

Topaz XL

Hardware Installation Guide

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Topax XL Hardware Installation Guide

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**Topaz XL Hardware Installation Guide
Revision History**

Revision	Date	Description
A00	May 02, 2014	Initial documentation release.
A01	May 19, 2014	Added French translations for warnings.

Important Information

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

1. CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY VERIFONE, INC. COULD VOID THE USER'S AUTHORITY TO OPERATE THIS EQUIPMENT.
2. THIS EQUIPMENT IS NOT INTENDED TO BE REPAIRED BY THE USER.

Renseignements importants

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

1. LES MODIFICATIONS NON EXPRESSÉMENT APPROUVÉES PAR VERIFONE, INC. POURRAIENT ANNULER LE DROIT D'UTILISER CET APPAREIL.
2. CET APPAREIL NE DOIT PAS ÊTRE RÉPARÉ PAR L'UTILISATEUR.

Regulatory Compliance

THIS EQUIPMENT COMPLIES WITH THE REQUIREMENTS IN PART 15 OF FCC RULES FOR A CLASS A DIGITAL DEVICE. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA MAY CAUSE UNACCEPTABLE OR HARMFUL INTERFERENCE TO RADIO AND TV COMMUNICATIONS REQUIRING THE USER TO TAKE WHATEVER STEPS NECESSARY TO CORRECT THE INTERFERENCE.

Conformité aux règlements

CET APPAREIL EST CONFORME AUX EXIGENCES RELATIVES AUX APPAREILS NUMÉRIQUES DE CLASSE A FIGURANT À LA PARTIE 15 DES RÈGLEMENTS DE LA FCC. L'UTILISATION DE CET APPAREIL DANS UN SECTEUR RÉSIDENTIEL POURRAIT CAUSER DU BROUILLAGE INACCEPTABLE OU PRÉJUDICIABLE POUR LES SERVICES DE TÉLÉCOMMUNICATIONS; L'UTILISATEUR DEVRAIT ALORS PRENDRE TOUTES LES MESURES NÉCESSAIRES POUR CORRIGER LE BROUILLAGE.

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 Topaz 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.
- 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.

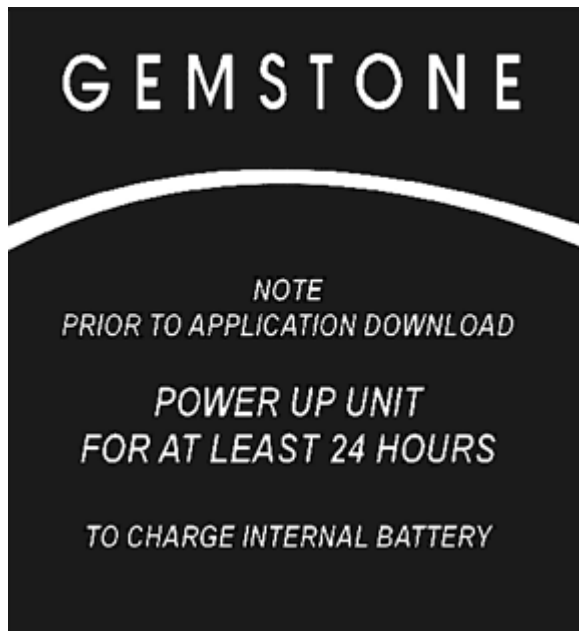
Ne pas placer l'appareil sur un chariot, un kiosque ou une table instable. Il pourrait tomber, ce qui pourrait causer des blessures corporelles graves ou des dommages à l'équipement.

Consignes de sécurité

- Lisez toutes les instructions contenues dans ce guide d'installation avant de connecter l'équipement et conserver ces instructions pour une utilisation ultérieure.
- 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.
- N'appliquez pas de détergents liquides ou en aérosol directement sur l'appareil. Utilisez uniquement un chiffon humide pour le nettoyage.
- Ne pas utiliser d'accessoires non spécifiquement recommandés par VeriFone, car ils peuvent entraîner des risques d'incendie, de choc électrique ou de blessure. .
- Ne pas utiliser le Topaz près de l'eau.

Ne placez pas cet appareil sur un chariot, un support ou une table. L'appareil pourrait tomber et causer des blessures graves et / ou endommager 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.

