



Blue Bamboo
H50 Advantage Terminal User Guide
H50 Advantage



BLUE BAMBOO

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BLUE BAMBOO

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Certifications:

The production has been approved by CE, FCC, CCC SRRC and MII


The Li-ion battery has been approved by UN.DOT and CE

The power adapter has been approved by CCC, TUV GS, UL, CE and FCC

SAR statement:

H50 Advantage terminal which this declaration relates is conformity with the article C95.1-1999 of essential requirements and other relevant requirements of the ANSI. The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC 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.

This equipment 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-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. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, 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.
- Consult the dealer or an experienced radio/ TV technician for help.

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Introduction

This guide describes how to set up and install an H50 Advantage terminal. It also includes information on how to

- Protect the terminal from adverse environmental conditions
- Install and maintain the battery
- Establish communications connections through a modem or GPRS

1. Operating Environment and Safety

This section provides tips on using and protecting your terminal.

The H50 Advantage is a portable terminal for performing transactions remotely. Since it is a portable unit, location is not a factor. However, follow the rules established in the environment and safety sections.

Environment

- Do not leave the terminal in a non-climate-controlled vehicle. The H50 Advantage terminal is highly sensitive to temperature extremes. Subjecting the terminal to temperatures outside the stated operating range can void your warranty
- Do not use the H50 Advantage terminal where there is moisture or high humidity, chemicals or oils, or excessive heat or dust
- Avoid electrical appliances or other devices that emit excessive voltage fluctuations or electrical noise (for example, air conditioners, electric motors, neon signs, high-frequency or magnetic security devices, or computer equipment)
- Keep the H50 Advantage terminal away from anything that radiates heat, such as a stove or motor
- Damage to the unit from exposure to sun, rain, or dust may void your warranty
- Do not use the H50 Advantage terminal near water, including bathtubs, basins, kitchen sinks or laundry tubs, in a wet basement, or near swimming pools.

Safety Concerns

The following guidelines help to ensure your safety and the safety of others:

- Do not connect the power and phone cables across a walkway or high traffic area
- Avoid using the H50 Advantage terminal during electrical storms.
- If using the H50 Advantage terminal while charging the battery, ensure that the unit is placed close enough to a power outlet so that the power adapter readily reaches the unit.
- Don't disassemble the H50 Advantage terminal, or the AC adapter. Only qualified technicians may service these devices.
- Do not plug the power pack into an outdoor outlet.
- Do not short-circuit, disassemble, crush, or puncture the battery.
- Do not expose the battery, AC adapters or H50 Advantage terminals to fire or water.

2. H50 Advantage Terminal Operation

2.1 Unpack the Unit Carton

Open the unit carton and carefully inspect the contents for possible tampering or unit damage. The carton contents include:



(Figure 1) H50 Advantage Terminal Unit Carton Components

2.2 Terminal Features

Features of the H50 Advantage terminal is shown as in Figure 2 and Figure 3:



(Figure 2) H50 Advantage Terminal Front



(Figure 3) H50 Advantage Terminal Back

- **The LCD display**
- **Alphanumeric keys are in Telco style**



- 1 qz
- 2 abc
- 3 def
- 4 ghi
- 5 jkl
- 6 mno
- 7 prs
- 8 tuv
- 9 wxy
- 0 -sp
- , ' "
- #

➤ **Three Color-coded-function keys**

- Enter – This is the green key with an arrow bent to a right angle as its label.



- Clear – This is the yellow key with a leftward arrow label.



- Cancel – This is the red key with an “X” label.



- **4-navigation key** – These are the navigation key to help the user select the correct menu option. The upper and lower keys help the user scroll up and down the menu. The left and right keys help the user move to a higher or lower menu level.



