



NURIT 8400

**Countertop
Payment Terminal**

Installation Manual



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NURIT 8400



Foreword

Thank you for purchasing the NURIT 8400 Countertop Payment Terminal. You now own one of the most advanced, versatile, secure, and convenient POS terminals manufactured today.

This manual provides basic installation instructions. To fully utilize the features of your NURIT 8400, and for general safety purposes, it is recommended that you familiarize yourself with this manual, the terminal and any peripheral equipment or accessories.

Note

All graphic images in this manual are for illustrative purposes only. Different models of this terminal may exist and may vary in appearance according to country of use or particular customer requirements. Although operation of the terminal may be application-dependent, basic installation procedures are the same for most models.

It is recommended that you store this manual in a safe place for future reference.

Document Conventions

Warning	Failure to follow specific procedures and practices may result in personal injury
Caution	Failure to follow specific procedures and practices may result in damage to the NURIT device or other equipment
Note	Helpful hints and other important information about the use of the NURIT device



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1. Product Regulatory Information

Caution

Changes or modifications to this device that are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Compliance Statement



Manufacturer: VeriFone, Inc.
Model: NURIT 8400

FCC Part 15 Requirements

This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is installed and operated in a commercial environment.

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.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense.

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 the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult your representative or an experienced technician for help.

Connection of peripherals to this unit requires the use of grounded, shielded cables to ensure compliance with the Class B limits.



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In Canada

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatuses set forth in the Radio Interference Regulations of the Canadian Department of Communications.

Cet appareil digital n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils de la Classe B, déterminée par la Réglementation d'Interférence Radio du Ministère Canadien des Communications.

EU Directives Compliance Statement



This product complies with the requirements of applicable European Union Council Directives.

Note

Disposal of this product or of any of its components must be performed in full compliance with all EU and/or local directives and regulations. For more information, contact your local VeriFone representative or authorized VeriFone service provider.



2. General Safety Instructions

Note

These safety instructions are based on those provided by Underwriters Laboratories (UL) Inc. U.S.A.

When using the NURIT 8400 or any associated device, the following basic safety precautions should always be observed to reduce the risk of fire, electric shock, or personal injury:

- Read and make sure you understand all instructions.
- Follow all warnings and instructions marked on the device and in this manual.
- Before cleaning, turn off the PC, ECR, or other device to which the NURIT 8400 is connected and disconnect it from electrical power.
- Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning and/or a soft brush.
- Never spill any liquid on the device.
- Place the device in a stable position on a solid surface. Serious damage may result if the device falls.
- Do not cover slots and openings of the device. They may be provided for ventilation and protection against overheating. Never place the device near radiators, or in a place where proper ventilation is not provided.
- Do not place objects on the interconnection cables. Install the device where no one can step on the cables.
- Never push objects into the device through slots (other than those specifically intended for the SAM, SIM, SD/MMC, magnetic stripe, or smart cards).
- To reduce the risk of electric shock, do not disassemble any of the equipment or accessories referred to in this manual. If required, take the equipment to a qualified service representative. Incorrect reassembly or opening or removing covers may expose you to dangerous voltages or other risks.



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Warning

- Do not use your NURIT 8400 in an area of potential explosive atmosphere, such as fuel or chemical storage or transfer facilities, or in any area where you would be advised to turn off a vehicle's engine.
- Do not use the NURIT 8400 in a known blasting area.

Radio Frequency Energy Emission

Your NURIT 8400 may contain a transmitter and receiver that emit radio frequency (RF) energy. The actual frequency range used by the NURIT 8400 is radio-modem dependent according to the specific model. Digital modulation techniques are used.

During radio communication, the local radio system handling the actual communication controls the actual power transmission output level. This output level may typically vary (relative to the distance between the user location and the cell transmission sites).

RF energy may affect some electronic systems. Consult the specific device manufacturer (or airline crew for possible airborne operation) regarding permission to use this device while airborne and associated problems. It is currently known that all radio-type devices are prohibited while airborne.

- When used properly, the design of this handheld wireless terminal complies with U.S., Canadian, European, and other standards for protection from public exposure to RF magnetic signals.
- This device has been tested and meets RF exposure guidelines for hand held operation pursuant to FCC OET Bulletin 65 Syoolement C ed. 01-01, IEEE 1528/D1.2 (2003) and Industry Canada RSS-102 (1999).

Warning

The NURIT 8400 must be located at least 20 cm (7.9 in) from all persons, and must not be co-located or operated in conjunction with any other antenna or transmitter.



Safety Precautions for Medical Devices

For persons using a pacemaker or other medical device, please read the following important safety notes:

- Though most electronic equipment and critical medical devices are shielded against radio-frequency signals, it is important to realize the possibilities of potential interference and to know the standard precautions that may be taken.
- Consult the manufacturer of your medical device to determine its level of shielding. Depending on the proximity to certain equipment, you may be asked not to use your NURIT terminal or one of its accessories.

Pacemakers

Industry standards recommend a minimum separation of 15 cm (6 in) between a wireless phone-type device and a pacemaker to prevent any potential problems.

Individuals using a pacemaker should:

- Always keep the NURIT 8400 terminal more than 15 cm (6 in) from the pacemaker when using the unit for cellular wireless communication or when performing an online transaction.
- Turn off the NURIT 8400 terminal immediately and disconnect it from the power supply if you suspect any problem of interference.



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3. Specifications

<i>Specification</i>	<i>Details</i>
Power	<ul style="list-style-type: none">Terminal 9 V at 4 AAC/DC Adapter (Safety Approved) Input: 90-264 and 300 VAC Output: 9 VDC at 4 A 3.3 V switching regulatorThe AC/DC Adapter must be approved by the relevant authorities in the country where the equipment is sold.
Dimensions	<ul style="list-style-type: none">Height: 80.7 mm (3.2 in) Including the keypad privacy shieldWidth: 109.9 mm (4.3 in)Depth: 232.5 mm (9.2 in)
Weight (approximate)	<ul style="list-style-type: none">POS terminal: 600 g (21.16 oz)Shipping weight may vary according to optional accessories, documentation, and packaging
Environmental Requirements	<ul style="list-style-type: none">Operating temperature: 0° C to +50° C (+32° F to +122° F)Storage temperature: -20° C to +60° C (-4° F to +140° F)Relative humidity: 5%-95% non-condensing
Modem Communication Rate	<p>Choice of three speeds:</p> <ul style="list-style-type: none">14.4 Kbps56 Kbps56 Kbps and V.92 <p>Note: Modem speed is model-dependent</p>

Note

Specifications are subject to change without notice due to changes to the device and its components. The above specifications may differ between models of the NURIT 8400.

