

# M400

# Installation Guide

Verifone Part Number: DOC445-003-EN-C, Revision C01



[www.verifone.com](http://www.verifone.com)

M400 Installation Guide  
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# Preface

This guide is the primary source of information for setting up the M400 device.

## Audience

This guide is intended for the users involved in M400 device installation.

## Organization

This guide is organized as follows:

- Chapter 1: [Device Overview](#) - Provides an overview of the M400 device.
- Chapter 2: [Device Setup](#) - Provides instructions on configuring the M400 device.
- Chapter 3: [Specifications](#) - Provides the power requirements and dimensions of the M400 device.
- Chapter 4: [Maintenance and Cleaning](#) - Explains how to maintain the device.
- Chapter 5: [Service and Support](#) - Furnishes information on contacting local Verifone representatives or service providers, as well as details on ordering accessories or documentation from Verifone.
- Chapter 6: [Accessories](#) - Provides the range of accessories and cables with corresponding part numbers.
- Chapter 7: [Troubleshooting Guidelines](#) - Provides guidance for addressing issues that may arise during device installation.

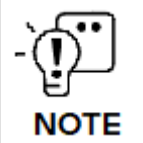


## Related Documentation

To learn more about the M400, refer to the following documents associated with the Verifone Part Number (VPNs).

M400 Certifications and Regulations	VPN DOC445-001-EN
M400 Series Quick Installation Guide	VPN DOC445-002-EN
M4xx Accessory Certifications and Regulations	VPN DOC445-005-EN
M4 PoE Dongle Certifications and Regulations	VPN DOC000-001-EN
M4xx ESU Dongle Certifications and Regulations	VPN DOC445-011-EN

## Conventions

The following table describes the conventions and provides examples of their use.

Convention	Meaning	Example
Blue	Text in blue indicates terms that are cross-referenced.	See <a href="#">Conventions</a> .
	The bulb icon is used to highlight important information.	If exchanging cables use a Verifone-approved cable.
	The caution symbol indicates possible hardware or software failure or loss of data.	Avoid placing metallic objects at the front of the card reader.
	The lightning symbol is used as a warning when bodily injury might occur.	For safety, do not string cables or cords across a walkway.

# 1. Device Overview

A media-capable consumer-facing device that connects to a POS system which allows electronic payment transactions to be processed in multi-lane scenarios. It provides better media capabilities, more reliable hardware, and more efficient processing software.

The terminal features a color 5” IPS LCD (Liquid Crystal Display) capacitive touch-screen display, a fast processor, abundant memory, PCI 4.x security, and an integrated contactless module. M400 Wi-Fi/BT supports 802.11 a/b/g/n Wireless Fidelity (Wi-Fi) and Bluetooth (BT), while the M400 BT variant supports Bluetooth (BT) including BLE with iBeacon and Eddystone profiles.

Figure: 1 M400 Terminal



## Features and Benefits

The terminal focuses on optimizing cost structure and providing better form factor by combining the right features and functions.

### Ease of Use

- Large 5” LCD for unlimited application possibilities and easy readability under various lighting conditions.
- Touchscreen for icon-based applications or electronic signature capture support.
- Intuitive telco-style keypad with colored control keys interchangeably detects key presses from tactile keypad and touchscreen.
- Bi-directional magnetic stripe card reader with an extended blade for optimal card reading.
- Audio jack to facilitate accessibility for the visually impaired.



## Performance and Durability

- Fast transactions due to powerful 1 GHz ARM (Advanced RISC Machine) Cortex A9 processor.
- Rounded corners and drop resistant to three feet on the concrete floor to minimize breakage.
- 512 MB flash memory and 512 MB SDRAM with removable uSD.

## Security

- Incorporates tamper-detection circuitry to resist unauthorized intrusion and supports a broad spectrum of software-based security features.
- PCI (Payment Card Industry) 4.x approved for debit and other PIN (Personal Identification Number) based transactions.
- EMV (Europay, MasterCard and Visa) Level 1 Type Approval.
- Supports reliable security available including SSL, VeriShield file authentication, and VeriShield Protect to help prevent fraud and other intrusions.
- With Kensington lock feature resident in the terminal as part of the case.

## Contactless Capability

- Advanced contactless architecture that future-proofs investment with a single contactless interface (SingleCI), SoftSAMs, and side-by-side application architecture.
- On-screen tap zone for optimized user experience.
- Accepts EMV, NFC, and mag-stripe contactless payments as well as PIN-based transactions.

## Communication Technology

- Bluetooth: Simple, plug-and-play installation for locations that need short range wireless capability. Eddystone and iBeacon profiles are also supported.
- Wi-Fi: Ideal for retailers that need multiple wireless devices and have an existing IP infrastructure (M400 Wi-Fi-BT only).

## 2. Device Setup

This section outlines the setup procedures for the M400, covering the following segments:

- [Terminal Location](#)
- [Inside the Shipping Carton](#)
- [Terminal Features](#)
- [Connection Ports](#)
- [M400 Connection Options](#)
- [MSAM Card](#)
- [Terminal Power Source](#)
- [Calibrate Touch Panel](#)
- [Smart Card Reader](#)
- [Magnetic Card Reader](#)
- [Contactless Smart Card Transaction](#)
- [M400 Wi-Fi/BT Support](#)
- [Optional Accessories](#)

### Terminal Location

Following are guidelines used to select an ideal location for the terminal.

### Ease of Use

- Select a location convenient for both the merchant and cardholder.
- Select a flat support surface, such as a countertop or table, or mount it on a mounting stand supplied by Verifone.
- Select a location near a power outlet, POS (Point-of-Sale), ECR (Electronic Cash Register), or computer connected to the terminal. Do not string cables or cords across a walkway for safety.

### Environmental Factors

- Do not use the unit where there is high heat, dust, humidity, moisture, caustic chemicals or, oils.
- Keep the unit away from direct sunlight and anything that radiates heat, such as a stove or a motor.

- Do not use the terminal outdoors.