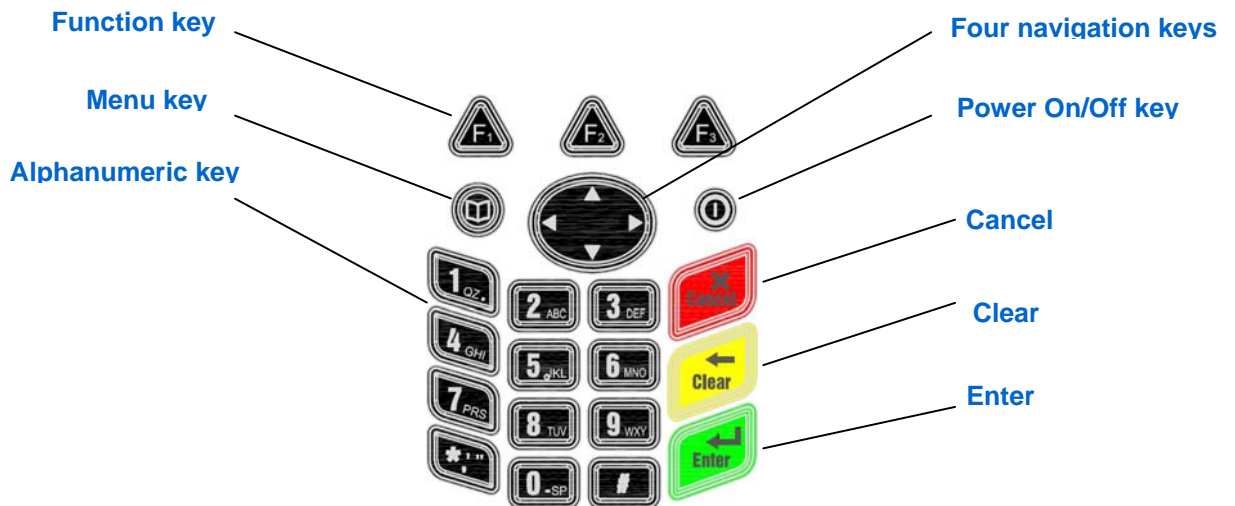
- **Power on/off key**



- **Menu key** – Displays the main menu for that application.



- **Three programmable function keys** – These keys are placed just below the display. The keys will point to three different areas on the display. The user can then select an option displayed in one of these areas.



(Figure 4) Keypad Placement

2.3 Battery

The H50 Advantage wireless terminal uses a Li-ion battery. The internal logic of the battery prevents both overcharging and undercharging (a fault condition in which the battery level goes well below the minimum acceptable charge and the battery becomes unusable).

Note:

Conserve battery power by turning the H50 Advantage terminal off when not in use. If the terminal will not be used for several days, remove the battery from the terminal, as it continues to discharge even when the terminal is turned off.

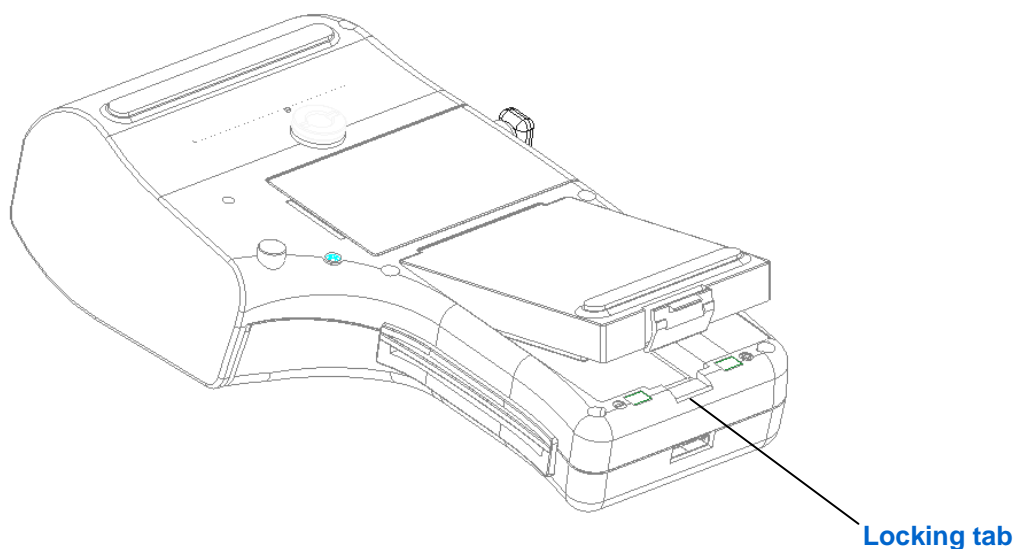
2.3.1 Installation

The battery will be shipped with contact guard which needs to be removed. See Figure 5.