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4. Initial Setup

Caution

The box of a secure NURIT device should be sealed with a Secure Device label. If the Secure Device label on the box was damaged or missing, this could be an indication of device tampering and may affect the validity of the warranty for the device. Notify your VeriFone service provider.



IMPORTANT:
VERIFY THAT THE BOX
AND LABEL ARE INTACT
BEFORE OPENING



Figure 4-1 Secure Device Label

Note

The size, appearance and precise wording of the Secure Device label may vary according to the particular service provider of the device.

Caution

- Carefully inspect the contents of the box for any damaged or missing components. Do not use a NURIT device that shows any signs of damage.
- VeriFone has taken all measures to provide you with a complete device. If shipping damage is evident, file a claim with the shipping company. Notify your VeriFone service provider concerning this damage, and if any components are missing.



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Contents Checklist

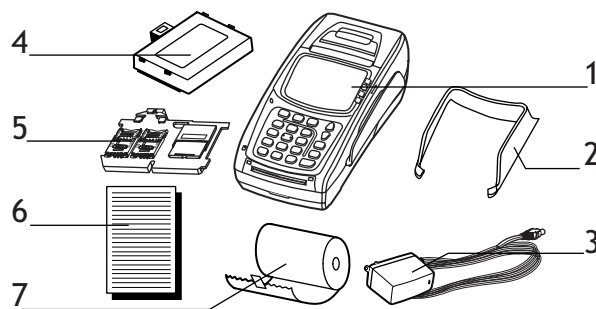


Figure 4-2 NURIT 8400 - Box Contents

1	NURIT 8400	2	Keypad privacy shield
3	AC-DC power adapter	4	Battery (model-dependent)
5	SAM-SD/MMC Adapter (model-dependent)	6	Documentation pack
7	Paper roll		

Note

- Box contents may vary according to the specific model.
- Some or all of the accessories contained in the box may already be installed in the terminal.
- The contents of the documentation pack may vary according to customer requirements.

Selecting a Point-of-Sale Location

The NURIT 8400 is designed to be operated in the following locations:

- Indoors, using the AC/DC Power Adapter.
- Outdoors, powered only by a VeriFone-supplied or approved battery.



Warning

Do not locate the POS terminal where it can be exposed to the following:

- Devices that radiate excessive electrical noise or voltage fluctuations, such as air conditioners, fans, electric motors, neon signs, or high-frequency security devices.
- Water containers, such as a sink, a laundry tub or a pool.
- Areas of excessive moisture, heat, oil, dust or debris.
- Direct sunlight or objects that radiate heat.
- Metal partitions or such obstructions that may disrupt radio transmission or reception if your terminal is used as a wireless device.

Caution

The NURIT 8400 should not be powered or charged outdoors using its AC/DC adapter.

- When not operated from its hand-held position, place the NURIT 8400 on a flat table or countertop close to a power outlet and any peripherals.
- Maintain good ventilation around the terminal. Provide for at least 22 cm (8.5 in) of clear space around the terminal in its fixed operating location.
- Do not cover the terminal.

Caution

Some NURIT 8400 may have an optional internal radio installed. If you are operating a terminal with this feature, do not operate on a metal plate or near metallic objects.

Note

Before using the NURIT 8400, remove the transparent plastic membrane that covers the LCD screen.



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Note

To ensure compliance of the NURIT 8400 as a secure PIN entry device:

- The customer should be able to obstruct visual observation of the PIN entry with his/her body and hand.
- The cardholder must be clearly instructed to obstruct visual observation of the PIN entry with his/her body and hand.

Failure to comply with these conditions may render the terminal non-compliant with ISO 9564 for PIN protection and may violate card association requirements for PIN entry devices.

For more information, contact your local VeriFone representative or service provider.

Caution


- A keypad privacy shield is preinstalled on all models of the NURIT 8400. Do not attempt to tamper or remove the privacy shield. Tampering with the privacy shield may damage the device and make it inoperable.
- If for any reason, the keypad privacy shield needs to be replaced, contact a VeriFone service representative.

Note

Do not use a NURIT 8400 that shows any sign of damage.



5. General Features

<i>Feature</i>	<i>Description</i>
LCD Display	<ul style="list-style-type: none"> Graphical LCD display Black and white with backlight 128 x 64 pixels, 63 x 35 mm
Keypad	20 keys comprised of: <ul style="list-style-type: none"> 10-key telephone-style keypad 10 Function and special keys Four optional ATM-like keys
Smart Card Reader	<ul style="list-style-type: none"> Integrated, front-entry, EMV-compliant, smart card reader
Magnetic Stripe Card Reader	<ul style="list-style-type: none"> Integrated, bi-directional ck magnetic stripe card reader
Keypad Privacy Shield	<ul style="list-style-type: none"> Preinstalled privacy shield
SAM-SD/MMC Adapter	<ul style="list-style-type: none"> Up to four SAM cards (0, 2, 4) Up to two SAM (0, 2) and one SD/MMC card Note: Configuration is model-dependent
SIM Slot	<ul style="list-style-type: none"> Slot for the insertion of a SIM card Note: SIM card is model-dependent
Thermal Printer	<ul style="list-style-type: none"> Integrated printer uses thermal paper Easy-load mechanism
Connectors	<ul style="list-style-type: none"> PWR (Power) Connector COM1 and COM2 RS-232 Connectors (COM2 is model dependent) TEL Connector (RJ-11) LINE Connector (RJ-11) PIN (PIN pad) Connector ENET, 10BaseT Ethernet LAN via Ethernet Connector RS-485 LAN USB Host Connector ("A" Plug) USB Device Connector ("mini-B" Plug) Note: Configuration is model-dependent



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Feature	Description
Battery	<ul style="list-style-type: none">• Two cell Lithium-ion (Li-Ion) battery• Supplies 7.4 V at 2200 mAh (minimum)• Fully recharges within six hours• Smart monitor communication• Charger included Note: Battery is model-dependent
Radio	<ul style="list-style-type: none">• Internal antenna Choice of: <ul style="list-style-type: none">• GSM/GPRS• CDMA Note: Radio is model-dependent
Modem	Choice of three speeds (model-dependent).

