

Ruby2

Hardware Installation Guide

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Ruby2 Hardware Installation Guide

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Before you install the Ruby2, please read the following important information:

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2. THIS EQUIPMENT IS NOT INTENDED TO BE REPAIRED BY THE USER.

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Avant d'installer le Ruby2, veuillez lire les renseignements importants qui suivent :

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Safety Instructions

- Read all instructions contained in this Installation Guide before making equipment connections and save these instructions for later use.
- All fuses should be replaced only by authorized service personnel.
- Unit is intended to be used with the provided Listed Power Supply with an output rating of max. 24 Vdc, 3.75A, which has been evaluated as a Limited Power Source/Class 2 Transformer, output rated SELV, non-energy hazardous.
- Do not apply liquid or aerosol cleaners directly on the unit. Use only damp cloth for cleaning.
- Do not use any attachments not specifically recommended by VeriFone as they can result in the risk of fire, electric shock, or injury.
- Do not use the Ruby2 near water.

Do not place this unit on an unstable cart, stand, or table. The unit may fall, causing serious personal injury and/or damage to the equipment.

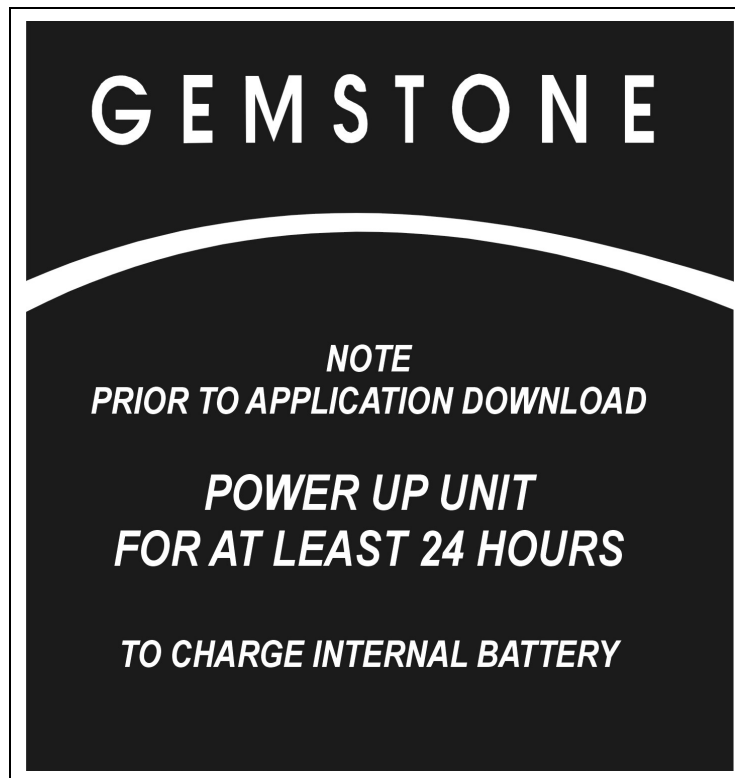
Consignes de sécurité

- Lire toutes les directives du guide d'installation avant de brancher l'appareil, et conserver le guide pour plus tard.
- Tous les fusibles doivent uniquement être remplacés par un agent de maintenance autorisé.
- L'appareil est prévu pour être utilisé avec l'alimentation homologuée fournie (valeurs de sortie nominales max. de 24 V c.c. et 3,75 A), qui a été évaluée comme étant une alimentation limitée/un transformateur de classe 2, sortie SELV, sans production d'énergie dangereuse.
- Ne pas mettre de produit nettoyant liquide ou en aérosol directement sur l'appareil. Nettoyer l'appareil uniquement à l'aide d'un chiffon humide.
- Ne pas utiliser d'accessoires non expressément recommandés par VeriFone en raison du risque d'incendie, de décharge électrique ou de blessure.

- Ne pas utiliser le Topaz près d'une source d'eau.

Ne pas placer l'appareil sur un chariot, un kiosque ou une table instable. Il pourrait tomber, ce qui pourrait causer des blessures corporelles graves ou des dommages à l'équipement.

Battery Charging Notification



The unit should be powered up for at least 24 hours prior to initial application download. This is to prevent loss of data and to ensure that the battery pack is fully charged.

