

USER GUIDE

ID ECCO:Lite

Compact and Robust RFID-/Barcode Scanner



Note

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1 Safety Instructions

- ▶ Please read this user guide carefully and follow the given instructions and safety instructions before using the device.
- ▶ The device may only be used for the intended purpose designed by the manufacturer.
- ▶ This user guide should be conveniently kept available at all times for each user.
- ▶ Unauthorized changes and the use of spare parts and additional devices which have not been sold or recommended by the manufacturer may cause fire, electric shocks or injuries. Such unauthorized measures shall exclude any liability by the manufacturer.
- ▶ The liability-prescriptions of the manufacturer in the issue valid at the time of purchase are valid for the device. The manufacturer shall not be held legally responsible for inaccuracies, errors, or omissions in the manual or automatically set parameters for a device or for an incorrect application of a device.
- ▶ Repairs may only be executed by the manufacturer.
- ▶ Installation, operation and maintenance procedures should only be carried out by qualified personnel.
- ▶ Use of the device and its installation must be in accordance with national legal requirements and local electrical codes.
- ▶ When working on devices the valid safety regulations must be observed.
- ▶ Use of controls or adjustments or performance of procedures other than those specified herein may result in exposure to hazardous visible laser light. The laser scanner utilizes a low-power laser diode. Although staring directly at the laser beam momentarily causes no known biological damage, avoid staring into the beam as one would with any very strong light source, such as sunlight. Avoid that the laser beam hits the eye of an observer, even through reflective surfaces like mirrors, etc.



LASER RADIATION! DO NOT STARE INTO BEAM! CLASS 2 LASER PRODUCT

$P \leq 1 \text{ mW}$ $\lambda = 663 \text{ nm}$

- ▶ Do not crush, puncture, short circuit or place the LiPo battery in fire or water. To reduce the risk of fire or burns, do not attempt to open, disassemble, or service the battery pack. Do not expose the unit to temperatures above 60 °C (140 °F). Only charge the battery with the battery charger intended by the manufacturer. Do not deep discharge the battery. Do not use damaged batteries.
- ▶ Switch off your wireless device whenever you are instructed to do so by airport or airline staff. Consult airline staff and ask for the device's use in-flight.
- ▶ Wireless devices may affect medical electrical equipment. Therefore they should be switched off wherever you are requested to do so in hospitals or healthcare facilities to prevent interference with sensitive medical equipment.
- ▶ It is recommended by pacemaker manufacturers to maintain a minimum of 15 cm (6") between a handheld wireless device and a pacemaker to avoid potential interference. Therefore persons with pacemakers should not carry the device in a breast pocket. These recommendations are consistent with independent research and recommendations by Wireless Technology Research. If you have any reason to suspect that interference is taking place, turn off your device.
- ▶ Do not take note or use the device while driving. When driving a vehicle, driving is your first responsibility, therefore give full attention to driving.
- ▶ RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles. You should consult the manufacturer of any equipment that has been added to your vehicle.

- ▶ Do not place the device in the area over the air bag or in the air bag deployment area. Improperly installed wireless equipment could result in serious injury when the air bag inflates.
- ▶ Observe restrictions on the use of radio devices in fuel depots, chemical plants and areas where the air contains chemicals or particles such as grain, dust or metal powder as well as any other area where you are advised to turn off your vehicle engine.

2 Revision History of Documentation

Revision	Date	Description
0	29.03.2019	Initial version

3 Scope of Delivery

The scope of delivery includes following components:



1 x ID ECCO:Lite



1 x USB Charging Cable



1 x ID ECCO:Lite User Guide

After unboxing please make sure, that all listed parts have been delivered properly and in good condition.

4 Product Description

The ID ECCO:Lite captures and stores barcodes data for a variety of uses and transmits those to a host via USB connection or Bluetooth. This document provides a basic instruction for using the ID ECCO:Lite device.