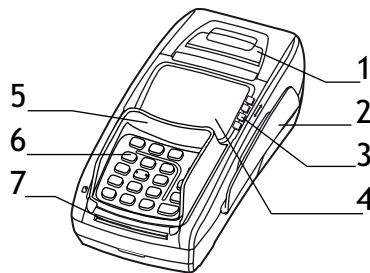


Figure 5-1 NURIT 8400 - Top View

1 Paper cover	2 Magnetic stripe card slot
3 ATM-like keys (model-dependent)	4 LCD display
5 Keypad privacy shield	6 Keypad
7 Smart card slot	

NURIT 8400

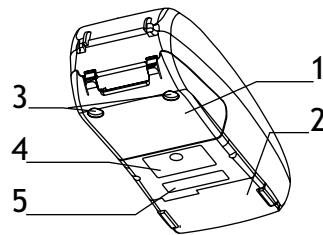


Figure 5-2 NURIT 8400 - Bottom View

1	Cable compartment cover	2	Battery/SAM-SD/MMC compartment
3	Rubber stop	4	Compliance label
5	Model/serial number label		



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6. Removing and Replacing the Cable Compartment Cover

The cable connection panel on the NURIT 8400 is located on the bottom of the base unit, behind a cover for the cables. The cables cover must be removed before you can connect the terminal to the power supply, telephone line, or peripheral devices.

To remove the cable compartment cover:

1. Carefully hold the NURIT 8400 face down or place it on a soft, smooth surface, so as not to damage the LCD display.
2. Steady the unit with one hand, with the bottom of the terminal facing you.
3. On the cable compartment cover, place a finger in the groove of each of the two locking tabs.

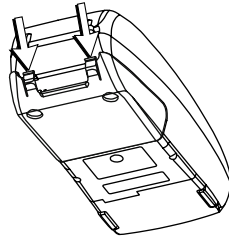


Figure 6-1 Opening the Cover Locking Tabs

4. Pull and lift the cover, exposing the terminal connectors.
5. Remove the connectors cover.

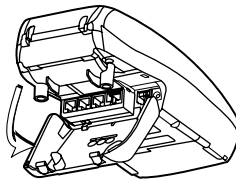


Figure 6-2 Lifting the Cable Compartment Cover

NURIT 8400



To replace the cable compartment cover:

1. Hold the cover at a 40° angle, with the hinge tabs facing down.
2. Insert the hinge tabs into the tab slots, located above the connectors.

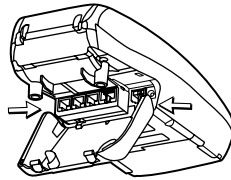


Figure 6-3 Positioning the Cable Compartment Cover

3. Lower the cover and press down until the locking tabs snap into place.



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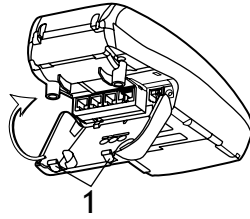


Figure 6-4 Closing the Cable Compartment Cover

1 Cable compartment cover locking tabs



7. Connecting to the Power Supply

To connect the NURIT 8400 to the power supply:

1. Remove the cable compartment cover, as described in "Removing and Replacing the Cable Compartment Cover" on page 14.
2. Connect the barrel plug on the AC/DC Power Adapter cable to the connector labeled PWR on the rear panel of the terminal.
3. Connect the other end of the AC/DC Power Adapter cable to an electrical power outlet.
4. Replace the cable compartment cover, as described on page 15.

Warning

Use only the VeriFone supplied AC/DC Power Adapter to power the NURIT 8400.

Warning

Do not plug the AC/DC Power Adapter into an outdoor electrical power outlet.

Caution

Disconnecting the terminal from the power outlet will disrupt the transaction process.

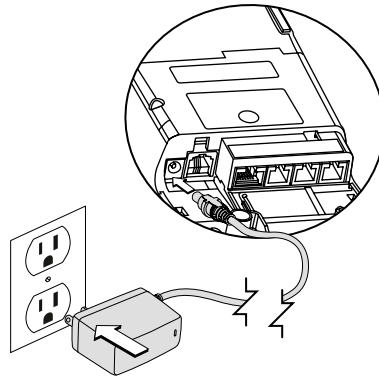
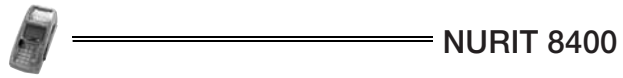


Figure 7-1 Power Supply Connection

Note

It is recommended that you install a power surge arrester at the power outlet to prevent possible damage caused by electrical spikes or local lightning strikes.



8. Connecting to a Telephone Line

To connect the NURIT 8400 to a standard analog modular telephone line:

1. Disconnect the AC/DC Power Adapter from the electrical power outlet.
2. Remove the cable compartment cover, as described in "Removing and Replacing the Cable Compartment Cover" on page 14.
3. Insert the telephone cord supplied with the terminal into the LINE connector on the rear panel of the terminal.
4. Connect the other end of the telephone cord into a standard RJ-11 type modular telephone line outlet.

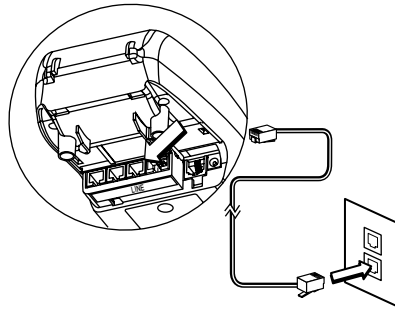


Figure 8-1 NURIT 8400 - Telephone Line Connection

5. Replace the cable compartment cover, as described on page 15.
6. Reconnect the AC/DC Power Adapter to the electrical power outlet.

Caution

Only use the assigned connection port, labeled LINE for telephone line connections.



