



BE PAYMENT READY

# Moneris<sup>®</sup> P400 PINpad with the POSpad Application Getting Started Guide



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**BE PAYMENT READY**

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# 1 Overview

The P400 PINpad is intended for use with an integrated ECR POS system.

Key features include:

- Secure device for PIN entry (PCI PTS 5.x compliant)
- Multiple types of card readers:
  - integrated magnetic stripe reader
  - integrated chip reader
  - embedded contactless reader
- 3.5" colour display
  - Capacitive touch screen
  - English and French display



*The P400 PINpad*

## 1.1 Application details

**Application:** POSPAD

**Version:** 19.xx

**Description:** POSPAD is a payment application designed and built by Moneris for use on a customer-facing PINpad as part of an integrated merchant payment environment. The PINpad is controlled by one of the merchant's Point of Sale (POS) software components.

## 1.2 Integration modes

The version of POSPAD on the PINpad supports three different integration modes: **Secure Pass-through, Direct to Host, and Cloud.**

Mode	Description
<b>Secure Pass-through Mode (SPT)</b>	<ul style="list-style-type: none"><li>designed for merchants who have a serial, USB, or Ethernet connection to the ECR</li><li>host messages managed by POSPAD are forwarded to the ECR and then through the merchant's network to the Moneris host</li></ul>
<b>Direct to Host Mode (PCI)</b>	<ul style="list-style-type: none"><li>designed for merchants who have fully Ethernet-enabled POS environments for both host and ECR connectivity</li><li>the Moneris host URL is resolved by the PINpad using the DNS address specified during setup</li></ul>
<b>Cloud Via Secure Pass-through mode (SPT)</b>	<ul style="list-style-type: none"><li>designed for merchants who have fully Ethernet-enabled POS environments</li><li>all PINpad and host communications are transparent to the merchant</li><li>Merchant's POS system communicates with the Moneris Cloud service only</li><li>Cloud communication is currently available only for merchants on the Moneris Gateway</li></ul>

## 1.3 Cable and mode compatibility

This table indicates which connection types are supported for each mode.

Integration Mode	Connection Type			
	Serial	USB	Ethernet (LAN)	Wi-Fi
Secure Pass-through	✓	✓	✓	✗
Direct to Host	✗	✓	✓	✗
Cloud	✗	✗	✓	✗

For more information on:

- the connection hardware, please refer to section 2.1 [Required hardware components](#).
- connecting the hardware, please refer to section 2.2 [Hardware installation](#).

## 2 Hardware

### 2.1 Required hardware components

These items must be installed in order to use POSPAD on the P400 PINpad:

- P400 PINpad itself (Model # M435-003-04-NAA-5)
- ECR-to-PINpad communication cable
- Power cable

#### 2.1.1 PINpad hardware

The image below illustrates the PINpad hardware.

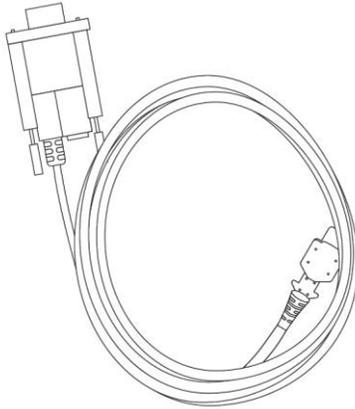


Number	Item
1	Magnetic stripe reader
2	Display screen
3	Embedded contactless reader
4	Keypad
5	Green OK key
6	Yellow correction key
7	Red cancel key
8	Chip card reader