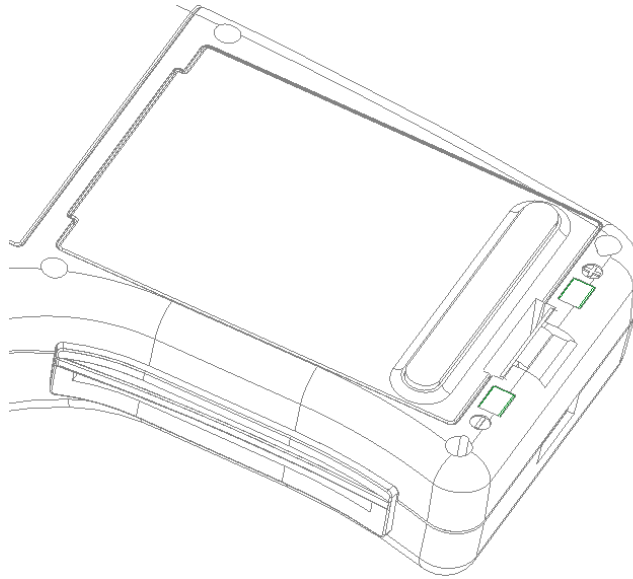
(Figure 5) Battery contact guard

The battery installs in a slot on the back of the terminal, as shown in Figures 6 and 7.



(Figure 6) The locking tab clicks when the battery is in place.

To remove the battery, push the locking tab at the bottom of the battery and pull the battery from its slot.



(Figure 7) Battery installed



CAUTION

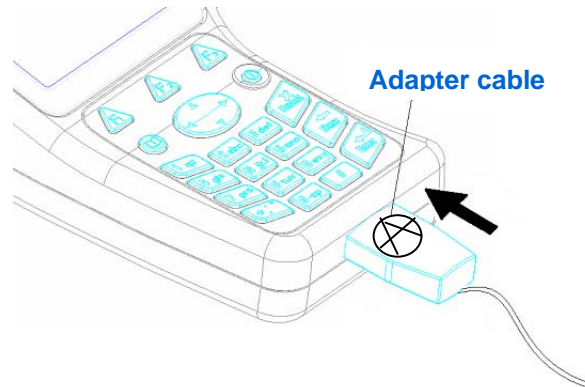
- Do not dispose of batteries in a fire. Li-ion batteries must be recycled or disposed of properly
- Do not dispose of Li-ion batteries in municipal waste sites
- Use only batteries and power packs approved by Blue Bamboo
- Do not plug the Power Adapter into an outdoor outlet

2.3.2 Charging the Battery

2.3.2.1 Charging the Battery by Using an H50 Advantage Terminal

- Plug the Power Adapter into the wall outlet, and then connect the power adapter to the unit.
- Wait for 5 minutes, turn on the terminal. The charge status is displayed on the right of LCD. The battery can be fully charged after 3-4 hours. Five bars indicate a full charge without flash. The charge status will flash to indicate that the unit is charging
- On the underside of the H50 Advantage is one port—the *charging port*. Use this port to connect the H50 Advantage to the power adapter to recharge the battery through the unit. To connect the H50 Advantage terminal to power:
 - a. Insert the power adapter into the charging port of the terminal (Figure 8).

- b. Plug the power adapter into a wall outlet.



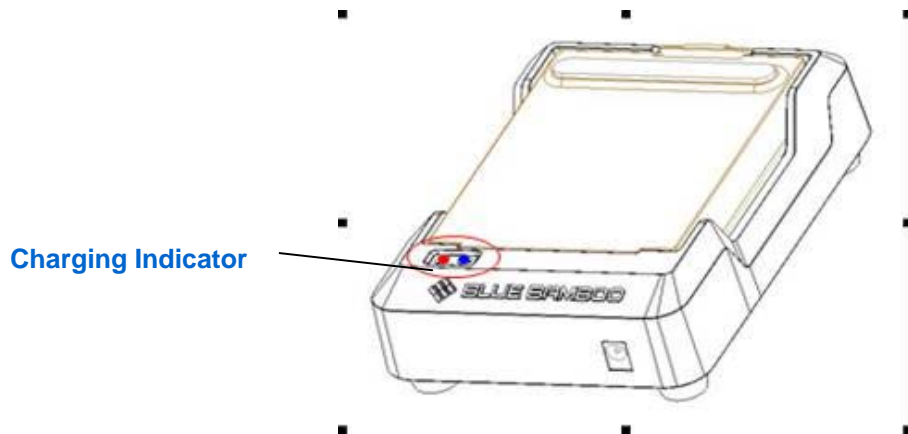
(Figure 8) Plug in H50 Advantage Terminal Adapter Cable

2.3.2.2 Charging the Battery by Using Battery Charger

Install the battery into the battery charger slot as shown in Figure (9) and Figure (10)



(Figure 9)



(Figure10) The locking tab clicks when the battery is in place.

Plug the battery charger into wall outlet.