**CAUTION**

The terminal is not waterproof or dustproof. It is intended for indoor use only. Any damage to the unit from exposure to rain or dust can void any warranty.

*Le terminal n'est ni étanche ni étanche à la poussière. Il est destiné à un usage intérieur uniquement. N'importe lequel des dommages causés à l'appareil par l'exposition à la pluie ou à la poussière peuvent annuler toute garantie.*

## Electrical Considerations

- Avoid using this product during electrical storms.
- Avoid locations near electrical appliances or other devices that cause excessive voltage fluctuations or emit electrical noise (for example, air conditioners, electric motors, neon signs, high-frequency or magnetic security devices, or computer equipment).
- Do not use the terminal near water or in moist conditions.
- Disconnect the device from its POS terminal before cleaning.



**WARNING**

Do not use the terminal near water, including a bathtub, wash bowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool to avoid shock, or damage.

*N'utilisez pas le terminal à proximité d'eau, notamment d'une baignoire, d'un lavabo, d'un évier de cuisine, ou une cuve à lessive, dans un sous-sol humide ou près d'une piscine pour éviter les chocs ou dommage.*

## Contactless Considerations

Avoid having metallic objects in proximity of the contactless antenna. If you need to mount the terminal to vertical or inclined surfaces, use a flat, non-metallic mounting plate.



**CAUTION**

Using an enclosed metal frame or mount may negatively affect contactless performance.

*L'utilisation d'un cadre ou d'un support métallique fermé peut affecter négativement les performances sans contact.*

## PIN Protection Measures

Use the following techniques to provide effective screening of PIN-Entry Devices (PEDs) during the PIN-entry process. You can use these methods in combination, although in some cases a single method might suffice.

- Position the terminal on the check-in stand in such a way as to block visual observation of the PIN-entry process. Examples include:
  - Visual shields were designed on the check-in stand. The shields may be solely for shielding purposes or may be part of the general check-in stand design.

- Position the terminal so that it is angled in such a way that PIN spying is difficult.
- Install the PED on an adjustable stand that allows consumers to swivel the terminal sideways and/or tilt it forward/backward to a position that makes visual observation of the PIN-entry process difficult.
- Position in-store security cameras so that the PIN-entry keypad is not visible.

The following table describes the two preferred mounting methods and the recommended measures to protect against PIN capture in four observation corridors:

### Mounting Methods and Protection Measures

Method	Cashier	Customer in Queue	Customers Elsewhere	On-site Cameras
Countertop without stand	Use signage behind the PED	Install so that customer is between PED and next in queue	No action needed	Do not install within view of cameras
Countertop with stand	No action needed	Install so that customer is between PED and next in queue	No action needed	Do not install within view of cameras

VeriFone also recommends instructions to the cardholder regarding safe PIN-entry. This can be done with a combination of:

- Signage on the PED
- Prompts on the display, possibly with a click-through screen
- Literature at the point of sale
- A logo for a safe PIN-entry process

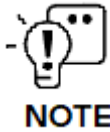
### Ensuring User Privacy

Use the following guidelines to protect the user’s privacy when he enters his personal identification number (PIN):

- The area of visibility should not be larger than a cone taken from the number 5 key at an angle of 45° and covering an area of 270° directly in front of the user.
- You can secure PIN entry by installing a [Ensuring User Privacy](#) (optional).

## Mounting Considerations

VeriFone recommends the use of an approved stand for all mounting situations. Position the terminal conveniently in relation to power, POS, ECR, and LAN (Local Area Network) connections. Ensure the M400 device is located in a manner that allows customers to swipe their magnetic cards or insert their Smart Cards in a smooth and comfortable motion without encountering obstructions. If the unit will be swiveled during normal operation, VeriFone requires the use of an approved swivel stand.



**NOTE**

Special care is required when mounting the M400 device in sites that utilize antitheft devices positioned at doorways or surface-mounted deactivator pads. Devices of this type, such as Sensormatic brand devices, generate strong electromagnetic fields that may interfere with the M400 device. Always select mounting locations at least six feet from doorway units and at least 18 inches from surface-mounted deactivator pads.

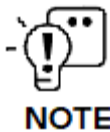
## Inside the Shipping Carton

Open the shipping carton and carefully inspect its contents for possible tampering or shipping damage. The terminal is a secure product. Tampering causes it to cease to function or to operate in an insecure manner.

## Unpacking the Shipping Carton

To unpack the shipping carton:

- 1 Remove and inspect the contents of the shipping carton. The terminal ships in multiple configurations. The carton may include all or any of the following:
  - Terminal
  - Connectivity cable



**NOTE**

Power supply, connectivity cubes, and base modules are shipped separately or depending on customer requirements.

- 2 Remove all plastic wrapping from the terminal and components.
- 3 Remove the clear protective film from the display.

- 4 Save the shipping carton and packing material for future repacking or moving of the device.



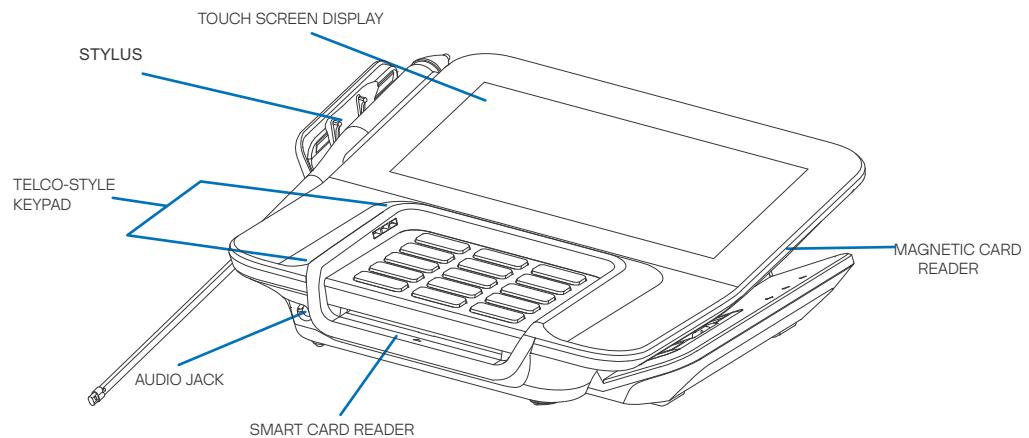
Do not use a tampered or damaged unit. The terminal comes equipped with tamper-evident labels. If a label or component appears damaged, please notify the shipping company and your Verifone service provider immediately.