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Topaz XL Hardware Installation Instructions

1

Introduction

The VeriFone® Topaz XL™ workstation is a high-performance, reliable, point-of-sale terminal that supports peripherals such as scanners, cash drawers, PINpads, and customer displays. Topaz XL is capable of running VeriFone POS applications compatible with Commander Site Controller® or Sapphire Mini Server. Like the Ruby SuperSystem®, the Topaz XL accepts and processes all payment options, including cash, checks, credit and debit cards, coupons, and various prepaid cards.

The Ruby SuperSystem keyboard can be used in combination with the touch screen, which simplifies training and makes many common functions easier and faster to perform. Online help is available to support the user and promote quick responses. The Topaz XL, including the touch screen, is configured through graphical user applications supplied by VeriFone or by optional back office partners.

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



In the absence of an intranet infrastructure, the Topaz XL requires an Ethernet router to connect to the Commander Site Controller or to the Sapphire Mini-server and V950™ 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.

Note: *Because the Commander Site Controller provides many V950 functions, the V950 may be present only per specific customer requirements .*

Requirements

Note: *The Commander Site Controller, Sapphire Mini-server, V950™, and Topaz XL workstation must be installed by a VeriFone Authorized Service Contractor (VASC).*

Software

- Compatible GemPro and NewPro software for the Commander Site Controller and Sapphire Mini-server
- Topaz XL application software

Hardware

- V950 PC (The HPV-20 system may also be used to install the Topaz XL.)
- Commander Site Controller or Sapphire Mini-server
- Topaz XL Workstation and Thermal Receipt Printer
- An intranet infrastructure, or Ethernet router, or switch. The number of workstations determines the number of switch ports required.

Cables

- Ethernet cable from each Topaz XL to the switch and/or router
- RS-232 cable between peripherals, such as printers
- Printer Power Cable
- Null Modem Adapter

Recommended Equipment

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

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:

- Topaz XL Workstation
- Topaz XL Power Supply
- AC Power Cord
- Cable Cover (attached to back of Topaz XL)
- Shielded RS-232 Serial Cable for Printer
- Red Null Modem Adapter for Printer
- Printer Power Cable
- *Topaz XL Hardware Installation Guide*
- Software Licenses

Note: *The cash drawer, customer display pole, thermal printer, and PINpad, which complete the Topaz XL workstation, are ordered and shipped separately. For EPSPAK/Commander Site Controller applications, the PINpad must be TCP/IP compatible.*

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 or Sapphire Mini-server, V950, and Topaz XL workstation must be installed by a VeriFone Authorized Service Contractor (VASC) and must be set up in the following order:

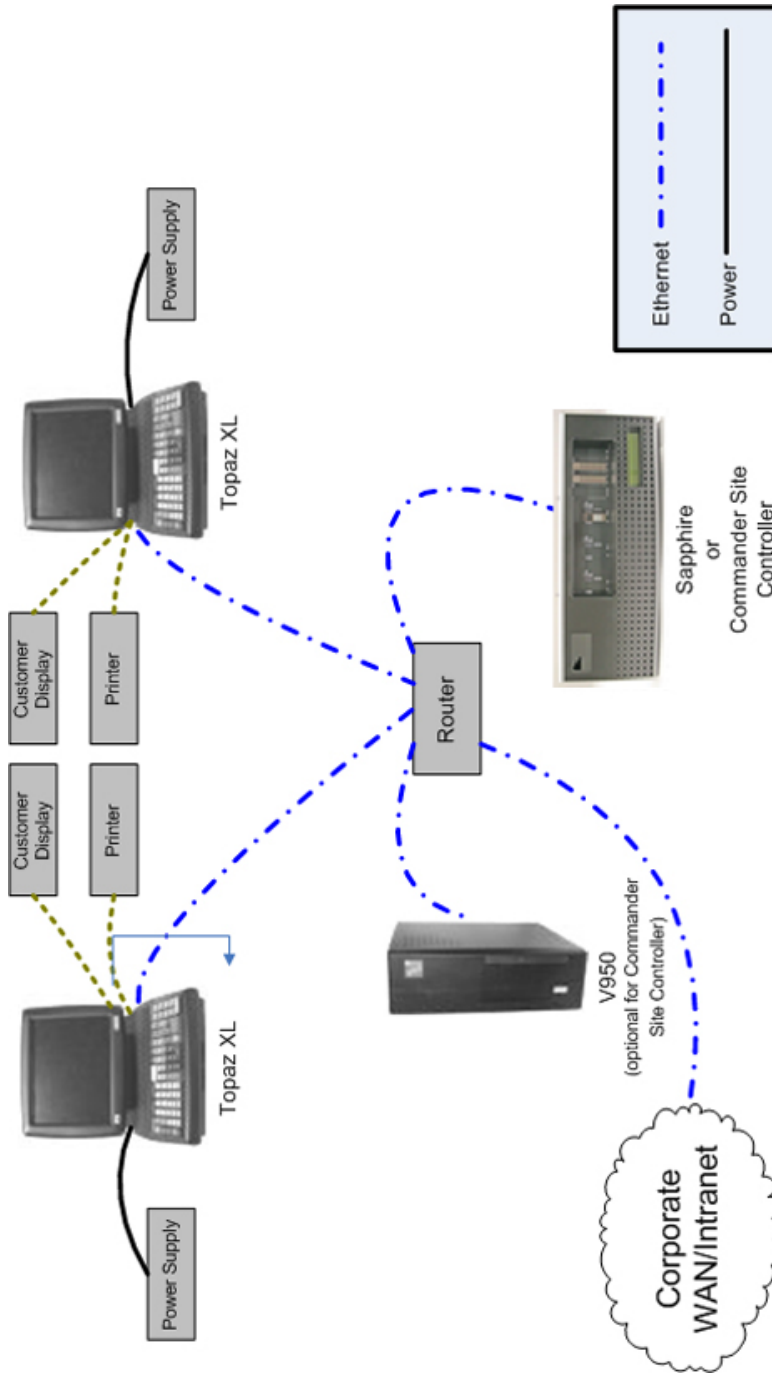
1. V950 (Note that, because the Commander Site Controller provides many V950 functions, the V950 may be present only per specific customer requirements.)
2. Commander Site Controller or Sapphire Mini-server
3. Topaz XL Workstation

Configuring One or Two Topaz XL Workstations

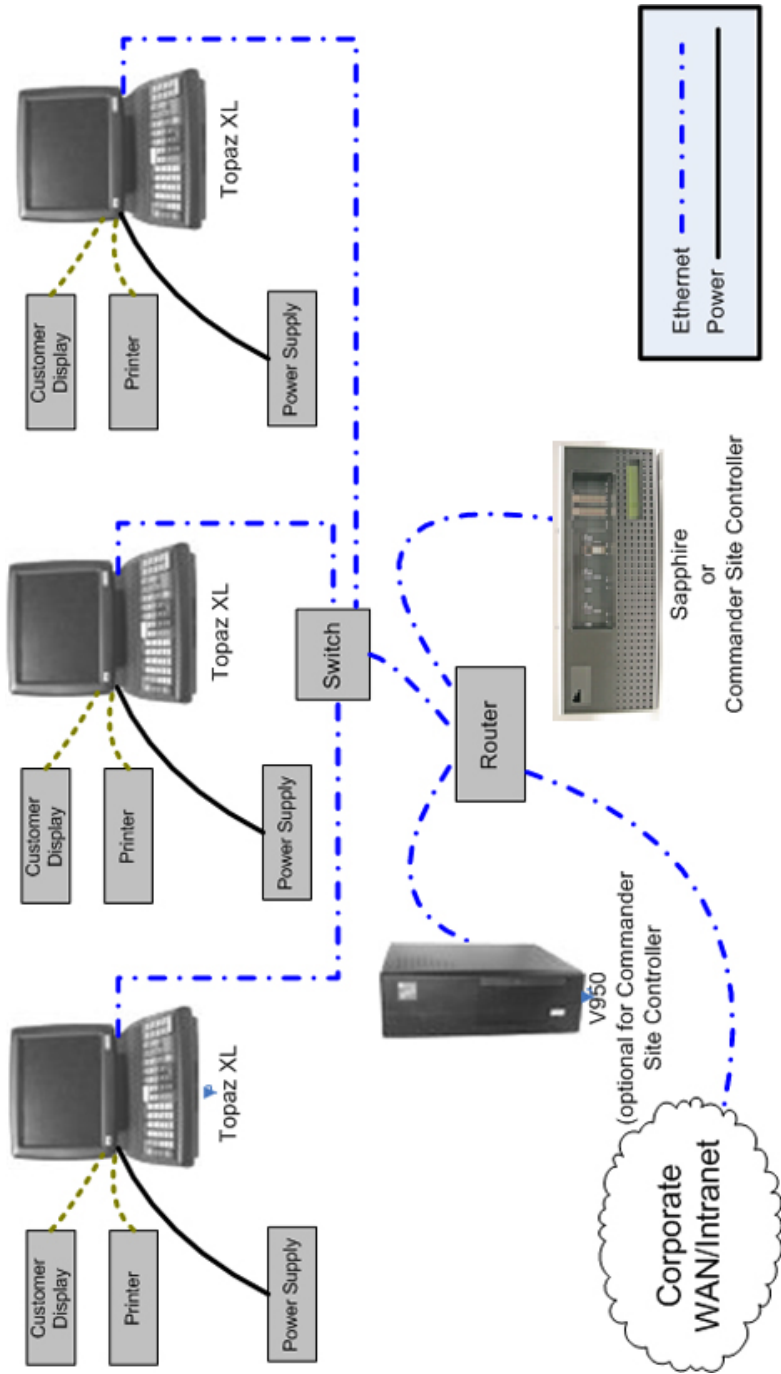
Installing one or two Topaz XL workstations requires Ethernet cables to connect the Topaz XL to a router to create an in-store LAN. The printers, customer display, and cash drawers use RS-232 cables to connect to the Topaz XL, and an additional Ethernet cable to connect the router to a corporate WAN/Intranet. See the diagram labeled “One or Two Topaz XL Workstations.”

