Verifone®

UX115

Installation Guide

Verifone Part Number DOC159-013-EN-A, Revision A

UX115 Installation Guide

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Verifone Part Number DOC159-013-EN-A, Revision A

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PREFACE

This guide is the primary source of information for setting up and installing the UX115 device.

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 UX115 device.

Chapter 2, Setup. Explains the 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 7, Port Pinouts. Shows the different pinout specifications for the UX115 device.

Related Documentation

To learn more about the UX115 device, refer to the following set of documents and their associated Verifone Part Numbers (VPNs).

UX115 Certifications and Regulations Sheet	VPN DOC159-011-EN
UX115 Quick Installation Guide	VPN DOC159-012-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
MRA	Merchandise Return Authorization
VPN	Verifone Part Number
RF	Radio Frequency
RJ45	Registered Jack 45 modular connector
COM	Communications port
LAN	Local Area Networks
RS-232	Recommended Standard 232
OTG	On-The-Go
USB	Universal Serial Bus

CHAPTER 1

Device Overview

This chapter provides a brief description of Verifone's UX115 devices.

The UX115 Auxiliary display is a UX family device used in various unattended scenarios including drive-through, vending, ticketing, parking and petrol station.

Features and Benefits

It can be operated as a companion device to display information from a payment device and can be connected by USB or Ethernet.

The UX115 can display static images such as line items from an order, the total amount of an order, QR codes, pictures or video clips.

Ease of Use

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

- Designed for indoor and outdoor use.
- Various connectivity options integrated into the device to conveniently suit most unattended environments.
- Connects with UX300, UX301, UX410 and Verifone unattended POS terminals.
- UX115 design supports payment transactions in a variety of payment situations, such as transportation, vending, and kiosk environments.

CHAPTER 2

Setup

This chapter describes the setup procedure for the UX115 in the following sections:

- Selecting Unit Location
- Unpacking the Shipping Carton
- Mounting the UX115
- Connecting UX115 to a Controlling Device
- Connecting Power Supply
- Grounding UX115 Device

Selecting Unit Location

Use the following guidelines when selecting a location for the UX115 device:

- Select a location convenient for the customer.
- Avoid dusty, hot or damp locations.

WARNING

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.

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

Environmental Factors

The UX115 is sealed to IP65 rating when mounted correctly in an enclosure.

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. Validate the authenticity of the sender by verifying the shipping tracking number and other information located on the product order paperwork.
2. Remove the items from the shipping carton. The standard package contains:
   - The UX115 unit
   - Grounding strap
   - USB cable

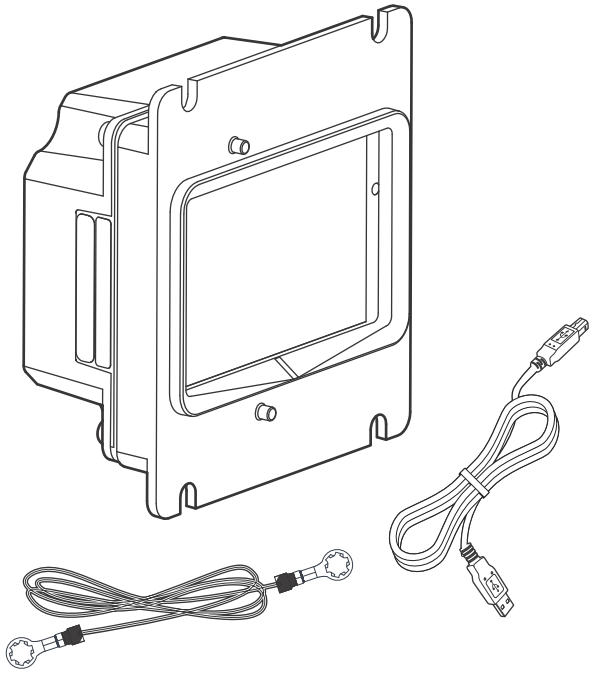


Figure 1 UX115 Device

3. Remove any protective wrap before mounting the unit.
4. Save the shipping carton and packing material for future repacking or moving of the device.

WARNING

Ne pas utiliser un appareil qui a été endommagé.

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.

Do not use a unit that has been damaged.

If a label or component appears damaged, please notify the shipping company and your Verifone service provider immediately.