Two charger indicators (Red and Blue) above the Blue Bamboo Logo will work as shown below:

- Red light flashing and Blue light off: Battery charger is not plugged in.
- Red light on and Blue light off: Error occurred while charging (Please unplug the charger, and try again.)
- Red light off and Blue light on: It is charging, work well.
- Red light off and Blue light flashing: the battery has been fully charged, and can be removed from the charger slot.

To remove the battery, push the locking tab at the bottom of the battery and pull the battery from its slot.

2.4 AC Power Supply

The H50 Advantage terminal can be powered by an AC Power adapter instead of a battery.

- Set up the AC Cord and AC Power adapter and insert the AC Cord into the inner socket of AC Power adapter. Figure (11)

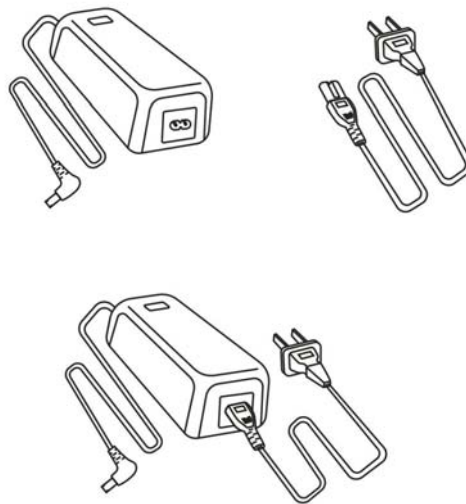
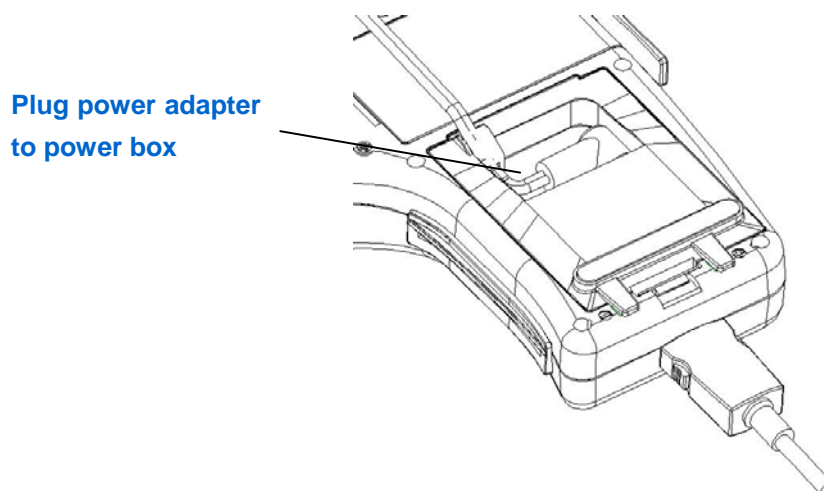


Figure (11)

- Plug the power adapter into the inner socket of the power box. The power box installs into a slot in the back of the terminal. (Figure12)

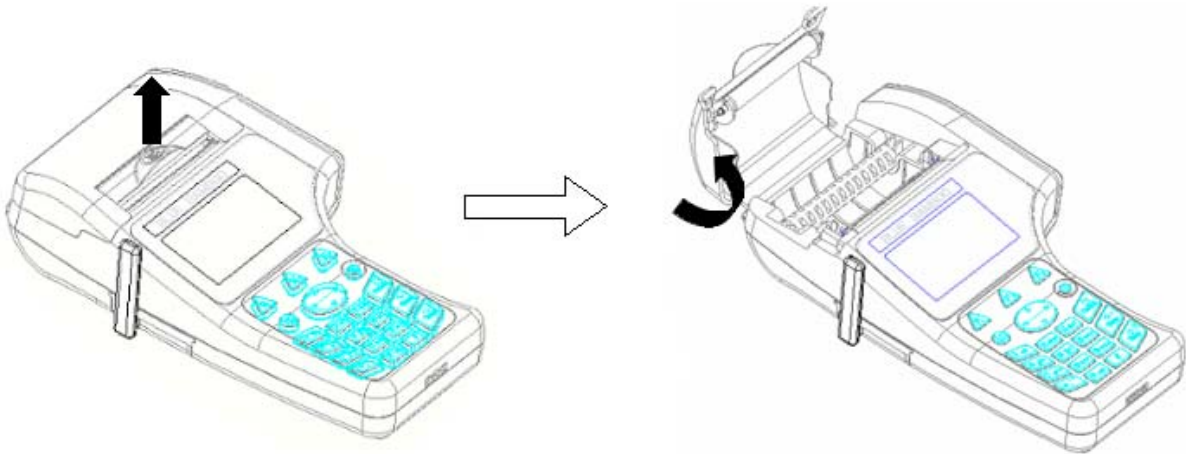


(Figure12)