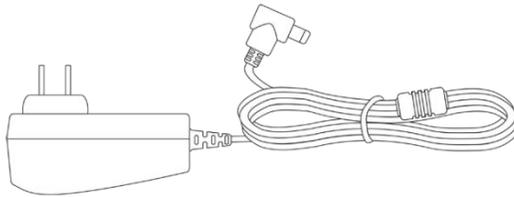
## 2.1.2 ECR-to-PINpad cable options

### 2.1.2.1 Powered RS232 serial cable (Secure Pass-through mode)

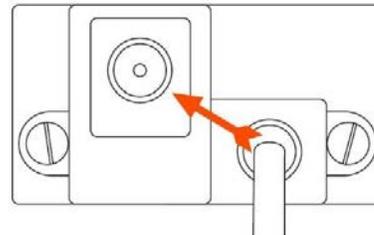
- 1.8 m (6.0 ft.)
- 28-pin connector (PINpad) to Serial DB9 (PC/ECR)
- Part number 282-031-02-A
- + power cable 435-001-01-A



*RS232 serial cable*



*Power cable*

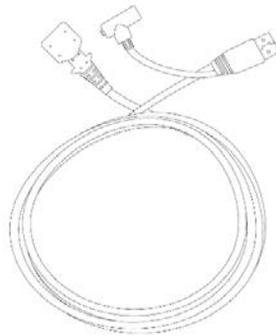


*Power port on the serial cable*

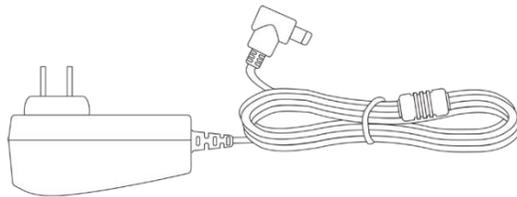
### 2.1.2.2 Powered USB cable (Secure Pass-through mode)

**Note:** If a USB cable is used, ensure that the custom Windows USB driver is installed on the PC/ECR. Refer to section 2.3 [Install the Windows USB driver](#) on page 19 for details on downloading and installing the driver.

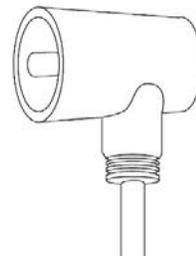
- 2m (6.5 ft.)
- 28-pin connector (PINpad) to USB (PC/ECR)
- Part number 282-045-01-A
- + power cable 435-001-01-A



*Powered USB cable*



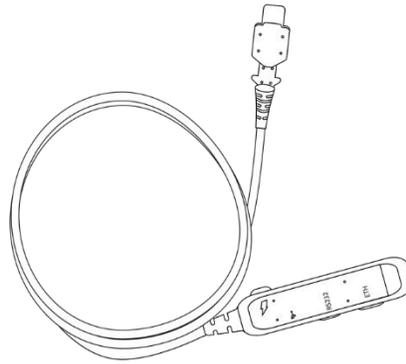
*Power cable*



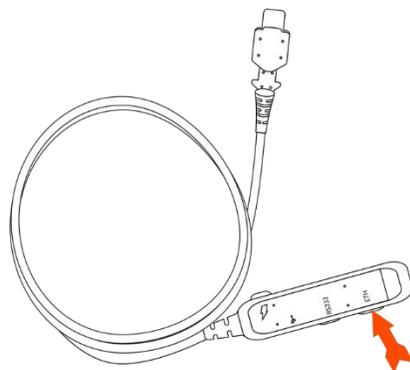
*Power port on the USB cable*

### 2.1.2.3 Multi-purpose dongle (for Direct to Host, Secure Pass-through mode, and Cloud)

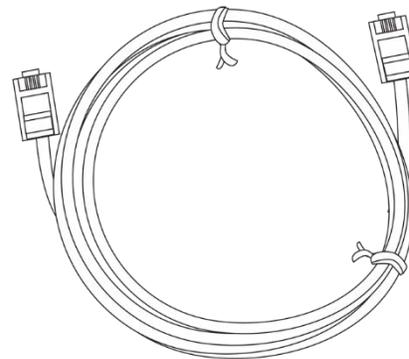
- 1m (3.2 ft.)
- 28-pin connector (PINpad) to RJ45 (PC/ECR); Part number 435-005-02-A
- + power cable 435-001-01-A