L'appareil doit être chargé pendant au moins 24 heures avant le téléchargement initial de l'application. Cela permet de prévenir les pertes de données et de s'assurer que le bloc-batterie est complètement chargé.

Ruby2 Hardware Installation Guide
Revision History

Revision	Date	Description
A00	April 12, 2013	Initial Documentation Release
A01	April 25, 2013	Added a More than Two Workstation diagram, edits to the copyright page
A02	May 02, 2014	Added French translations to Warnings and Cautions



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1 INTRODUCTION

The VeriFone® Ruby2™ workstation is a high-performance, reliable, point-of-sale terminal that supports peripherals such as scanners, cash drawers, PINpads, and customer displays. The Ruby2, with the VeriFone Commander™ Site Controller, supports payment network access, fueling dispenser control, car wash control, and fast food transactions. Like the Ruby SuperSystem® and the Topaz, the Ruby2 accepts and processes all payment options, including cash, checks, credit and debit cards, coupons, and various prepaid cards.

The Ruby2 has a 15-inch touch screen and a color display. Online help is available to support the user and promote quick responses. The Ruby2, including the touch screen, is configured through the Commander™ Configuration Manager, a component of the Commander Console.

The Ruby2 operates in a single- or multiple-workstation environment. It uses the Commander Site Controller as a controller for optimum speed and efficiency, a thermal receipt printer, and a thermal journal printer to track sales. An on-screen receipt allows easy viewing of current transactions.

In the absence of an intranet infrastructure, the Ruby2 requires an Ethernet router to connect to the Commander Site Controller to:

- Connect to peripherals, such as fuel dispensers, dispenser card readers (DCRs), and car wash controllers.
- Perform on-site maintenance operations such as backups, upgrades, restores, and reversions to previous software versions.
- Connect with the VeriFone Technical Support Center for software downloads and diagnostics.
- Configure remotely using available internet protocols, including a Web browser interface.

Requirements

Note: *The Commander Site Controller and Ruby2 workstation must be installed by a VeriFone Authorized Service Contractor (VASC).*

Software

- Commander Site Controller Software Suite

Hardware

- Commander Site Controller (The Commander Site Controller may also be used to install the Ruby2.)
- Ruby2 Workstation and Thermal Receipt Printer
- An intranet infrastructure, or Cable/DSL Ethernet router, or network. The number of workstations determines the number of network switch ports required.

Cables

- Ethernet cable from each Ruby2 to the network switch and/or router
- If a network switch is used, an additional Ethernet cable to the router
- RS-232 cable between peripherals, such as printers
- Null Modem Adapter

Recommended Equipment

- Uninterruptible Power Supply (UPS) - VeriFone recommends that the Ruby2 be connected to a UPS with a rating of 200VA or greater.
- Customer Display Pole
- Cash Drawer
- PINpad
- Scanner
- Printer

Unpacking

Carefully inspect each shipping carton and its contents for any damage that may have occurred during shipment. If anything appears damaged, immediately file a claim with the shipping company or carrier and notify your VeriFone representative.

Warning: *Never use damaged equipment. A shock or fire hazard may exist if equipment is energized in a damaged condition.*

Avertissement: *Ne jamais utiliser un appareil endommagé. La mise sous tension d'un appareil endommagé pourrait présenter un risque de décharge électrique ou d'incendie.*

Remove the following items from their respective shipping cartons:

- Ruby2 Workstation, P/N M169-000-01-NAA
- Ruby2 Power Supply, P/N CPS124130-3A-R
- AC Power Cord, P/N CBL268-008-01-A
- Cable Cover (attached to back of Ruby2)
- Ruby2 Hardware Installation Guide
- Software Licenses

Note: *The cash drawer, customer display pole, thermal printer, and VeriFone MX Series PINpad, which complete the Ruby2 workstation, are ordered and shipped separately.*

Remove any protective plastic wrapping from the components and place the components on a table or countertop. Be sure that you have all the parts required for your specific installation before you begin. Contact your dealer if you are missing any parts.