2.5 Paper Installation

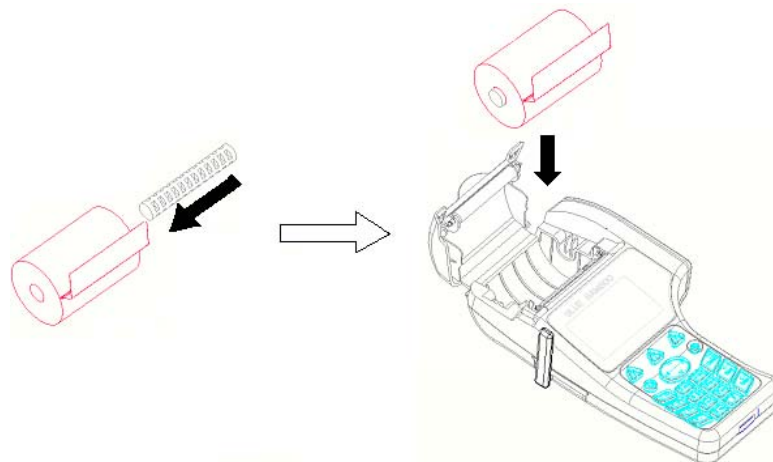
- The internal thermal printer uses a roll of single-ply, thermal-sensitive paper 58 mm wide and 40 mm or less in diameter
- A pink out-of-paper indicator line appears on the edge of the paper approximately 45 centimeters before the end of the roll. After this line appears, there is enough paper remaining on the roll to conclude at least one transaction

To install a paper roll into the internal thermal printer:



(Figure 13) Open the printer cover

- Open the printer cover by rotating the printer cover up and to the back as seen in Figure 9. Note that the cover is hinged and it is unnecessary to remove it completely from the unit
- Loosen the glued leading edge of the paper from the roll
- Slide the spindle through the printer roll and drop the paper roll into the printer tray so its paper feeds from the bottom (Figure 14)



(Figure 14) Load Paper

- d. Close the cover by gently pressing the paper cover until it clicks shut. Allow a small amount of paper to extend outside the cover, as shown in (Figure 15)



(Figure 15) Complete paper installation

- e. Insert a serial cable (18 pin) into the terminal.