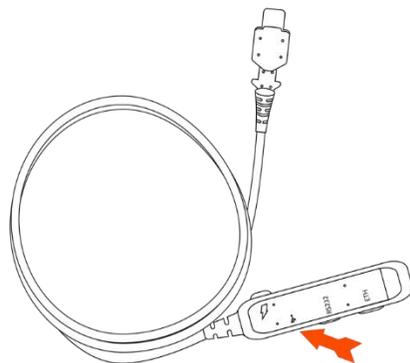
*Multi-purpose dongle*



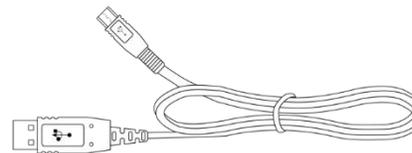
*Ethernet port on dongle*



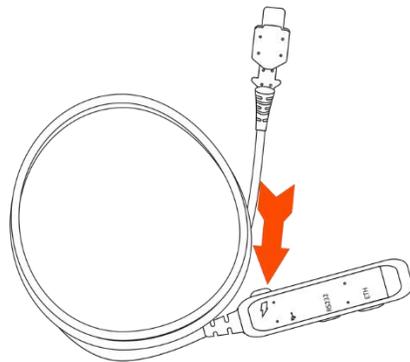
*Ethernet cable (not included)*



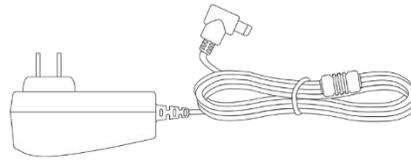
*USB port on dongle*



*Mini-USB cable (not included)*



*Power port on dongle*



*Power cable*

## 2.2 Hardware installation

These instructions provide the steps to install and configure the PINpad.

**IMPORTANT: If any development is required, that development must be completed prior to installing the PINpad.**

The PINpad should have the correct application already installed. If not, you will be unable to connect to the Moneris host. Contact Moneris Solutions for assistance.

Before using the P400 PINpad to process transactions, you must perform these steps:

1. If your ECR runs on Windows and you are using a USB cable, download and install the USB Windows driver (refer to the [2.3 Installing the Windows USB driver](#) section on page 19 for instructions).
2. Connect the hardware. For instructions, refer to the appropriate sub-sections below:
  - [2.2.2 Connect the PINpad using the powered serial cable](#) on page 11.
  - [2.2.3 Connect the PINpad using the powered USB cable](#) on page 14.
  - [2.2.4 Connect the PINpad using the multi-purpose dongle for Ethernet connection](#) on page 15.
  - [2.2.5 Connect the PINpad using the multi-purpose dongle for USB connection](#) on page 16.
3. Configure the PINpad's language and communication settings by referring to section [2.5 Configure the PINpad](#) on page 21.

### 2.2.1 Installation considerations

Follow these guidelines and specific considerations as applicable to your integrated PINpad.

**Select a location that is:**

- convenient for both the clerk and the cardholder;
- a flat, solid surface, such as a counter-top or table;
- near a power outlet and near the PC/ECR or LAN port to which the PINpad will be connected.

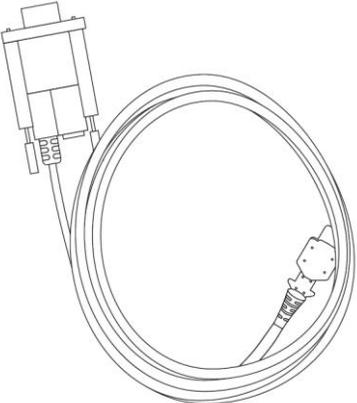
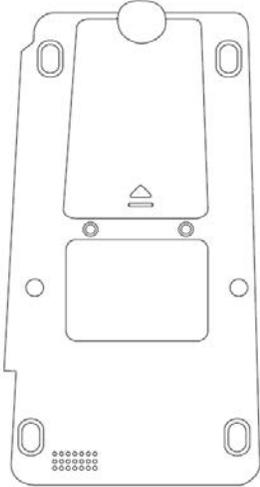
### Specific considerations:

