor ($\pm 3g$), internal rechargeable min. 1000 mAh Li-Polymer battery, external GSM/GPS FAKRA-SMB antenna connectors, 16pin (2x8) connector, 15pin (1x15) connector, SIM card slot, 3 x LED indicators incl. 16pin automotive installation cable 1.5 m. For programming the device you need CA13 or CA25-A cable . 16pin (2x8) connector includes: IN : 7 x Inputs (4 x Digital/Analog inputs, 3 x Digital inputs) V+ : 1 x Power supply (10.8 - 32.0 VDC) IGN : 1 x Digital input (ignition) OUT : 4 x Digital outputs (open collector 100 mA) 15pin (1x15) connector includes: SERIAL : 2 x RS-232 ports (1 x V.24, 1 x TTL) SPK/MIC : 1 x Audio interface (for connecting a speaker and microphone device) IGN : 1 x Digital input (ignition - the same IGN-pin as on 16pin connector) V_{OUT} : 2 x Power outputs (1 x 3.3VD/5VDC, 1 x battery voltage)	Certifications: CE, E1, FCC, PTCRB, AT&T
	CH	CAN-Bus interface (high speed CAN-Bus, CAN-FMS, CAN-OBD-II).	
Accessories for STEPPIII-UX-X-B1			
FAL-ANT-11	None	Combined Quad Band GSM 850/900/1800/1900 and active GPS antenna incl. 2.5 m RG174 cable set with FAKRA-SMB connectors and double sided adhesive pad (not waterproof).	
FAL-ANT-12	None	Combined Penta Band (GSM 850/900/1800/1900, 2.1-2.5GHz) and active GPS antenna incl. 2.5 m RG174 cable set with FAKRA-SMB connectors and double sided adhesive pad (not waterproof).	
CA13	None	Programming and audio connection cable with RS-232 serial port and audio jacks. It consists of a 15pin (1x15) AMP connector, an RS-232 serial port female connector and 2.5mm / 3.5mm female audio jacks.	
CA15	None	Audio connection cable with audio jacks. It consists of a 15pin (1x15) AMP connector and 2.5mm/3.5mm female audio jacks.	

PRODUCT NAME	OPTIONS	DESCRIPTION	NOTES
A) AVL DEVICES			
Accessories for STEPPIII-UX-X-B1 (continued)			
CA25-X	X = A X = B	Programming and audio connection cable with RS-232 serial port and audio jacks. It consists of a 15pin (1x15) AMP connector, 2.5mm / 3.5mm female audio jacks, a micro-USB connector (serial TTL level 3.3V) for connection with MFD1 device, a 4pin (2x2) UCOM connector for connecting the included RS-232 adapter cable with 4pin (2x2) UCOM connector.	
	A	RS-232 adapter cable with female connector (for PC).	
	B	RS-232 adapter cable with male connector for external peripherals (e.g. Serial Barcode Reader).	
CA37	None	Adapter cable for connecting STEPPIII with RFID. It consists of a 15-pin (1x15) AMP connector and a 4-pin (2x2) UCOM connector for connecting RFID-Reader device. Cable length ca. 21 cm.	
CA38	None	Automotive connection cable and mounting cradle with 2A-Fuse. The connection cable has a length of 1.5 m and a 16pin (2x8) connector. The mounting cradle is used to mount the STEPPIII device to a solid, flat, indoor surface. Please refer to the document "STEPPIII_HardwareManual.pdf" for details, how to mount it.	
Audio Set	None	FALCOM does not offer Audio set device, however it recommends to use active speaker and microphone. Please refer to the electrical specifications for the MIC and SPK in the STEPPIII hardware manual.	
RFID-A-B-EXT	None	12V-24V external RFID reader device ISO 14443, Type A/B. It consists of a 4pin (2x2) UCOM connector and 5.0 m cable length. It connects to a STEPPIII device via CA37 .	
RFID-TAGS-PACK-TYPE-A	None	RFID Transponder (Tag) Typ A (10 pcs. or 100 pcs.).	
CON-200	None	Counterpart of the STEPPIII-UX 15pin AMP connector to self build cables. 15-pin (1x15) AMP connector set (set of 10 pcs).	