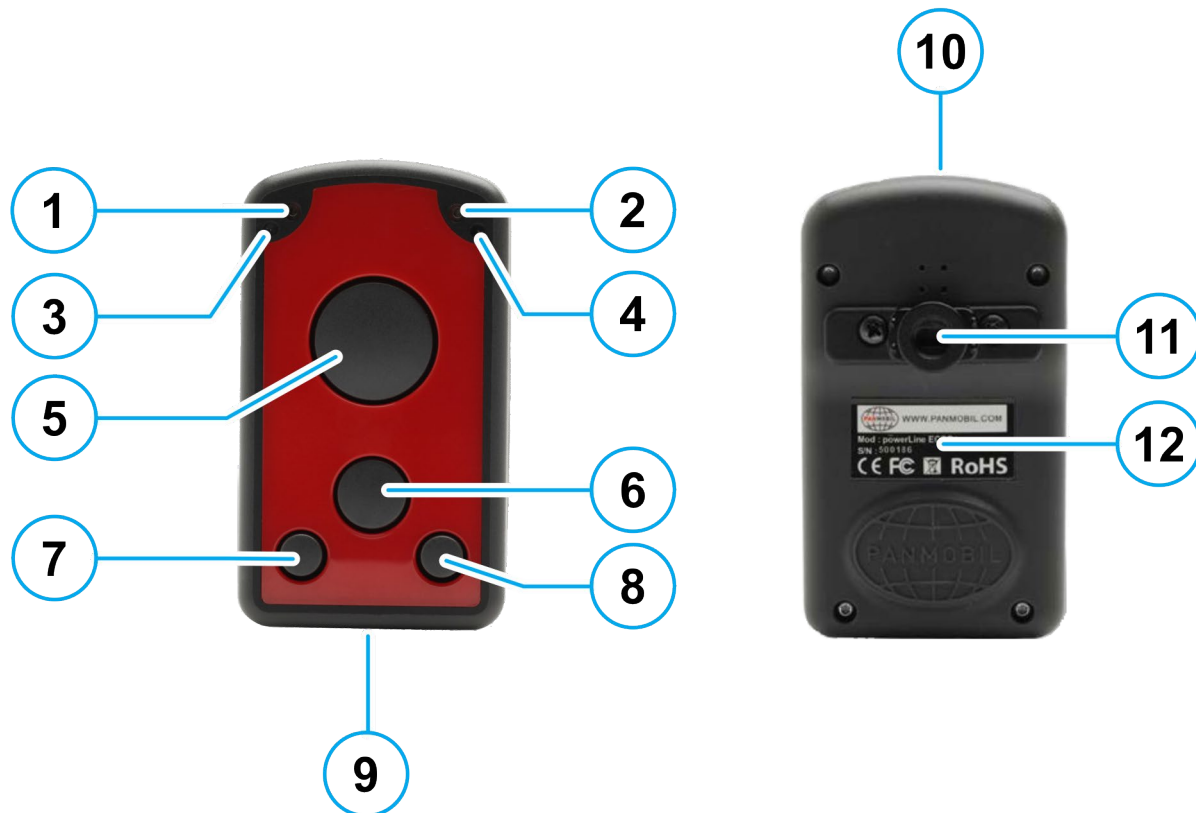


Fig. 1: ID ECCO:Lite device overview

Label	Description	Function
1	Green LED	Lights up green when ID ECCO:Lite is turned ON. When the battery level is low, it flashes every 2 sec.
2	Yellow LED	Lights up yellow while barcode reader is on. Is off if a read was successful.
3	Red LED	Lights up red if connected to a battery charger (USB or power adapter). Red = Battery charging Off = Battery fully charged
4	Blue LED	Is flashing for 2 seconds when the device is booting (initializing Bluetooth). Lights up blue when Bluetooth initialization failed (wait for the device to power off, then restart). Lights up blue when ID ECCO:Lite is connected to Bluetooth.
5	Key 1 (trigger button) Power ON and Scan	Batch mode Press for 1 second to power on the device. The device will immediately start the barcode laser to read a barcode. Captured barcodes will be stored in the device memory. Bluetooth mode Press for 1 second to power on the device. The blue LED (4) will flash for 2 seconds to initialize Bluetooth. Bluetooth connected Blue LED (4) constantly on.

