Verifone ®

UX410

Installation Guide

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UX410 Installation Guide
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CONTENTS

This guide is the primary source of information for setting up and installing the UX 410.

Audience

This guide describes the unit's features and provides the basic information for its installation and configuration.

Organization

This guide is organized as follows:

Chapter 1, Device Overview. Provides an overview of the UX410

Chapter 2, Setup. Explains setup and installation of the device, selecting a location, and establishing connections with other devices.

Chapter 3, Specifications. Discusses the power requirements and dimensions of the device.

Chapter 4, Maintenance and Cleaning. Explains the maintenance of the device.

Chapter 5, Service and Support. Provides information on contacting your Verifone service provider and information on how to order accessories or documentation from Verifone.

Chapter 6, Troubleshooting Guidelines. Provides troubleshooting guidelines should you encounter a problem with unit installation and configuration.

Appendix A, UX 410 Caution and Warning Messages. Shows the UL/cUL Listing-compliant translations of all Warning and Caution messages in this installation guide.

Appendix B, Port Pinouts. Shows the different pinout settings for the UX410 .

Related Documentation

To learn more about the UX410 , refer to the following set of documents and their associated Verifone Part Numbers (VPNs).

UX410 *Certifications and Regulations Sheet*	VPN DOC159-037-EN
UX410 *Quick Installation Guide*	VPN DOC159-038-EN
UX1xx PIN Pad Series Installation Guide	VPN DOC159-003-EN

Conventions and Acronyms

This section describes the conventions and acronyms used in this guide.

Document Conventions

Various conventions are used to help you quickly identify special formatting. Table 1 describes these conventions and provides examples of their use.

Table 1   Document Conventions

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

Acronym Definitions

Various acronyms are used in place of the full definition. Table 2 presents acronyms and their definitions.

Table 2   Acronym Definitions

Acronym	Definitions
CTLS	Contactless
EMV	Europay, MasterCard and Visa
IC	Integrated Circuit
LED	Light-Emitting Diode
MRA	Merchandise Return Authorization
NFC	Near Field Communication
RF	Radio Frequency
RJ-45	Registered Jack 45 modular connector
Single CI	Single Contactless Interface
SMA	SubMiniature version A connector

Device Overview

The UX410 is composed of a Controller Unit and an Antenna Unit. The UX410 supports transactions in a variety of environments, specifically outdoor and unattended markets.

Features and Benefits

The UX410 is Verifone's contactless reader device. It creates an economical solution for merchants who are looking to expand their payment acceptance options. The contactless card reader allows a customer to quickly pay for items using their contactless card and tapping it near, or on the device, thus completing their transaction with speed and ease, without further input.

Exceptional Ease of Use

The following features of the device simplifies transactions in various environments:

- Device driver installs USB connections automatically.

- Designed for indoor and outdoor use.

- Various connectivity options integrated into device to conveniently suit most unattended environments.

- CTLS logo placement on device for optimized user experience.

- Bright LEDs to display card transaction progress (refer to Figure 1).

NOTE

The implementation of the LED color configuration varies by regional locations.

- Buzzer for audio confirmation of contactless transactions.

- Compact, sleek, and stylish shape.

- Quick and easy to use.

- Rugged and reliable design.

- Supports payment transactions in a variety of payment situations, such as transportation, vending, and kiosk environments.

- Can be used as a stand alone device or in combination with other Verifone POS terminals.

Compliance   The following features of the device ensure secure contactless transactions:

- EMV CTLS Level 1 and Level 2 Type Approval
- PCI PTS 4.1

Contactless Capabilities   The device includes the following contactless capabilities:

- Verifone's advanced contactless architecture future-proofs your investment with Single Contactless Interface (SingleCI), and side-by-side application architecture systems.
- Supports contactless cards as well as NFC phones, supporting the following protocols:
  - ISO 14443 A&B
  - MiFare (MiFare + / DESfire)
  - ISO 18092 Active Communications (NFC - peer-to-peer mode)
  - PayPass
  - payWave
  - AMEX Expresspay2

Diversity of Models   Verifone provides UX410 Antenna units for use on the following mounting panels:

- Non-metal
- Metal.

Setup

This chapter describes the setup procedure for the UX410 in the following sections:

- Selecting Unit Location
- Unpacking the Shipping Carton
- Examining Device Features
- Finding ARS and Service Switches
- Mounting the Antenna Unit
- Mounting the Controller Unit
- Connecting the Antenna Unit to the Controller Unit
- Installing or Replacing SAM Cards
- Connecting Cables
- Connecting Power Supply
- Using the Reader

Selecting Unit Location

Use the following guidelines when selecting a location for the UX410 :

- Select a location convenient for the customer.
- Avoid dusty, hot or damp locations.
- Choose the Antenna Unit location near the Controlling Unit for ease in setup and troubleshooting.

CAUTION

Avoid placing metallic objects at the front and around the card reader.

WARNING

For safety, do not string cables or cords from your installation cabinet or housing across a walkway.

Environmental Factors

The front panel of the device is dustproof and fade-proof. The UX410 is also water-resistant, in accordance with IP65 ratings.

Unpacking the Shipping Carton

Open the shipping carton and carefully inspect its contents for possible tampering or shipping damage.

To unpack the shipping carton

1 Remove the items from the shipping carton. The standard package contains:

- The UX410 Controller Unit
- The UX410 Antenna Unit
- One SMA (RF) coaxial cable
- One RJ45 communication cable to connect the Antenna Unit to the Controller Unit
- Clamping Plate for Antenna Unit (Applicable for certain M Level P/N)

Refer to Accessories and Documentation for more information about related accessories.

2 Remove any protective wrap before mounting the unit.

CAUTION

Remove any protective plastic over the front of the Antenna unit before use, or the unit may not work properly.

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

WARNING

Do not use a unit that has been tampered with or otherwise damaged. This unit comes equipped with tamper-evident labels. If a label or component appears damaged, immediately notify the shipping company and your Verifone representative or service provider.

Examining Device Features

Before you continue the installation process, review the features of the Controller and Antenna Units (see Figure 1 and Figure 2).