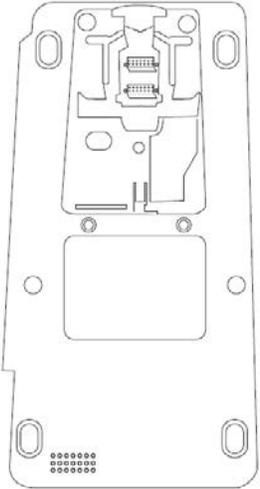
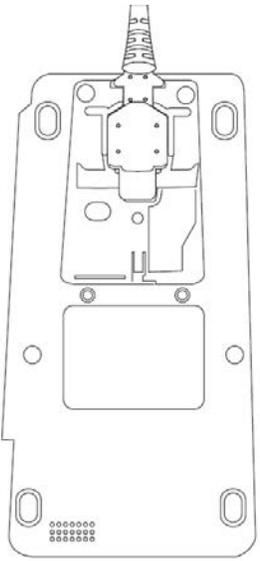
- Do not place the PINpad:
  - on a PC monitor or other computer equipment,
  - adjacent to an electronically active security tag deactivation system, or
  - near other sources of magnetic fields.
- The PINpad must be at least 12 inches away from any type of security tag deactivation pad that is electronically active. There are two types of security tag deactivation systems:
  - An *electronically active system* sends out a powerful and potentially disruptive signal to deactivate the security tag. If the PINpad is placed too close to the system's pad, or placed above the pad, malfunction may occur.
  - A *passive system* uses a permanent magnet that does not send out a signal. This type does not affect the PINpad.
- Electronic devices that are plugged into the same outlet as the PINpad must comply with FCC and IC rules dictating limits on the voltage that is conducted back onto the AC power line and rules for radiated limits. Merchants must follow the rules provided for each electronic device.
- Avoid locations near electrical appliances or other devices that cause excessive voltage fluctuations or emit electrical noise (for example, air conditioners, electric motors, neon signs, high-frequency or magnetic security devices, or computer equipment).
- Protect the PINpad and its cabling from:
  - Dampness
  - Liquid spills (this includes rain)
  - Inclement weather (e.g. precipitation, high winds)
  - Excessive fluctuations in voltage
  - Electrical noise
  - Electromagnetic radiation (e.g. from motors, compressors, computers, radio transmitters, etc.)
  - Vibrations
  - Dust
  - Extremely high and low temperatures
  - Caustic chemicals or oils
- Avoid placing the PINpad near:
  - Microwave ovens
  - Anti-theft barriers and similar devices
  - High-frequency or magnetic security devices
  - Elevator shafts
  - Cordless and cellular phones
  - Security radios and walkie-talkies
  - Mirrors
  - Televisions, including flat screen televisions
  - Blenders and food processors
  - Air conditioning units

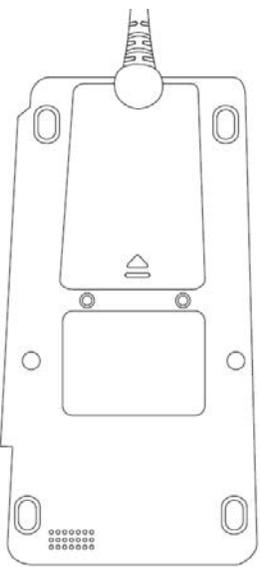
- Ventilation fans
- Beverage coolers, freezers, and dispensers
- Large metal surfaces, whether horizontal or vertical (e.g. large appliances, vending machines, steel cabinets, metallic blinds, metal countertops, etc.)
- Neon signs

