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# ingenico AXIUM EX8000 Terminal Device User Guide

Home » ingenico » ingenico AXIUM EX8000 Terminal Device User Guide

**ingenico AXIUM EX8000 Terminal Device**



## Introduction

We hope that you will be fully satisfied with your new AXIUM EX8000 terminal.
Read this guide to understand and make the best use of your terminal. It presents you the necessary information about use, installation, maintenance, safety and security recommendations.

### WARRANTY/SECURITY
Use only the power supply included with the product to ensure best performance and safety. Maintenance should only be provided by Ingenico authorized technician.
Failure to comply with these instructions will void the manufacturer's responsibility.
This symbol indicates an important Warning.
This symbol indicates a piece of advice.

## Presentation

### Contents of the box

- AXIUM EX8000 terminal
- Power adapter
- A battery pack

### WARNING
The power supply unit provided with your equipment is specially designed for INGENICO AXIUM EX8000 terminal. Do not use any other power supply. The use of a power supply with apparently similar voltage/current characteristics may damage your terminal.
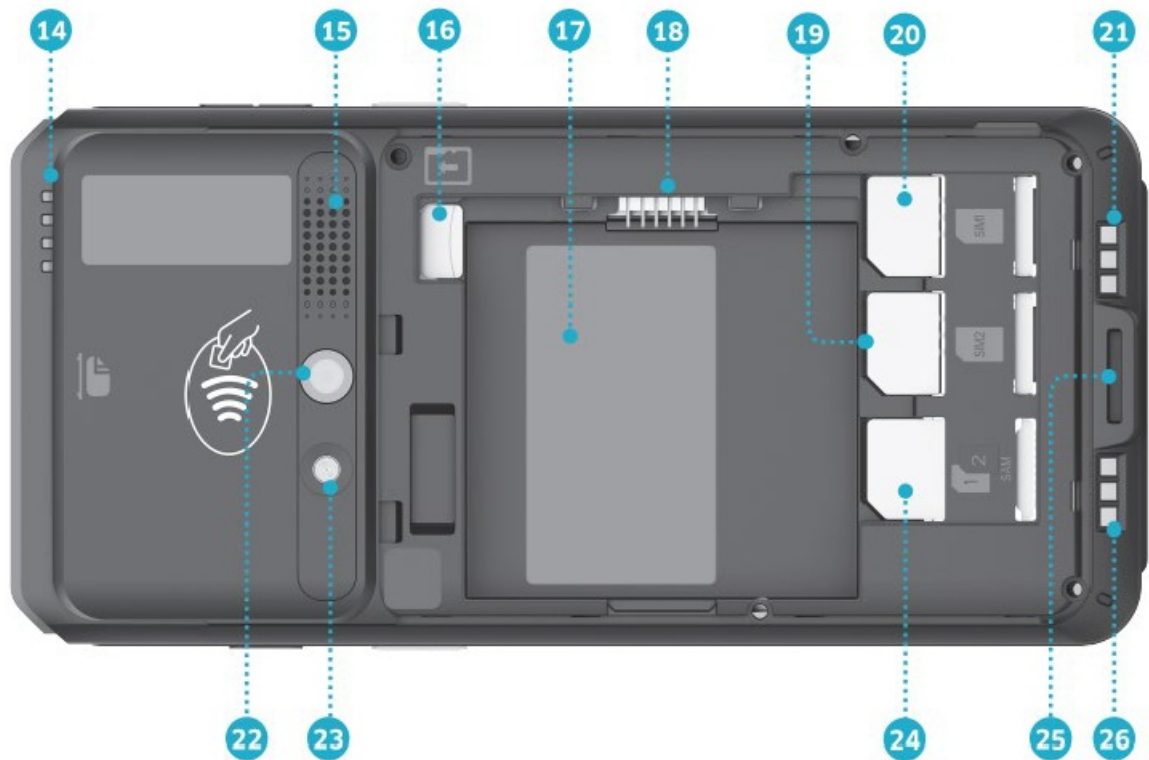
### ADVICE
Keep the package. It must be re-used whenever the terminal is shipped.