CLEAR PROTECTIVE SCREEN TAB

INDICATOR LEDS

CTLS AREA
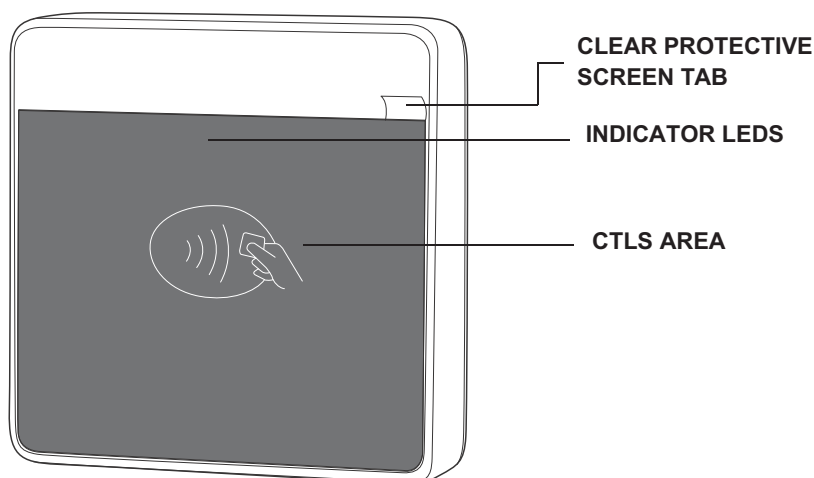
Figure 1   UX410 **Antenna Unit Front View**

Antenna Unit Features   The front of the UX410 Antenna Unit shows the following:

• Customer-view **indicator LEDs** that denote successful or erroneous transactions through the LED color lighting and combination

  When the unit is ready to accept a transaction, the CTLS logo and first LED from the left will light up. When you tap your card, all the LEDs will light up and the buzzer will sound for about 2 seconds, prompting you to remove your card.

NOTE

The implementation of the LED color configuration varies by regional locations.

• The **CTLS logo** showing the general area where users can tap their cards to perform payment transactions.

• The **Clear Protective screen**, which keeps the CTLS area safe from scratches during the installation procedure. Make sure you remove this (using the tab) after successfully mounting the UX410 Antenna Unit

CLEAR ADHESIVE COVER

MOUNTING POSTS

RJ-45 PORT

SMA PORT
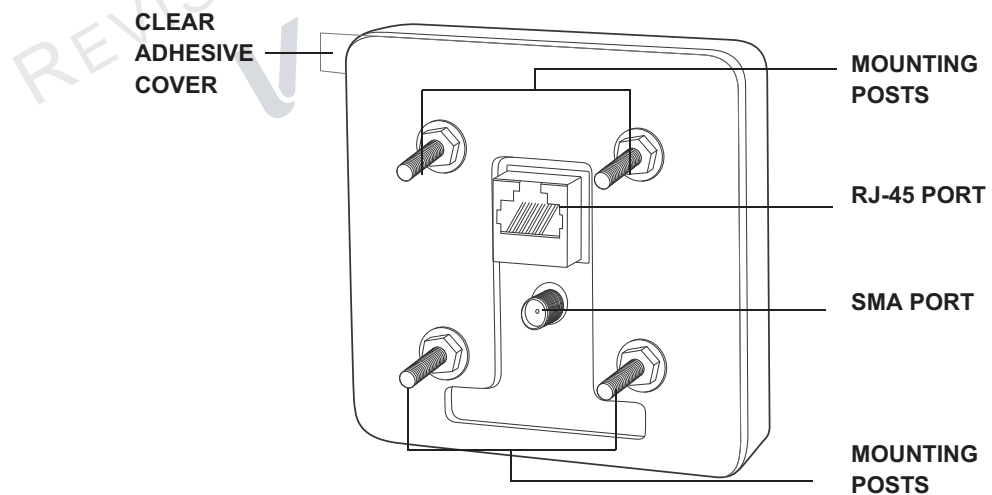
MOUNTING POSTS

Figure 2   UX410   Antenna Unit Underside View

The underside of the UX 410 Antenna Unit shows the following:

• **RJ-45** host communication connector

• **SMA** (RF) antenna connector

• Four **mounting posts**

• **Clear adhesive cover**. Remove this cover prior to mounting the UX 410 Antenna Unit to ensure adhesion to the installation panel.

Controller Unit Features

The Controller Unit features the following ports:

LAN PORT

TYPE A USB PORT

TYPE B USB PORT

ANTENNA SMA PORT

RS-232 PORT

POWER PORT

SAM COMPARTMENT

ANTENNA RJ45 PORT

TYPE A USB PORT, FOR UX100/UX110

Figure 3   **Controller Unit Connection Ports**

- USB Device (Type B) [client]

- 2x Powered USB (Type A) [host]

- Power port 12 V DC to 24 V DC

- LAN with 2 LEDs

- COM1 (RS-232)

- SMA/Antenna RJ45

- SAM Card compartment.

Finding ARS and Service Switches

There are three switches on the UX410 two Anti-Removal Switches (ARS) on the installation panel side and one Service Switch on the underside of the Controller unit (see Figure 4).

ANTI-
REMOVAL
SWITCH

ANTI-
REMOVAL
SWITCH
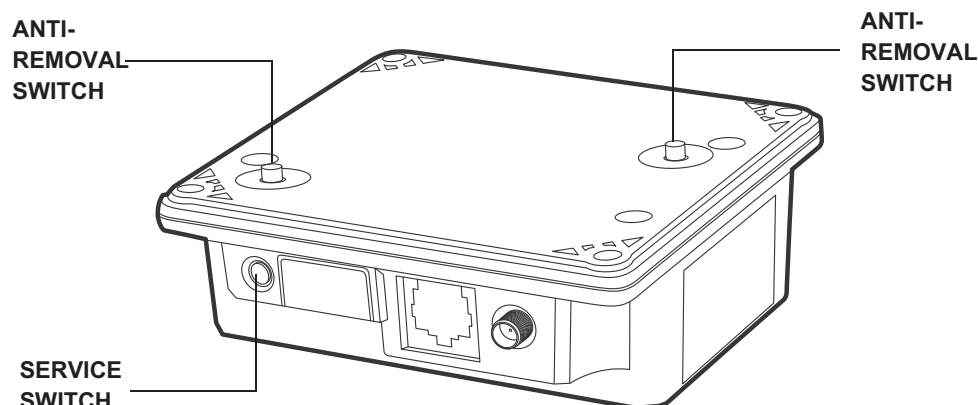
SERVICE
SWITCH

Figure 4 UX410 **10 Service Switches**

Removal Protection

The ARS detect any removal attempt and disables any PIN-related transaction. Re-installation requires an authorized process. Please contact your Verifone representative for details.