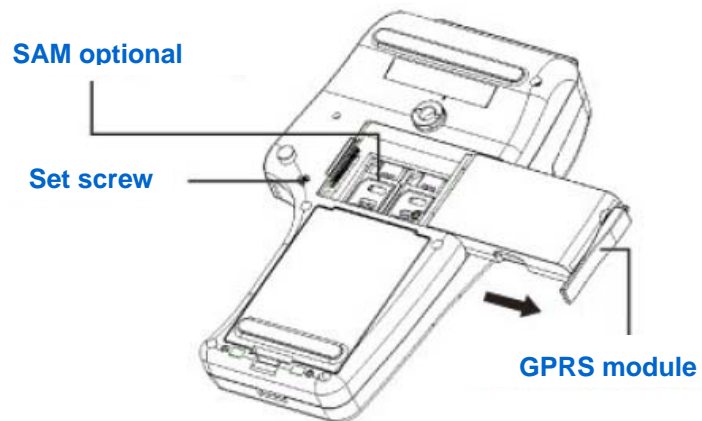


Figure 16 Install serial cable

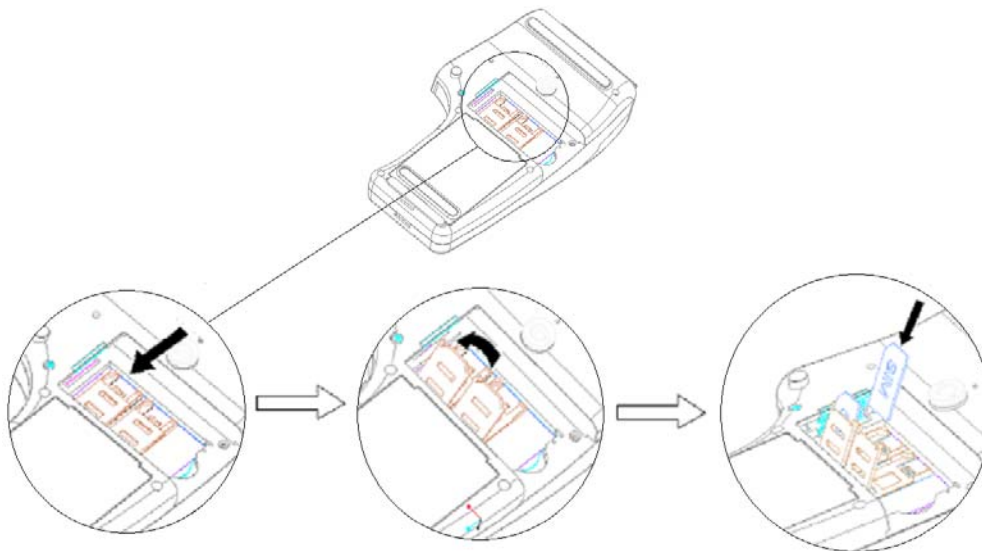
2.6 SAM Card Installation

When you first receive the H50 Advantage terminal, you may need to install a Secure Access Module (SAM) card. The following procedure describes SAM card installation:

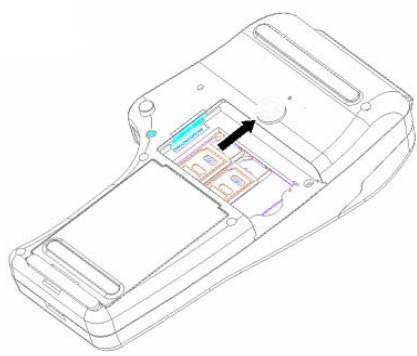
- Remove the GPRS/Modem module. The SAM door is located beneath the GPRS/Modem module, as seen in Figure 17
- Release the SAM card holder doors by sliding them toward you
- Lift the doors to open the card holders (Figure 18) and insert the SAM card in the door with the electronic chip facing down and the cut-out corner on top. (Figure 19)
- Close the lid of the card holder and slide it up to lock it into place



(Figure 17) SAM ports doors



(Figure 18) Open card holder door



(Figure 19) Insert SAM card



CAUTION:

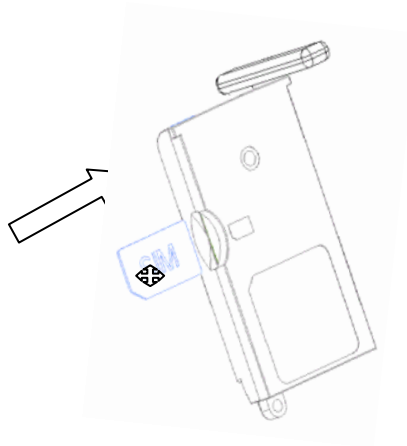
Observe standard precautions for handling electrostatic sensitive devices.

Electrostatic discharges can damage this equipment. Wearing an anti-static wrist strap grounded to a metal surface is recommended.

2.7 SIM Card Installation (For GPRS Module Only)

A SIM (Subscriber Identity Module) card is a smart card inserted in the GPRS module of the H50 Advantage terminal that contains your account information. Use the following procedures to install or replace a SIM card:

- a. Hold the GPRS module in one hand and the SIM card in the other
- b. Insert the SIM card with the electronic chip facing the connector and the cut out corner pointing away from the module, as seen in Figure 20. Be sure to insert the SIM cards before installing the module

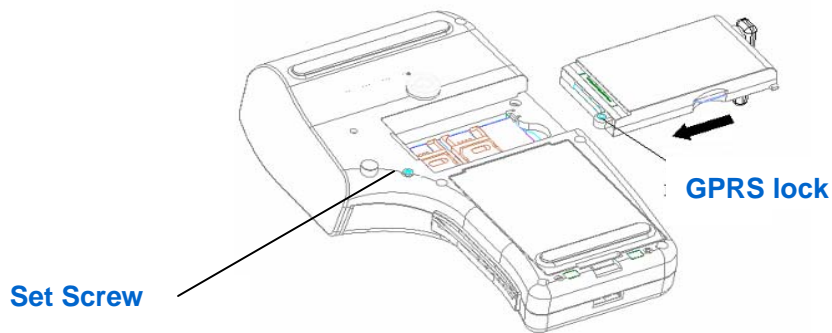


(Figure 20) Insert SIM Card

2.8 GPRS/Modem/Bluetooth/Ethernet Module Installation

To insert GPRS/Modem/Bluetooth/Ethernet Module into the terminal:

- a. Turn the terminal over so that you are facing the back of the terminal (Figure 21)
- b. Hold the terminal in your left hand and the GPRS/Modem/Bluetooth/Ethernet Module in your right hand
- c. Insert the GPRS/Modem/Bluetooth/Ethernet Module gently into the terminal slot with the modem lock oriented to the lower left
- d. Use the screw to lock the GPRS/Modem/Bluetooth/Ethernet Module into place