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Note

It is recommended that you use a dedicated telephone line with the NURIT 8400. In some models the phone line is disabled during transactions

Note

Use only the telephone cord shipped with the terminal. Using a different telephone cord may cause the terminal to malfunction.

Telephone Outlet Types

The following types of telephone outlets are common:

- **Modular**

This is the most common type of telephone outlet used. Plug the supplied telephone cord from the terminal into a standard modular telephone connector. If you do not have a modular connector, contact your local telephone company or a qualified telephone technician.

- **4-Prong Connector**

You must purchase a special adapter for use with a 4-prong connector. This adapter plugs into the 4-prong connector and the telephone line cord plugs into the adapter.

- **Hard-wired**

You must purchase a special modular connector adapter for this direct-type hard-wire connection that replaces older connecting blocks. Contact your local telephone company or a qualified telephone technician for correct information on color-coded connections.



9. Connecting an External Telephone

You can connect a standard external telephone to a model of the NURIT 8400 that uses the analog telephone network for communications and does not support a LAN connection.

To connect an external telephone to the NURIT 8400:

1. Disconnect the AC/DC Power Adapter from the electrical power outlet.
2. Remove the cable compartment cover, as described in "Removing and Replacing the Cable Compartment Cover" on page 14.
3. On the rear panel of the NURIT 8400, insert one end of a telephone cord (model dependent, VeriFone supplied) into the TEL connector.
4. Insert the other end of the telephone cord into the RJ-11 type modular connector on the base of the telephone.

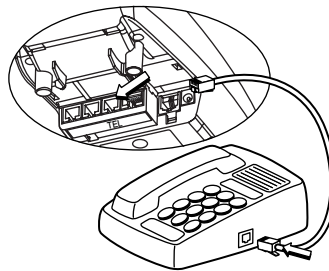


Figure 9-1 External Telephone Connection

5. Replace the cable compartment cover, as described on page 15.
6. Reconnect the AC/DC Power Adapter to the electrical power outlet.

Note

If you want to connect an external telephone to the NURIT 8400 terminal, along with an analog telephone network connection, you must use a 2-socket RJ-11 plug in the modular wall connector.



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10. Connecting to a LAN

Some models of the NURIT 8400 can be connected to a Local Area Network (LAN). Depending on the specific model, the NURIT 8400 can be connected to either an RS-485 LAN or a 10BaseT Ethernet LAN.

To connect the NURIT 8400 to an Ethernet LAN:

1. Disconnect the AC/DC Power Adapter from the electrical power outlet.
2. Remove the cable compartment cover, as described in "Removing and Replacing the Cable Compartment Cover" on page 14.
3. Connect the Ethernet Adapter cable to the ENET connector on the connections panel.
4. Connect the other end of the Ethernet Adapter cable to one end of the network cable.
5. Connect the other end of the network cable to a network wall outlet, switch, or other compatible network device.

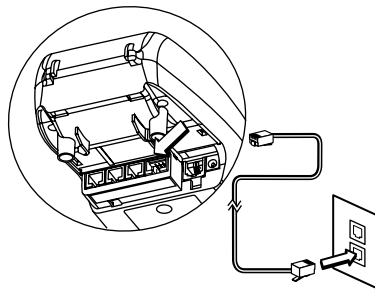


Figure 10-1 Typical Ethernet/RS-485 LAN Connection

6. Replace the cable compartment cover, as described on page 15.
7. Reconnect the AC/DC Power Adapter to the electrical power outlet.

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To connect the NURIT 8400 to an RS-485 LAN:

1. Disconnect the AC/DC Power Adapter from the electrical power outlet.
2. Remove the cable compartment cover, as described in "Removing and Replacing the Cable Compartment Cover" on page 14.
3. Connect the network cable to the RS-485 connector on the connections panel.
4. Connect the other end of the network cable to a network wall outlet, switch, or other compatible network device.
5. Replace the cable compartment cover, as described on page 15.
6. Reconnect the AC/DC Power Adapter to the electrical power outlet.



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11. Connecting an External PIN Pad

Caution

Only use the assigned connection port, labeled PIN for PIN pad connections.

To connect an external PIN pad to the NURIT 8400:

1. Disconnect the AC/DC Power Adapter from the electrical power outlet.
2. Remove the cable compartment cover, as described in "Removing and Replacing the Cable Compartment Cover" on page 14.
3. Connect one end of the connector cable (supplied with the terminal) to the PIN connector on the rear panel of the NURIT 8400.
4. Verify that the other end of the connector cable is connected to the PIN pad.
5. Replace the cable compartment cover, as described on page 15.
6. Reconnect the AC/DC Power Adapter to the electrical power outlet.

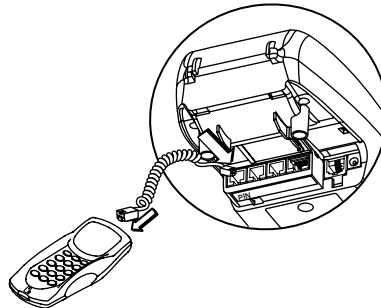


Figure 11-1 PIN Pad Connection



12. Connecting Peripheral Devices

Models of the NURIT 8400 may include ports, allowing connection of the terminal to external devices, such as:

- RS-232 connector
- USB connector

Caution

- Turn off the POS terminal, ECR, or PC whenever you connect or disconnect the NURIT 8400.
- Do not disconnect the NURIT 8400 when the POS terminal, ECR, or PC is processing data.

Caution

You can connect to up to four external peripheral devices to the NURIT 8400. Consult with your VeriFone service provider for information about the peripheral devices that you can connect to your specific model.

Note

Peripheral devices may require special adapter cables for their connection to the NURIT 8400. In addition, certain peripheral devices require an external power supply.

Refer to the product documentation of the specific peripheral devices, or contact your local VeriFone representative or service provider for further details.

Note

USB peripheral support requires the installation of a corresponding driver.

Note

The COM1 port provides a power supply for peripheral devices. The power supply is 6 VDC (minimum)-9 VDC (maximum) at 250 mA. This also applies to the model-dependent COM2 port, when there is no PIN pad connection.