STEPPIII-UX-X-B1 ACCESSORY MATRIX

Interfaces/ Accessories	Audio Interface	RFID Interface	RS-232 Interface	Bar-Code Scanner Interface	JAZZ2 Interface	Antenna interfaces	1-Wire interface	Power	Car Charger	Notes
FAL-ANT-11						●				
FAL-ANT-12						●				
CA13	●		●							
CA15	●									
CA25-A	●		● *							
CA25-B	●		● **	●						
CA37		●								
CA38								●		

● - Available; * Female; ** Male;

PRODUCT NAME	OPTIONS	DESCRIPTION	NOTES
A) AVL DEVICES			
BOLERO-LT2-MS-B1		<p>Standard version: Quad Band GSM/GPRS module, 50 channel high sensitivity GPS receiver and internal GPS/GSM antennas, built-in 3-axis-motion-sensor (±3g), internal rechargeable 1000 mAh Li-Polymer battery, SIM-Card interface, 5pin (1x5) connector, 4 programmable LED indicators and 1 x free programmable push-button, incl. 3/5pin automotive installation cable 1.5 m and double sided adhesive pad (D=40 mm) for mounting.</p> <p>BOLERO-LT2 does not support connection to RFID reader or JAZZ2 devices.</p> <p>For programming the device you need CA43 cable.</p> <p>5pin (1x5) connector includes:</p> <p>SERIAL : 1 x Serial port V.24, for firmware update and configuration ONLY *.</p> <p>V+ : 1 x Power supply (10.8 - 32.0 VDC)</p> <p>IGN : 1 x Digital input (ignition)</p>	<p>Certifications: CE, E1</p> <p>* See PREMIUM-FEATURES</p>
Accessories for BOLERO-LT2-MS-B1			
CA34	None	Power connection cable with Car Charger. It consists of a 5pin connector and a car charger with a cable length ca. 2 m.	
CA43	None	Programming and power connection cable with RS-232 serial port and open ends. It consists of 5pin (1x5) MOLEX connector, RS-232 serial port connector and 2 open end wires for power supply with a cable length of 1.50 m.	
Suction foot (vacuum cup)	None	Suction foot with a 40 mm diameter adhesive pad for mounting BOLERO-LT2 on glass surfaces. This is a perfect accessory for BOLERO-LT2, when you need to attach it to the windshield of a car.	

BOLERO-LT2-MS-B1 ACCESSORY MATRIX										
Interfaces/ Accessories	Audio Interface	RFID Interface	RS-232 Interface	Bar-Code Scanner Interface	JAZZ2 Interface	Antenna interfaces	1-Wire Interface	Power	Car Charger	Notes
CA34								●	●	
CA43			●					●		

● - Available

PRODUCT NAME	OPTIONS	DESCRIPTION	NOTES						
A) AVL DEVICES (Accessory device for interfacing to AVL devices)									
JAZZ2-GPS+AND4*	NONE	<p>Multi functional display 5" TFT display with integrated built-in 64 channels GPS receiver and internal rechargeable battery 2300mAh. Resolution 800 x 480 pixel, 65k resistive touch-screen, embedded CPU 1GHz, 256MB RAM, 512 MB internal flash memory, 2GB FLASH, micro SD card slot, power ON/OFF/Back button, USB 2.0 compliant 5 V, Android 4.0.</p> <p>FALCOM strongly recommends to use and charge the JAZZ2 only via the AVL Car-Connection-Kit (Cradle). If you don't use the JAZZ2 while it is mounted on its cradle, we recommend to switch it off, to accelerate the charging process.</p> <p>The standard delivery contents includes: JAZZ2-GPS+AND4 + USB programming cable + Car charger</p>	<p>Certifications: CE</p> <p>* On request, depending on commercial conditions</p>						
JAZZ2-GPS+GPRS+BT+WIFI+AND4	NONE	<p>Multi functional display 5" TFT display with integrated built-in 64 channels GPS receiver, Quad-Band GSM/GPRS module, Bluetooth V2.1 (OPP,SPP,...) and WiFi IEEE 802.11 b/g, internal rechargeable battery 2300mAh. Resolution: 800 x 480 pixel, 65k resistive touch-screen, embedded CPU 1GHz, 256MB RAM, 512 MB internal flash memory, 2GB FLASH, micro SD card slot, power ON/OFF/Back button, USB 2.0 compliant 5 V, Android 4.0.</p> <p>FALCOM strongly recommends to use and charge the JAZZ2 only via the AVL Car-Connection-Kit (Cradle). If you don't use the JAZZ2 while it is mounted on its cradle, we recommend to switch it off, to accelerate the charging process.</p> <p>The standard delivery contents includes: JAZZ2-GPS+GPRS+BT+WIFI+AND4 + USB programming cable + Car charger</p>	<p>Certifications: CE</p>						
Accessories for JAZZ2-GPS+AND4* & JAZZ2-GPS+GPRS+BT+WIFI+AND4									
	AVL Car-Connection-Kit	None	<p>Car connection kit to connect JAZZ2 to a FALCOM AVL device. This kit consists of a cradle including: 1.0 m cable with a 4pin (2x2) UCOM connector to connect the JAZZ2 to an AVL device via one of the following listed cables. It must be ordered together with one of the following cables:</p> <table border="0" data-bbox="828 1037 1657 1101"> <tr> <td>CA31</td> <td>: FOX-IN/EN installation cable</td> <td rowspan="2">} MANDATORY</td> </tr> <tr> <td>CA32</td> <td>: DISCO installation cable</td> </tr> </table> <p>You may also need the Car-Mounting-Kit (vehicle suction foot) to mount it on your car windshield. See Car-Mounting-Kit accessory listed below.</p>	CA31	: FOX-IN/EN installation cable	} MANDATORY	CA32	: DISCO installation cable	
CA31	: FOX-IN/EN installation cable	} MANDATORY							
CA32	: DISCO installation cable								
	Car-Mounting-Kit	None	<p>This car mounting kit allows you to use the JAZZ2 in a car. It consists of a vehicle suction foot which can be mounted to the JAZZ2 using AVL Car-Connection-Kit or Car-Connection-Kit RS-232. Car-Mounting-Kit can NOT be mounted directly to the JAZZ2.</p>						
	Car-Connection-Kit RS-232	None	<p>Kit for using the JAZZ2 alone without AVL device. This kit consists of a cradle including: 1.0 m cable with a RS-232 port and a mini-USB port.</p>						

