advanced PANMOBIL® systems

powerlineECCO+
Manual

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Software and product improvement

Trademarks

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Warranty

For the complete PANMOBIL hardware product
warranty statement, go to: www.PANMOBIL.com

PRODUCT REFERENCE
powerlineECCO+

<u>Introduction</u>

PANMOBIL's powerlineECCO+ devices capture and store barcode and RFID data for a variety of uses, and transmit barcode and RFID data to a host via USB connection, Bluetooth or Wi-Fi. This document provides a basic instruction using the powerlineECCO+ device.

No.	Description	Function
1	Green LED	Lights up green when ECCO+ is turned ON. When the battery level is empty, it flashes every 2 sec (Further function can be user defined with the programming interface)
2	Yellow LED	Lights up yellow if a barcode or RFID tag was read successfully. Is flashing yellow (500ms) when connected to USB (Further function can be user defined with the programming interface)
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	Lights up blue when ECCO+ is connected to Bluetooth Is flashing fast (500ms) while Wi-Fi is associated Is flashing blue (3 sec.) when Wi-Fi is connected (Further function can be user defined with the programming interface)
5	Key 1 (Trigger button)	Triggers the barcode and/or the RFID reader (Further function can be user defined by Master Setup or with the programming interface)
6	Key 2 (custom)	(This function can be configured by using Master Setup or with the programming interface)
7	Key 3 (Custom)	(This function can be configured by using Master Setup or with the programming interface)
8	Key 4 (Custom) Power ON/OFF button	(This function can be configured by using Master Setup or with the programming interface) Power key to turn the unit ON. Pressing this key for 3 sec. turns the unit OFF
9	USB protection clip Mini-USB Interface	Rubber clip to protect the Mini USB port Main communication and battery charging interface
10	RESET	Press and hold the keys 5+6+7+8 for 5 seconds to reset the device. !!! Please note!!! By reset the device loses its timestamp. Before you continue to use it, you must synchronize the time settings by connecting the device again with the Master Setup.The time thereby automatically synchronized with the system time of your PC. Specific configuration settings and data will not be lost by the reset.

| 11 | Scanning window

RFID antenna (option) | Protection glass for the barcode and RFID reader. To have the best reading performance, keep the glass clean and free of scratches.
Antenna for RFID reader/writer |
|----|----|----|
| 12 | Clip holder (accessories) | Holder to fix the shirt clip, belt clip or neck belt (accessories) |
| 13 | Int. Li-Ion battery | Rechargeable Li-Ion battery 1500mAh |
| 14 | Configuration Mode | Alternative configuration mode
Follow the steps below to set the configuration mode
    1.   Switch off the device
    2.   Press and hold key 4 and 5 until a beep sound appears (this may take a few seconds)
    3.   Connect the device to a computer via USB
    4.   The device will be mounted as a removable drive "SCANNDY"
    5.   Open the file "config.ini" or use the Universal Configurator to modify the settings
    6.   Press button 3 (Trigger) until a beep sound appears
        The device restarts with the new settings |

CHARGING THE BATTERY

Before the first operation, the main battery should be fully charged by using the included power adapter or through the USB interface of the computer.
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.

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.

A full recharge of the battery takes approximately 4 to 5 hours when using the included power adapter. Recharging the battery from a USB interface of a computer may take longer.

SCANNING BARCODE (1D Laser)

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

The device beeps and the right LED (2) turns yellow to indicate a successful decode.

SCANNING BARCODE (1D/2D Imager)

1. Aim the scanner on the barcode
2. Press the Trigger button (5)
3. The device decodes the barcode closest to the cross center unless you disable the Pick-List mode (see below) in the 2D cameras.
   1. Replace the Config.INI
   Please download the following file
   (Right click and "save as"):
   Config.INI
   Please copy it to the device and replace the existing. After restart of the device the Pick List Mode is now turned off.
   2. Manually change the config file:
   a. Connect the device to your computer
   b. Open drive "SCANNDY"
   c. Open "Config.INI" on the drive
   d. Set Picklist Mode=0
   e. Save the changes
   f. Disconnect device from USB and reboot

The device beeps and the right LED (2) turns yellow to indicate a successful decode

SCANNING RFID

1. Aim the scanner on the RFID tag
2. Make sure the tag is within the reader range
3. Press the trigger key (5) to read data of the RFID tag

The device beeps and the right LED (2) turns yellow to indicate a successful decode.

BLUETOOTH CONNECTION

To pair the Bluetooth enabled devices 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.
    • **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 powerlineECCO+ 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
5. If the Bluetooth application prompts you to enter the pass key it generated,
    scan *numeric barcodes on page 10* and confirm by scanning ENTER
6. The right LED (4) lights constantly blue as long as the device is connected.

NUMMERIC BARCODES FOR BLUETOOTH PAIRING

1

2

3

4

5

6

7

8

9

0

ENTER

Wi-Fi CONNECTION

To connect Wi-Fi enabled devices to a host.