*N'utilisez pas un appareil trafiqué ou endommagé. Le terminal est équipé d'étiquettes inviolables. Si une étiquette ou un composant semble endommagé, veuillez en informer immédiatement la compagnie maritime et votre fournisseur de services Verifone.*

## Terminal Features

Familiarize yourself with the terminal features before continuing with the installation process:

Figure: 2 M400 Features

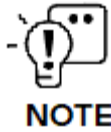


## Front Panel

The front panel offers the following features:

- A touchscreen display.
- A set of keys that include:
  - A 12-key, telco-style keypad (keypads may vary in style).
  - Three function keys at the bottom of the keypad (from left to right, CANCEL, CLEAR, ENTER).
- A magnetic card reader is built into the right side. LEDs show the proper swipe direction, with the stripe facing down and towards the keypad.
- A smart card reader is built into the unit's front side. An icon indicates the proper card position and insertion direction.

- A 3.5 mm audio jack to facilitate accessibility for the visually impaired.



On-screen PIN entry is NOT supported.

## Connection Ports

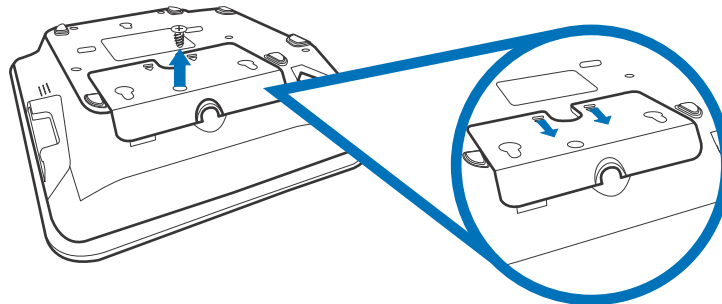
The terminal has a USB (Universal Serial Bus) Type C port for power and communications connection.

## Connecting Cables and other Devices

To connect required cable connections and other devices:

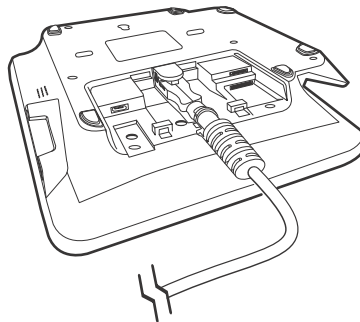
- 1 Unscrew and remove the cable cover as shown below.

Figure: 3 Removing the Cable Cover



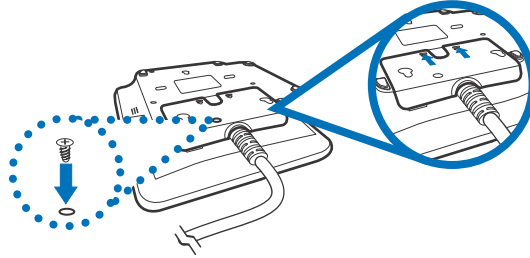
- 2 Connect required cable connections or optional devices. Attaching the USB C cable provides multiple connection options.

Figure: 4 Connecting the USB Type C Cable



- 3 Close the cable compartment as shown below.

Figure: 5 Closing the Cable Compartment with Cable Cover



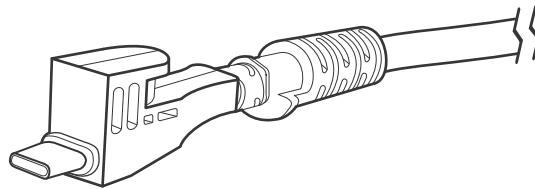
## M400 Connection Options

The M400 terminal can be connected to other systems using several methods. They all connect to the M400 using the USB Type C cable connected to the rear of the unit.

### Powered USB Cable

A Powered USB cable (PN CBL445-003-01-A) provides USB signal connectivity and power. It provides a convenient way of connecting other systems of the same type.

Figure: 6 Powered USB Cable (USB Type C)



M400 Wi-Fi/BT is intended to be provided with the listed external power module with an output rating of 12V DC, a minimum of 1A. and evaluated as a Limited Power Source/Class 2 Transformer, output rated SELV, non-energy hazardous or equivalent.

### ICE Cubes

ICE Cubes are devices that offer economical, efficient, flexible, and specific connectivity options. These modules are attached between a base module and an end cap to meet specific customer requirements for different communication interfaces.



The available module functions are provided below:

**Base Module (PN 445-101-01-A)**

Provides the interface to the M400 terminal through the USB type C connector in the rear of the unit and the optional ICE cube modules. It has:

- Interface to the M400 terminal
- Power supply connection (12V 1 A)
- Audio out connection (line level stereo)
- ICE cube connection bus to connect to additional cubes

**Serial Interface Module (PN 445-102-01-A)**

This module has:

- ICE cube bus in
- ICE cube bus out
- RJ-45 with UART signals

**USB Interface Module (PN 445-103-01-A)**

This module has:

- ICE cube bus in
- ICE cube bus out
- RJ-45 with USB signals

**Ethernet Interface Module (PN 445-104-01-A)**

This module supports 10/100 Mbits/sec and has:

- ICE cube bus in
- ICE cube bus out
- RJ-45 with Ethernet signals

**Supported Configurations**

The currently supported ICE cube configurations are:

Configuration Type	Part Number	Description
USB	MSC445-006-00-A	Base Module + USB Module
Ethernet	MSC445-010-00-A	Base Module + Ethernet Module
Ethernet with USB	MSC445-011-00-A	Base Module + Ethernet Module + USB Module
Ethernet, Serial with USB*2	MSC445-012-00-A	Base Module + Ethernet Module + Serial Module + USB*2 Module