JAZZ2-GPS+AND4* & JAZZ2-GPS+GPRS+BT+WIFI+AND4 ACCESSORY MATRIX

Interfaces/ Accessories	Audio Interface	RFID Interface	RS-232 Interface	Bar-Code Scanner Interface	JAZZ2 Interface	Antenna interfaces	1-Wire Interface	Power	Car Charger	Notes
AVL Car- Connection-Kit					●					
Car-Mounting-Kit										
Car-Connection- Kit RS-232			●							

● - Available

PRODUCT NAME	OPTIONS	DESCRIPTION	NOTES	
B) ASSET TRACKING & TERMINAL ASSET DEVICES				
<p>DISCO-CH-B4-AU*</p> <p>Fields of application: Trucks, Buses, Light trucks, Trains, Special vehicles</p>		<p>Standard version: Quad Band GSM/GPRS module, 50 channel high sensitivity GPS receiver, 3-axis-motion-sensor (±3g), CAN-Bus interface (high speed CAN-Bus, CAN-FMS, CAN-OB-D-II), internal battery (rechargeable 2250mAh Li-Polymer), internal GSM/GPS antennas, internal SIM-card holder, protection class IP69K, mounting kit and external cable (1m) including:</p> <ul style="list-style-type: none"> - 2 x Audio jacks (for speaker and microphone), - 1 x 8pin single row connector for data + power + IO (Input/Outputs), - 1 x 4pin single row connector for connection to MFD1. <p>Audio jacks includes:</p> <p>SPK : 1 x 3.5mm jack for connecting a speaker device. MIC : 1 x 2.5mm jack for connecting a microphone device.</p> <p>6/8pin (1x8) connector includes:</p> <p>RX, TX : 1 x Serial port V.24 V+ : 1 x Power supply (10.8 - 32.0 VDC) IGN : 1 x Digital input (Ignition) I/O : 2 x Multi-function inputs/outputs</p> <p>4pin (2x2) connector includes:</p> <p>RX,TX : 1 x RS-232 port 3.3V TTL V+ : 1 x Power supply for MFD1 device</p>	<p>* On request, depending on commercial conditions</p>	
Accessories for DISCO-CH-B4-AU				
	CA20	None	Programming and power/charging connection cable with RS-232 serial port and car charger. This cable consists of 8pin (1x8) connector, RS-232 serial port connector and a car charger for supplying power to the device. Cable length: 1.50 m	
	CA32	None	Installation and JAZZ2/RFID connection cable with 2A fuse. This cable consists of the 8pin (1x8) connector, a 4pin (2x2) connector for connecting a JAZZ1/RFID-reader and 6 x open end wires. Cable length: 1.50 m	
	Audio Set	None	FALCOM does not offer Audio set device, however it recommends to use active speaker and microphone.	
	RFID-A-B-EXT	None	5V-12V External RFID reader device ISO 14443, Type A/B. It consists of a 4pin (2x2) connector and 5.0 m cable length. It connects to a DISCO-AU device via CA32 cable.	
	RFID-TAGS-PACK-TYPE-A	None	RFID Transponder (Tag) Typ A (10 pcs. or 100 pcs.).	
	DISCO-PC-SET-X	X = 1 X = 2	<p>1 - Pylon Clamp-Set (2 x mast mounting clamps, V4A steel, salt-water proof).</p> <p>2 - Mounting Kit (Already available in the standard delivery contents).</p>	