CAUTION Make sure the installation method does not invalidate the Anti-Removal Switch (ARS) function. *Do not,* for instance, install the Controller Unit in a sub-chassis that can be removed from the main cabinet.

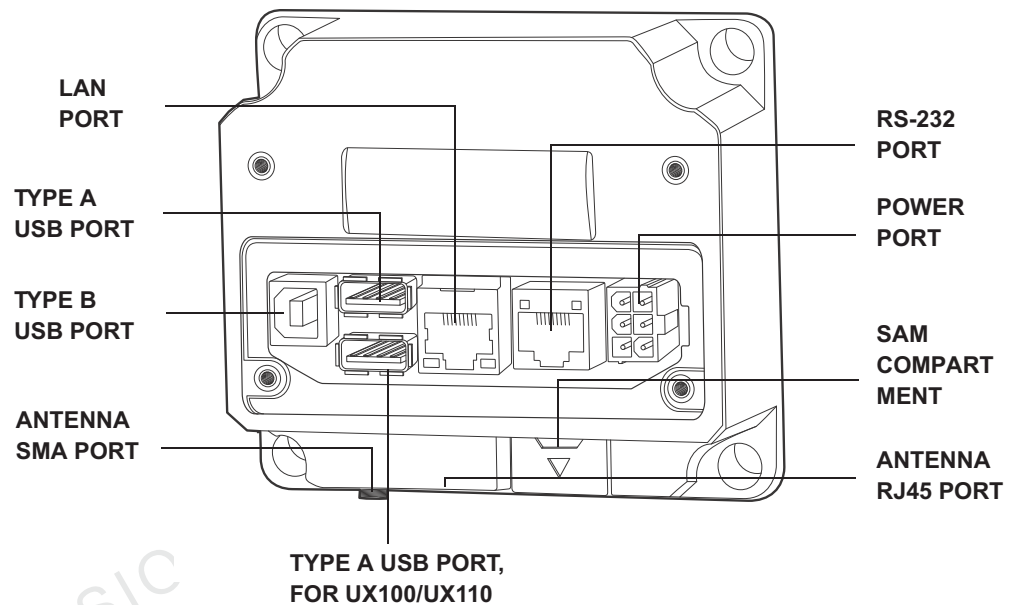**System Mode Activation**

The Service Switch gives administrators System Mode access for the Controller Unit. To enter System mode, press the service switch for approximately 1 second and release.

Use only if you have the proper authorization and equipment to open system mode. Please contact your Verifone representative for details.

Mounting the Antenna Unit

The UX410 Antenna Unit is designed to be front mounted to an installation panel, without further need for any external mounting devices.

CAUTION For optimal installation, the thickness of the installation panel should be approximately 2 mm.

NOTE Your mounting surface may have different installation instructions. Refer to your mounting device's user guide for further instructions.

To mount the *UX410 Antenna Unit*

1 Remove the clear protective film from the back of the unit.

2 Align the unit's stud bolts with the stud holes of the installation panel.
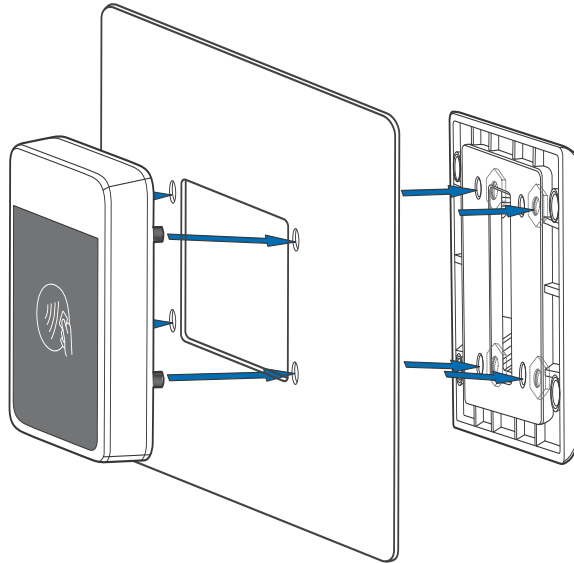
Figure 5   **Mounting the** UX410 **Antenna Unit**

3 Secure the unit with M4 washers and nuts. Tighten the nuts using the recommended tightening torque of 7.0 kgfcm (0.7 Nm).

CAUTION

Avoid placing metallic objects at the front and around the card reader.

4 Remove the clear protective screen from the front of the unit.

Mounting the Controller Unit

This section shows how to attach the Controller Unit to the installation panel for stability and security.

Use the following steps to install the Controller Unit:
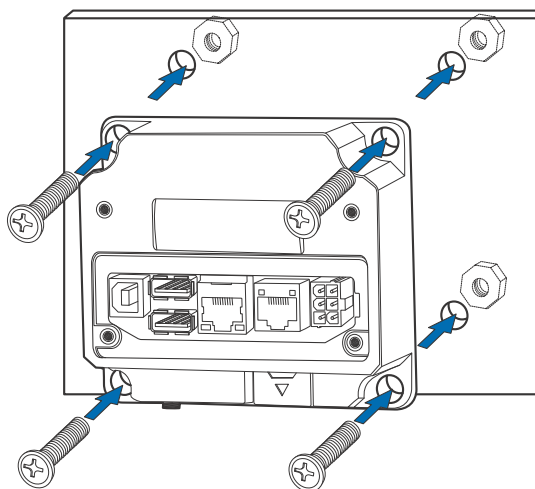
Figure 6   **Mounting the Controller Unit**

1   Align the Controller Unit mounting holes to the installation panel holes.

2   Insert four bolts and tighten the nuts using a recommended tightening torque of 7.0 kgfcm (0.7 Nm).

Connecting the Antenna Unit to the Controller Unit

Use the following cables to connect the Antenna Unit to the Controller Unit:

- RJ45 to RJ45 (VPN CBL159-314-01-A)
- SMA cable, 0.8 m (VPN CBL159-302-03-A).