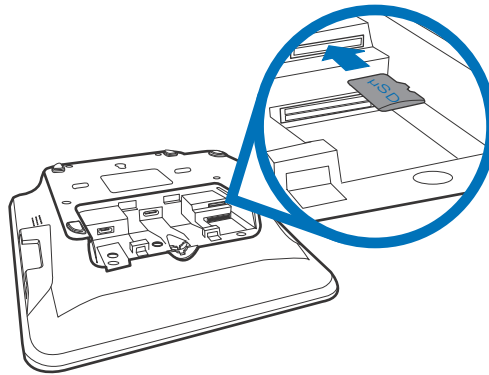
Base only	MSC445-023-00-A	Base Module
Serial	MSC445-028-00-A	Base Module + Serial Module
Ethernet with Serial	MSC445-029-00-A	Base Module + Ethernet Module + Serial Module

## Micro SD Card

M400 supports micro SD for additional memory.

- Installing or Replacing Micro SD Card
- To install or replace Micro SD card:
- 1 Turn off the terminal.
  - 2 Place the terminal face down on a soft and clean surface.
  - 3 Remove the cable cover as shown in [Figure 3](#).
  - 4 Insert the micro SD card into its slot.

Figure: 7 Inserting a Micro SD Card



To replace the Micro SD card, gently slide out the old micro SD card before inserting a new one.

## MSAM Card

You may need to install one or two Multiple Security Access Module (MSAM) cards or replace an old one.



**CAUTION**

Observe standard precautions in handling electrostatically sensitive devices. Electrostatic discharge can damage the equipment. Verifone recommends using a grounded anti-static wrist strap.

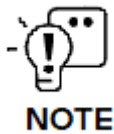
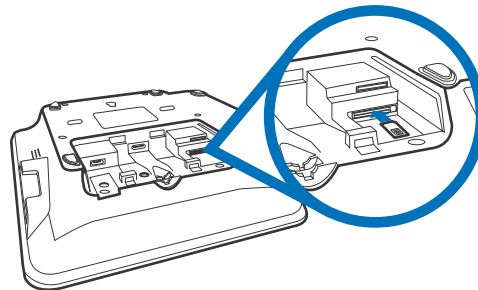
*Observez les précautions standard lors de la manipulation d'appareils sensibles aux décharges électrostatiques. Les décharges électrostatiques peuvent endommager l'équipement. Verifone recommande d'utiliser un bracelet antistatique mis à la terre.*

Installing or Replacing MSAM Card

To install or replace MSAM cards:

- 1 Power off the terminal.
- 2 Place the terminal face down on a soft and clean surface.
- 3 Remove the cable cover of the unit.
- 4 Insert the SAM cards. Carefully slide the cards one at a time into the slots until fully inserted.

Figure: 8 SAM Insertion



Position the card's gold contacts facing upward towards the user. The card slot in the terminal has a set of contacts. The MSAM card has a notch on one corner to ensure that it fits into the connector base in only one way.

To replace the SAM card, gently slide out the old SAM card before inserting a new one.

Terminal Power Source

The terminal is powered by an external AC/DC power pack. When you have finished installing the necessary cards and/or optional devices, you are ready to connect the terminal to the power source.

The terminal requires connection to a power outlet with a dedicated circuit or an uninterruptible power supply (UPS). If other devices are plugged into the same circuit, the terminal can potentially experience power fluctuations that might cause it to malfunction. The terminal shuts down automatically once the power source is removed.



Do not connect the terminal to the power supply until all peripherals are attached.

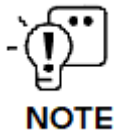
Using an incorrectly rated power supply can damage the unit or cause it not to work properly. Use only a power pack with P/N PWR445-001-01-A. See [Specifications](#) for detailed power supply specifications.

Do not plug the power pack into an outdoor outlet or operate the terminal outdoors. Disconnecting power during a transaction can also cause unstored data files to be lost.

*Ne connectez pas le terminal à l'alimentation électrique tant que tous les périphériques ne sont pas connectés.*

*L'utilisation d'une alimentation mal calibrée peut endommager l'appareil ou l'empêcher de fonctionner correctement. Utilisez uniquement un bloc d'alimentation portant le numéro de pièce PWR445-001-01-A. Voir Spécifications pour les spécifications détaillées de l'alimentation.*

*Ne branchez pas le bloc d'alimentation sur une prise extérieure et n'utilisez pas le terminal à l'extérieur. La déconnexion de l'alimentation pendant une transaction peut également entraîner la perte de fichiers de données non stockés.*



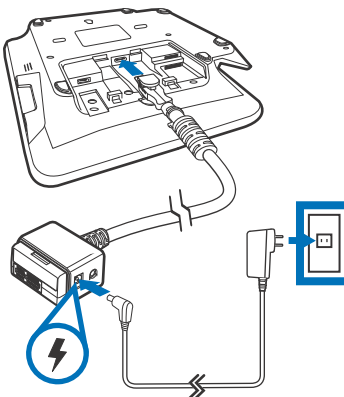
VeriFone recommends installing a power surge protector to protect against possible damage caused by lightning strikes and electrical surges.

### Connecting M400 Terminal to a Power Source

To connect the M400 terminal to a power source:

- 1 Connect the Base Module (PN 445-101-01-A) to the USB Type C port at the back of the terminal.

Figure: 9 Connecting Base Cable to the Terminal



- 2 Plug-in the power supply to the power connection port on the base module.

- 3 Plug the AC power cord into a wall outlet or power surge protector.
- 4 Close cable cover.

## Calibrate Touch Panel

The terminal requires a touch screen calibration at the time of installation. The terminal should be powered on and allowed to stabilize at normal operating temperature; usually this takes no longer than 60 seconds, even if the terminal was previously in a cooler or warmer location. The touch screen calibration procedure should then be performed. Also, while in System Mode, verify that the time on the unit is correct.