(Figure 21) Install GPRS/Modem/Bluetooth/Ethernet Module

2.9 Smart Card Reader Transactions

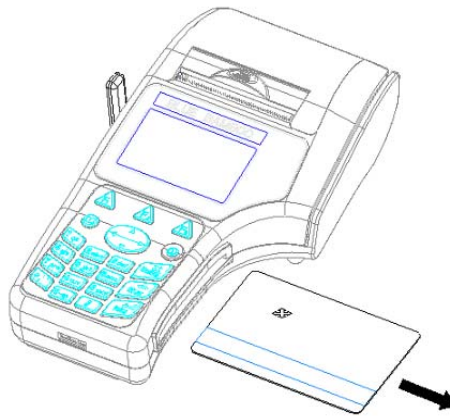
To conduct a smart card reader transaction:

- a. Position the smart card and insert it into the smart card reader slot in a smooth, continuous motion until it seats firmly with the chip facing up (Figure 22). Leave the smart card in the card reader until the transaction is complete. Premature removal voids the transaction.



(Figure 22) Insert card

- b. Remove the card when the display indicates the transaction is complete.

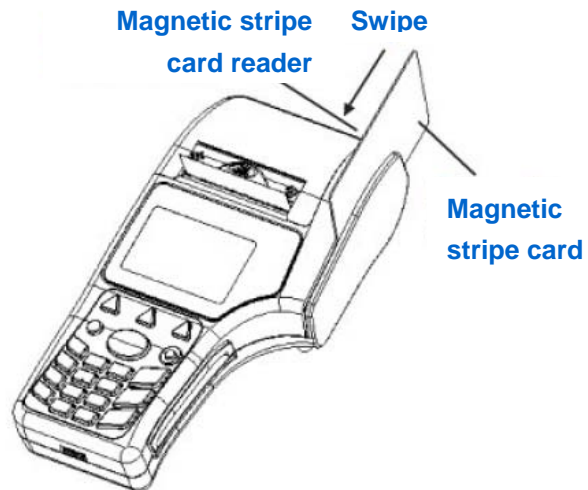


(Figure 23) Remove card

2.10 Magnetic Card Reader Transactions

To conduct a magnetic card reader transaction:

- a. Position the card with the magnetic stripe facing down and towards the printer.
- b. Swipe it through the reader in either direction, as shown in Figure 24.



(Figure 24) Swipe card

3 Maintenance

3.1 Terminal

- For normal dirt, use a clean cloth slightly dampened with water and a drop or two of mild soap. For stubborn stains, use alcohol or an alcohol-based cleaner
- Never use thinner, acetone, trichloroethylene, or key tone-based solvents — these chemicals can deteriorate plastic or rubber parts
- Do not spray cleaners or other solutions directly onto the keypad or display

3.2 Card Readers

- The magnetic and smart card readers require no regular maintenance. For card reader service, contact your distributor or service provider.



CAUTION: Do not attempt to clean the card readers. Doing so may void your warranty.

3.3 Printer

- Keep the printer port clean. Avoid contact with water.

4 Troubleshooting

Blue Bamboo follows stringent quality control standards in the manufacturing of H50 Advantage terminals. Each unit that leaves the factory receives numerous tests to ensure quality and reliable operation. However, if you encounter a problem in operation, read this section for possible causes and solutions. If the problem persists or if it is not described below, contact your local Blue Bamboo representative for assistance.



CAUTION: Do not, under any circumstance, attempt to disassemble the terminal. If a terminal has been disassembled it will void the warranty.

4.1 Terminal Does Not Start

- Check to make sure the Battery protection plastic has been removed.
- Ensure that the battery charge state is not below the critically low level
- Recharge or replace the battery
- Make sure that you press the power on/off key for approximately 2 seconds, until the unit lights up

4.2 Terminal Display Does Not Show Correct or Readable Information

- Shut off and restart the terminal
- Recharge or replace the battery
- If the problem persists, contact your local Blue Bamboo representative for assistance

4.3 Battery Will Not Charge

- The battery must initially receive a full charge and then full discharge to calibrate its full charge capacity. This operation is performed at manufacture.
- Conserve battery power by turning the H50 Advantage terminal off when not in use. If the terminal is not to be used for several days, remove the battery from the terminal as it continues to discharge even when the terminal is turned off
- The H50 Advantage terminal will notify the user when the battery charge is sufficiently low and may automatically shut off if the battery reaches a critically low state. If the battery is used until it is completely dead, it may take several recharge attempts to reset the safety circuit when charging. To check that the safety circuit has been reset, simply turn on the terminal. If it turns on, it was reset, or if it does not turn on reconnect the power adapter and begin charging again