		<p>Captured barcodes will be sent to the paired Bluetooth device according to the profile configured.</p> <p>Bluetooth not connected Cache mode activated Captured barcodes will be stored in the device memory.</p> <p>Cache mode deactivated Captured barcodes will be rejected.</p>
6	Key 2 (delete button)	<p>Batch mode Press for 1 second to power on the device. The device will immediately start the barcode laser to read a barcode. Captured barcodes will be deleted from the device memory.</p> <p>Bluetooth mode Press for 1 second to power on the device. The blue LED (4) will flash for 2 seconds while initializing Bluetooth.</p> <p>Bluetooth connected Blue LED (4) constantly on. Pressing key 2 shortly = no function Pressing key 2 for 2 seconds = send static data</p> <p>Bluetooth not connected Cache mode activated Pressing key 2 shortly = no function Pressing key 2 for 2 seconds = save static data</p> <p>Cache mode deactivated Key 2 has no function.</p>
5+6	Key 1 + Key 2 Batch mode only	Pressing key 1 and key 2 for 4 seconds while in Batch mode deletes all captured data from the data file!
7	Key 3 (custom)	<p>Batch mode Pressing key 3 shortly = no function Pressing key 3 for 4 seconds = save static data</p> <p>Bluetooth mode Bluetooth connected HiD mode Blue LED (4) constantly on. Pressing key 3 shortly = toggle Apple keyboard Pressing key 3 for 4 seconds = send static data</p> <p>Bluetooth mode Bluetooth connected HiD SPP / iAP mode Blue LED (4) constantly on. Pressing key 3 shortly = no function Pressing key 3 for 4 seconds = send static data</p> <p>Bluetooth not connected Cache mode activated Pressing key 3 shortly = no function Pressing key 3 for 4 seconds = save static data</p> <p>Cache mode deactivated Key 3 has no function.</p>
8	Key 4 (custom)	<p>Batch mode Pressing key 4 shortly = no function Pressing key 4 for 4 seconds = save static data</p> <p>Bluetooth mode Bluetooth connected HiD mode Blue LED (4) constantly on. Pressing key 4 shortly = no function Pressing key 4 for 4 seconds = send static data</p>

		Bluetooth mode Bluetooth connected HiD SPP / iAP mode Blue LED (4) constantly on. Pressing key 4 shortly = no function Pressing key 4 for 4 seconds = send static data Bluetooth not connected Cache mode activated Pressing key 4 shortly = no function Pressing key 4 for 4 seconds = save static data Cache mode deactivated Key 4 has no function.
7+8	Key 3 + Key 4 Bluetooth mode only	Blue LED (4) constantly on. Pressing key 3 + key 4 for second = send data stored while Bluetooth was not connected
5+6+7+8	Key 1 + Key 2 + Key 3 + Key 4	System reset Press all four buttons for 5 seconds to reset the device. Please note: The device clock will be reset too! The device configuration will not be affected by a system reset.
9	USB protection clip Mini-USB interface	Rubber clip to protect the Mini USB port. Main communication and battery charging interface.
10	Scanning window	Protection glass for the barcode laser. To have the best reading performance, keep the glass clean and free of scratches.
11	Mounting plate	Holder to fix the belt clip (accessories).
12	Int. Li-ion battery	Rechargeable Li-ion battery 1250 mAh

5 Technical Data

Mechanical Data

Housing	Double-walled Inside: robust ABS Outside: protective rubber coating
Dimension (W x H x D)	87 mm x 48 mm x 26 mm (3.42" x 1.89" x 1.02")
Weight	96 g (3.39 oz)
Protection Class	IP 64
Color	black, red

Electrical Data

Barcode (optional)	1D: EAN-8, EAN-13, UPC-A, UPC-E Code 128, Code 39, Code 93, Interleaved 2of5, Codabar
Interfaces	
• USB	USB mass storage, USB Serial
• Bluetooth	Bluetooth Class 1, HiD SPP
Battery	1250 mAh Lithium Ion, 3.7 V
Indicators	LED (red, green, yellow, blue) Speaker Vibration feedback
Keyboard	4 keys; each key is configurable
CPU	AVR 8bit, 32 MHz
Memory	16 KB RAM 6 MB Flash
Date / Time	Real-time clock
Supported OS	Win 7 / Win 8 / Win 10 (32 and 64 bit) / Server 2003/2000
Configuration	MasterSetup

Environmental Conditions

Temperature Range	
• Operation	0 °C up to 55 °C (32 °F up to 122 °F)
• Storage	-20 °C up to 60 °C (-4 °F up to 140 °F)
Humidity	5 % up to 95 % (non-condensing)
Drop	1.6 m drop to concrete

Standard Compliance

RoHS, WEEE, CE, FCC

6 Operation

6.1 Charging the Battery

Before the first operation, the main battery should be fully charged by using the included USB charging cable. As long as the battery is charging the red LED (3) will light solid red. After the battery is fully charged the red LED (3) turns off. A full recharge of the battery takes approx. 4 to 5 hours.