### Calibrating Touch Screen

To calibrate the touchscreen:

- 1 Access System Mode. Login using the Supervisor user profile.
- 2 Select Administration.
- 3 Select Calibrate Touch Panel.
- 4 A message is displayed on the screen, press OK to start calibration.
- 5 Follow on-screen prompts or instructions.

## Smart Card Reader

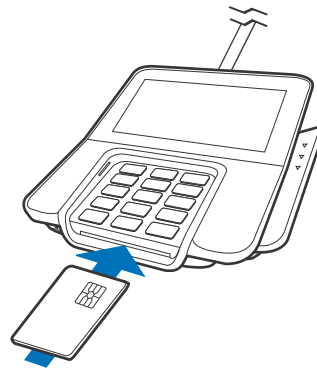
The smart card transaction procedure can vary depending on the application. Verify for proper procedure with your application provider before performing a smart card transaction.

Using the Smart Card Reader

To use the smart card reader:

- 1 Position the smart card with the gold contacts facing upward.
- 2 Insert the card into the smart card reader slot in a smooth, continuous motion, until it sits firmly.
- 3 Remove the card only when the display indicates that the transaction is complete.

Figure: 10 Smart Card Reader



**CAUTION**

Leave the smart card in the card reader until the transaction is completed. Premature card removal can invalidate a transaction.

*Laissez la carte à puce dans le lecteur de carte jusqu'à ce que la transaction soit terminée. Le retrait prématuré de la carte peut invalider une transaction.*

Magnetic Card Reader

The terminal has a magnetic card reader that uses a triple-track stripe reader. This gives the unit greater reliability over a wide range of swipe speeds and operating environments.

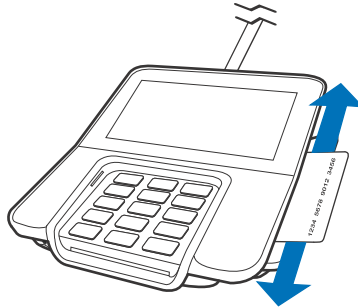
Using the Magnetic Card Reader (Credit/Debit Card Transaction)

To use the magnetic card reader (credit/debit card transaction):

- 1 Position the magnetic card with the stripe in the card reader.

- 2 Swipe it through the magnetic card reader.

Figure: 11 Using the Magnetic Card Reader



## Contactless Smart Card Transaction

The terminal supports contactless transactions through an integrated contactless module. The terminal only becomes active for contactless smart card transactions when initialized by an application.

### Performing a Contactless Smart Card Transaction

To perform a contactless smart card transaction:

- 1 Gently tap the card onto or hold the card (within 4 cm) against the surface of the terminal display.
- 2 An activated LED visual on the display accompanied by a short beeping sound indicates a successful transaction.

Figure: 12 Contactless Smart Card Transaction



**CAUTION**

Do not let metallic surfaces come in contact with the contactless module to ensure that it works properly.

*Ne laissez pas les surfaces métalliques entrer en contact avec le module sans contact pour garantir son bon fonctionnement.*

**M400 Wi-Fi/BT Support** M400 Wi-Fi/BT version includes an integrated WLAN RF transceiver for Wireless LAN systems with advanced power management and an integrated radio transceiver for Bluetooth wireless systems.

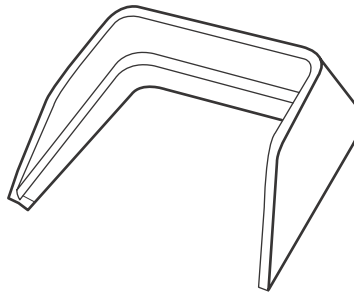
**Bluetooth Support** Supports Eddystone and iBeacon profiles only.

**Wireless Transaction** M400 supports wireless transactions. Wireless transactions occur when initialized by an application.

**Optional Accessories** These accessories can be used to further enhance the device's functionality. See [Accessories](#) for additional information.

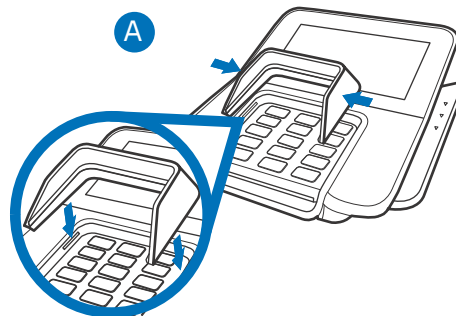
**Privacy Shield** The privacy shield is used to hide the keys while the cardholder enters a PIN during a transaction.

Figure: 13 M400 Privacy Shield



**Installing the Privacy Shield** To install a privacy shield:  
 1 Squeeze in the sides to slide in hooks into the slot.

Figure: 14 Installing the Privacy Shield





- 2 Release to lock-in hooks in place.

Figure: 15 Privacy Shield Attached to Terminal



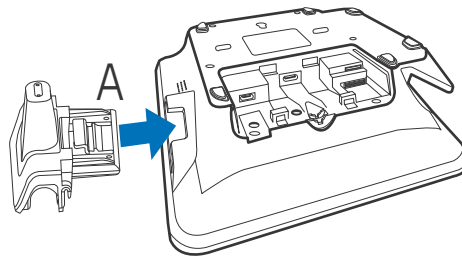
## Stylus and Holder

A stylus with a holder can be attached to the M400 terminal and used as an alternative device input method.

### Attaching the Stylus Holder

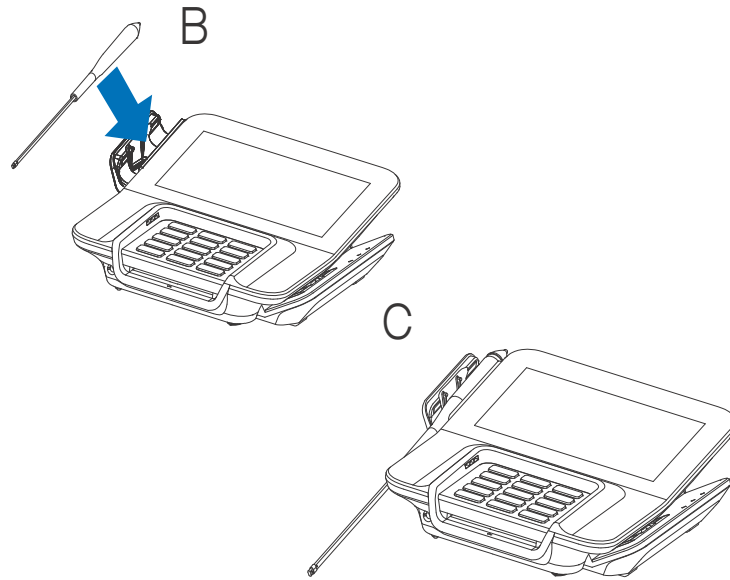
To place the stylus holder:

- 1 Align and place the stylus holder bracket in the terminal.