## 2.2.2 Connect the PINpad using the powered serial cable

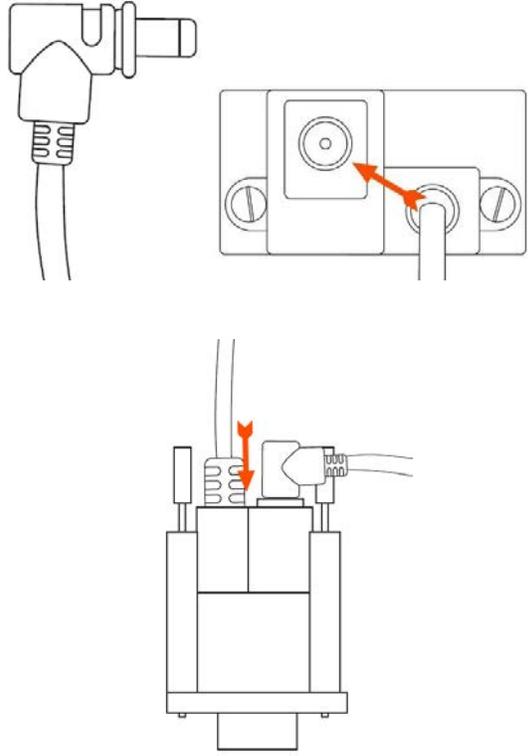
Use this cable connection with Secure Pass-through mode.

<ol style="list-style-type: none"> <li>1. Locate the powered RS232 serial cable provided by Moneris.</li> </ol>	
<ol style="list-style-type: none"> <li>2. Connect the cable to the PINpad, as shown in the illustrations:             <ol style="list-style-type: none"> <li>a. Place the PINpad face down on a clean, flat surface.</li> </ol> </li> </ol>	

<p>b. Remove the cable compartment cover by pushing upward to expose the cable compartment.</p>	
<p>c. Locate the serial cable's 28-pin connector and position it over the connection slot, then press down to secure it.</p>	

<p>d. Slide the compartment cover back into place. This will also secure the cable.</p>	
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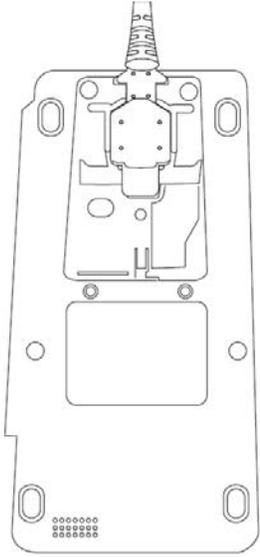
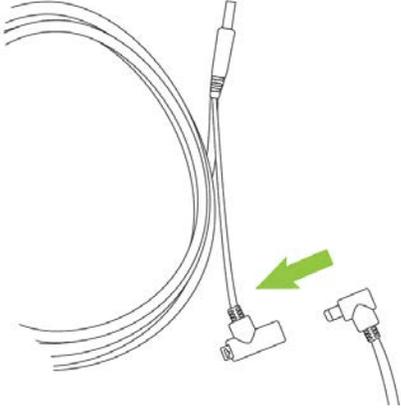
3. Connect the RS232 end of the serial cable to your ECR.

<p>4. Connect the power cable:</p> <p><b>IMPORTANT: You must use the exact power cable provided with the P400 PINpad by Moneris Solutions. Failure to do so may affect the operability of, or cause damage to, the PINpad.</b></p> <ol style="list-style-type: none"> <li>Locate the connector end of the power cable and plug it into the power port on the housing of the RS232 connector.</li> <li>Plug the other end of the power cable into a working power source.</li> </ol>	
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## 2.2.3 Connect the PINpad using the powered USB cable

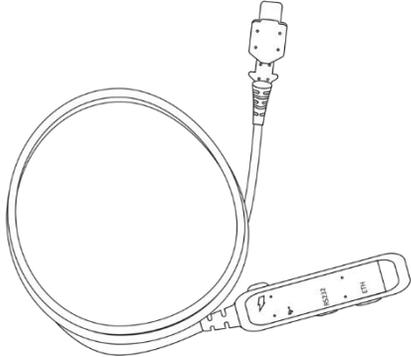
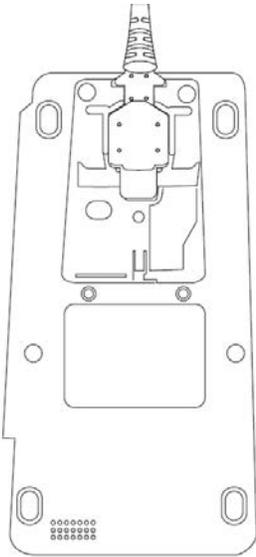
Use this cable connection with Secure Pass-through mode.