Configuring More Than Two Topaz XL Workstations

Installing more than two Topaz XL workstations requires a WAN/intranet or a switch as well as a router. The Topaz XL workstations use Ethernet cables to connect to the switch. Switches are available in various sizes and usually support four or more workstations. The switch connects to the router using an Ethernet cable. See the diagram labeled “Three or More Topaz XL Workstations.”



One or Two Topaz XL Workstations



Three or More Topaz XL Workstations

Choosing a Location

The Topaz XL 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:** 120 Volts AC, 50/60 Hz, 1.5 Amps
- **Temperature:**
 - **Operating:** 32 to 104° F (0 to 40° C)
 - **Non-operating:** -4 to 158° F (-40 to 70° 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 Topaz XL near objects that produce excessive heat.*

Avertissement: *Pour réduire le risque d'incendie, placer le Topaz XL 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 Topaz XL and can be accessed by loosening the screw that holds the cover in place. From left to right, this panel contains the following:

- **Soft Reset Button:** Reboots the Topaz XL workstation without shutting down the power.
- **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:** Pulses on and off to indicate that the Topaz XL is operating normally.
- **Status Window:** Displays system operating codes.



Thermal Receipt Printer Configuration

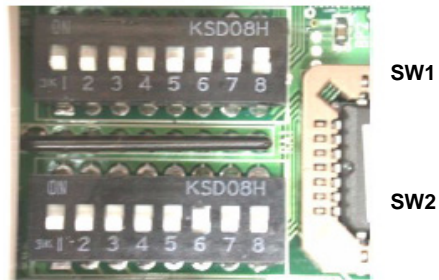
There are two switch banks (SW1 and SW2), each with eight switches, located on the bottom of the Thermal Receipt Printer.



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 Topaz XL and Topaz II, SW1 switches should all be in the OFF position.

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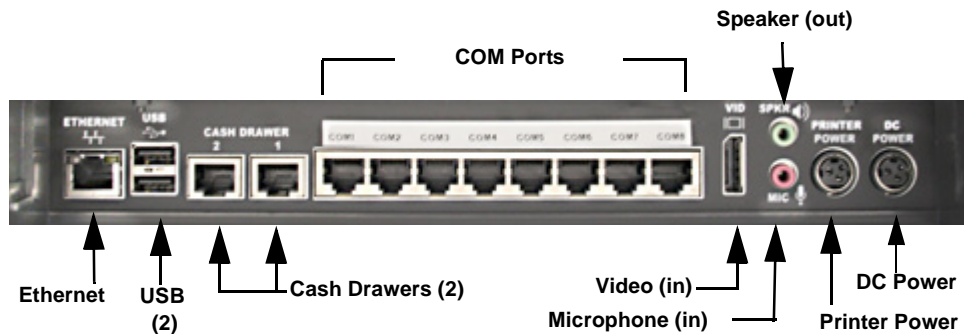
- SW2 switches should be in the OFF position, with the exception of switch 6, which should be in the ON position.