DISCO-CH-B4-AU ACCESSORY MATRIX

Interfaces/ Accessories	Audio Interface	RFID Interface	RS-232 Interface	Bar-Code Scanner Interface	JAZZ1 Interface	Antenna interfaces	1-Wire Interface	Power	Car Charger	Notes
CA20			●						●	
CA32		●			●			●		

● - Available

PRODUCT NAME	OPTIONS	DESCRIPTION	NOTES
B) ASSET TRACKING & TERMINAL ASSET DEVICES			
DISCO-B5-MAGNET * Fields of application: Trucks, Buses, Light trucks, Trains, Special vehicles	None	Standard version: Quad Band GSM/GPRS module, 50 channel high sensitivity GPS receiver, 3-axis-motion-sensor (±3g), internal GSM/GPS antennas, internal SIM-card holder, internal battery pack (5x2250 mAh), protection class IP69K, 6 x magnetic mounts, inside light/dark sensor, 2 x external buttons for truck mount/demount detections and 6/8pin round female socket (Flanschdose). For programming the device you need CA33 cable (see accessory section below). <u>8pin round female connector (Flanschdose) includes:</u> RX, TX : 1 x Serial port V.24 V+ : 1 x Power supply (10.8 - 32.0 VDC) IGN : : 1 x Digital input (Ignition) I/O : : 3 x Multi-function inputs/outputs <u>4pin (1x4) connector includes:</u> RX,TX : 1 x RS-232 port 3.3V TTL V+ : 1 x Power supply for MFD1 device	* On request, depending on commercial conditions
Accessories for DISCO-B5-MAGNET			
CA33	None	Programming and power/charge connection cable with RS-232 serial port and Wall Adapter Power Supply. This cable consists of an 8-pin round male-connector (Flanschdose), an RS-232 serial port connector for configuration and an AC-DC wall adapter power supply (EU) for charging the internal batteries.	

DISCO-B5-MAGNET ACCESSORY MATRIX										
Interfaces/ Accessories	Audio Interface	RFID Interface	RS-232 Interface	Bar-Code Scanner Interface	JAZZ1 Interface	Antenna interfaces	1-Wire Interface	Power (Wall Adapter)	Car Charger	Notes
CA33			●					●		

● - Available

PRODUCT NAME	OPTIONS	DESCRIPTION	NOTES
B) ASSET TRACKING & TERMINAL ASSET DEVICES			
ROCK * Fields of application: Container monitoring, Data logger	None	Standard version: Quad Band GSM/GPRS module, 50 channel high sensitivity GPS receiver, 3-axis-motion-sensor (±3g), internal GSM/GPS antennas, internal SIM-card holder, internal non-rechargeable LR20 battery-block (7V / 5x2250mAh), assembled by 4 standard cross-screws, IP67 waterproof and shock-resistant case.	* On request, depending on commercial conditions
Accessories for ROCK			
CA44	None	USB programming cable. It consists of a 3pin (1x3) and an USB connector. Please refer to the ROCK hardware manual for details how to connect this cable with ROCK. To communicate with ROCK device you have to download and install FTDI driver from this website: http://www.ftdichip.com	
Safety Screw Set ROCK	None	Anti-theft screws ideal to assemble and keep your device safe. This set consists of 4 x safety screws and corresponding 1 x screwdriver bit.	
ROCK Battery-Block	None	ROCK back-up/replacement battery-block 5-cell LR20 battery-block (7,5V/10 Ah) incl. cable with connector (3pin) to ROCK PCB connection. Please refer to the hardware manual of the ROCK for details how to replace the battery-pack.	