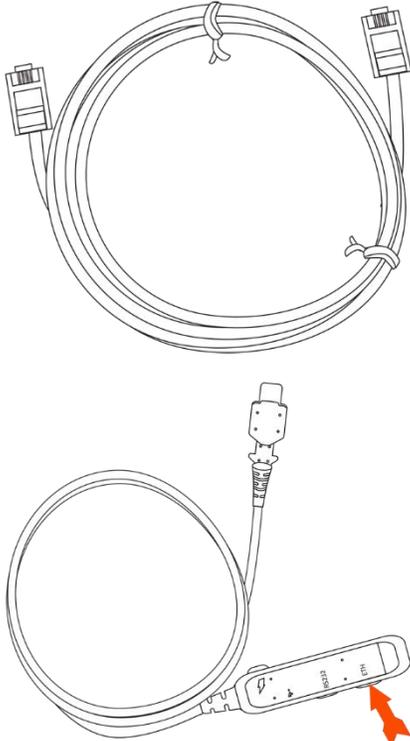
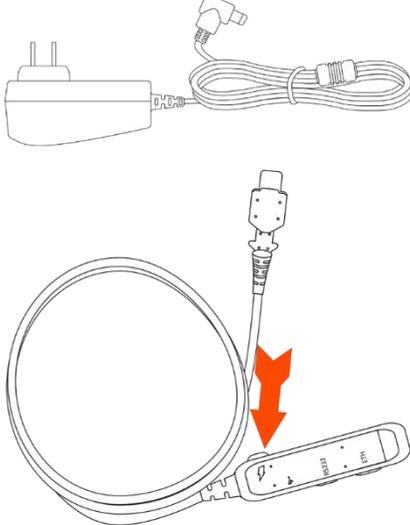
**Note:** To use the USB connection, you must install the VeriFone Windows driver on your ECR. Refer to section 2.3 [Install the Windows USB Driver](#) on page 19 for details on downloading and installing the driver. Do this **before** you power on the PINpad.

<p>1. Locate the powered USB cable provided by Moneris.</p>	
<p>2. Connect the cable to the PINpad. Refer to the instructions in step 2 under section <a href="#">2.2.2 Connect the PINpad using the powered serial cable</a> on page 11.</p>	
<p>3. Connect the USB end of the cable to your ECR.</p>	
<p>4. Connect the power cable.</p> <p><b>IMPORTANT: You must use the exact power cable provided with the P400 PINpad by Moneris Solutions. Failure to do so may affect the operability of, or cause damage to, the PINpad.</b></p> <ol style="list-style-type: none"><li>Locate the connector end of the power cable and plug it into the power port on the USB cable.</li><li>Plug the other end of the power cable into a working power source.</li></ol>	

## 2.2.4 Connect the PINpad using the multi-purpose dongle for Ethernet connection

Use this cable connection with Secure Pass-through mode or Direct to Host mode.