NOTE

For EMVCo L1 compliance, please use the provided cables.

Both connections are necessary for using the UX410 to operate.

To connect units   1   Connect one end of the RJ-45 plug to the rear of the Antenna and the other end to the Controller Units.

2   Connect one end of the SMA connector to the ports of the Antenna and the other end to the Controller Units.
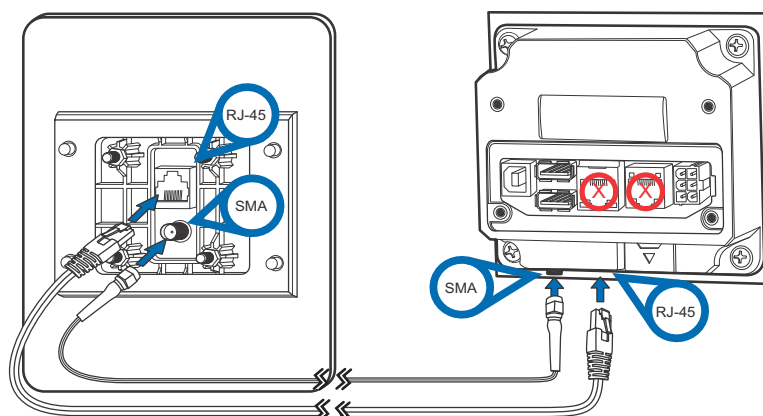
Figure 7   Connecting the UX410 Antenna to the Controller Unit

NOTE   To disconnect cables, use the same steps described above in reverse. If exchanging cables, use a Verifone-approved cable. See Accessories and Documentation for cable ordering information.

Contactless Support

This Antenna Unit supports the global contactless program specifications from American Express, MasterCard, Visa, Discover, ISIS SmartTap, and Google Wallet with virtually no changes to existing payment hardware or software.

Installing or Replacing SAM Cards

You may need to install a security access module (SAM) card or replace the old card. You can find two SAM slots on the Controller Unit, located under a removable protective cover (see Figure 8).

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

To install or replace SAM cards:

1 Disconnect the device from all power sources.

2 Disconnect the device from any external devices.

3 Slide the SAM cardholder cover down and swing away from the SAM compartment.
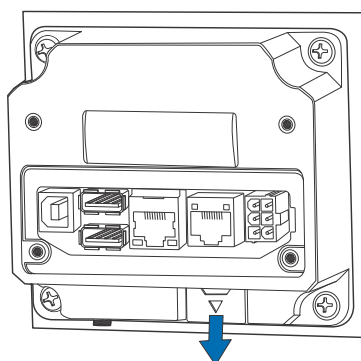
Figure 8   **Opening the SAM Cardholder**

4 Carefully slide the SAM card into the slot, by aligning the card and carefully sliding into the slot until fully inserted.
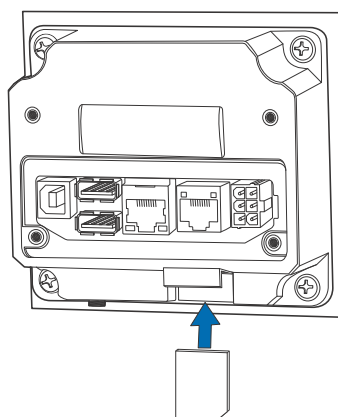
Figure 9   **Inserting SAM Card**

> **NOTE**
> Before inserting the SAM card, position it as shown in Figure 9, with the card's gold contacts facing inward.
>
> The SAM card has a notch on one corner to ensure that it fits into the connector base in only one way.

5 Close the SAM cardholder.

Connecting Cables

The UX 410 Controller Unit rear panel holds several interface ports for power and communications. Use this section to see how the Controller Unit connects to the Antenna Unit

> **NOTE**
>
> To get the correct connection cables, please refer to Accessories and Documentation.

Connecting to Host Devices

This section discusses the cable requirements for connecting the Controller Unit with the following host units:

- Connecting to a Vending Machine
- Connecting to a PC

Connecting to a Vending Machine

You can connect the Controller Unit to a host vending machine (VM) with any of the following connection types:

- USB Type B
- ETH (LAN)
- COM (RS-232)

Connecting to a PC

You can connect the Controller Unit to a host PC with any of the following connection options:

- RJ-45 to RS-232 connection
- USB Type B connection
- LAN connection

For more information regarding your card reader configuration and your cabling needs, contact your local Verifone service provider. For cable ordering information, see Accessories and Documentation).

Connecting PIN Pads This section shows the attachment of Verifone PIN Pads to the UX410 Controller Unit to provide users PIN security when conducting their transactions.

You can connect the UX410 Controller Unit with a UX1xx-series PIN Pad device.
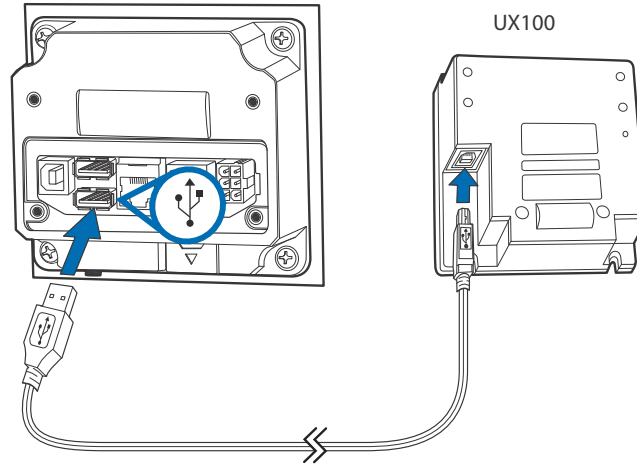
Figure 10   Connecting to a UX1xx Series PIN Pad

Connect the Type A plug in the UX410 Controller high-powered port and connect the USB Type B plug to the port on the UX100.