Note: *It is recommended that you keep the shipping carton and any packing material in case it is necessary to move components from one location to another, or to return the equipment for service.*

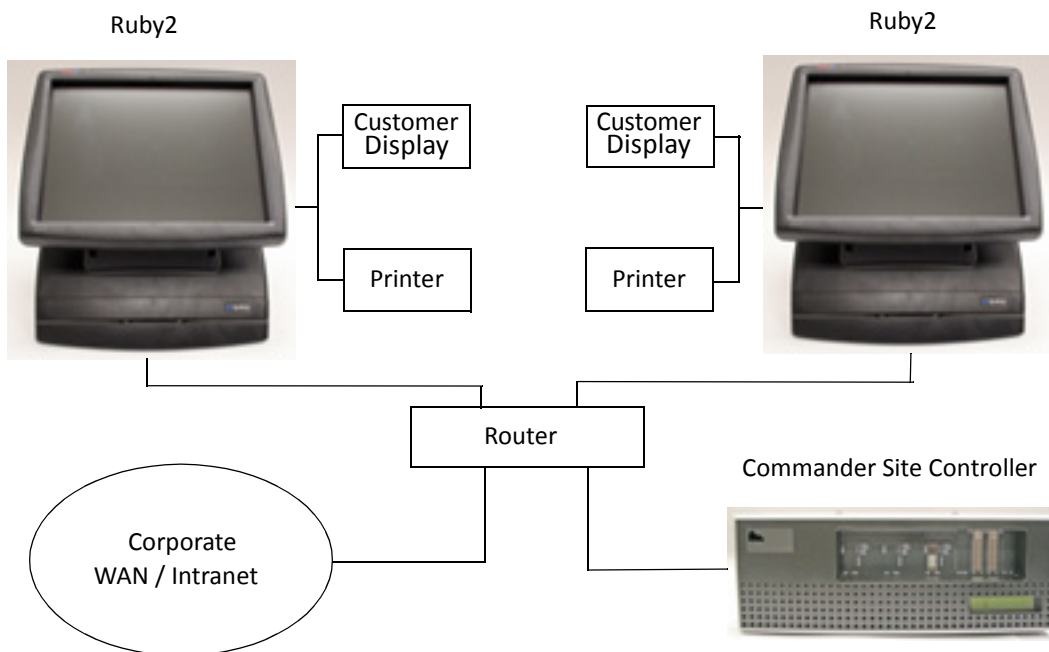
2 INSTALLATION

The Commander Site Controller and Ruby2 workstation must be installed by a VeriFone Authorized Service Contractor (VASC) and must be set up in the following order:

1. Commander Site Controller
2. Ruby2 Workstation

Configuring One or Two Ruby2 Workstations

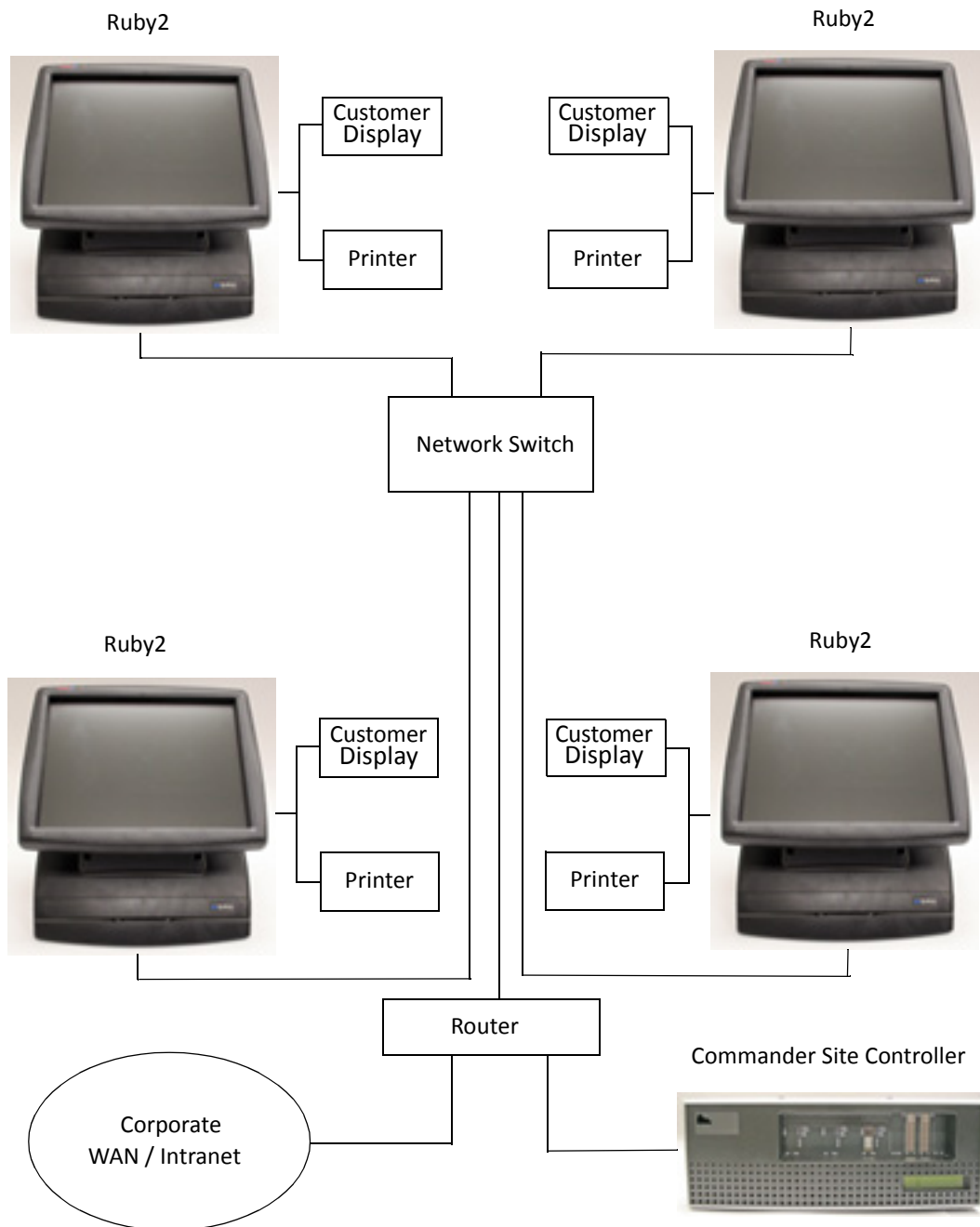
Installing one or two Ruby2 workstations requires Ethernet cables to connect the Ruby2 to a router to create an in-store LAN. The printers, customer display, and cash drawers use RS-232 cables to connect to the Ruby2, and an additional Ethernet cable to connect the router to a corporate WAN/Intranet.



Ruby2 / Commander Site Controller Configuration
with one or two workstations

Configuring More Than Two Ruby2 Workstations

Installing more than two Ruby2 workstations requires a WAN/intranet or a network switch as well as a router. The Ruby2 workstations use Ethernet cables to connect to the network switch. network switches are available in various sizes and usually support four or more workstations. The network switch connects to the router using an Ethernet cable.



Ruby2 / Commander Site Controller Configuration with more than two workstations

Choosing a Location

The Ruby2 workstation is generally placed on an easily accessible countertop. Consider the following when deciding on a location.

- Allow adequate ventilation around the unit.
- All cables must easily reach their connecting devices.
- Consider the height requirements to determine the pole height for the customer display.
- Make sure that there is sufficient clearance for both the drawer and the cashier.
- Make sure that power cords are not in the direct path of foot traffic.

In addition, the location must meet the following requirements:

- **Power:** 100-240V~, 50/60 Hz 3.0 Amps
- **Temperature:**
 - **Operating:** 32 to 104° F (0 to 40° C)
 - **Non-operating:** -4 to 140° F (-20 to 60° C)
- **Humidity:** 15% to 95% relative humidity at 40° C (non-condensing)

Avoid locations with the following characteristics:

Warning: *To reduce the risk of fire, do not place the Ruby2 near objects that produce excessive heat.*

Avertissement *Pour réduire le risque d'incendie, placer le Ruby2 loin des objets produisant une chaleur excessive.*

- Direct sunlight
- Moisture
- Excessive dust
- Electrical “noise” or devices that cause excessive voltage variations such as air conditioners, fans, or high frequency security systems

Diagnostic Panel

The Diagnostic Panel is located on the right side of the Ruby2 and can be accessed by loosening the screw that holds the cover in place. From left to right, this panel contains the following:

- **Reset Button:** Reboots the Ruby2 workstation without shutting down the power.
- **Diagnostic Switch Panel:** Used to configure specific operating modes. Do not change settings unless instructed by the VeriFone Technical Support Center.
- **Console Port:** Used only by the VeriFone Authorized Service Contractor (VASC).
- **System Heartbeat LED:** Pulsates on and off to indicate that the Ruby2 is operating normally.
- **Status Window:** Displays system operating codes.