UX115 Connections Ports

The UX115 features the following ports:

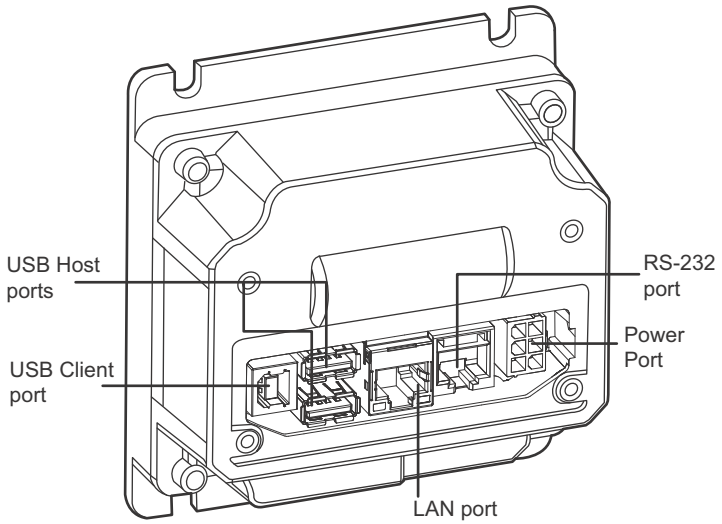


Figure 2 UX115 Connection Ports

- USB device (Type B) [client]
- 2x Powered USB (Type A) Ports
  - 1 x Full Speed, High Powered USB (Type A), Port 1 [Host]
  - 1 x Powered USB (Type A), Port 2 [OTG]
- Power port 12V DC to 24V DC
- LAN
- COM1 (RS-232)

Mounting the UX115

This section shows how to attach the UX115 device to the installation panel for stability and security.

Use the following steps to install the UX115 device:

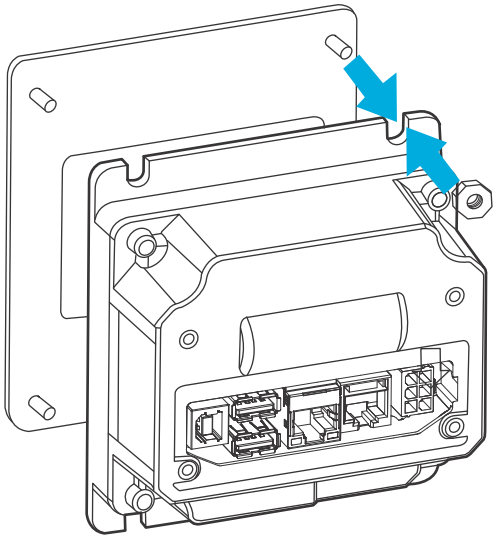


Figure 3 Mounting the UX115 device

1. Align the UX115 device mounting holes to the installation panel holes.
2. Insert four bolts and tighten the nuts using a recommended tightening torque of 5.0 kgf cm (0.49 Nm or 4.3 lbf in).

Connecting UX115 to a Controlling Device

The UX115 device can be controlled directly using USB or indirectly using Ethernet.

This section discusses how to connect the UX115 device to a controlling device.

NOTE

The UX300 host device installs the USB device driver automatically. The USB data is encrypted with authentication upon startup.