**Overview of AXIUM EX8000**

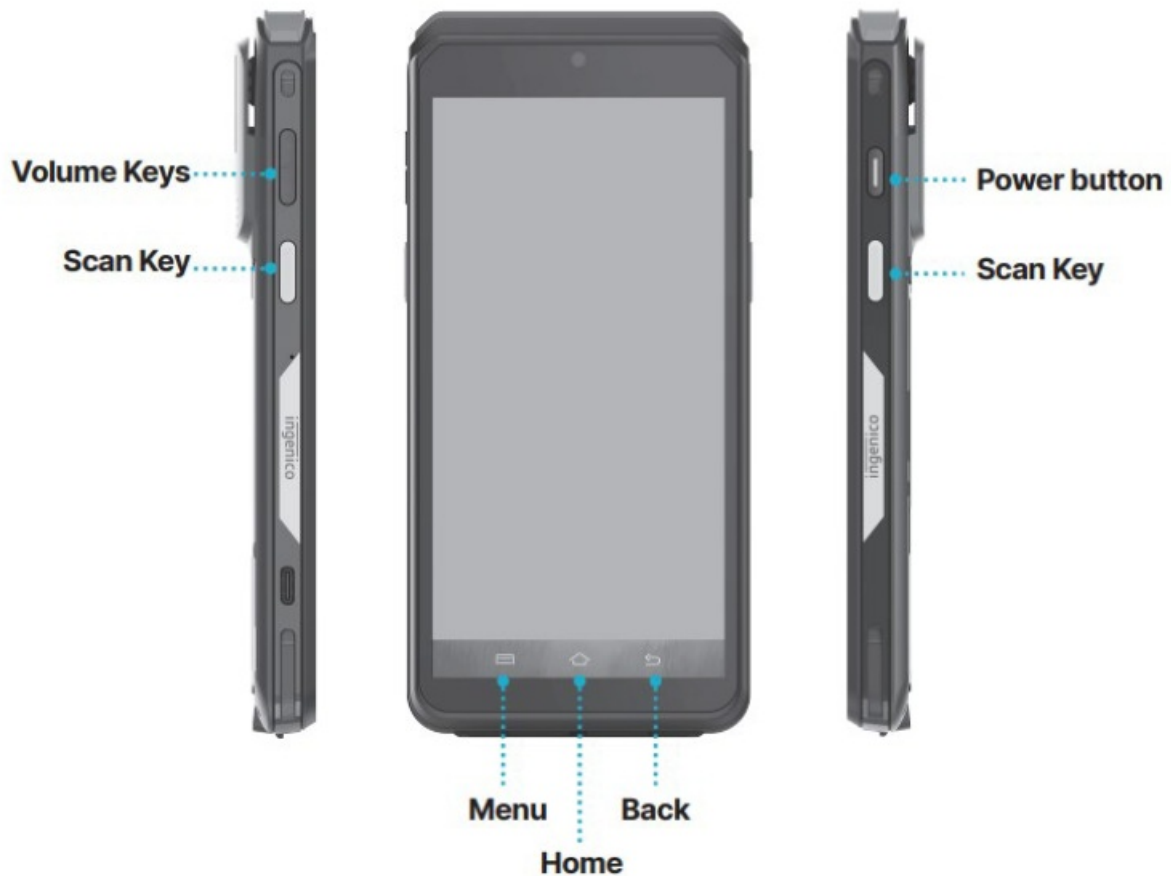| 1) Front Camera | 2) Volume keys |
|---|---|
| 3) Scan key | 4) LCD and touch screen |
| 5) USB Type-C connector | 6) Smart Card reader |
| 7) Magnetic card reader | 8) Bar code illumination light |
| 9) Bar code scanner | 10) Bar code scanner indicator light |
| 11) Contactless landing zone | 12) Power key |
| 13) Scan key | |

| 14) LEDs for contactless card | 15) Speaker |
|---|---|
| 16) Micro SD slot | 17) Battery compartment |
| 18) Battery socket | 19) SIM 2 card slot |
| 20) SIM 1 card slot | 21) Base charging interface- |
| 22) Rear camera | 23) Flash |
| 24) SAM card slot | 25) Lanyard hole |
| 26) Base charging interface+ | |

- Weight  290g (including battery)
- Dimension (L x W x H) 170 X 80.6 X 19mm / 6.7 x 3.17 x 0.75 in
- Electrical mains network 100-240VAC/50-60Hz Class II

**Key Locations and Functions**

Three physical keys on the left side of the terminal: a scan key and two volume keys. Two physical keys on the right side of the terminal: a power button and a scan key. Three virtual keys at the bottom of the 6-inch screen: Menu, Home and Back keys.