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To connect an RS-232 peripheral device to the NURIT 8400:

1. Disconnect the AC/DC Power Adapter from the electrical power outlet.
2. Remove the cable compartment cover, as described in "Removing and Replacing the Cable Compartment Cover" on page 14.
3. Connect a peripheral device to one end of its adapter cable.
4. Connect the other end of the adapter cable to either the COM1 or COM2 (model-dependent) connector on the connections panel.
5. Replace the cable connection cover, as described on page 15.
6. Reconnect the AC/DC Power Adapter to the electrical power outlet.

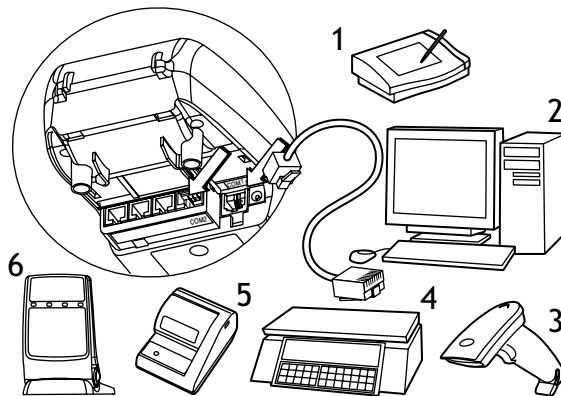


Figure 12-1 Peripheral Device Connection

1	Signature capture device	2	PC
3	Barcode reader	4	Electronic scale
5	Check reader	6	Contactless reader

NURIT 8400



To connect a USB peripheral device to the NURIT 8400:

1. Disconnect the AC/DC Power Adapter from the electrical power outlet.
2. Remove the cable connection cover, as described in "Removing and Replacing the Cable Compartment Cover" on page 14.
3. Insert the USB plug into the USB connector on the peripheral device.
4. Insert the USB plug into the USB connector on the NURIT 8400 terminal.

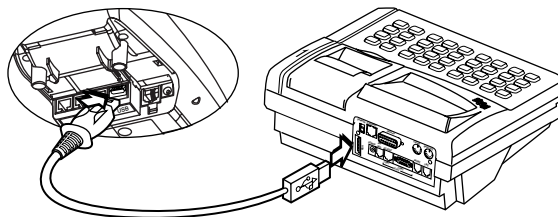


Figure 12-2 Typical Connection to an ECR

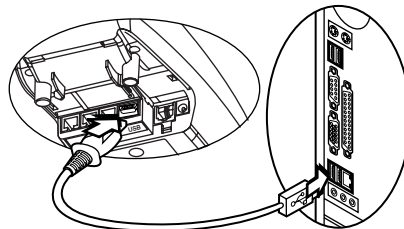


Figure 12-3 Typical USB Connection to a PC-POS

5. Replace the cable connection cover, as described on page 15.
6. Reconnect the AC/DC Power Adapter to the electrical power outlet.



13. Loading Paper in the Printer

To load a roll of thermal paper in the printer:

1. Place the terminal on a flat, stable surface.
2. Insert two fingers into the recess on the paper compartment cover, beneath the release latch.
3. Pull the opening latch up until the cover unlocks.
4. Lift the paper compartment cover until it is fully open.

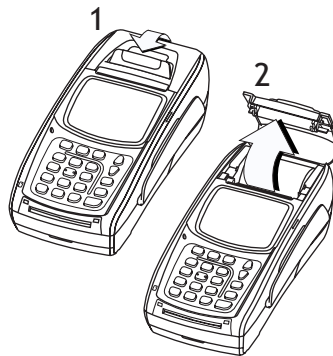


Figure 13-1 Opening the Paper Compartment

- | | | | |
|---|-------------------------------|---|-------------------------------|
| 1 | Opening the paper cover latch | 2 | Opening the paper compartment |
|---|-------------------------------|---|-------------------------------|

5. Remove the tape strip from a new paper roll.
6. Unroll approximately 5 cm (2 in) of paper to facilitate the loading process.

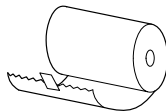


Figure 13-2 Unrolling the Paper Roll

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7. Hold the paper roll with the unrolled end on the underside.
8. Lower the paper roll into the paper compartment.



Figure 13-3 Inserting a Paper Roll

9. Pull the unrolled end of the paper approximately 2.5 cm (1 in) out of the paper compartment, ensuring that the paper feeds from the underside of the roll.
10. Make sure that the opening latch is down, in its original position.
11. Close the paper compartment cover, pressing press down firmly, until it snaps into place.

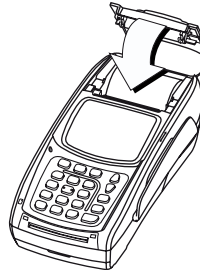


Figure 13-4 Closing the Paper Compartment



Removing the Paper Roll from the Printer

To remove an empty roll of thermal paper from the printer:

1. Place the terminal on a flat, stable surface.
2. Insert two fingers into the recess on the paper compartment cover, beneath the release latch.
3. Pull the opening latch up until the cover unlocks.
4. Lift the paper compartment cover until it is fully open, as illustrated in Figure 13-1 on page 28.
5. Lift the paper roll out of the paper compartment.

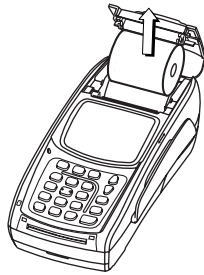


Figure 13-5 Removing the Paper Roll



14. Installing and Removing the Keypad Privacy Shield

Note

The keypad privacy shield is included only with models of the NURIT 8400 that are designed for secure PIN entry.

Note

In addition to the installation of the keypad privacy shield, the cardholder must be clearly instructed to obstruct visual observation of the PIN entry with his/her body and hand. (See "Selecting a Point-of-Sale Location" on page 8.)

Failing to install or removing the keypad privacy shield, or failing to instruct the cardholder to obstruct visual observation of the PIN entry with his/her body and hand, may render the terminal non-compliant with ISO 9564 for PIN protection and may violate card association requirements for PIN entry devices.

To install the keypad privacy shield:

1. Place the terminal on a flat, stable surface, or hold it securely in one hand.
2. Hold the keypad privacy shield above the terminal.
3. Tilt one side of the keypad privacy shield downward at an angle of approximately 30°.