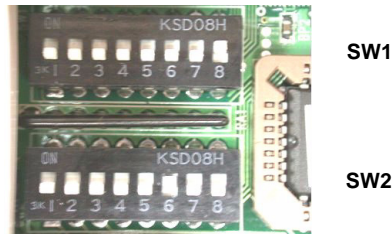


Thermal Receipt Printer Configuration

There are two switch banks (SW1 and SW2), each with eight switches, located on the bottom of the Thermal Receipt Printer.



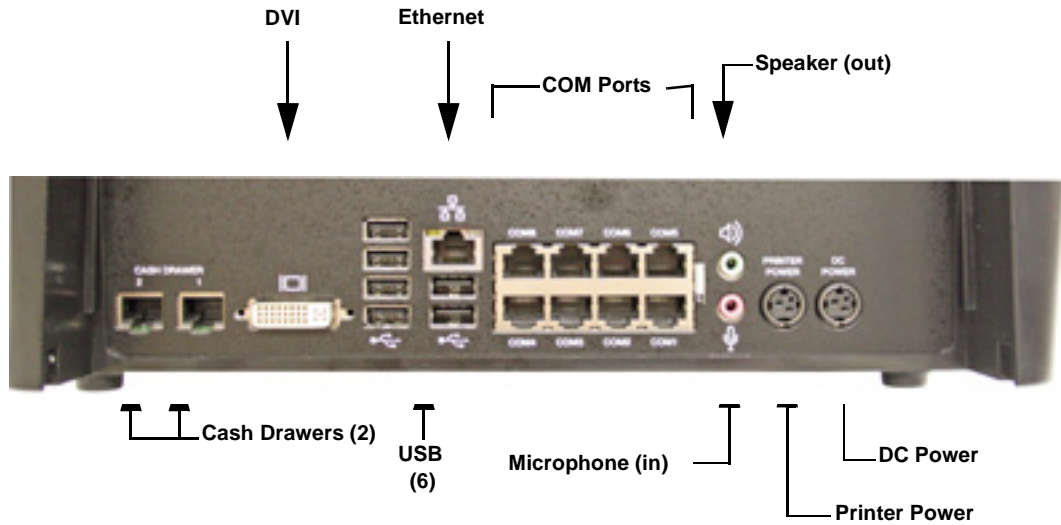
1. Locate the Switch Bank cover on the bottom of the printer and remove the screw holding the cover in place. Lift the cover up and remove it.
2. For use with Ruby2, SW1 switches should all be in the OFF position.
3. SW2 switches should be in the OFF position, with the exception of switch 6, which should be in the ON position.



Note: *If necessary, use a paper clip to change switch positions.*

4. Replace the cover plate. The printer is ready to be installed.

Ruby2 Rear Panel



The rear panel of the Ruby2 workstation has the following ports:

- 8 Serial Ports
 - COM1 - not assigned
 - COM2 - not assigned
 - COM3 - Customer Display
 - COM4 - Printer
 - COM5 - not assigned
 - COM6 - not assigned
 - COM7 - not assigned
 - COM8 - Scanner
- 1 Ethernet Port
- 6 USB Ports
- 2 Cash Drawer Ports
- 1 DVI Port

Installing the Ruby2 Workstation

Note: See “Ruby2 Rear Panel” for port locations.

1. Connect one end of a shielded RS-232 cable to a null modem adapter and connect the adapter to the serial port on the Thermal Receipt Printer.
2. Plug the other end of the RS-232 cable into COM4 on the Ruby2 workstation.
3. Plug the printer power cable into the printer with the flat side facing up.

Note: The connector slides down to lock or unlock the cable.

4. Connect the other end of the printer power cable to the Printer Power port on the Ruby2. The connector locks into place.