**Touch Panel**

The AXIUM EX8000 is equipped with touch panel that allows input via finger or with the use of a stylus.
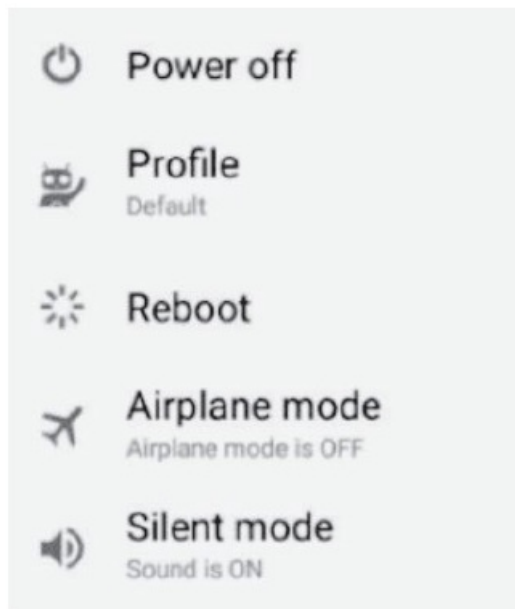
## Use of the terminal

**Power on/Power off the terminal**

**Power On Terminal:**

- Make sure the terminal battery is correctly installed.
- Press <Power> button for about 1s until the display is turned on.

**Power Off Terminal:**

- Press and hold <Power> button for more than 2s until the display shows the following menu.
- Press <Power off>.

**Battery Low:**

- If the battery is empty, the terminal will automatically shut off.
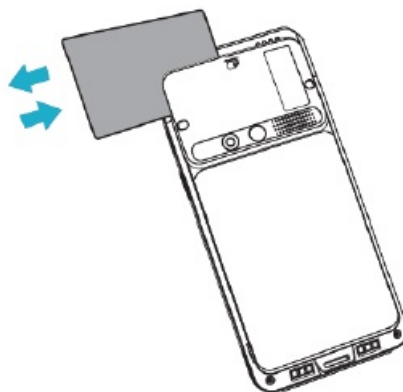
**Terminal restart:**

- In the event of abnormal behavior of the terminal, press and hold the power button for 8 seconds to force the terminal to power off.

**Screen saver mode:**

- To conserve battery power, the screen may be turned off with a short press of the power button. (approximately 0.5 seconds).
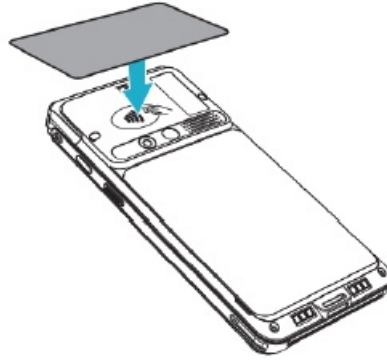
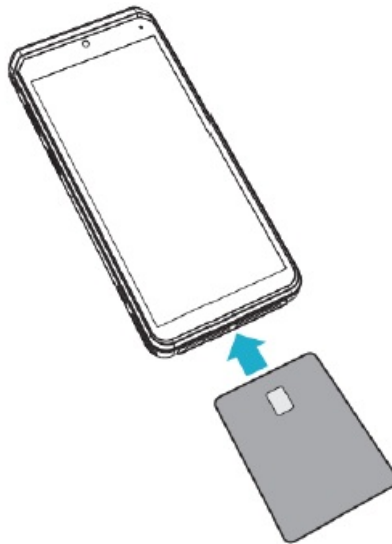**Reading cards**

**Magnetic stripe card**



- The card can be read bi-directionally, with the stripe facing the terminal.
- Use a consistent swipe motion to ensure a reliable card reading.