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

2. Open the file "config.ini" setup the parameters for Wi-Fi and host connection **(See the document "Config_ini" section Wi-Fi to learn how to set the parameters for Wi-Fi communication).**

3. Save the settings and disconnect the device from the computer.

4. The device tries to connect to the configured wireless network. The right LED (4) flashes blue every second. If the device could connect to the wireless network and to the host, the right LED (4) flashes slowly blue every 3 seconds.

If the device fails to connect, please check the parameters configured in the file "config.ini". Ask your network administrator for assistance if necessary.

Transmitting Barcode and/or RFID data to a host

Batch mode

All barcodes and RFID data 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 or Wi-Fi 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 a file Cache.txt. After reconnection, it transmits all cached data to the host.

Bidirectional communication for Bluetooth and Wi-Fi connected devices

For applications that require bidirectional communication between the device and the host, PANMOBIL devices support an embedded communication protocol SCOMP and REMOTE mode.

Troubleshooting

Problem	Possible Solution
Device does not turn on	Make sure the battery is charged
Laser comes on but device does not decode barcode	- 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 button	- Press and hold the buttons 5+6+7+8 for 5 seconds to reset the device. !!! Please note!!! By the reset the device loses its timestamp. Before you continue to use it, you must synchronize the time settings by connecting - 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 be not lost by the reset. Stored data and configuration are not affected by a reset.
Bluetooth is not working	- 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 at your host system
Wi-Fi is not working	- Ensure that the device is in the correct Wi-Fi Mode (Wi-Fi or Wi-Fi Batch)

	- Ensure that your Wi-Fi Configuration (in Config.ini File) is correct (SSID, Key, Crypto, Host, Port, DHCP etc.) - Move the device closer to your access point
Barcode reading ability has degraded	- Maybe the scan window has become dirty. Please clean your Scan Window with a soft cloth with water
Nothing happens when the Scan Button is pushed	- Make sure your device is powered on. (Green LED on the left must be on) - Ensure that your buttons are correctly configured

ADVANCED DEVICE CONFIGURATION

The powerlineECCO+ config.ini file contains the most common device settings.

For information about the configuration for options like Bluetooth, Wi-Fi, UHF RFID as well as Barcode configuration please refer to the document Config_ini.pdf

SAFETY AND REGULATORY

Interference statement:
This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

Modification statement:
The FCC requires the user to be notified that any changes or modifications made to this device and are not explicit approved by advanced PANMOBIL systems GmbH & Co. KG, may void the user's authority to operate the equipment.

Class B digital devices regulatory notice:
This equipment has been tested and confirmed to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency, energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. In the case that these devices should disturb your surroundings by their powering on and off, please inform advanced PANMOBIL systems GmbH & Co. KG immediately and the user is encouraged to try to correct the interference by one or more of the following measures:

· Reorient or relocate the receiving antenna
· Increase the separation between the equipment and receiver
· Connect the equipment into an outlet on a circuit different from that to which the receiver is connected to
· Consult the dealer or an experienced radio or television technician for help

Wireless notice
This product emits radio frequency energy, but the radiated output power of this device is far below the FCC radio frequency exposure limits. Nevertheless, the device should be used in such a manner that the potential for human contact with the antenna during normal operation is minimized. The system antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

EU:
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 PANMOBIL systems GmbH & Co. KG declares that this Bluetooth barcode scanner is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC

European countries, where this equipment can be used are : Austria (AT) - Belgium (BE) - Bulgaria (BG) - Switzerland/Liechtenstein (CH) - Cyprus (CY) - Czech Republic (CZ) - Germany (DE) – Denmark (DK) - Estonia (EE) - Finland (FI) - France (FR) - Greece (GR) - Hungary (HU) - Ireland (IE) - Iceland (IS) - Lithuania (LT) – Luxembourg (LU) - Latvia (LV) - Malta (MT) - Netherlands (NL) - Norway (NO) - Portugal (PT) - Romania (RO) - Sweden (SE) - Slovenia (SI) – Slovak Republic (SK) - United Kingdom (UK)-Italy (IT)-Poland (PO)-Spain (SP).

Others
This equipment in the configuration with 2D Imager and UHF RFID is certified to be commercialized in the countries with the approval IDs as listed below.

CANADA   **IC:20859-ECCOPLUS**

MEXICORCPPAPO16-0581

SINGAPORE

Complies with
IDA Standards
DA 105282
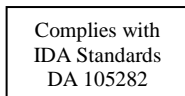
Ghana   **NCA Approved: 2R9-8H-7E0-06D**

South Africa

TA-2016/1485
I C A S A
APPROVED

Nigeria

Connection and use of this communication equipment is permitted by the Nigerian Communications Commission

South Korea	
Australia	
Argentina	CNC ID:H-16381
Taiwan	CCAH16LP1840T4
Brasil	ANATEL 04415-16-10024
Russia	EAC
China	CMIIT ID: 2016DJ3998
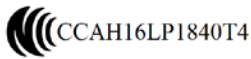
  Ergonomic Recommendations

Caution: In order to avoid or minimize the potential risk of ergonomic injury follows the recommendations below. Consult with your local Health & Safety Manager to ensure that you are adhering to your company's safety programs to prevent employee injury.