4.4 Printer Does Not Work

- Check the battery status. The printer will not print if there is insufficient charge remaining in the battery to complete the print operation
- Check if the printer is out of paper and that the roll is properly installed. Open the paper roll cover and install a new roll of printer paper and ensure that the roll is feeding from the bottom
- Verify that the printer roller and paper roll dust cover are properly installed
- If the problem persists, contact your local Blue Bamboo representative for assistance

4.5 Serial Port Does Not Work

- Check the serial cable connection
- Ensure the outlet has power
- The cable connecting the optional device to the H50 Advantage base serial port may be defective. Try a different serial cable.

- If the problem persists, contact your local Blue Bamboo representative for assistance.

4.6 Terminal Does Not Process Transactions

There are several possible reasons why the H50 Advantage terminal may not be processing transactions. Use the following steps to troubleshoot failures:

- **Check the magnetic card reader**
 - Perform a test transaction using several different magnetic stripe cards to ensure the problem is not a defective card
 - Ensure that you are swiping cards properly. With the H50 Advantage MSR card reader, the black, magnetic stripe on the card should face down and to the left, toward the LCD screen
- **Check the smart card reader**
 - Perform a test transaction using several different smart cards to ensure the problem is not a defective card
 - Ensure that the card is inserted correctly. The chip on the card should be facing up and inwards
 - Ensure the smart cards are properly inserted in the cardholders and the cardholders are properly secured
- **Check the signal strength on-screen**
 - Indicator displays at least one bar to indicate connectivity to radio network
 - Check antenna connection and orientation
 - Ensure that the radio has been activated by your service provider
- **Check the telephone line**
 - Connect to a working telephone and check for a dial tone. If there is no dial tone, replace the telephone cable
 - If the problem appears to be with the telephone line, check with the party you are trying to call to see if their system is operational. If they are not experiencing difficulties with their line, contact the telephone company and have your line checked
 - If the telephone line works, contact your local Blue bamboo representative for assistance

4.7 Keypad Does Not Respond

- Check the display panel. If it displays the wrong characters or nothing at all when you press a key, follow the steps outlined in section 4.2
- If pressing a function key does not perform the expected action, refer to the user documentation for that application to ensure you are entering data correctly.
- If the problem persists, contact your local Blue Bamboo representative for assistance

5 Service and Support

- For the H50 Advantage terminal, contact your local Blue Bamboo representative or service provider.
- Visit the H50 Advantage online store at www.bluebamboo.com

6 Specifications

This section provides information on the power requirements and environmental conditions to which the units can be subjected, as well as the unit dimensions.

6.1 Power Requirements

The external AC/DC power adapter will be used only with the Li-ion batteries and it has the following requirements:

- **Construction:** adapter with a power cord to the outlet that can be country specific for the plug and a DC power cord to the H50 Advantage.
- **Input voltage:** 100 – 240VAC, 50/60 Hz
- **Output voltage:** 9-10V DC
- **Output current:** 1000 mA
- **Safety:** certifications by country

6.2 Environmental

Temperature:

- Storage: -20C° to 60C°
- Operating: 0C° to 40 C°

Humidity:

- Storage 10% to 90% RH, non-condensing
- Operating: 15% to 85% RH, non-condensing

6.3 H50 Advantage Terminal Dimensions and Weight

	Weight (kg)	Dimension
H50 Advantage Terminal	0.424	109mm(L)x192mm(W)x53mm(H)
H50 Advantage Unit Carton	0.94	260mm(L)*240mm(W)*108mm(H)

7 Accessories and Documentation

This section lists accessories and documentation available for the H50 Advantage terminal.

7.1 Accessories

Support for 2 SAM cards

33.6K baud modem module

Bluetooth 2.0 module

850/1800/1900 GSM/GPRS module

SDK (Software Development Kit)

Track 2 and 3 magnetic stripe reader support (MSR T 2/3)

Serial Cable

Rechargeable battery

Charging cradle

Carrying case

Holster

Car charger

USB to RS232 Cable

Blue Tools SDK

8 Revision History

Revision	Date	Reason
Revision 1.0	February 4, 2009	Draft edition
Revision 1.1	October 9, 2010	Change the template (Add header and footer, page number etc.