**Contactless card**



- Bring the card firmly up to the active zone.
- Keep the card close to the reader during the transaction.
- Do not remove the card until prompted by application or the LEDs indicate that the transaction has been completed.
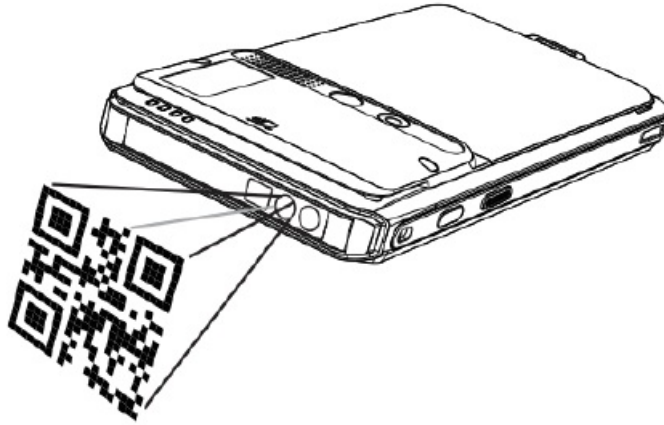
**Smart card**



- Insert the EMV card horizontally with the metal chip facing upward.
- Leave card in this position until the transaction is completed or prompted to remove it.

**Front scanner Usage**

- Press either scan button to start scanning.
- A red LED will be emitted from the window in front of the terminal.
- Align the red LED beam with the bar code to be scanned.
- A beep will sound when the barcode is successfully scanned.

**USB Type-C**



- USB Type-C connector is located on the left side of the terminal.
- The connector manages Host and Slave connections.
- Connector is used for the audio Jack solution.

**WARNING/ATTENTION**
To prevent possible hearing damage, do not listen at high volume levels for long periods.

## Installation

**Recommendations**

## Operating conditions

- Ambient temperature*
- Max relative humidity

## Battery charging conditions

- Ambient temperature From 0°C to +40°C (32°F to 104°F)

## Storage conditions

- Ambient temperature From -20°C to +70°C (-4°F to 158°F)
- Max relative humidity From 5% to 90%, Non-condensing

### Screen Protective film

Please remove the protective film from the display before usage.
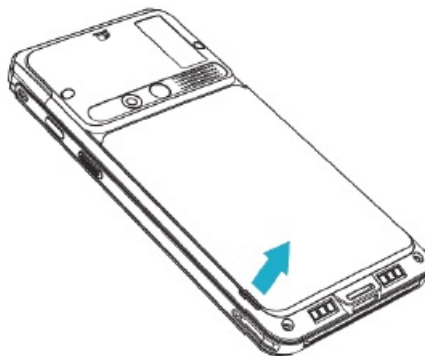


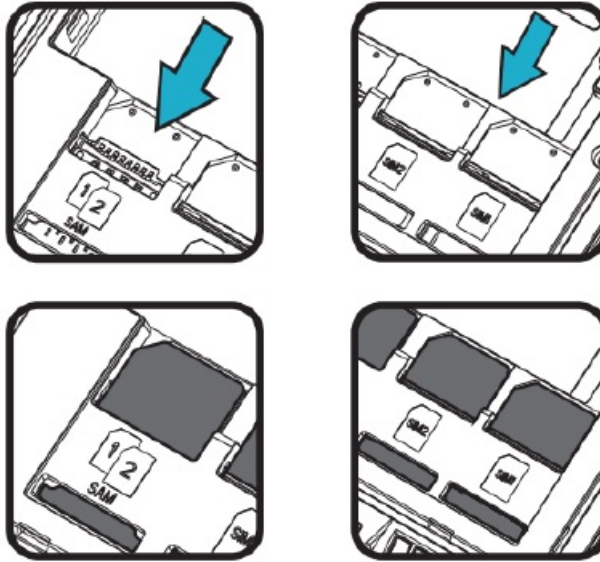### Installing modules

SAM1/SAM2/SIM1/SIM2

**WARNING**
Switch off the terminal before opening the battery door.

The SAM/SIM connectors are located inside the terminal, in a closed compartment.

- Turn the terminal and remove the battery door.



- SAM1, SAM2 and SIM1, SIM2 are identified by the engraved marks on the lower housing.
- When introducing a SAM/SIM into slot, be sure to put the cut corner as indicated on the picture.
- Close the battery door

**ADVICE**

AXIUM EX8000 is equipped with a dual SAM slot.

When using two SAM cards,it is recommended to insert the bottom one first,then the top one.

When using only one SAM card, it is recommended to insert the lone SAM card into the SAM1 slot (bottom).