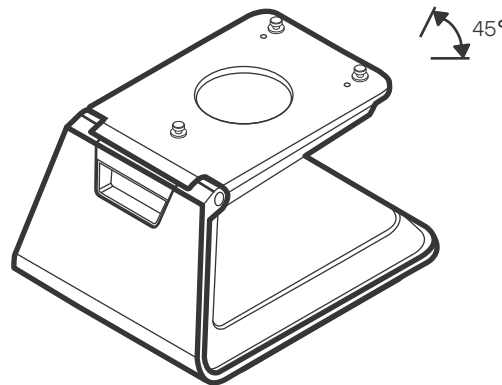
- 2 Place the stylus pen onto the holder of the terminal.

Figure: 16 Placing the Stylus Holder



**Stand** A mounting device that serves as the terminal's docking station and adds support during customer pin entry. The stand can be positioned on a countertop and can be adjusted during transactions for convenience.

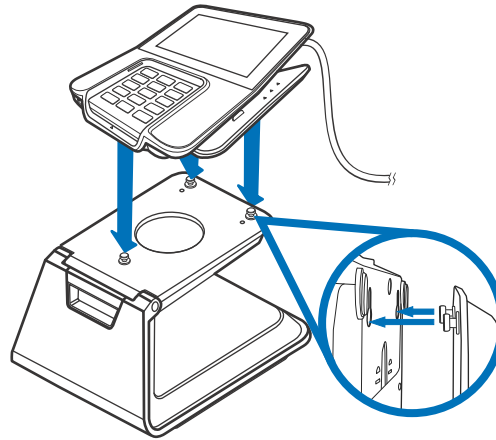
Figure: 17 M400 Series Stand



Docking the Terminal on the Stand

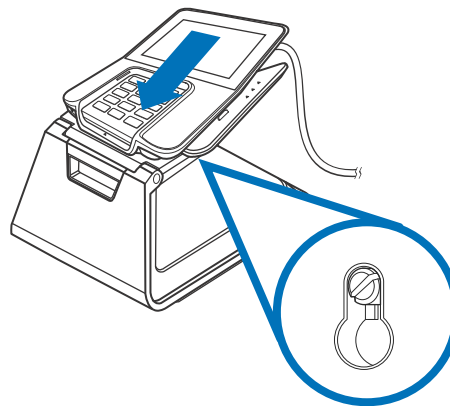
- 1 Place the terminal on the base. Ensure that the stand screws align with the keyholes found at the back of the terminal.

Figure: 18 Docking Terminal onto the Stand



- 2 Slide down the terminal to lock it in place.

Figure: 19 Locking Terminal in Place

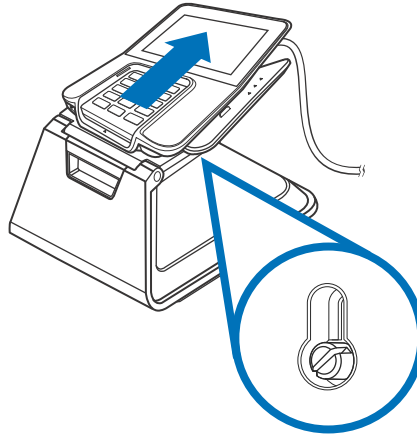


Undocking the Terminal from the Stand

To dock the terminal on the stand:

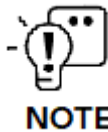
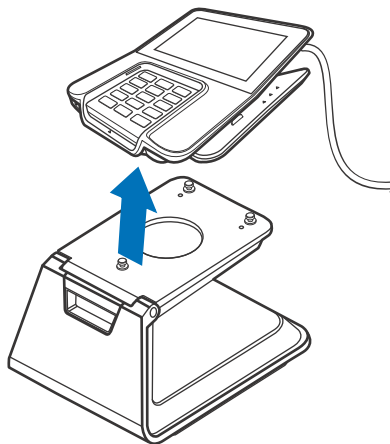
- 1 Place the terminal on the base. Ensure that the stand screws align with the keyholes found at the back of the terminal.

Figure: 20 Locking Terminal in Place



- 2 Lift the terminal off the stand.

Figure: 21 Lifting the Terminal off the Stand



**NOTE**

When conducting customer transactions, you can remove the terminal or adjust the stand orientation for convenience.

*Lorsque vous effectuez des transactions avec les clients, vous pouvez retirer le terminal ou ajuster l'orientation du support pour plus de commodité.*

## External and Optional Devices

The ICE Cube, when connected to a terminal, supports a variety of peripheral devices commonly used with electronic point-of-sale (POS) systems. These include devices such as electronic cash registers (ECR), cash drawers, barcode scanners, external keyboards, weighing scales,

external printers, speakers, and PINpads, which can be connected through either serial or USB Host ports.



Remove the power cord from the base module before connecting any peripheral device. Reconnect the power cord only after you have finished connecting the peripheral device(s).

**CAUTION** *Retirez le cordon d'alimentation du module de base avant de connecter un périphérique. Rebranchez le cordon d'alimentation uniquement après avoir terminé de connecter le(s) périphérique(s).*

---

## 3. Specifications

This chapter provides details on the power requirements, dimensions, and additional specifications of the M400 device.