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

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

Topaz XL Rear Panel



The rear panel of the Topaz XL workstation has the following ports:

- 8 Serial Ports
 - COM1 - not assigned
 - COM2 - not assigned
 - COM3 - Customer Display
 - COM4 - Printer
 - COM5 - not assigned
 - COM6 - Serial DVR
 - COM7 - PINpad (Note: No PINpad for EPSPAK/Commander Site Controller applications)
 - COM8 - Scanner

- 1 Ethernet Port
- 2 USB Ports
- 2 Cash Drawer Ports

Note: *The PINpad needs to be configured through Maintenance on each Topaz XL. See Topaz Online Help for information.*

Installing the Topaz XL Workstation

Note: *Instructions assume that the Commander Site Controller or Sapphire Mini-server and V950 are properly installed with Topaz XL-compatible software and connected to the router.*

Note: *See “Topaz XL 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 Topaz XL 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 Topaz XL. 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 Topaz XL 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 Topaz XL workstations) or to the switch (more than two Topaz XL workstations).

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7. Plug the cable from the customer display pole into COM3 on the Topaz XL. 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 Topaz XL.
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 Topaz XL should be powered up for at least 24 hours prior to initial application download.*

During operation, avoid blocking the perimeter of the Topaz XL 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 Topaz XL workstation. 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.*

Warning: *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: *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*

Use the following method to clean the magnetic stripe reader:

Dirt can lead to magnetic stripe 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 using VeriFone part number 02746-02.

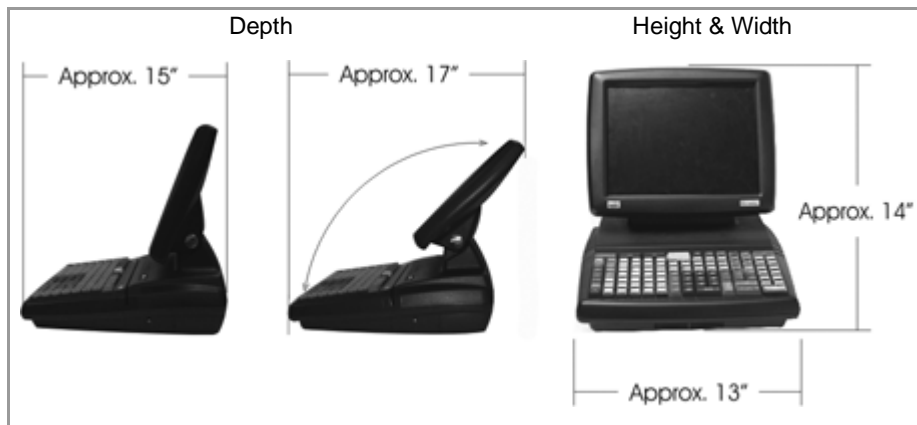
Parts List

VFI P/N	Description
M050-02-410-NAA	Topaz XL
22916-01	Topaz Cable Cover
P050-01-100	Topaz Customer Display
P050-01-200	Topaz Media Drawer (Cash Drawer)
CPS124130-3A-R	Topaz Power Supply
CBL268-008-01-A	Topaz XL Power Cord
P040-02-020	Thermal Receipt Printer
23213-01-R	Printer Power Cable for Thermal Receipt Printer
P040-07-040	ONEAC UPS
22278-XX	Ethernet Cable(s)
13581-01	Null Modem Connector (Adapter) for printer
13836-XX	Shielded RS-232 Cable

Specifications

Topaz XL

Shipping Weight: Approximately 26 lbs.



Certifications and Environmentals

Safety	UL, cUL
EMI	FCC Class A (USA) and CISPR22 Class A (Europe)
ESD	IEC 61000-4-2
Temperature	Operating: 32 to 104° F (0 to 40° C) Non-operating: -4 to 158° F (-40 to 70° C)
Humidity	Operating 15% to 95% relative humidity at 40° C (non-condensing)
Electrical Input Rating	100-24V, 50/60Hz, 3A