**ADVICE**

SIM and SAM cards share the same form factor , please ensure that the cards are inserted into the correct slot for the type of card.
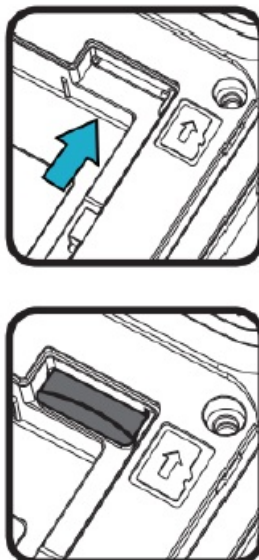
**MicroSD Memory Card**

WARNING

Switch off the terminal before opening the battery door.

MicroSD connector is located inside the terminal, in a closed compartment.

- Turn the terminal and remove the battery door.
- MicroSD are identified by the engraved marks on the lower housing.
- Insert MicroSD card and push it to the end.
- Close the battery door.

  **NOTE:** The terminal supports SDHC MicroSD cards up to 32GB.

**Charging the battery**
When used daily, the terminal charges its battery each time the power adapter is connected. Charging starts automatically.
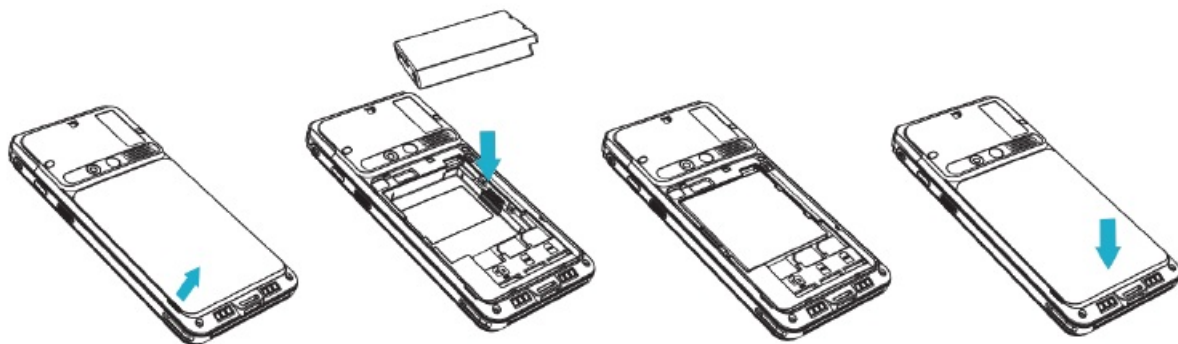
- In order to charge the battery:
- Using the power adapter
- Connect the power adapter to the terminal USB type-C connector located on the left side of the terminal.
- Connect the power adapter to the power supply mains network.
- When charging, a red charge light at the top of the screen will display. This light will turn green when the terminal is fully charged" (check that behavior!)

**Installing the battery**
WARNING
Check that the terminal is not connected to the main electric network.

- Power off terminal
- Turn the terminal over and remove the battery door
- Locate the battery pack connector beside the battery compartment
- Plug the battery pack connector according to the connector locating system. Place the battery pack in its compartment
- Replace the battery door



**Visual Impaired (VI) Accessory**

| Install | Remove |
|---|---|
| slide the accessory onto the terminal from the bottom. | slide the accessory down and away from the terminal |



## Recommendations

**Safety**

**Lithium cell**
The AXIUM EX8000 is fitted with an internal lithium cell which should only be accessed by a qualified technician.

**Battery**

- AXIUM EX8000 is fitted with battery specially designed for this terminal.
- Only use the approved power supplies, cables and batteries listed in the Ingenico's catalogue.
- Do not short-circuit the battery.
- Do not attempt to open the battery.
- Used batteries must be disposed of at the appropriated sites.

Battery lifespan depends on many factors including:

- Features used.
- Number of charge and discharge cycles.
- Use temperature.

Signs that the battery should be replaced:

- The battery fuel gauge / percentage meter drops randomly
- Charging finishes prematurely even though the battery did not accept much power Sudden capacity drops without warning
- Self-discharge rate soars and is often uneven
- The battery gets very hot during charging
- The battery starts bulging

**CAUTION/ATTENTION**

RISK OF EXPLOSION BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTION.

## SAM1/SAM2/SIM1/SIM2 Readers compartment

- The battery door for battery, SAM1/SAM2/SIM1/SIM2, readers located underneath the terminal, must be in place during the normal operation of the terminal.
- See sections "Installing modules" and "Installing the battery".

## On airplanes

- Your terminal must be switched off by removing the battery pack.
- Remove the battery from the terminal when on an airplane.
- Non-compliance with these safety rules may result in legal action and/or a ban on later access to cellular network services.