Power Rating	<ul style="list-style-type: none"> <li>• 12V DC, 1A</li> </ul>
Power Pack	<ul style="list-style-type: none"> <li>• UL/cUL, ITE listed, LPS power supply</li> <li>• Input rated: 100-240V AC, 50/60 Hz</li> <li>• Output rated: 12V DC, 1A, 12 W</li> </ul>
Temperature	<ul style="list-style-type: none"> <li>• Operating temperature: 0°C to 40°C (32°F to 104°F)</li> <li>• Storage temperature: -20°C to 60°C (-4°F to 140°F)</li> </ul>
External Dimensions	<ul style="list-style-type: none"> <li>• Length: 173 mm (6.81 in.)</li> <li>• Width: 175 mm (6.89 in.)</li> <li>• Depth: 43 mm (1.69 in.)</li> </ul>
Weight	<ul style="list-style-type: none"> <li>• Unit weight: 430 g</li> </ul>
Processor	<ul style="list-style-type: none"> <li>• 1 GHz ARM Cortex A9</li> </ul>
Memory	<ul style="list-style-type: none"> <li>• 512 MB flash memory and 512 MB SDRAM</li> </ul>
Display	<ul style="list-style-type: none"> <li>• 5" IPS LCD</li> </ul>
Magnetic Card Reader	<ul style="list-style-type: none"> <li>• Triple track (tracks 1, 2, 3), high coercivity, bi-directional</li> </ul>
Primary Smart Card	<ul style="list-style-type: none"> <li>• ISO 7816, 1.8V, 3V, 5V</li> <li>• Synchronous and asynchronous cards</li> </ul>

## SAM Card Reader

- The terminal has two dual stacking Security Access Modules (SAMs) card slots.

## SD Card Reader

- The terminal has one Micro Secure Digital (SD) card slot.

## Integrated Contactless Reader

- ISO 14443, ISO 18092, EMV, FeliCa

## Keypad

- 12-key Telco-style keypad
- Three color-coded function keys below the keypad
- Keys can be simulated on touchscreen

## Audio Jack

- 3.5 mm headphone jack

## Peripheral Ports

- One USB Type C port for ICE Cube Base module connection

## Security

- Complies with PCI 4.x requirements, as well as many regional security requirements.

## 4. Maintenance and Cleaning

**General Care** Your device exemplifies superior design and craftsmanship. The following recommendations are provided to help safeguard your warranty coverage:

- Avoid storing the device in hot areas, as elevated temperatures can diminish the lifespan of electronic components, harm batteries, and cause deformation or melting of certain plastics.
- Refrain from storing the device in cold areas, as the return to normal temperatures may lead to moisture formation inside the device, potentially damaging electronic circuit boards.
- Exercise caution to prevent dropping, knocking, or shaking the device, as rough handling can result in the breakage of internal circuit boards and delicate mechanics.

These recommendations are equally applicable to both your device and any accompanying attachments or accessories. If your device is experiencing operational issues, kindly visit the nearest Verifone authorized service provider for maintenance or replacement.

**Cleaning & Sanitizing Guidelines** Verifone devices should only be gently cleaned to remove dirt, residue, or debris using a lightly water-damped, clean microfiber cloth. One or two drops of pH-neutral, non-scrubbing soap may be used. Do not use solvents, harsh detergents, or abrasive cleaners.

Using improper cleaning methods or products may result in functional and/or cosmetic issues that are not covered under warranty.

### Important Guidelines:

- 1 Avoid Direct Application:** Never spray, coat, or pour any liquid, sanitizer, or disinfectant directly onto the device.
- 2 Caution Against Harsh Chemicals:** Avoid using bleach, hydrogen peroxide, thinner, trichloroethylene, or ketone-based solvents, as they can degrade plastic and rubber components.
- 3 Electrostatic Discharge (ESD) Prevention:** Exercise caution to prevent ESD by refraining from vigorously rubbing with a dry towel or similar actions, as they can cause ESD and trigger a tamper alert.





- ## Cleaning Instructions
- 1 Turn off your device.
  - 2 Disconnect it from the power source.
  - 3 Clean it following the instructions and guidelines mentioned above. Once completely dry, reconnect to power up.

# 5. Service and Support

The M440 device does not contain user-serviceable parts. Unless expressly directed, refrain from attempting any service, adjustments, or repairs on the unit under any circumstance.

For product service and repair information:

- USA – Verifone Service and Support Group, 1-800-837-4366  
Monday - Friday, 8 A.M. - 8 P.M., Eastern time
- International – Contact your Verifone representative

## Returning a Device for Service

You must obtain a Merchandise Return Authorization (MRA) number before returning the terminal to Verifone. The following procedure describes how to return one or more terminals for repair or replacement (U.S. customers only).



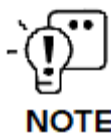
### CAUTION

Customers outside the United States are advised to contact their local Verifone representative for assistance regarding service, return, or replacement of devices and accessories.

*Il est conseillé aux clients en dehors des États-Unis de contacter leur Verifone local représentant pour obtenir de l'aide concernant l'entretien, le retour ou le remplacement des appareils Et accessoires.*

- 1 Get the following information from the printed labels on the back of each M400 device to be returned:
  - Product ID, including the model and part number. For example, “M400” and “M445-xxx-xx” and “PTID xxxxxxxx”
  - Serial number (S/N nnn-nnn-nnn)
- 2 Obtain the MRA number(s) by completing one of the following:
  - Call Verifone toll-free within the United States at 1-800-Verifone and follow the automated menu options.
  - Select the MRA option from the automated message. The MRA department is open Monday to Friday, 8 A.M. to 8 P.M., Eastern Time.
  - Give the MRA representative the information you gathered in [Step 1](#).
  - Complete the Inquiry Contact Form at <https://www.verifone.com/en/us/contact-us>.
  - Address the Subject box to “Verifone MRA Dept.”

- Reference the model and part number in the Note box.



Each M440 returned to Verifone requires a distinct MRA number to be issued. Even if you are returning multiple terminals of the same model, ensure that a separate MRA number is issued for each unit.