Connecting Power Supply Verifone ships power supplies with the UX410 as required.

If you have questions about which power supply to use, contact your Verifone representative. For more information, see Accessories and Documentation.

CAUTION Using an incorrectly rated power supply can damage the unit or cause it to malfunction.

Verifone recommends the PWR159-00X-01-A or CPS12490-4A-R power packs.

See Specifications for power supply information.

Attach and route all cables between the UX 410 and all peripheral units before connecting to the power source.

NOTE To protect against possible damage caused by lightning strikes and electrical surges, Verifone recommends installing a power surge protector.

Power Connections The UX410 connects to external power using a power pack (PWR159-00X-01-A or the CPS12490-4A-R) connected to the power port on the Controller Unit.

To connect to a power source Connect the power cable to the power port on the UX410 Controller Unit and the other end to your power source.
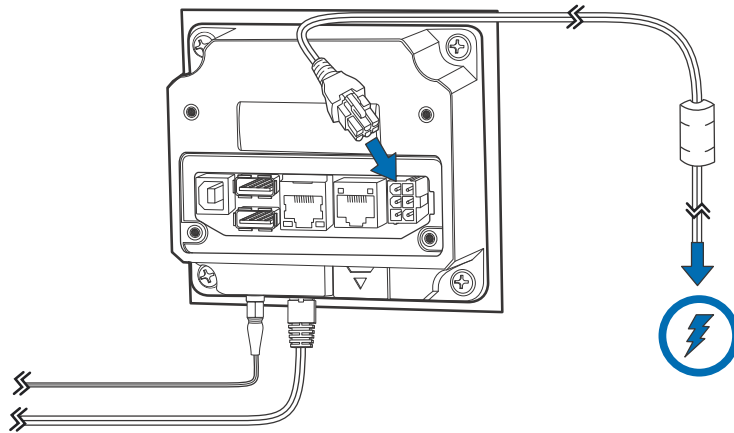
Figure 11   Connecting Power Supply to the UX410

For more information regarding your UX410 Reader and Controller Unit configuration, contact your local Verifone service provider. For cable ordering information, see Accessories and Documentation).

Using the Reader

The contactless reader is only active when signaled by an application for the start of a contactless card transaction.

When the UX410 antenna unit is ready to accept a transaction, the CTLS logo and first LED from the left will light up.

Conducting a Contactless Transaction

To conduct a contactless transaction, hold the card (within 4 cm) or gently tap against the surface of the contactless antenna, marked by the logo   .
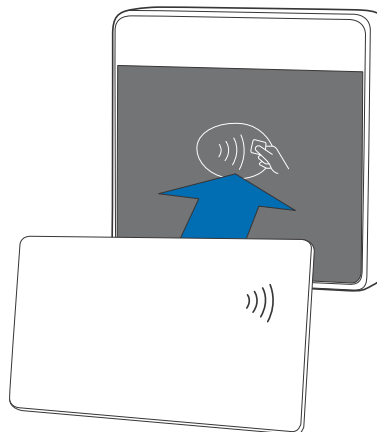
Figure 12   Conducting a Contactless Transaction

After you tap your card, all the LEDs will light up and the buzzer will sound for about 2 seconds, prompting you to remove your card.

The contactless unit uses various audible and visual confirmations to confirm transactions.

NOTE

The actual audible and visual confirmations may vary depending on regional and customer requirements.

Specifications

UX410
Specifications

This chapter discusses power requirements and other specifications of the UX410 .

Power Consumption

- Operation voltage: 12 to 24 V DC, 0.5 to 0.7 A
- Typical Power: 3 W (CTLS reader), 4 W (UX100 display heater), 0.5 W (UX100/110), 3.5 W (RS232 - PWR Port)
- Idle Power: 2 W

Temperature

- Operating temperature: -30° C to 70° C (-22° F to 158° F)
- Storage temperature: -30°C to 80°C (-22°F to 176°F)
- Power Supply rated for indoor use only: 12 V DC 3.3 A, operating temperature 0° C to 40° C (32° F to 104° F)

Memory

- 128 MB DDRAM
- 256 MB NAND-Flash

Peripheral Ports

- Power
- 2x Powered USB Type A (Host)
- USB Type B (Client)
- COM1 (Powered)
- ETH (LAN) connection with 2 colored LEDs for link state and speed indication
- Analog RF CTLS antenna connector to the Antenna Unit
- 10-pin RJ-45 to RJ-45 connector to the Antenna Unit

Communication

- COM: Up to 115200 bps, HW RTS/CTS handshake

REVISION A.7

Maintenance and Cleaning

Your contactless device is a product of superior design and craftsmanship and should be treated with care. It has no user-serviceable parts.

The following suggestions will help you protect your warranty coverage.

- Do not store the device in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.

- Do not store the device in cold areas. When the device returns to its normal temperature, moisture can form inside the device and damage electronic circuit boards.

- Do not drop, knock, or shake the device. Rough handling can break internal circuit boards and fine mechanics.

- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the device. Use only a soft, clean, dry cloth for cleaning.

These suggestions apply equally to your contactless device, or any of its attachments or accessories. If your device is not working properly, take it to the nearest Verifone-authorized service provider for servicing or replacement.

CAUTION Never use thinner, trichloroethylene, or ketone-based solvents – they can deteriorate plastic or rubber parts.

Additional Safety Information

The following is additional information for your safety in using this device.

Potentially Explosive Environments

When using the device in areas with potential risk of explosion, such as petrol stations, follow the advice of all signs and instructions. If there has been a leak, do not use this device.

Service and Support

For UX410 problems, contact your local Verifone representative or service provider.