Figure 14-1 Installing the Keypad Privacy Shield



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4. Insert the curved tab on the back side of the keypad privacy shield into the circular opening positioned on either side of the terminal (on either side of the top of the keypad area).
5. Push down on the same side's front of the keypad privacy shield, until the front tab snaps into place.
6. Position the second tab, at the front of the terminal, into the tab slot.
7. Push down on the remaining corner of the keypad privacy shield, until it snaps into place.

To remove the keypad privacy shield:

1. Place the terminal on a flat, stable surface, or hold it securely in one hand.
2. Grasp either side of the keypad privacy shield.
3. Squeeze and pull on a diagonal one of the back side tabs of the privacy shield until the back side tab releases.
4. Pull the keypad privacy shield away from the terminal.



15. Removing and Replacing the Battery/SAM-SD/MMC Compartment Cover

To remove the battery/SAM-SD/MMC compartment cover:

1. Disconnect the AC/DC Power Adapter from the electrical power outlet.
2. Carefully turn the NURIT 8400 face down or place it on a soft, smooth surface, so as not to damage the LCD display.
3. Steady the unit with one hand.
4. With your other hand, use your thumb to press in and lift the compartment cover.
5. Remove the battery/SAM-SD/MMC compartment cover.

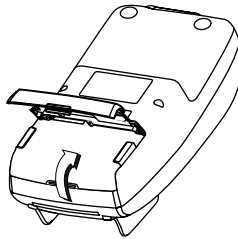


Figure 15-1 Removing the battery/SAM-SD/MMC Compartment Cover



NURIT 8400

To replace the battery/SAM-SD/MMC compartment cover:

1. Insert the two hinge tabs of the battery/SAM-SD/MMC compartment cover into the tab slots on the edge of the compartment.

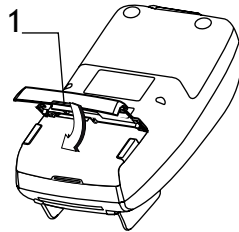


Figure 15-2 Replacing the battery/SAM-SD/MMC
Compartment Cover

-
- 1 Cover locking tab
 2. Lower the compartment cover, using your thumb to press in the locking tab.
 3. Press in the locking tab and push down the compartment cover until the cover snaps into place.



16. Installing and Removing the Battery

To install the battery:

1. Remove the battery/SAM-SD/MMC compartment cover, as described in "Removing and Replacing the Battery/SAM-SD/MMC Compartment Cover" on page 33.
2. If necessary, remove the SAM-SD/MMC adapter, as described in "Installing and Removing the SAM-SD/MMC Adapter" on page 38.



Hold the battery at a 30° angle, with the battery power plug, facing down, into the compartment, making sure that the side with the arrow pictogram is facing upward.

4. Slide the two tabs on the front of the battery into the slots on the front wall of the battery compartment.
5. Slide the battery forward and down, until it snaps into place.
6. If necessary, install the SAM-SD/MMC adapter, as described in "Installing and Removing the SAM-SD/MMC Adapter" on page 38.
7. Replace the battery/SAM-SD/MMC compartment cover, as illustrated in Figure 15-2 on page 34.

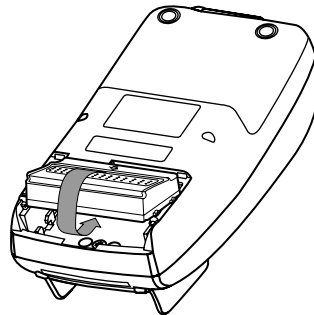


Figure 16-1 Installing the Battery



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To remove the battery from the NURIT 8400:

1. Remove the battery/SAM-SD/MMC compartment cover, as described in "Removing and Replacing the Battery/SAM-SD/MMC Compartment Cover" on page 33.
2. If necessary, remove the SAM-SD/MMC adapter, as described in "Installing and Removing the SAM-SD/MMC Adapter" on page 38.
3. Slide the battery in the direction of the arrow, gently detaching it from its socket.
4. Remove the battery.

Battery Maintenance

Caution

Take care when installing the battery. If installed incorrectly, it may explode. Use only a VeriFone supplied battery.

- The supplied high-performance, smart Lithium-Ion battery provides 7.2 V at 2200 mAH (minimum) capacity.
- When fully discharged, the battery fully recharges within six hours while installed in the terminal.
- The terminal can be connected to an AC/DC power supply indefinitely without causing damage to the battery.
- In typical use, the life span of the battery exceeds 500 charge cycles, after which, operating time decreases slowly.
- The battery has a self-discharge rate. It loses approximately 1% of its charge per day when not in use. Replace the battery when the charge capacity is too weak for normal operation.
- Remove the battery from the terminal if you do not intend to use your NURIT 8400 for an extended period of time.

Warning

Do not break open or damage the casing of the battery.

Warning

Do not dispose of the NURIT 8400 Li-Ion smart battery in a fire. Li-Ion batteries must be recycled or disposed of properly. Do not dispose of Li-Ion batteries in municipal waste sites.

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Note

Extreme temperatures degrade the battery performance.

Battery Environmental Requirements:

- Charge: 0°C to 45°C (32°F to 113°F)
- Discharge: -30°C to 60°C (-22°F to 140°F)
- Storage: -20°C to 45°C (-4°F to 113°F)

Note

To power on a terminal from "OFF" state, while using a battery, press the bottom left button of the keypad.



17. Installing SIM, SAM, and SD/MMC Cards

Depending on the particular model, you can install a variety of electronic memory or processing cards in the NURIT 8400:

- Up to four (4) SAM (Secure Access Module) cards can be installed in SAM cardholders (2, 4), located on the NURIT 8400's SAM-SD/MMC adapter. SAM cards may be used to hold encryption keys, identify the terminal or merchant to the host, process applications, or a variety of other uses.
- One (1) SD (Secure Digital) or MMC (Multi-Media Card) cards, alongside up to two (2) SAM cards (0, 2). SD and MMC cards hold data, such as price lists and offline transaction information, **where supported by the application.**

With any of these options, you can install a SIM Card for your wireless transactions.

Caution

Do not store any foreign objects in the battery/SAM-SD/MMC adapter compartment.