- 3 Describe the problem(s).
- 4 Provide the shipping address where the repaired or replacement unit must be returned.
- 5 Keep a record of the following items:
  - Detail the issue(s) with the M440.
  - Furnish the shipping address for the return of the repaired or replacement unit.
  - Maintain a record of the following elements:
    - Assigned MRA number(s).
    - Verifone serial number linked to the M440 being sent for service or repair (located on the back of the unit).
    - Shipping documentation, including air bill numbers utilized for shipment tracking.
    - Model(s) returned (model numbers can be found on the Verifone label on the back of the M440 device).

# 6. Accessories

Verifone provides a range of accessories and documentation for the M440. When placing orders, it is essential to reference the specific part numbers. Here are the available channels for ordering: Verifone online store:

- Verifone - [Contact us](#)
- USA - Verifone Customer Development Center, 1-800-837-4366  
Monday - Friday, 7 A.M. - 8 P.M., Eastern time
- International - Contact your Verifone representative

## Accessories

Part Number	Part Description
STY445-001-01-A	Passive Stylus
PPL445-008-01-A	Stylus holster
PPL445-013-01-A	PCI Privacy Shield
PWR445-001-01/02-A	M4XX DC Power Pack
MSC445-006-00-A	CABLE ASSY, USB ICE CUBE
MSC445-010-00-A	CABLE ASSY, ETHERNET, ICE CUBE
MSC445-011-00-A	CABLE ASSY, USB & ETHERNET, ICE CUBE
MSC445-018-01-A	CABLE ASSY, M4XX, ETHERNET SWITCH, 2X RJ45
MSC445-019-01-A	CABLE ASSY, M4XX POE, USB CABLE
MSC445-021-01-A	CABLE ASSY, M4XX POE, ETHERNET SWITCH CABLE
MSC445-023-00-A	CABLE ASSY, BASE MODULE WITH END CAP, ICE CUBE
MSC445-028-00-A	CABLE ASSY, SERIAL, ICE CUBE
MSC445-029-00-A	CABLE ASSY, ETHERNET & SERIAL, ICE CUBE
MSC445-032-01-A	CABLE ASSY, BERG ADAPTER, MULTIPOINT

# 7. Troubleshooting Guidelines

This chapter compiles common instances of malfunctions that may arise during the operation of your device, along with the corresponding steps to address them. The troubleshooting guidelines outlined in the subsequent sections are incorporated to facilitate the effective installation and configuration of the device. Should you encounter challenges in operating your unit, please refer to these troubleshooting examples. If the issue persists despite following the provided guidelines or if the problem is not covered, kindly reach out to your local Verifone representative for further assistance.



**NOTE**

The device is equipped with tamper-evident labels and does not contain any user-serviceable parts. It is crucial not to attempt to disassemble the unit under any circumstances. Only perform adjustments or repairs explicitly outlined in this guide. For any other services, please contact your local Verifone service provider. Utilizing services from unauthorized parties may potentially void any existing warranty.



**CAUTION**

All units require the use of a power supply. Only use a Verifone-supplied power pack. Using an incorrectly rated power supply may damage the unit or cause it to malfunction. Ensure that the power supply used to power the unit matches the specified requirements on the back of the unit (refer to [Specifications](#) for detailed power supply specifications) before troubleshooting. If not, obtain the appropriately rated power supply before continuing with troubleshooting.

*Toutes les unités nécessitent l'utilisation d'une alimentation. Utilisez uniquement un bloc d'alimentation fourni par Verifone. L'utilisation d'une alimentation mal calibrée peut endommager l'appareil ou l'empêcher de fonctionner correctement. Assurez-vous que l'alimentation électrique utilisée pour alimenter l'unité correspond aux exigences spécifiées à l'arrière de l'unité (voir Spécifications pour les spécifications détaillées de l'alimentation électrique) avant le dépannage. Dans le cas contraire, procurez-vous une alimentation électrique appropriée avant de poursuivre le dépannage.*

## Terminal Does not Start

If the device does not start:

- Ensure that the device is plugged into a dedicated power source.
- Verify all the cable connections including the proper insertion of the power cable connector.

- If the problem persists, reach out to your local Verifone representative for assistance.

## Blank Display

When the device display is blank:

- If the device display appears dark, tap the screen using the stylus. If the unit is in screen-saver mode, touch the screen to activate.
- If the display does show incorrect or unreadable information, inspect all cable connections. In case the problem persists, reach out to your local Verifone representative for assistance.

## Keypad Does Not Respond

If the keypad does not respond properly:

- Examine the device display. If it displays the wrong character or nothing at all when you press a key, follow the steps outlined in [Terminal Does not Start](#).
- Refer to the user documentation for that application if using a function key does not produce the anticipated outcome, to ensure accurate data entry.
- If the issue persists reach out to your local Verifone representative.

## Transactions Fail to Process

Multiple factors could be causing the unit to fail in processing transactions. Utilize the following steps to troubleshoot and identify the root of the failures.

### Checking Magnetic Card Reader

To check the magnetic card reader:

- 1 Perform a transaction using one or more distinct magnetic stripe cards to rule out the possibility of a faulty card.
- 2 Ensure that you are swiping cards correctly (see [Magnetic Stripe Card Reader Use](#)).
- 3 Process a transaction manually using the keypad instead of the card reader. If the manual transaction is successful and the issue persists with the card reader, it may indicate a problem with the card reader itself.
- 4 If the problem persists, reach out to your local Verifone representative.

### Checking Smart Card Reader

To check the smart card reader:

- 1 Execute a transaction using various smart cards to eliminate the possibility of a faulty card.
- 2 Verify that the card is inserted correctly (see [Smart Card Reader](#)).

- 3 Ensure the SAM cards are appropriately inserted into the designated slots and are securely in place (refer to [Installing or Replacing MSAM Card](#)).
- 4 If the issue persists, get in touch with your local Verifone representative.

### Checking CTLS Reader

To check the CTLS reader:

Make sure there are no obstructions between the contactless logo and the card, ensuring a clear path between the contactless reader and the actual card for a seamless transaction.



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