For device product service and repair information:

- USA – Verifone Service and Support Group, 1-800-834-4366, Monday - Friday, 8 A.M. - 8 P.M., eastern time.
- International – Contact your Verifone representative.

Service Returns   Before returning the CTLS reader to Verifone, you must obtain a Merchandise Return Authorization (MRA) number. The following procedure describes how to return one or more CTLS units for repair or replacement (U.S. customers only).

> **NOTE**
>
> International customers, please contact your local Verifone representative for assistance with your service, return, or replacement.

1   Gather the following information from the printed labels (see Figure 13) on the side of each unit to be returned:

- Product ID, including the model and part number. For example, "M159-410-xxx-WWB" and "PTID xxxxxxxx."
- Serial number (S/N xxx-xxx-xxx).

2   Within the United States, call Verifone toll-free at 1-800-834-4366.

3   Select the MRA option from the automated message. The MRA department is open Monday to Friday, 8 A.M.–8 P.M., eastern time.

4 Give the MRA representative the information gathered in Step 1.
If the list of serial numbers is long, you can fax the list, along with the information gathered in Step 1, to the MRA department at 1-727-953-4172 (U.S.).

- Please address the fax clearly to the attention of the "Verifone MRA Dept."

- Include a telephone number where you can be reached and your fax number.

- You will be issued MRA number(s) and the fax will be returned to you.

NOTE One MRA number must be issued for each unit you return to Verifone, even if you are returning several of the same model.

5 Describe the problem(s) and provide the shipping address where the repaired or replacement unit must be returned.

6 Keep a record of the following items:

- Assigned MRA number(s).

- Verifone serial number assigned to the unit you are returning for service or repair (serial numbers are located on the side of the unit, see Figure 13).

- Shipping documentation, such as air bill numbers used to trace the shipment.

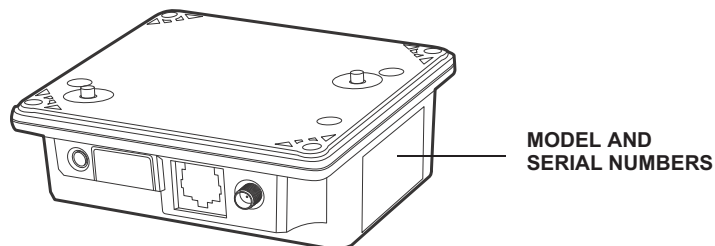- Model(s) returned (model numbers are located on the Verifone label on the side of the Controller unit).

MODEL AND
SERIAL NUMBERS

Figure 13   Information Label on Left Side of Controller Unit

Accessories and Documentation

Verifone produces accessories and documentation for the contactless reader. When ordering, please refer to the part number in the left column.

Verifone Online Store at *www.store.verifone.com*

- USA – Verifone Customer Development Center, 1-800-834-4366, Monday - Friday, 7 A.M. - 8 P.M., eastern time

- International – Contact your Verifone representative

Cables

The following cables can be used with the CTLS unit. Contact your local Verifone distributor to determine which cable fits your needs:

CBL000-045-01-A	USB Type A to B cable
CBL159-314-01-A	RJ-45 to RJ-45 connector
CBL159-302-03-A	SMA (RF) connector
CBL159-312-01-A	LAN cable for Ethernet connections
26264-01-R	Cash register cable, RJ45-SUBD9f, 1.0m
26264-02-R	Cash register cable, RJ45-SUBD9f, 2.0m

NOTE

For EMVCo L1 compliance, please use the provided cables.

Various others, depending on what they connect to. Contact your local Verifone representative or service provider to identify the best cable for your needs.

Power Cables

CBL000-039-02-A	Australia power cord for PWR159-00X-01-A PSU.
PWR159-002-01-A	12V, 3.3 A power supply unit (PSU) Efficiency L6
CBL258-001-01-A	EU power cord for PWR159-00X-01-A PSU
CBL258-006-01-A	US power cord for PWR159-00X-01-A PSU
CBL258-004-01-A	UK power cord for PWR159-00X-01-A PSU
CBL258-014-01-A	South Africa power cord for PWR159-00X-01-A PSU
CPS12490-4A-R	24 V, 3.75 A Power supply unit (PSU)

Documentation

VPN DOC159-037-EN	*UX410*	*Certifications and Regulations Sheet*
VPN DOC159-038-EN	*UX410*	*Quick Installation Guide*
VPN DOC159-003-EN		*UX1xx PIN Pad Series Installation Guide*

Troubleshooting Guidelines

The troubleshooting guidelines provided in the following section are included to assist you to successfully install and configure your UX410 terminal. If you have problems operating your UX410 terminal, please read through these troubleshooting examples.

If the problem persists even after performing the outlined guidelines or if the problem is not described below, contact your local Verifone representative for assistance. Typical examples of malfunction you may encounter while operating your UX410 terminal and steps you can take to resolve them are listed.

NOTE

The UX410 terminal comes equipped with tamper-evident labels. The UX410 contains no user serviceable parts. Do not, under any circumstance, attempt to disassemble the terminal. Perform only those adjustments or repairs specified in this guide. For all other services, contact your local Verifone service provider. Service conducted by parties other than authorized Verifone representatives may void any warranty.

CAUTION

Using an incorrectly rated power supply can damage the unit or cause it to malfunction.

Verifone recommends the PWR159-00X-01-A or the CPS12490-4A-R power packs.

See Specifications for power supply information.

Unit Does Not Dial Out

If the unit does not dial out:

- Check the SAM card for proper insertion. The card's contact areas should match up with the compartment contact points (facing the compartment).

- Try another SAM card to verify the first card is not defective.

- Check the telephone line connections.

- Check that the telephone line is working by plugging it into a working telephone and listening for a dial tone.

- Replace the telephone cable that connects the terminal with a cable you know is working correctly.

- If the problem persists, contact your local Verifone service provider.

Peripheral Device Does Not Work

If any peripheral device (PIN pad or smart card reader) does not work properly:

• Check the power cord connection to the peripheral device.

• Check for proper grounding connections.