To connect to a controlling device through a USB

1. Connect the USB Type B plug to the rear connector of the UX115 device.

2 Connect the other end of the cable to a USB port on the controlling device.

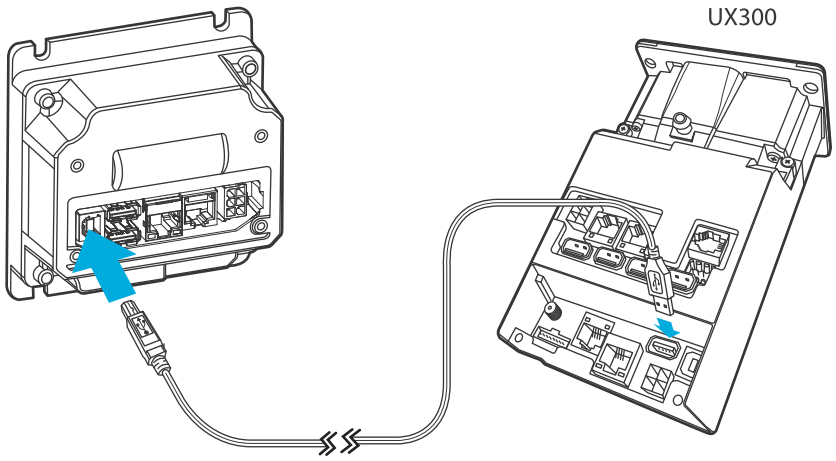


Figure 4 **Sample connection to a UX300 Controller through USB**

To connect to a controlling device through LAN

1 Connect the LAN port plug to the rear connector of the UX115 device and the other end to the network.

2 Connect the other end of the cable to a LAN port on the controlling device and the other end to the network.

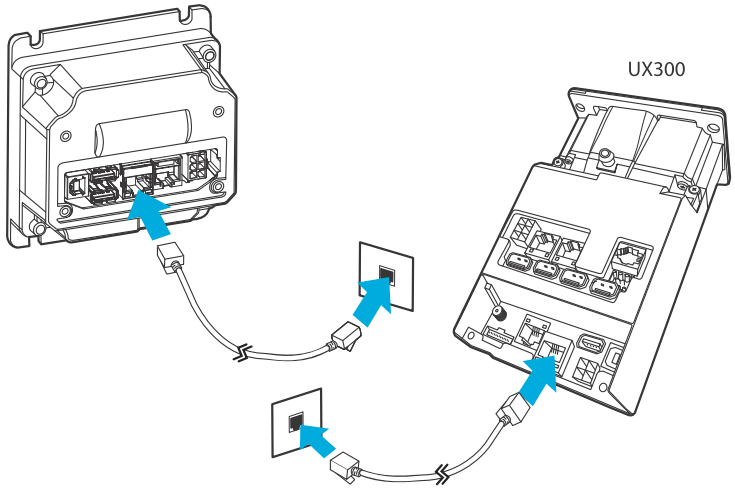


Figure 5 **Sample connection to a UX300 Controller through LAN**

Connecting Power Supply

Verifone can provide a power supply for the UX115 device if required.

For more details on the usage of the power supply, contact Verifone representative.See Accessories and Documentation.

Attach and route all cables between the UX115 device and all peripheral units before connecting to the power source.

CAUTION

L'utilisation d'une alimentation mal classé peut endommager l'appareil ou provoquer un dysfonctionnement.

Verifone recommande la PWR159-00X-01-A.

Voir les caractéristiques de l'information d'alimentation.

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

Verifone recommends the PWR159-00X-01-A power packs.

See Specifications for power supply information.

NOTE

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

Power Connection

The UX115 device connects to external power using a power pack (PWR159-00X-01-A).

Connect the power cable to the power port on the UX115 device and the other end to your power source.

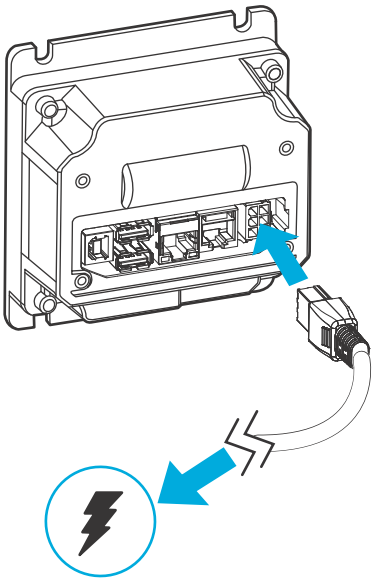


Figure 6 Connecting Power Supply to the UX115

For more details on the usage of the power supply, contact Verifone representative. For cable ordering information, see Accessories and Documentation.

Grounding UX115 Device

When the UX115 device is connected to the UX300/UX301/UX410 controller, it is important to ground the units.

NOTE

For cable ordering information, see Accessories and Documentation.

1. Remove a mounting nut, exposing a stud from the back of the UX115 device (do not remove the cable retainer nut). Figure 7 See (A).
2. Attach the grounding cable (VPN WIR159-302-01-A) from the UX115 Device to the UX300 and the grounding cable (VPN WIR159-302-02-A) from the UX115 device to a ground installation. Figure 7 See (B).