- Keep Objects that are used frequently within easy reach
- Reduce or eliminate repetitive motion
- Reduce or eliminate excessive force
- Maintain a natural position

- Improve work procedures
- Perform tasks at correct heights
- Provide adjustable workstations
- Provide adequate clearance
- Reduce or eliminate direct pressure
- Reduce or eliminate vibration
- Provide a suitable working environment

Vehicle Installation

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. An air bag inflates with great force. DO NOT place objects 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. Position your device in easy reach. Make sure your device is accessible without removing your eyes from the road.

Safety on the Road

Do not take note or use the device while driving. When driving a car, driving is your first responsibility – GIVE FULL ATTENTION TO DRIVING.

Warnings for Use of Wireless Devices

Please observe all warning notices with regard to the usage of wireless devices.

Potentially Hazardous Atmospheres – Vehicle Use

You are reminded to observe restrictions on the use of radio devices in fuel depots, chemical plant and areas where the air contains chemical or particles such as gain, dust or metal powders and any other area where you would be advised to turn off your vehicle engine.

Safety in Aircrafts
Switch off your wireless device whenever you are instructed to do so by airport or airline staff.
Consult airline staff and ask for its use in flight.

Safety in Hospitals
Wireless devices transmit radio frequency and may affect medical electrical equipment. Wireless devices should be switched off wherever you are requested to do so in hospitals or healthcare facilities to prevent interference with sensitive medical equipment.

Pacemakers
It is recommended by Pacemaker manufacturers to maintain a minimum of 15cm (6 Inches) between a handheld wireless devices and a pacemaker to avoid potential interference. These recommendations are consistent with independent research and recommendations by Wireless Technology Research. Persons with Pacemakers:

- Should not carry the device in a breast pocket
- Should use the ear furthest from the pacemaker to minimize the potential of interference.
- Should ALWAYS keep the device more than 15cm (6 Inches) from their pacemakers when turned on.
- Turn OFF your device if you have any reason to suspect that interference is taking place.

Other Medical Devices
Please consult the manufacturer of the medical device to determine if the operation of your wireless product may interfere with the medical device.

RF Exposure Guidelines

Safety Information
Reducing RF-Exposure – Use properly
Only operate the device in accordance with the instructions supplied.

International
The device complies with international standards covering human exposure to electromagnetic fields from radio devices.

EU
To comply EU RF exposure requirements, this device must be operated in the hand with a minimum separation distance of 20cm from a person's body. Other operation configurations should be avoided.

US and Canada
To comply with FCC exposure compliance requirement, the antenna used for this transmitter must not be co-located or operating in conjunction with any other transmitter/antenna expect those already approved in this filling.

Handheld Devices
To comply with FCC RF exposure requirements the device must be operated in the hand with a minimum separation distance of 20cm from a person's body. Other operation configurations should be avoided.

Laser Devices
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.

The following information is shown on the laser scanner device class label:

CLASS 1 LASER PRODUCT
DO NOT STARE INTO BEAM

Limited Warranty

The manufacturer warrants that the product will be free of defects in material and workmanship for 2 years from the date of shipment. The manufacturer will, at its option, either repair, replace the defective products. Such repair or replacement shall be buyer's sole remedy in the event of manufacturer's breach of this limited warranty. Repaired or replaced parts or product may include new, reconditioned or remanufactured parts and equipment at manufacturer's option. All costs associated with shipment to manufacturer for warranty service, including but not limited to freight, duties, insurance and customs fees are buyer's responsibility. Manufacturer will pay the freight costs (duties, insurance, customs and any other fees) associated with the return shipment to 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 MANUFACTURER'S ONLY WARRANTY. MANUFACTURER DOES NOT GIVE WARRANTIES OF MERCHANTABILITY OR WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE.

To take advantage of this warranty, buyer should contact the seller not the manufacturer. The warranty set forth herein does not cover and manufacturer 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 products or incorporation, interfacing,

attachment of any feature, program, or device to the products by a person or entity other than manufacturer, failure to provide a suitable installation environment, use of the products for other than the specific purpose for which the products are 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.

<u>Declaration of conformity</u>

These devices has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not in-stalled and used in accordance with the instructions, may cause harmful interference to radio communications. The appearance of disturbance in particular installations is not excluded. In the case that these devices should disturb your surroundings by their powering on and off, please inform advanced PANMOBIL systems GmbH & Co. KG immediately.

The user is cautioned that any changes or modifications not expressly approved by advanced PANMOBIL systems GmbH & Co. KG could void the user's authority to operate the equipment.

<u>Consumer electronics</u>
These devices has been tested and found to comply with the limits for class B digital devices, pursuant to the CE EMC directive.

For more information, please contact us at:

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