• Check that the device connected to the proper port has power and is functioning properly. If possible, perform a self-test on the device in question.

• The cable connecting the optional device to the terminal serial port may be defective. Try a different serial cable. See Connecting Cables.

• If the problem persists, contact your local Verifone representative.

Caution and Warning Messages

UX410 Caution and Warning Messages

Products with UL/cUL Listed should include French translations of Caution and Warning notices. The following table shows all notices found in the document, their location and the equivalent French translations.

Table 3 **Caution and Warning Messages**

Notice	Chapter	Page	English Text	French Text
Caution	Setup	page 9	Avoid placing metallic objects at the front and around the card reader.	*Évitez de placer des objets métalliques à l'avant et autour du lecteur de carte .*
Warning	Setup	page 9	For safety, do not string cables or cords from your installation cabinet or housing across a walkway.	*Pour la sécurité , ne sont pas des câbles à cordes ou des cordons de votre armoire d'installation ou de logement à travers une passerelle.*
Caution	Setup	page 10	Remove any protective plastic over the front of the Antenna unit before use, or the unit may not work properly.	*Retirez tout plastique de protection sur le devant de l'unité d'antenne avant l'utilisation, ou l'appareil peut ne pas fonctionner correctement .*
Warning	Setup	page 10	Do not use a unit that has been damaged.	*Ne pas utiliser un appareil qui a été endommagé.*
			If a label or component appears damaged, please notify the shipping company and your Verifone service provider immediately.	*Si une étiquette ou d'un composant semble endommagé, se il vous plaît aviser la compagnie de navigation et votre fournisseur de services Verifone immédiatement.*
Caution	Setup	page 13	Make sure the installation method does not invalidate the Anti-Removal Switch (ARS) function. Do not, for instance, install the Controller Unit in a sub-chassis that can be removed from the main cabinet.	*Assurez-vous que la méthode d'installation ne remet pas le commutateur anti- enlèvement fonction (ARS) . Ne pas, par exemple , d'installer l'unité de commande dans un sous-châssis qui peut être retirée du boîtier principal.*
Caution	Setup	page 13	For optimal installation, the thickness of the mounting frame should be approximately 2 mm.	*Pour une installation optimale , l'épaisseur du panneau d'installation doit être d'environ 2 mm .*
Caution	Setup	page 14	Avoid placing metallic objects at the front and around the card reader.	*Évitez de placer des objets métalliques à l'avant et autour du lecteur de carte .*

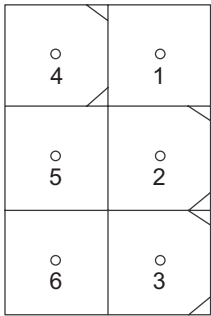**Table 3   Caution and Warning Messages** (continued)

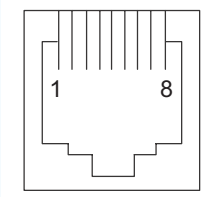| Notice	Chapter	Page	English Text	French Text
Caution	Setup	page 15	Observe standard precautions in handling electrostatically sensitive devices. Electrostatic discharges can damage the equipment. Verifone recommends using a grounded anti-static wrist strap.	*Observer les précautions standard dans le traitement de dispositifs sensibles aux décharges électrostatiques . Les décharges électrostatiques peuvent endommager l'équipement. Verifone recommande d'utiliser un bracelet anti - statique à la terre.*
Caution	Setup	page 18	Using an incorrectly rated power supply can damage the unit or cause it to malfunction.	*L'utilisation d'une alimentation mal classé peut endommager l'appareil ou provoquer un dysfonctionnement .*
			Verifone recommends the PWR159-00X-01-A or the CPS12490-4A-R power packs.	*Verifone recommande la PWR159-00X-01 - A ou les blocs d'alimentation CPS12490-4A -R .*
			See Specifications for power supply information.	*Voir les caractéristiques de l'information d'alimentation .*
Caution	Maintenance and Cleaning	page 23	Never use thinner, trichloroethylene, or ketone-based solvents – they can deteriorate plastic or rubber parts.	*Ne jamais utiliser de diluant, le trichloréthylène ou des solvants à base de cétone - ils peuvent détériorer les pièces en plastique ou en caoutchouc.*
Caution	Troubleshooting	page 29	Using an incorrectly rated power supply can damage the unit or cause it to malfunction.	*L'utilisation d'une alimentation mal classé peut endommager l'appareil ou provoquer un dysfonctionnement .*
			Verifone recommends the PWR159-00X-01-A or the CPS12490-4A-R power packs.	*Verifone recommande la PWR159-00X-01 - A ou les blocs d'alimentation CPS12490-4A -R .*
			See Specifications for power supply information.	*Voir les caractéristiques de l'information d'alimentation .*

Port Pinouts

The following tables list the port pinouts for the UX410

UX410 Ports Refer to the UX410 port pinout diagrams.

Power Port (DC-in)

Connector	PIN	Function	Description
	1	+12 V to +24 V	External power from cable
	2	GND	Power ground
	3	NC	No connection
	4	NC	No connection
	5	NC	No connection
	6	NC	No connection

RS-232 Port (COM1)
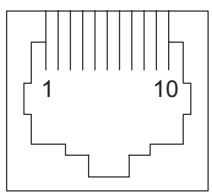
Connector	PIN	Function	Description
	1	Portpwr (7.5 V DC, 0.5 A)	Power
	2	NC	No connection
	3	NC	No connection
	4	GND	Power ground
	5	RXD	Receive data
	6	TXD	Transmit data
	7	CTS	Clear to send
	8	RTS	Request to send

NOTE The 10-pin download cable (VPN 26264) connects to the 8-Pin RS-232 port of the device, wherein Pin 2 from the cable corresponds to Pin 1 on the RS-232 port.