## Explosion areas

- Some regulations restrict the use of radio equipment in chemical plants, fuel depots and any site where blasting is carried out.
- Operation near Fuel Pumps the terminal be protected by a specially fitted and certified cover enabling use in proximity to a fuel pump.

## Thunderstorm weather

- According to some relevant reports, the mobile phone electromagnetic wave is good conductor of lightning.
- It is much easier to suffer lightning strike when the damp atmosphere form a magnetic conductivity, especially in open areas.
- Do not use wireless terminals under thunderstorm weather.

## Electronic health appliances

- The terminal is a radio transmitter which may interfere with health appliances, such as hearing aids, pacemaker, hospital equipment, etc.
- Your doctor or the equipment manufacturer will be able to provide you with appropriate advice.

**Security of your terminal**

This device conforms to currently applicable PCI PTS security requirements.
Upon receipt of the terminal , it is recommended to check for signs of tampering or other unauthorized modifications to the terminal. It is recommended to check the following periodically:

- The keypad is firmly in place.
- There is no evidence of unusual wires that have been connected to any ports on your terminal or associated equipment.
- Device does not display any notifications of being in a "tampered state".

- In this state the terminal will repeatedly flash the message "Warning Detected" and further use of the terminal will not be possible.
- If you observe the "Warning Detected" message, you should contact the terminal helpdesk immediately.

You are strongly advised to ensure that privileged access to your terminal is only granted to staff that have been independently verified as being trustworthy. The terminal must never be put in or left at a location where it could be stolen or replaced by another device

**Fixed installation**

- Angled at 45 or more, so that oversight of the PIN entry from the rear of the device is not possible.
- Fitted in a swivel stand or fixed in the best possible position to prevent oversight of pin entry during use.
- There should be placement of conspicuous notices and educational material that informs the user to shield their PIN during PIN entry.
- The device must be installed so that oversight from other customers is prevented. This may be achieved through the placement of the lanes and device, so that the customer is automatically positioned between the device keypad and other customers. Alternatively, it may be achieved by the environment in which the device is installed, so that the checkout itself shields the PIN entry process.
- The terminal is recommended for indoor use only within the aforementioned environmental ranges in Section 4 of this document.

**ADVICE**
Positioning of the terminal on check stand must be in such a way to make cardholder PIN (Personal Identification Number) spying infeasible.
Installing device on an adjustable stand must be in such a way that consumers can swivel the terminal sideways and/or tilt it forwards/backwards to a position that makes visual observation of the PIN-entry process difficult.
Positioning of in-store security cameras such that the PIN- entry keypad is not visible.
NEVER ask the customer to divulge their PIN Code. Customers should be advised to ensure that they are not being overlooked when entering their PIN Code.

**Cleaning the terminal**

Good rules for proper cleaning of the terminal are:

- Unplug all wires from the terminal prior to cleaning.
- Apply soapy water or other approved cleaning product to a soft, non-abrasive cloth. CLEANING PRODUCT SHOULD BE APPLIED TO
- THE CLEANING CLOTH AND NOT DIRECTLY APPLIED OR SPRAYED TO THE TERMINAL. Failure to follow this step may result in damage to the terminal.
- Do not clean the electrical connections.
- Do not use solvents, detergents or abrasive products: Those materials might damage the plastic or electrical contacts.
- Avoid prolonged exposure of the terminal to the direct rays of the sun.
- Do not put anything other than credit cards into the slot of the smart card reader.

**Transport and storage**

When transporting the terminal

- Protect the terminal from snow, rain, and excessive exposure to the sun.
- Transport with care to avoid mechanical impact.
- Do not throw the unit forcibly. Prevent the package from intrusion during transportation to avoid breakage. The product should be stored in the original packaging.
- Do not store in warehouses that also contain harmful gases, or inflammable, explosive, or corrosive chemicals.
- Do not expose to strong mechanical vibrations or strong magnetic fields.
- Packaging should be stored at least 15 cm above the ground and be kept away from heat, cold, windows, or air inlet sources by at least 50cm.
- Follow the specific stored conditions as noted in Section 4 of this document.

## Safety and Standards

### CE MARKING
The CE marking indicates AXIUM EX8000 complies with the requirements of European Directive 2014/53/EU on Radio Equipment for:

- The protection of the health and the safety of the user and any other person.
- The protection requirements with respect to electromagnetic compatibility.
- And complies with harmonized standards, as well as RoHS Directive 2011/65/EU and its amendment directives.