Caution

The contacts on the SAM, SIM, SD/MMC, and cardholders can be easily damaged. Do not bend or scratch when installing or removing the cards.

Installing and Removing the SAM-SD/MMC Adapter

Before using a terminal with SAM and/or SD/MMC cards, the adapter must be installed.

To install the SAM-SD/MMC adapter:

1. Remove the battery/SAM-SD/MMC compartment cover, as described in "Removing and Replacing the Battery/SAM-SD/MMC Compartment Cover" on page 33.
2. If required, install the battery, as described in "Installing and Removing the Battery" on page 35.



3. Hold the SAM-SD/MMC adapter with the cardholders facing upwards, and connector towards the terminal socket.
4. Hold the SAM-SD/MMC adapter on a 30° angle, so that the front tabs, on both the right and left of the board are in the front slots.
5. Gently push the adapter down, resting it in the grooves on the sides of the compartment.
6. Slide the adapter forward, until the locking button locks into place.
7. Replace the battery/SAM-SD/MMC compartment cover, as illustrated in Figure 15-2 on page 34.

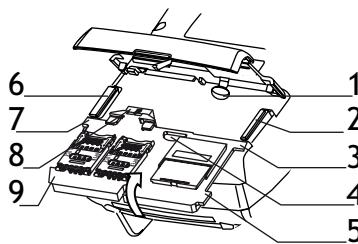


Figure 17-1 Installing the SAM-SD/MMC Adapter

1	Locking button	2	Right insertion groove
3	Front right insertion tab	4	Locking button hole
5	Back right insertion tab	6	Left insertion groove
7	Front left insertion tab	8	SAM-SD/MMC adapter connector
9	Back left insertion tab		

To remove the SAM-SD/MMC adapter:

1. Remove the battery/SAM-SD/MMC compartment cover, as described in "Removing and Replacing the Battery/SAM-SD/MMC Compartment Cover" on page 33.
2. Press the adapter connector down, unlocking the adapter from the socket.
3. Slide and lift the SAM-SD/MMC adapter out of the compartment.



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SAM and SD/MMC Card Configurations

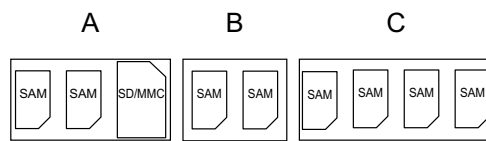


Figure 17-2 SAM and SD/MMC Cards Configurations

<i>Configuration</i>	<i>Description</i>
A	<ul style="list-style-type: none">Two SAM cards are installed in the two SAM cardholders.An SD/MMC card is installed in the SD/MMC card slot.
B	<ul style="list-style-type: none">Two SAM cards are installed in the two SAM cardholders.
C	<ul style="list-style-type: none">Four SAM cards are installed in the four SAM cardholders.

Installing a SAM Card

The NURIT 8400 includes a slot to install a SAM card, which is required if the terminal implements wireless communication technology.

To install a SAM card:

1. Remove the battery/SAM-SD/MMC compartment cover, as described in "Removing and Replacing the Battery/SAM-SD/MMC Compartment Cover" on page 33.
2. Slide the cardholder locking-clasp in the direction indicated by the engraved arrow to the OPEN position.

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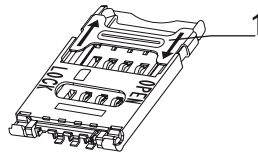


Figure 17-3 SAM Cardholder Locking-Clasp

1 Locking clasp

3. Lift the cardholder on its hinge to an upright position.
4. Hold the SAM card so that its chip side is facing down towards the contacts on the reader.
5. Insert the end closest to the chip on the SAM card into the cardholder.

Note

Make sure that you first slide the end closest to the chip on the card into the grooves of the holder.

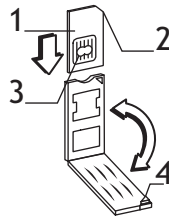


Figure 17-4 SAM Card Installation

1 SAM card	2 Beveled corner
3 Metal contacts	4 Triangular protrusion



6. Close the SAM cardholder.
7. Lock the cardholder by sliding the cardholder locking clasp in the direction indicated by the engraved arrow to the LOCK position.
8. Replace the battery/SAM-SD/MMC compartment cover, as described on page 34.

Installing an SD/MMC Card

To install an SD/MMC card:

1. Remove the battery/SAM-SD/MMC compartment cover, as described in "Removing and Replacing the Battery/SAM-SD/MMC Compartment Cover" on page 33.
2. Hold the SD/MMC card directly above the SD/MMC card slot, with the metal contacts facing down and the narrow edge with the beveled corner pointing towards the slot opening.
3. Slide the SD/MMC card into the cardholder.
4. Press down on the SD/MMC card while sliding it into the slot.

Note

Make sure that you first slide the end closest to the chip on the card into the grooves of the holder.

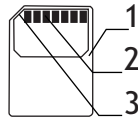


Figure 17-5 SD/MMC Card

- | | |
|------------------|------------------|
| 1 SD/MMC card | 2 Metal contacts |
| 3 Beveled corner | |

5. Replace the battery/SAM-SD/MMC compartment cover, as described on page 34.



Installing a SIM card

To install a SIM card:

1. Remove the cables cover, as described in "Removing and Replacing the Cable Compartment Cover" on page 14.
2. With a screwdriver, lift the tab of the SIM card cover.

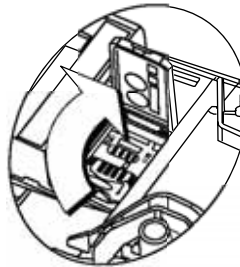


Figure 17-6 Lifting the SIM Card Cover

3. Slide the cardholder locking-clasp in the direction indicated by the engraved arrow to the OPEN position, as illustrated in Figure 17-3.
4. Lift the cardholder on its hinge to an upright position.
5. Hold the SIM card so that its chip side is facing down towards the contacts on the reader.
6. Insert the end closest to the chip on the SIM card into the cardholder, as illustrated in Figure 17-4.

Note

Make sure that you first slide the end closest to the chip on the card into the grooves of the holder.