To charge the battery via USB follow the instructions below:

1. Remove the USB protection clip (9) from the device.
2. Connect the device to the USB port of a computer or to the USB power adapter (accessories).
3. As long as the battery is charging, the red LED (3) lights solid red.
4. After the battery is fully charged the red LED (3) turns off.

6.2 Device Reset

To reset the ID ECCO:Lite press and hold the keys 1, 2, 3 and 4 (see chapter 4 Product Description on page 8.) for 5 seconds.

① NOTE:

- ***By reset the device loses its timestamp. Before continuing to use it you must synchronize the time settings by connecting the ID ECCO:Lite with the Master Setup. The time thereby will be automatically synchronized with the system time of your PC.***
- ***Specific configuration settings and data will not be lost by the reset.***

6.3 Configuration

The ID ECCO:Lite comes with preinstalled default firmware which can easily be configured to meet the application requirements. The device function can be determined by modifying the settings in the file "Config.ini" which is stored on the device memory or using the PC software tool "Master Setup" which is available for download from www.panmobil.com.

6.3.1 Config.ini Configuration

To configure the ID ECCO:Lite connect the device to your PC by using a mini USB to USB-A cable. The device will automatically power ON after 2 seconds when the device is connected to the PC. Browse the removable drive "SCANNDY" and open the file "Config.ini" with the text editor.

[General]

PwrOffDelay=0

Set the timeout in minutes you want the device to power off when it is not in use.

Minimum value for Batch mode = 0 minutes

Minimum value for Bluetooth mode = 3 minutes (values less than 3 will be ignored)

LeftKeyText="LEFT"

Set the static data you want to be saved or sent by Bluetooth if key 3 is pressed for 4 seconds.

MiddleKeyText="MIDDLE"

Set the static data you want to be saved or sent by Bluetooth if key 2 is pressed for 4 seconds.

RightKeyText="RIGHT"

Set the static data you want to be saved or sent by Bluetooth if key 4 is pressed for 4 seconds.

DeviceID="0000"

Set the custom device ID

OutputFormatDB="%t;%b"

Set the record format for the data record (Batch mode).

OutputFormatBT="%b"

Set the record format for the data record (Bluetooth mode).

TimestampFormat="%Y-%m-%d %H:%M:%S"

Set the time format.

Signal=63

reserved

PureScan=0

Activate PureScan mode. In PureScan mode all keys can read barcode. The barcode will be saved or sent with the button name the code has been read with.

PureScan=0 // PureScan mode deactivated

PureScan=1 // PureScan mode activated

KeyBeep=1

KeyBeep=1 // key click activated

KeyBeep=0 // key click deactivated

[BT]**Available=1**

Automatically determined value from the Hardware initialization.

Available=1 // Bluetooth module present

Available=0 // Bluetooth module not found

Enabled=1

Enabled=1 // Bluetooth mode activated

Enabled=0 // Bluetooth mode deactivated

Mode=1

Mode=1 // Bluetooth communication profile Bluetooth HiD

Mode=0 // Bluetooth communication profile Bluetooth SPP

Autoconnect=0

Autoconnect=0 // do not reconnect when Bluetooth connection is lost

Autoconnect=1 // try to reconnect automatically when Bluetooth connection is lost

NOTE: Autocorrect function must be supported by the paired device and the application running on the paired device.

Cache=0

Cache=0 // do not save captured data when Bluetooth is not connected

Cache=1 // save captured data in the device memory when Bluetooth is not connected

Scomp=0

Scomp=0 // do not use SComP communication protocol

Scomp=1 // use SComP communication protocol

NOTE: SComP protocol must be supported by the application running on the paired device! Please refer to the SComP protocol description.

DevName="Eccolite"

DevNAME=ECCOLiteXXXXXX // set the friendly name for Bluetooth

iAP=0

iAP=0 // Apple MFI authentication disabled

iAP=1 // Apple MFI authentication enabled

NOTE: For Bluetooth communication over SPP profile Apple devices require iAP to be enabled. Otherwise it will not be possible to connect the ID ECCO:Lite to an Apple device. For Bluetooth connection to Android or Windows devices iAP must be disabled.