Operating Frequency Band (RF)

- GSM B2: 1850-1910MHz(TX); 1930-1990MHz(RX)
- GSM B3: 1710-1785MHz(TX); 1805-1880MHz(RX)
- GSM B5: 824-849MHz(TX); 869-894MHz(RX)
- GSM B8: 880-915MHz(TX); 925-960MHz(RX)
- WCDMA B1: 1920-1980MHz(TX); 2110-2170MHz(RX)
- WCDMA B2: 1850-1910MHz(TX); 1930-1990MHz(RX)
- WCDMA B5: 824-849MHz(TX); 869-894MHz(RX)
- WCDMA B8: 880-915MHz(TX); 925-960MHz(RX)
- LTE-FDD B1: 1920-1980MHz(TX); 2110-2170MHz(RX)
- LTE-FDD B3: 1710-1785MHz(TX); 1805-1880MHz(RX)
- LTE-FDD B5: 824-849MHz(TX); 869-894MHz(RX)
- LTE-FDD B7: 2500-2570MHz(TX); 2620-2690MHz(RX)
- LTE-FDD B8: 880-915MHz(TX); 925-960MHz(RX)
- LTE-FDD B20: 832-862MHz(TX); 791-821MHz(RX)
- LTE-FDD B28: 703-748MHz(TX); 758-803MHz(RX)
- LTE-TDD B38: 2570-2620MHz(TX/RX)
- LTE-TDD B40: 2300-2400MHz(TX/RX)
- LTE-TDD B41: 2496-2690MHz(TX/RX)
- WiFi: 2412-2472MHz; 5150-5850MHz(TX/RX)
- Bluetooth: 2402-2480MHz(TX/RX)

- RF ID: 13.56MHz(TX/RX)
- GPS: 1559-1610MHz(RX)
- GLONASS: 1559-1610MHz(RX)
- Beidou navigation: 1559-1610MHz(RX)

## Max Of Transmit Power

- FIBOCOM Module
- EGSM850:32.5±2dBm(GMSK); 25.8±2dBm (8PSK)
- EGSM900:33.5±2dBm (GMSK); 27.5±2dBm (8PSK)
- DCS1800:30.5±2dBm (GMSK); 26.5±2dBm (8PSK)
- PCS1900:30.7±2dBm (GMSK);25.5±2dBm (8PSK)
- WCDMA Band1/2/5/8: 24±2dBm

  LTE Band1/Band3/Band5/Band7/Band8/Band20/Band28/Band38/Band40/Band41:24±1dBm

  Bluetooth:9.61±2dBm BLE:0.11±2dBm
- 2.4G WiFi:14.3±2dBm (802.11b),14.71±2dBm (802.11g),13.06±2dBm (802.11n ht20)

  5.2G/5.3G/5.6G WiFi:
- 18.19±2dBm(802.11a),16.62±2dBm(802.11n ht20),16.59±2dBm (802.11n ht40)
- 17.90±2dBm (802.11ac vht20),17.01±2dBm (802.11ac vht40),15.58±2dBm (802.11ac vht80) 5.8G WiFi:
- 12.71±2dBm 802.11a),12.85±2dBm (802.11n ht20),11.57±2dBm (802.11n ht40)
- 12.72±2dBm (802.11ac vht20),11.64±2dBm (802.11ac vht40),10.64±2dBm (802.11ac vht80) RF ID:

  13.09±3dBμA/m @3m

  QUECTEL Module
- EGSM850: 32.9±2dBm (GMSK); 26.5±2dBm (8PSK)
- EGSM900: 32.6±2dBm (GMSK); 27.5±2dBm (8PSK)
- DCS1800: 29.9±2dBm (GMSK); 26.5±2dBm (8PSK)
- PCS1900:30.4±2dBm (GMSK); 26.4±2dBm (8PSK)
- WCDMA Band1/2/5/8: 23±2dBm

  LTE Band1/Band3/Band5/Band7/Band8/Band20/Band28/Band38/Band40/Band41:24±1dBm

  Bluetooth:10.26±2dBm BLE:0.89±2dBm

  2.4G WiFi:16.53±2dBm (802.11b),15.41±2dBm(802.11g),14.58±2dBm 802.11n ht20  5.2G /5.3G/5.6G WiFi:

  18.77±2dBm 802.11a ,18.80±2dBm 802.11n ht20 ,19.11±2dBm 802.11n ht40 , 19.07 ±2dBm 802.11ac vht80
- 5.8G WiFi:

  13.73 ±2dBm 802.11a ,13.61±2dBm 802.11n ht20 , 13.64±2dBm 802.11n

  ht40 ,12.96±2dBm 802.11ac vht80

  RF ID: 13.09±3dBμA/m @3m

  Restrictions in the 5GHz band

  According to Article 10(10) of Directive 2014/53/EU, the packaging shows that this terminal will be subject to some restrictions when placed on the market.

  In all EU member states, operation of 5150-5350MHz is restricted to indoor use only.

| BE | BG | CZ | DK | DE | EE | IE | EL |
|----|----|----|----|----|----|----|----|
| ES | FR | HR | IT | CY | LV | LT | LU |
| HU | MT | NL | AT | PL | PT | RO | SI |
| SK | FI | SE | NO | IS | LI | CH | TR |

**Environment (WEEE, Batteries and packaging)**

This product is labeled in accordance with European Directives 2012/19/EU concerning Waste Electrical and Electronic Equipment (WEEE) and 2013/56/EC concerning Batteries and Accumulators. Those provisions are requiring producers and manufacturers to become liable for take-back, treatment and recycling upon end of life of equipment and batteries.

**BATTERIES**

If your product contains batteries, they must be disposed of at appropriate collection points.

**THE PRODUCT**

The crossed-out waste bin stuck on the product or its accessories means that the product belongs to the family of electrical and electronic equipment, and waste batteries must not be thrown away but collected separately and recycles. Please contact your retailers for more detailed information about the compliance solution in place for disposing of your old product and used batteries. Packaging waste must also be collected separately to assure a proper disposal and recycling. In this way you can participate in the re-use and upgrading of Electrical and Electronic Equipment Waste, which can have an effect on the environment and human health.

**Electrical power supply network**

The electrical outlet must meet the following criteria:

- Use electrical outlets that are near the equipment and easily accessible.

The power supply label Certification eighteen symbols:

-  CCC (China Compulsory Certificate) Mark

-  The Regulatory Compliance Mark (RCM)

-  International Efficiency Marking Protocol (Energy Star Level 6)

-  In door use only

-  "Conformite Europe enne" or CE Mark

-  Double insulation symbol

-  5 Years China RoHS symbol

- 10 Years China RoHS symbol

- BSMI(Taiwan)

- PSE Mark (Japan)

- Recycle in accordance with the waste electronic & electrical equipment directive

- Underwriters Laboratories Inc (US Compliance)

- Made from recyclable material

- LDPE  Low density version of Polyethylene (LDPE)

- CPE  Chlorinated Polyethylene (CPE)

- Risk of explosion if the battery is incorrectly replaced or is placed in a fire

- Li-ion  Dispose of batteries at a hazardous waste collection site or recycling facility

- Direct Current

## Troubleshooting

**Q: The terminal cannot be started.**
A: The device may be in a low energy status or an application running on the device may be in a defective state. Please ensure that the device is powered, and then reset the device. If this still fails, please contact our customer service department for help.

**Q: Transaction Processing Failure**
A: Following reasons are likely to cause transaction failure: damaged magnetic card or smartcard SAM card, damaged card reader, improper operation of card swiping, damaged or unconnected, unconnected phone line, etc.

- Try to use more than one magnetic card to test the transaction, to confirm the failure is not caused by magnetic card.
- Make sure card swiping is operated correctly.
- Manually process the transaction instead of card reader. If manual transaction works, the failure may be caused by magnetic card reader.
- Use more than one smart card to test the transaction, to confirm the failure is not caused by smart card.
- Make sure the SAM card is correctly  inserted into the card slot.
- Check if the SIM card is installed correctly and local wireless communication network functions or not.

If there is still problem, please contact our customer service center.

## Documents / Resources

| | |
| --- | --- |
| ingenico AXIUM EX8000 User Guide | **ingenico AXIUM EX8000 Terminal Device** [pdf] User Guide<br>AXIUM EX8000, Terminal Device, AXIUM EX8000 Terminal Device, AXIUM EX8000 Terminal, Terminal |

## References

- **Ingenico | Home**