ROCK ACCESSORY MATRIX										
Interfaces/ Accessories	Audio Interface	RFID Interface	USB Interface	Bar-Code Scanner Interface	JAZZ1 Interface	Antenna interfaces	1-Wire Interface	Power	Car Charger	Notes
CA44			●							

● - Available

PRODUCT NAME	OPTIONS	DESCRIPTION	NOTES
B) ASSET TRACKING & TERMINAL ASSET DEVICES			
MTR-1-X-RF * Fields of application: Mobile time registration system	X = GPS	Standard version: Complete Terminal with AVL based communication module and integrated RFID reader (ISO 14443) Type A/B, 4 x free configurable buttons (13.2 x 18.6 mm), 3 x free programmable LED indicators, internal GSM/GPS antennas, 5.5 mm jack for ext. power supply, inside SIM card holder, internal Lithium-Ion backup battery (700 mAh) incl. AC/DC power adapter (110...240V).	* On request, depending on commercial conditions
	GPS	Built-in 50 channel high sensitivity GPS receiver	
Accessories for MTR-1-RF			
	CA-FOX-8-2x4	None	Adapter cable for CA27 with an 8pin (1x8) and 8pin (2x4) male connectors. It must be ordered together with CA27 . For more details how to connect it to the MTR-1-RF PCB, refer to the MRT-1-RF hardware manual.
	CA27	None	FOX programming and power connection cable with RS-232 serial port and car charger. It consists of 8pin (2x4) female connector, RS-232 serial port connector and a car charger adapter. Cable length: 1.50 m. It must be ordered together with CA-FOX-8-2x4 .

MTR-1-X-RF ACCESSORY MATRIX										
Interfaces/ Accessories	Audio Interface	RFID Interface	RS-232 Interface	Bar-Code Scanner Interface	JAZZ1 Interface	Antenna interfaces	1-Wire Interface	Power	Car Charger	Notes
CA-FOX-8-2x4										
CA27			●						●	

● - Available

PRODUCT NAME	OPTIONS	DESCRIPTION	NOTES	
E) PERSONAL TRACKING DEVICES				
<p>MAMBO2-B6</p> <p>Fields of application:</p> <p>Personal tracker, Data logger, Lone worker protection, Remote worker monitoring, Racing</p>	None	<p>Standard version: Quad Band GSM/GPRS module, 50 channel high sensitivity GPS receiver based on u-blox chipset, full colour OLED display (128 x 128), 5-way navigation button, 2 x control buttons, 1 x reset button, hands-free speaking, internal Li-polymer battery 1650 mAh, 3-axis-motion-sensor, customizable GUI, SOS function, man-down detection, SIM card slot, Internal speaker and microphone, and mini-USB port for data and charging incl. USB-to-mini-USB cable.</p> <p>The standard MAMBO2-B6 is available in three versions:</p> <ol style="list-style-type: none"> 1) Orange/Black casing with Silver buttons 2) Black/Black casing with Silver buttons 3) Black/Black casing with Red/Green buttons 	<p>Certifications: CE, SAR, FCC</p>	
Accessories for MAMBO2-B6				
	Docking-Station	None	<p>Docking Station Set with quick charge. This docking station allows you to use your MAMBO2-B6 in your home, office etc. It consists of the base plate, holding cradle, 9V AC/DC wall adapter power supply with mini-USB port and EU-,US- or UK-plug. Please refer to the document "Docking-Station.pdf" for details ,how to assemble it.</p>	
	Car-Mounting-Kit	None	<p>Car-Mounting-Kit with Car charger. This car mounting kit allows you to use your MAMBO2-B6 in a car. This kit consists of vehicle suction foot, holding frame, base plate, USB-to-mini-USB power cable, car charger with USB port, 4 x screws and 1 x Allen key®. Please refer to the document "<i>Car-Mounting-Kit.pdf</i>" for details, how to assemble it.</p>	