ProtocolID=""

Set the protocol ID configured in the APP running on the Apple device.

Service=""

Set the service name configured in the APP running on the Apple device.

[Laser]

Set the barcode options required by the application.

GlobalMaxCodeLen=99

GlobalMinCodeLen=

UPCA_Enable=0

UPCA_Verify=1

UPCA_XmitCheck=0

UPCA_SupplDgt=0

UPCA_TruncExp=0

UPCE_Enable=0

UPCE_Verify=1

UPCE_XmitCheck=0

UPCE_SupplDgt=0

UPCE_TruncExp=0

UPCE1_Enable=0

UPCE1_Verify=1

UPCE1_XmitCheck=1

UPCE1_SupplDgt=0

UPCE1_TruncExp=0

EAN13_Enable=1

EAN13_Verify=1
EAN13_XmitCheck=1
EAN13_SupplDgt=0
EAN13_ISBN_ISSN=0
EAN8_Enable=1
EAN8_Verify=1
EAN8_XmitCheck=1
EAN8_SupplDgt=0
EAN8_TruncExp=0
C39_Enable=1
C39_Verify=0
C39_XmitCheck=0
C39_MaxLen=99
C39_MinLen=1
C39_FullASCII=0
C39_XmitSS=0
I25_Enable=1
I25_Verify=0
I25_XmitCheck=0
I25_MaxLen=99
I25_MinLen=6
Codabar_Enable=0
Codabar_Verify=0
Codabar_XmitCheck=0
Codabar_MaxLen=55
Codabar_MinLen=5
Codabar_SSType=0
Codabar_XmitSS=1
C128_Enable=1
C128_Verify=1
C128_XmitCheck=0
C128_MaxLen=99
C128_MinLen=1
EAN128_Enable=1
EAN128_Verify=1
EAN128_XmitCheck=0
EAN128_MaxLen=99
EAN128_MinLen=1
C93_Enable=1
C93_Verify=1
C93_XmitCheck=0
C93_MaxLen=55
C93_MinLen=4

6.4 Scanning

6.4.1 1D Laser

To scan a barcode follow the steps below:

1. Aim the scanner on the barcode.
2. Press the trigger key (5).
3. Ensure that the scanning line is directed straight on the barcode.
4. The ID ECCO:Lite beeps and the yellow LED (2) lights up to indicate a successful decode.



Fig. 2: Barcode Scanner Alignment

7 Bluetooth Connection

To pair the Bluetooth enabled device to a Bluetooth enabled host.

1. Connect the device to the host using the USB port and use the Master Setup to set the data output mode to Bluetooth.

Select the Bluetooth profile supported by the host or required by the application.

- **Serial Port Profile (SPP)**
The scanner connects to the host via Bluetooth and emulates a serial connection. The scanner accepts an incoming connection requested by a Bluetooth host.
 - **Serial Port Profile (SPP) iAP (connection to Apple devices)**
The scanner connects to the host via Bluetooth using the Apple MFI authentication mode. The scanner accepts an incoming connection requested by a Bluetooth host.
 - **Bluetooth Keyboard Emulation (HID)**
The scanner connects to the host via Bluetooth and emulates a keyboard. The scanner accepts an incoming connection, requested by a Bluetooth host.
2. Save the settings and disconnect the device from the computer.
On the host computer, launch the third party Bluetooth pairing application and place the application into discover Bluetooth device mode.
 3. Select the ID ECCO:Lite from the discovered device list. The Bluetooth application may prompt you to scan a passkey it generated, or for you to create one and then scan the PIN code.
 4. If the Bluetooth application prompts you to generate a PIN, enter the configured Bluetooth PIN.
DEFAULT: 1234
Once set, the PIN can be changed via Master Setup or in the Config.ini.
 5. The blue LED (4) lights up constantly as long as the device is connected.

8 Transmitting Barcode Data to a Host

Batch mode

All barcodes scanned in batch mode are saved in the file "Output.txt" on the removable drive "SCANNDY". Connect the device to the host computer via USB and use the Windows-Explorer to navigate to the device "SCANNDY". Copy the file "Output.txt" to the host.

To delete the data from the device just delete the file "Output.txt".

Transmitting data from a Bluetooth device

When the scanner is paired to a host via Bluetooth, the data transmits to the host after each scanning procedure and is not stored on the scanner unless the scanner moves out of the range of the host. For out of range usage you can configure the device to either store the data in a cache memory or do not allow scanning.