7. Close the SIM cardholder.
8. Lock the cardholder by sliding the cardholder locking clasp in the direction indicated by the engraved arrow to the LOCK position.
9. Replace the SIM card cover, by holding the SIM card cover at a 30° angle and putting the tabs into the tab slots.



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- 10.** Lower the front of the cover, pushing down until the cover snaps into place.
- 11.** Replace the cable compartment cover, as described on page 15.



18. General Care and Maintenance

The NURIT 8400 is designed to give you long and trouble-free service with minimal operator care.

Maintenance Recommendations

To maintain the NURIT 8400 in proper working condition:

- Keep the terminal dry and in the cleanest possible working and storage environment.
- Do not store the terminal in extremely hot or cold areas.
- Do not shake or drop the terminal.

Caution

- There are no user serviceable parts or components in the NURIT 8400.
- Opening or disassembling the POS terminal in any way not specifically instructed in this manual will automatically erase all secret encryption keys and will render the POS terminal inoperable.
- Opening the NURIT 8400 terminal will void any warranty and security certification. It may also result in irreversible damage to the terminal's electronic circuitry.

Cleaning the NURIT 8400

To clean the NURIT 8400:

- Gently wipe off dirt from the body of the terminal with a soft, damp, lint-free cloth. A very mild dishwashing detergent can be used to dampen the cloth.
- Alcohol or alcohol-based cleansers may also be used for stains that are more difficult.
- If available, a low-pressured blower can be used to remove dirt accumulated around the keypad buttons.
- Use a soft cloth, an eyeglass lens wiper, or a lens blower to remove dust and dirt from the LCD screen.



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Caution

- Never use abrasive compounds or solvents, thinners, benzene or synthetic cleansers.
- Never clean the keypad with liquids. Use only a lightly dampened cloth or soft brush.
- Never rub or strongly press on the LCD display.

Shipping the NURIT 8400

In exceptional circumstances, you may be required to ship your NURIT 8400 to a servicing facility.

To ship the NURIT 8400:

1. Carefully pack the NURIT 8400, preferably in its original box.
2. Send the package prepaid and adequately insured.

Note

- Notify a VeriFone representative or service provider before shipping the NURIT 8400. In some cases, you may be required to attach a letter to the package detailing the problem and including product information such as the serial number and the date of purchase.
- Shipment must be to an authorized representative or service center only. Contact your VeriFone representative for the correct address.

Technical Assistance

Contact your VeriFone representative or service provider for technical assistance and ordering information regarding specific components or accessories.



19. Troubleshooting

The NURIT 8400 has been designed for trouble-free operation, though minor problems may occur during installation and use.

This section briefly describes how to troubleshoot some possible common problems that may arise during the normal operation of the NURIT 8400.

Before requesting service for the terminal, read this section to find a possible remedy for the problem. If you are still unable to solve the problem, contact a service representative. Do not try to solve the problem by opening the terminal yourself.

The POS terminal appears to have no power
<ol style="list-style-type: none">1. Check all cable connections.2. If possible, try connecting the PIN pad to a different POS terminal or ECR.3. Try adjusting the LCD display contrast settings, using the designated, model-dependent key combination.4. If the problem persists, contact an authorized service representative.

The keypad does not respond
<ol style="list-style-type: none">1. Refer to user documentation for the particular application in use.2. If the problem persists, contact an authorized service representative.

An incorrect response or data is obtained
<ol style="list-style-type: none">1. Refer to user documentation for the particular application in use.2. If the problem persists, contact an authorized service representative.

"Tampered Device" is displayed on the screen and the PIN pad is inoperable
<ul style="list-style-type: none">• Contact an authorized service representative.



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The magnetic stripe card reader does not function properly

1. Verify that the card has been swiped with its magnetic stripe at the bottom and at the lower edge of the card. See **Figure A-1 on page 49**.
2. Swipe the magnetic stripe card in the opposite direction.
3. If possible, try using a different magnetic stripe card.
4. If the problem persists, contact an authorized service representative.

The smart card reader does not function properly

1. Verify that the chip end of the smart card is fully inserted with the chip side facing up. See **Figure B-1 on page 50**.
2. If possible, try using a different smart card.
3. If the problem persists, contact an authorized service representative.



Appendix A: Using the Magnetic Stripe Card Reader

To use the magnetic stripe card reader:

1. Hold the card with the magnetic stripe positioned down and facing left.
2. Insert the card into the top end of the card reader slot located on the right side of the terminal.

Note

A pictogram near the top end of the card slot indicates how to insert and swipe the card through the magnetic stripe card reader.

3. Swipe the card in a smooth, continuous movement, all the way through the slot.

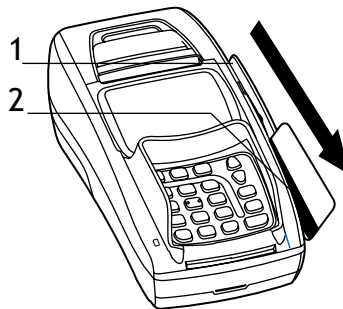


Figure A-1 Using the Magnetic Stripe Card Reader

1 Magnetic stripe card reader 2 Magnetic stripe

Note

It is recommended that you swipe the card from top to bottom, though the magnetic stripe card reader supports bi-directional swiping of cards.



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Appendix B: Using the Smart Card Reader

The EMV-compatible smart card reader is located at the front end of the NURIT 8400.

To use the smart card reader:

1. Hold the smart card horizontally, with the metal chip facing up and directed towards the NURIT 8400.
2. Insert the card into the smart card reader slot.

Note

For guidance, a pictogram near the card slot indicates how to insert the smart card into the smart card reader. In addition, insertion direction arrows may be engraved or inscribed on the smart card.

3. Remove the card when prompted by the POS terminal, depending on the specific application being used.

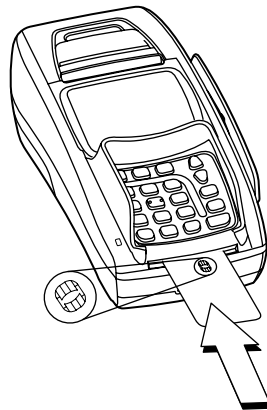


Figure B-1 Using the Smart Card Reader



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