PRODUCT NAME	OPTIONS	DESCRIPTION	NOTES
F) FIRMWARE & HARDWARE PREMIUM FEATURES FOR AVL DEVICES			
<p>The PREMIUM-FEATURES are extensions (APP) which are implemented in the standard FALCOM AVL firmware version 2.11.x and higher, to provide more applications and additional functionalities. These features need to be activated before use, by purchasing the corresponding unique activation keys, which are different for each premium feature and AVL device. The activation keys are linked to the serial numbers of FALCOM devices and will be generated by FALCOM only. A web server will be provided soon by FALCOM to download these features and allow you to enter the generated keys into the devices yourselves, using the corresponding PFAL command. The PREMIUM-Features can be individually activated in the AVL devices during installation, as well as in the AVL devices already deployed in the field.</p>			
FIRMWARE & HARDWARE PREMIUM FEATURE			Supported in firmware version and later
ECO DRIVE GPS	None	ECODrive is a feature based on GPS only. ECOdrive enables fleet managers and drivers to always keep track of current fuel consumption and driving style for helping them analyse to improve driving efficiency.	avl_2.11.0_rc7
AES128	None	AES is the Advanced Encryption Standard, a United States government standard algorithm for encrypting and decrypting data, that offers a higher level of security over GPRS / TCP using 128-bit group encryption with 128 key length.	avl_2.10.0_rc8
INDEXED HISTORY	None	The indexed history feature enables reading of specific numbers of lines in the history. Before using this feature you have to clear the old history records in the device.	avl_2.10.0_rc8
EXTENDED-GEOFENCES	None	This extended geofences feature allows you to create up to 3000 geofences and receive a notification when a geofence event occurs. This feature can be used i.e. for bus tracking and logistic projects.	avl_2.13.0_rc7
EXTENDED-ALARMS	None	This extended alarm feature extends the number of alarms that can be configured in the AVL device to up to 250, whereas in the standard AVL firmware versions, the number of alarms is limited to 100. The increased number of alarms allows you to use more alerts and thus more flexibility and functionality to the firmware, in order to meet the users' requirements.	avl_2.13.0_rc7
SERIAL-PORT (Only for BOLERO-LT2)	None	This feature activates the RS-232 serial port of the BOLERO-LT2 by processing the data being received from the external devices (e.g. Active & passive RFID readers, Bar-code scanner or JAZZ2 device) connected to this serial port.	avl_2.10.0_rc8
CAN-INTERFACE (Only for FOX3/-3G)	None	This feature activates the CAN-Bus chip in the FOX3 and forwards CAN/CANFMS /CAN-OBDI messages in real time to third-parties' application databases.	avl_2.12.0_rc10
RS-485-INTERFACE (Only for FOX3/-3G)	None	This feature reconfigures the second RS-232 interface in the FOX3 standard hardware into an RS-485 interface, for the communication with sensors using RS-485 interface.	avl_2.12.0_rc10

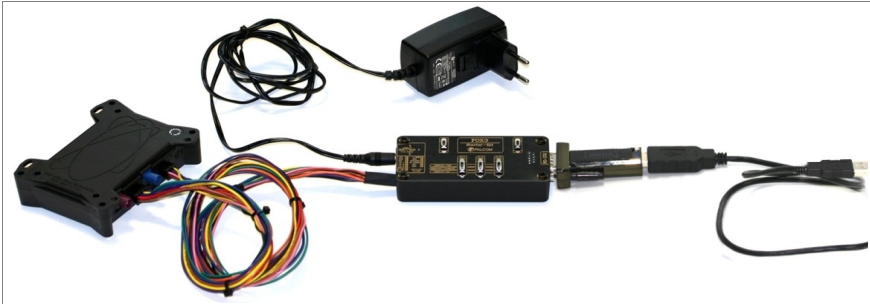
EVALUATION KIT - DESCRIPTION

To evaluate and demonstrate the performance of the AVL device, thus facilitating the placement of orders, the purchase of its EVALUATION KIT is essential. It comes with following contents:

- **1 x AVL unit shipped pre-configured with all needed accessories**
- **1 x Pre-charged SIM-Card supporting GPRS for data transmission**
- **1 x 3 Month Free Access to Trace4You Server Frontend**
- **Access to complete documentation of the dedicated product**
- **Free support for starting up your project**
- **Free software and firmware upgrades (for series of standard devices)**

Our Evaluation Kits are shipped pre-configured, with all settings needed for fast evaluation and demonstration. The evaluation board in the Evalkit contains everything needed for helping you to evaluate your application results. You don't need anything else than the EVALKIT to get started. In just a few minutes, you can set up your Evalkit and the AVL device goes online. You only need an Internet enabled computer (PC client) with a pre-installed standard web browser for accessing the device from the t4y server frontend. Falcom Workbench-Software tool can be downloaded free of charge for local evaluation:

see: <http://www.falcom.de/support/software-tools/falcom-workbench/>

PRODUCT NAME	OPTIONS	DESCRIPTION	NOTES
FOX3/-3G-PROMOTION-KIT	None	<p>PROMOTION KIT provides all the necessary hardware, software as well as the access data for the online documentation and trace4you server to easily and quickly evaluate the product and its functionalities. RoHS compliant.</p> <p>PROMOTION-KIT contents:</p> <ul style="list-style-type: none"> - 1 x FOX3 or FOX3-3G device pre-configured, with all PREMIUM-FEATURES activated - 1 x Rechargeable back-up battery - 1 x FAL-ANT-11 or FAL-ANT-12 (external GSM/GNSS or GSM/3G/GNSS antenna, depending on the version of the device included in the kit) - 1 x USB to Serial converter with extension cable - 1 x CA31 - Main port extended installation cable 1,5m, 8pin double row MOLEX connector, 4pin double row UCOM connector for connecting RFID reader or JAZZ2 and open ends. - 1 x CA69 - Accessory port cable 1,5m, 6pin double row MOLEX connector, 4pin double row UCOM connector and open ends. - 1 x Control-Box with main and accessory ports containing (cable length: 50 cm) : <ul style="list-style-type: none"> - 8pin (2x4) MOLEX connector (it connects to the FOX3 main port). - 6pin (2x3) MOLEX connector (it connects to the FOX3 accessory port). - Contol-Box with 5 x LED indicators, 5 x switches, 3 x I/Os and 1 x IGN. - a 9-pin SUB-D port known in the firmware as "Serial0" - 1st serial interface - SER0. - Input power jack (12 - 32 VDC) - Power supply + US/UK/AU/EU adaptors - 1 x Prepaid SIM card. Service fee includes 10MB of data transfer and 3 months access to the FALCOM trace4you server for evaluation purposes - 1 x Info sheet., containing SIM card information, login data for online documentation and trace4you server). - 1 x 8 hours free technical support . 	

PRODUCT NAME	OPTIONS	DESCRIPTION	NOTES
EVALKITS			
BOLERO-LT2-EVALKIT	None	<p>Complete plug and play evaluation system for the BOLERO-LT2-MS-B1 device. RoHS compliant. This delivery consists of 1 box:</p> <p>Package contents:</p> <ul style="list-style-type: none"> 1 x BOLERO-LT2-MS-B1 unit shipped pre-configured 1 x BOLERO-LT-EVALBOARD 1 x CA51 cable for connecting device to Evalboard 1 x RS-232 serial cable, connects EVALBOARD to a PC 1 x Double sided adhesive pad (D=40 mm) 1 x EU AC/DC power adapter, type FW7238/12 1 x US adapter 1 x UK adapter 1 x Key for closing and opening the box 1 x 3/5pin Automotive installation cable 1,5m. 1 x Infosheet, contains all information needed to get started with BOLERO-LT2 (SIM card information, login data for accessing necessary online documentation and trace4you server frontend). 1 x Prepaid pre-charged SIM card and 3 months access to the FALCOM web server for evaluation purposes*. <p>*Attention: The prepaid SIM card is not available for all countries. The 3 months access to the FALCOM demo web server is not part of the FALCOM's liabilities but a voluntary offer free-of-charge for BOLERO-LT2-EVALKIT buyers for evaluation and demonstration purposes and without responsibility.</p>	

PRODUCT NAME	OPTIONS	DESCRIPTION	NOTES
EVALKITS			
MAMBO2-B6-EVALKIT	None	<p>Complete plug and play evaluation system for the MAMBO2-B6 device. RoHS compliant. This delivery consists of 1 box:</p> <p>Package contents:</p> <ul style="list-style-type: none"> - 1 x MAMBO2-B6 unit shipped pre-configured - 1 x Docking station, consists of base plate, holding cradle, USB-to-mini-USB cable - 1 x AC/DC removable adapter (9V output) for different plugs with USB port - 1 x EU plug - 1 x US plug - 1 x UK plug - 1 x Key for closing and opening the box - 1 x Car mounting kit, consists of vehicle suction foot, holding frame, base plate, USB-to-mini-USB power cable, car charger with USB port, 4 x screws and 1 x allen key. - 1 x Prepaid pre-charged SIM card and 3 months access to the FALCOM web server for evaluation purposes *. - 1 x Infosheet, contains all information needed to get started with MAMBO2-B6-EVALKIT (SIM card information, login data for accessing necessary online documentation and trace4you server frontend). <p>*Attention: The prepaid SIM card is not available for all countries. The 3 months access to the FALCOM demo web server is not part of the FALCOM's liabilities but a voluntary offer free-of-charge for MAMBO2-B6-EVALKIT buyers for evaluation and demonstration purposes and without responsibility.</p>	

ORDERING PROCESS

In order to process your PO without any further inquiries, please provide the following information:

Order Information	Description
[COMPANY NAME]	
[CUSTOMER P.O. NO]	
[DATE OF P.O.]	
[BILLING ADDRESS]	
[VAT-NO]	
[SHIPPING ADDRESS]	
[INCOTERM]	
[PREFERRED CARRIER]	Depending of the INCOTERM
[CARRIER ACCOUNT-NO]	
[CONTACT DETAILS]	Details of the recipient at the delivery address incl. name and phone number.
[PRODUCT NAME]	As stated in Ordering Guide, including options.
[QUANTITY]	
[PRICE]	See price list or SQ.
[REQUESTED DELIVERY DATE]	Optional.

USED ABBREVIATIONS

Abbreviation	Meaning	Abbreviation	Meaning
EOL	End Of Life	USB	Universal Serial Bus
ODM	Original Design Manufacturer	SPI	Serial Peripheral Interface
MOQ	Minimum Order Quantity	RS-232	Recommended Standard 232 (EIA standard for transmitting serial data)
LTB	Last Time Buy	CAN	Controller Area Network
LTD	Last Time Delivery	FMS	Fleet Management Systems
NPI	New Product Introduction	OBD-II	On Board Diagnostics, 2nd generation
GSM	Global Standard for Mobile Communications	I/O	Multi function input/output
GPS	Global Positioning System	VDC	Volts Direct Current
GLONASS	Global Navigation Satellite System (Russia)	TFT	Thin Film Transistor
SIM	Subscriber Identification Module	SD	Secure Digital
GPRS	General Packet Radio Service	CPU	Central Processing Unit
IGN	Ignition	RAM	Random Access Memory
SPK	Speaker	DDR	Double Data Rate
MIC	Microphone	SPP	Serial Port Profile (Bluetooth)
OUT	Digital Output	RFID	Radio-Frequency IDentification
IN	Digital Input	OLED	Organic Light-Emitting Diode
TTL	Transistor-Transistor-Logic	GUI	Graphical User Interface
LED	Light-Emitting Diode	AES	Advanced Encryption Standard
RX	Receive direction	SQ	Special quote.
TX	Transmit direction		

FALCOM GmbH products are RoHS conform

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Terms & Conditions

General Terms: See our general terms & conditions on following weblink: <http://www.falcom.de/contact/general-terms/>

Document history:

Version	Changes	Modified
3.1.0	Extended: FOX3/3G PROMOTION-KIT contents (new added: USB to Serial converter + FAL-ANT-11 or FAL-ANT-12 + 8 hours free technical support)	19/06/2015
3.0.9	Some made corrections	12/06/2015
3.0.8	Changed ordering-options for devices: STEPPHIII-UX, DISCO, BOLERO-LT2 (see the product page) Changed Fax number	05/06/2015
3.0.7	Some made corrections	04/06/2015
3.0.6	Added new devices: FOX3-3G and IOBOX-CAN Renamed: FOX3-STARTERKIT to FOX3/3G PROMOTION-KIT Extended: FOX3/3G PROMOTION-KIT contents (SIM card + trace4you access) Removed devices: FOX-IN/EN (all versions), JAZZ1 Removed EVALKITS: FOX3, STEPPHIII-UX, FOX-IN/EN, DISCO	03/06/2015
2.0.6	- Extended: FOX3-EVALKIT contents - CA69 cable added.	20/02/2015
2.0.5	- Updated: FOX3/-3G-PROMOTION-KIT contents. - Changed: PAID-Features to PREMIUM FEATURES .	19/02/2015
2.0.4	- Changed Hint : IOBOX-MINI can be used with FOX-IN/EN and FOX3. - Removed the accessory "Leather-Bag" for MAMBO2.	08/12/2014
2.0.3	- Added CA68 (main port installation cable 8pin connector with open ends) for FOX3	24/10/2014
2.0.2	- Added STARTERKIT for FOX3	06/10/2014
2.0.1	- Added paid-features: EXTENDED-GEOFENCES, EXTENDED-ALARMS	30/09/2014
2.0.0	- Added: FOX3 and FOX3-EVALKIT - Added: Premium-features for FOX3 (only): CAN-INTERFACE & RS-485-INTERFACE	19/09/2014
1.1.1	- Added DISCO-B5-MAGNET-EVALKIT (this version is still not released)	09/01/2014
1.0.1	- JAZZ-2 is offered without camera	01/07/2013
1.0.0	- Initial version	14/06/2011