If the device was configured to store the out of range captured data, it stores the data in the file "Output.txt". After reconnection press key 3 + key 4 for 2 seconds to transmit all cached data to the host.

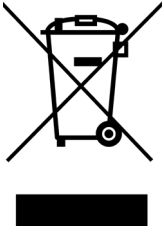
9 Troubleshooting

Problem	Possible Solution
Device does not turn on.	<ul style="list-style-type: none"> Make sure the battery is charged. Press and hold the keys 1 to 4 for 5 seconds to reset the device.
Laser comes on but device does not decode barcode.	<ul style="list-style-type: none"> Ensure the device is configured to read the type of code being scanned. Ensure the code is not defaced. Try to read another barcode. Move the device closer to or further from the code. This depends on your barcode size.
The device is on but does not react on any keystroke.	<ul style="list-style-type: none"> Press and hold the keys 1 to 4 for 5 seconds to reset the device. <p>By reset the device loses its timestamp. Before you continue to use it, you must synchronize the time settings by connecting to a host. Connect the device again with the Master Setup- The time will be automatically synchronized with the system time of your PC. Specific configuration settings and data will not be lost by the reset. Stored data and configuration are not affected by a reset.</p>
Bluetooth is not working.	<ul style="list-style-type: none"> Ensure that the device is in the correct Bluetooth Mode (HID or SPP). Ensure that you are paired correct to your host. Renew your pairing with your host system.
Barcode reading ability has degraded.	<ul style="list-style-type: none"> Maybe the scan window has become dirty. Please clean your scan window with a soft cloth with water.
Nothing happens when the scan key is pushed.	<ul style="list-style-type: none"> Make sure your device is powered on (green LED on the left must be on). Ensure that your keys are correctly configured.

10 Maintenance and Cleaning

To clean the lense use a clean and dry cleaning cloth. Do not use chemical cleaners, lyes or similar.

11 Disposal



Never dispose of Li-Ion batteries in household waste! Li-Ion batteries can be disposed of at special collection points. Before disposal, make sure that the Li-Ion battery is completely discharged.

12 Approvals

12.1 Europe (CE)

This equipment is intended to be commercialized in all the countries of the European Union and there is no commercialization or operational restrictions in any of the countries.

Hereby, advanced FEIG ELECTRONIC GmbH declares that this Bluetooth, Wi-Fi barcode scanner is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC



Performance Classification according to ETSI EN 301 489: Class 2

13 Warranty

FEIG ELECTRONIC warrants that the product will be free of defects in material and workmanship for 12 months from the date of shipment when used as intended. FEIG ELECTRONIC will, at its option, either repair or replace the defective products. Such repair or replacement shall be buyer's sole remedy in the event of manufacturer's breach of his limited warranty. Repaired or replaced parts or products may include new, reconditioned or remanufactured parts and equipment at manufacturer's option. All costs associated with shipment to FEIG ELECTRONIC for warranty service, including but not limited to freight, duties, insurance and custom fees, are buyer's responsibility. FEIG ELECTRONIC will pay the freight costs (duties, insurance, customs and any other fees) associated with the return shipment to the buyer. The method of shipment will be at the manufacturer's discretion. Repair or replacement of any parts or equipment does not extend the period of warranty provided for herein.

THIS LIMITED WARRANTY IS THE MANUFACTURER'S ONLY WARRANTY. FEIG ELECTRONIC DOES NOT GIVE WARRANTIES OF MERCHANTABILITY OR WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE.

To take advantage of this warranty, the buyer should contact the seller not the manufacturer. The warranty set forth herein does not cover and FEIG ELECTRONIC will have no obligations hereunder if any non-conformance is caused in whole or in part by accident, transportation, neglect, misuse, alteration, modification, or enhancement of the product or incorporation, interfacing, attachment of any feature, program, or device to the product by a person or entity other than the manufacturer, failure to provide a suitable installation environment, use of the product for other than the specific purpose for which the product is designed or any use of the product not in accordance with the User Guide or other misuse or abuse of the product. The warranty does not cover problems linked to batteries.

In case the product was bought directly from FEIG ELECTRONIC the buyer should refer to www.panmobil.com/rma.

Shipment Address:

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D-51149 Cologne