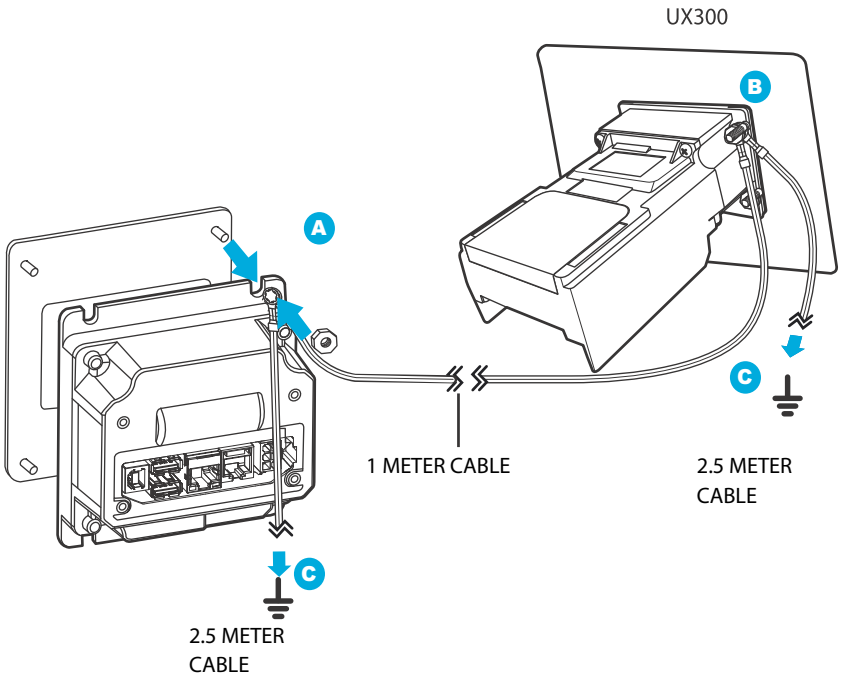


Figure 7 Grounding UX115 device and UX300 Units

3. Tighten the nut to secure the UX115 device.

NOTE

Tighten the nuts with a recommended torque of 5.0 kgf cm (0.49 Nm or 4.3 lbf in).

4. Remove a mounting nut, exposing a stud from the back of the UX300 unit.

5. On the UX300 unit stud, attach the other end of the grounding cable (VPN WIR159-302-01-A) from the UX115 and the second grounding cable (VPN WIR159-302-02-A, provided as a UX300 accessory) to a ground installation. Figure 7 See (B).
6. Tighten the nut to secure the UX300 device.

NOTE

Tighten the nuts with a recommended torque of 5.0 kgfcm (0.49 Nm or 4.3 lbf in).

7. Connect the other end of both ground cables to the nearest ground installations, to complete the grounding of the UX115 and UX300. Figure 7 See (C).

CHAPTER 3

Specifications

This chapter discusses power requirements, dimensions, and other specifications of the UX115 device.

Unit Power Requirements

- Operating Voltage: 12 to 24V DC

Temperature

- Operating Temperature: -30°C to 70°C (-22°F to 158°F)
- Storage Temperature: -35°C to 70°C (-31°F to 158°F)
- Relative Humidity: 10% to 90% RH non-condensing IK09, IP65

External Dimensions

- Length: 51.6 mm (2.03 in)
- Width: 104 mm (4.09 in)
- Height: 112.2 mm (4.42 in)

Unit Weight

- 512g (18.06 oz)

Peripheral Ports

- USB Device (Type B) [client]
- 2x Powered USB (Type A) Ports
  - 1 x Full Speed, High Powered USB (Type A), Port 1 [Host]
  - 1 x Powered USB (Type A), Port 2 [OTG]
- Power port 12V DC to 24V DC
- LAN

Battery

- Minimum 5 years

CHAPTER 4

Maintenance and Cleaning

Maintenance and Cleaning

Your UX115 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 a wet soapy cloth to clean the device surfaces.

The following table lists the chemicals that you can use for cleaning. Chemicals that are not safe to use are also listed. Never use these chemicals as they can deteriorate plastic or rubber parts.

Table 3 Chemicals for Cleaning

Recommended	n-hexane, gasoline, ethyl-alcohol
Not Recommended	acetone, butanone, thinner, trichloroethylene, or ketone-based solvents

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

CHAPTER 5

Service and Support

For UX115 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 UX115 device to Verifone, you must obtain a Merchandise Return Authorization (MRA) number. The following procedure describes how to return one or more UX115 device for repair or replacement (U.S.A 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 8) 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.A).
   - 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 models.

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 8).
- 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).

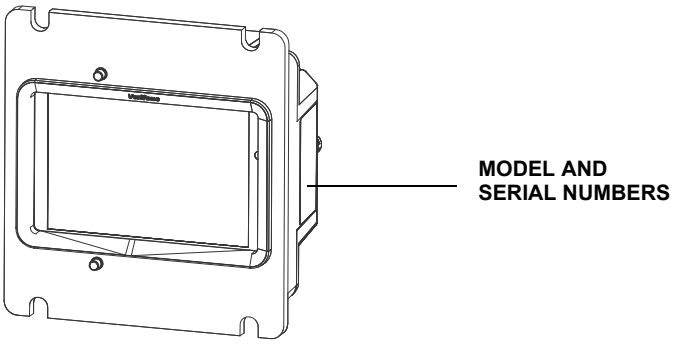


Figure 8 Information Label on Left Side of UX115

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.