Caution: *To remove the printer power cable, slide the plastic outer covering of the connector downward. DO NOT pull the cable to remove it.*

Mise en garde: *Pour retirer le câble d'alimentation de l'imprimante, faire glisser vers le bas le couvercle en plastique du connecteur. NE PAS tirer sur le câble.*

Caution: *The printer port is not Limited Power Source (LPS) according to UL 60950-1, clause 2.5. The printer connected to this port shall comply to clause 4.7 of UL 60950-1 and all fire enclosure requirements. Please consult VeriFone if in doubt.*

Mise en garde: *Le port de l'imprimante n'est pas une source à puissance limitée (LPS) conformément à la disposition 2.5 de la norme UL 60950-1. L'imprimante branchée sur ce port doit être conforme à la disposition 4.7 de la norme UL 60950-1 et à toutes les exigences de protection contre l'incendie. En cas de doute, veuillez consulter VeriFone.*

5. Connect an Ethernet cable to the Ethernet port on the Ruby2 workstation.

Note: *Serial RS-232 cables and Ethernet cables do not have the same pinouts and are NOT interchangeable.*

6. Plug the other end of the Ethernet cable into the router (one to two Ruby2 workstations) or to the network switch (more than two Ruby2 workstations).

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7. Plug the cable from the customer display pole into COM3 on the Ruby2. The customer display pole height can be adjusted.
8. Plug the cable that extends from the bottom of the cash drawer into the cash drawer port 1. (For two cash drawers, use cash drawer port 1 and port 2.)

Note: *The opening in the key hole on the cash drawer must be facing downward to close.*

9. Plug the cable from the power brick into the DC Power port on the Ruby2.
10. Plug the AC Power Cord into the other end of the power brick. Plug the power brick into an electrical outlet.

Note: *To prevent loss of data and to ensure that the battery pack is fully charged, the Ruby2 should be powered up for at least 24 hours prior to initial application download.*

During operation, avoid blocking the perimeter of the Ruby2 touch screen with any objects, including paper and hands, as they can block the sensors and prevent the touch screen from operating properly.

3

SERVICE AND PARTS

Service

Do not attempt to repair, service, or adjust the Ruby2. If you have questions related to installation or troubleshooting, the VeriFone Technical Support Center is available for assistance 24 hours a day, seven (7) days a week, at 800-777-3536.

Note: *Changes or modifications not expressly approved by VeriFone, use of custom cables not manufactured by VeriFone, or unsupported peripherals could void the user's warranty and authority to operate this equipment.*

Caution: *Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.*

Mise en garde: *Il y a un risque d'explosion si le mauvais type de batterie est inséré dans l'appareil. Jeter les batteries utilisées selon les instructions.*

Cleaning

Warning: *Disconnect power before cleaning this equipment.*

Avertissement *Débrancher l'appareil avant de le nettoyer.*

For routine cleaning to remove dust or dirt, use a clean, damp cloth and mild soap or detergent. Use a cloth dampened with alcohol for more stubborn stains.

Caution: *Never use thinner, trichloroethylene, or ketone-based solvents to clean the equipment or cabling. These chemicals may cause the plastic parts to deteriorate.*

Mise en garde: *Ne jamais nettoyer l'appareil ou les câbles avec du solvant, du trichloréthylène ou du solvant à base de cétone. Ces produits chimiques pourraient endommager les pièces de plastique.*

Magnetic Stripe Cleaner

The following is the MSR cleaning method:

Dirt can lead to magnetic stripe card reading problems. The magnetic stripe reader (MSR) should be cleaned on a regular basis (daily to once a week depending on usage) using commercially available card reader cleaning cards or VeriFone part number 02746-02.

Note: *If using a commercially available cleaning card use ONLY an approved MSR cleaning card made specifically for POS MSR Card reader terminals or Petroleum MSR card readers.*

Parts List

VeriFone P/N	Description
M169-000-01-NAA	Ruby2
CPS124130-3A-R	Ruby2 Power Supply
CBL268-008-01-A	Ruby2 Power Cord

Specifications

Ruby2 Specifications

The table below gives the power requirements, dimensions, and other specifications of the Ruby2 workstation.

Specification	Description
Safety	UL, cUL
EMI	FCC Class A (USA) and CISPR22 Class A (Europe)
ESD	IEC 1000 4-2 (8 KV contact, 4 KV air)
Temperature	Operating range: 0-40° C Non-operating range: -20 to 60° C
Humidity	Operating 15% to 95% relative humidity at 40° C (non-condensing)
Electrical Input Rating	100-240V~, 50/60 Hz 3.0A
Dimensions	Height: 16 inches Width: 12 3/4 inches Depth: 12 inches
Weight	Approximately 14 lbs.
Memory	2GB Solid State SATA Flash 2 Gigabyte DDR3 RAM, scalable to 4GB