10-Pin Port

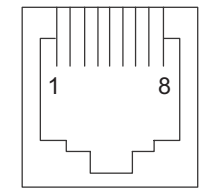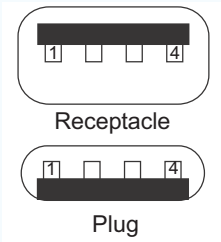| Connector	PIN	Function	Description
	1	Buzzer	Signal
	2	+5 V DC, 0.1 A	Power
	3	NC	No Connection
	4	GND	Power GND
	5	NC	No Connection
	6	SDA	Signal
	7	SCL	Signal
	8	NC	No Connection
	9	NC	No Connection
	10	GND	Power GND
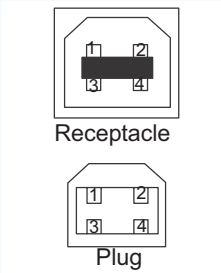
Ethernet Port (LAN)

Connector	PIN	Function	Description
	1	TXD+	Transmit data +
	2	TXD-	Transmit data -
	3	RXD+	Receive data +
	4	NC	No connection
	5	NC	No connection
	6	RXD-	Receive data -
	7	NC	No connection
	8	NC	No connection

USB Pinout (Host Port)

Connector	PIN	Function	Description
Receptacle / Plug	1	+5 V	5 V USB Power (500 mA)
	2	DATA-	USB Host Signal -
	3	DATA+	USB Host Signal +
	4	GND	USB ID pin/Ground

USB Pinout (Client Port)

Connector	PIN	Function	Description
Receptacle / Plug	1	+5 V	5 V USB Power
	2	DATA-	USB Device Signal -
	3	DATA+	USB Device Signal +
	4	GND	USB Ground

UX410

Installation Guide

Electrical

The reference input power rating for the UX400 CTLS Reader is 450mW max.

Location – Electrical Considerations

Do not install this device near electrical appliances or other devices that cause excessive voltage fluctuations or emit electrical noise (for example: air conditioners, neon signs, electric motors, high-frequency or magnetic security devices).

WARNING! This device contains sensitive electronic components that can be permanently damaged if exposed to excessive shock, electrical interference or vibration.

Equipment

Repairs

Do not, *under any circumstances*, attempt any service, adjustments, or repairs on this equipment. Instead, contact your local VeriFone distributor or service provider for assistance. Failure to comply may void the product warranty.

Damage

Carefully inspect the shipping carton and its contents for any damage. If the UX410 or any product component appears damaged or tampered, immediately notify the shipping company and your VeriFone distributor or service provider.

Do not use a device that has been damaged or tampered with.

Cleaners and Solvents

Never use thinner, trichloroethylene, or ketone-based solvents to clean the device — they may deteriorate the plastic and rubber parts. For best results, use a clean cloth dampened with water and mild soap. To remove stubborn stains, use alcohol or an alcohol-based cleaner.

This device must be professionally installed. The intended use is generally not for the general public. It is generally for industry/commercial use. Installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.
IMPORTANT NOTE:
This module is intended for OEM integrator. The OEM integrator is still responsible for the FCC compliance requirement of the end product which integrates this module.
USERS MANUAL OF THE END PRODUCT:
In the users manual of the end product, the end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment. If the size of the end product is smaller than 8x10cm, then additional FCC part 15.19 statement is required to be available in the users manual: This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.
LABEL OF THE END PRODUCT:
The final end product must be labeled in a visible area with the following" Contains TX FCC ID: B32UX410, IC:787C-UX410 ". If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Compliance

The following product has been tested and certified as compliant with the regulations and guidelines set forth in Part 15 of FCC Rules:

Manufacturer: VeriFone, Inc.

Part 15 of FCC Rules and RSS Standard(s) Canada

This device complies with the limits for a Class B digital device as specified in Part 15 of FCC Rules which provide reasonable protection against harmful interference in a residential area.

This device complies with Part 15 of the FCC Rules and Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

1 This device may not cause harmful interference; and,

2 This device must accept any interference received, including interference that may cause undesired operation.

This equipment generates and uses 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.

In the unlikely event that there is 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:

• Increase the separation between the equipment and receiver.
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
• Consult with the dealer or ask an experienced radio/TV technician for help.

Any changes or modifications to this equipment not expressly approved by VeriFone could void the user's authority to operate this equipment. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. Use of a shielded interface cable is required to comply with the Class B limits of Part 15 of FCC Rules.

Legal Terms and Conditions Regarding PCI SSC Approvals

PCI SSC's approval only applies to PEDs that are identical to the PED tested by a PCI Security Standards Council recognized laboratory. If any aspect of the PED is different from that which was tested by the laboratory - even if the PED conforms to the basic product description contained in the letter, then the PED model should not be considered approved, nor promoted as approved. For example, if a PED contains firmware, software, or physical construction that has the same name or model number as those tested by the laboratory, but in fact are not identical to those PED samples tested by the laboratory, then the PED should not be considered or promoted as approved.

No vendor or other third party may refer to a PED as "PCI Approved," nor otherwise state or imply that PCI SSC has, in whole or part, approved any aspect of a vendor or its PEDs, except to the extent and subject to the terms and restrictions expressly set forth in a written agreement with PCI SSC, or in an approval letter. All other references to PCI SSC's approval are strictly and actively prohibited by PCI SSC.

When granted, an approval is provided by PCI SSC to ensure certain security and operational characteristics important to the achievement of PCI SSC's goals, but the approval does not under any circumstances include any endorsement or warranty regarding the functionality, quality, or performance of any particular product or service. PCI SSC does not warrant any products or services provided by third parties. Approval does not, under any circumstances, include or imply any product warranties from PCI SSC, including, without limitation, any implied warranties of merchantability, fitness for purpose or noninfringement, all of which are expressly disclaimed by PCI SSC. All rights and remedies regarding products and services, which have received an approval, shall be provided by the party providing such products or services, and not by PCI SSC or the payment brand participants.

This equipment operates on a secondary basis. It is not entitled to protection from harmful interference, even for stations of the same type, and may not cause interference to systems operating on a primary basis.

Recycling: DO NOT DISCARD!

UNIT MUST BE RECYCLED OR DISPOSED OF PROPERLY
For proper disposal instructions go to *http://recycle.verifone.com/*Please retain this sheet for future reference.