Connecting Cables

Use the following cables to connect the antenna unit to the controller unit. Contact your local Verifone distributor to determine which cable fits your needs:

CBL000-045-01-B	USB Type A to B cable, 1 m long
CBL000-045-02-B	USB Type A to B cable, 0.3 m long
CBL000-083-03-A	Ethernet Cable, 3 m long
CBL000-016-01-A	RJ45 to RS232

CBL501-001-01-A	UX Y Cable
CBL501-002-01-A	Wire end cable (4pin)
MET159-159-01-A	UX115 ARS Development plate

Power Cables

Use the following power cables for connecting power to the controller unit. Contact your local Verifone representative or service provider to identify the best cable for your needs.

PWR159-002-01-B	12 V, 3.3 A power supply unit (PSU) Efficiency L6
CBL000-081-01-A	EU power cord for PWR159-002-01-A PSU
CBL000-080-01-A	US power cord for PWR159-002-01-A PSU
CBL000-078-01-A (1.8m)	UK power cord for PWR159-002-01-A PSU
CBL000-034-02-A (0.6m)	

Documentation

VPN DOC159-011-EN	*UX115 Certifications and Regulations Sheet*
VPN DOC159-012-EN	*UX115 Quick Installation Guide*

Troubleshooting Guidelines

The troubleshooting guidelines provided in the following section are included to assist you in successfully installing and configuring your UX115 terminal. If you have problems operating your UX115 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 malfunctions you may encounter while operating your UX115 terminal and steps you can take to resolve them are listed.

NOTE

The UX115 terminal comes equipped with tamper-evident labels. The UX115 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

L'utilisation d'une alimentation mal classé peut endommager l'appareil ou provoquer un dysfonctionnement.

Verifone recommande la PWR159-00X-01-A.

Voir les caractéristiques de l'information d'alimentation.

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

Verifone recommends the PWR159-00X-01-A power pack.

See Specifications for power supply information.

Blank Display

If the UX115 display does not show correct or clearly readable information:

- Ensure that all cables and external power connections are connected properly to the device and all external devices.
- Remove and reapply power to the unit.
- If the problem persists, contact your local Verifone representative.

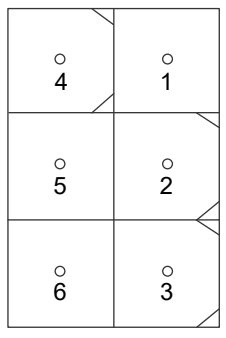
Port Pinouts

The following tables list the port pinouts for the UX115.

UX115 Ports

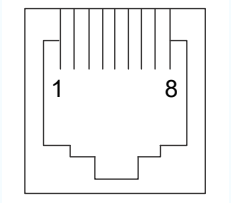
Refer to the UX115 port pinout diagrams.

Power Port (DC-in)



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

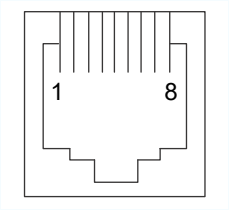
RS-232 Port (COM1)



Connector	PIN	Function	Description
	1	Portpower (7.5V DC, 0.5A)	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

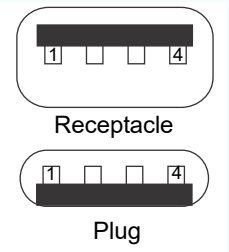
NOTE The 10-pin download cable (CBL000-045-01-B) connects to the 8-Pin RS-232 port of the device, wherein Pin 2 from the cable corresponds to Pin 1 on the RS-232 port.

Ethernet Port (LAN)



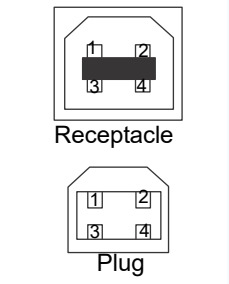
Connector	PIN	Function	Description
	1	TXD+	Transmit data +
	2	TXD-	Transmit data -
	3	RXD+	Receive data +
	4	NC	No connection
	5	NC	No connection
	6	RXD-	Receive data -
	7	NC	No connection
	8	NC	No connection

USB Pinout (Host Port)



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

USB Pinout (Client Port)



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

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