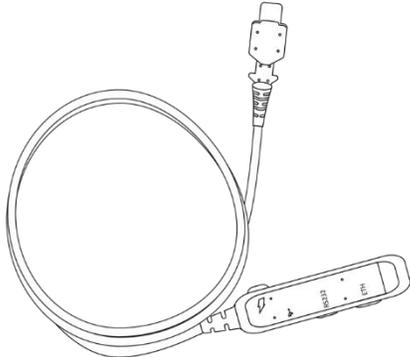
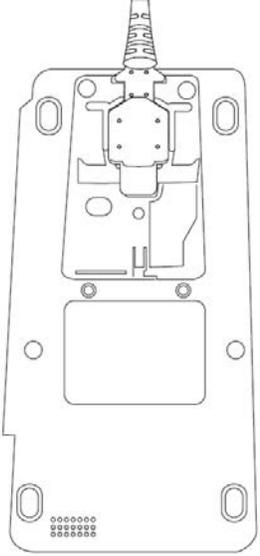
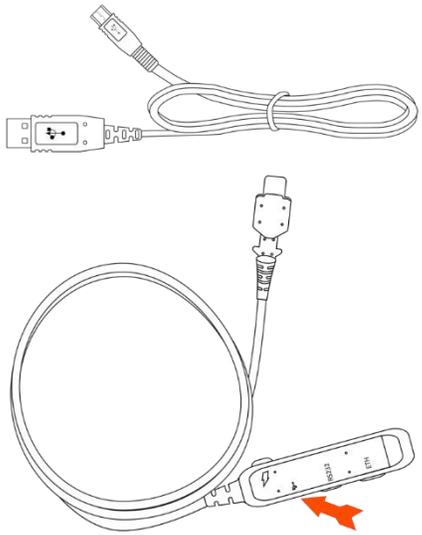
<p>1. Locate the multi-purpose dongle provided by Moneris.</p>	 A line drawing of a multi-purpose dongle. It consists of a coiled cable with a connector at one end and a rectangular dongle body at the other. The dongle body has a small display or indicator and some text.
<p>2. Connect the dongle to the PINpad. Refer to the instructions in step 2 under section <a href="#">2.2.2 Connect the PINpad using the <u>powered serial</u> cable on page 11.</a></p>	 A line drawing of a PINpad device. It is a rectangular device with a connector at the top. The device has several circular holes and a small display or indicator at the bottom. The connector is a multi-pin connector.

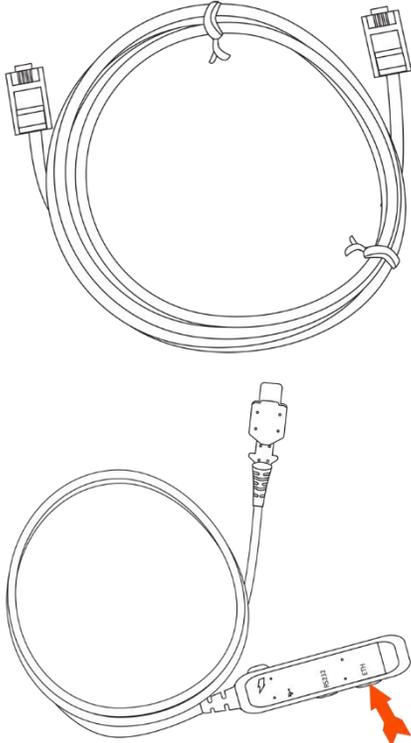
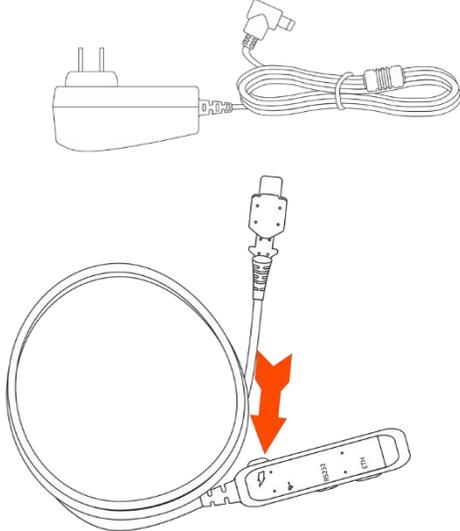
<p>3. Plug an Ethernet cable (not included) into the RJ45 port labelled <b>ETH</b> on the dongle.</p>	
<p>4. Connect the other end the Ethernet cable to your LAN (hub/router/LAN port).</p>	
<p>5. Connect the power cable.</p> <p><b>IMPORTANT: You must use the exact power cable provided with the P400 PINpad by Moneris Solutions. Failure to do so may affect the operability of, or cause damage to, the PINpad.</b></p> <ol style="list-style-type: none"> <li>Locate the connector end of the power cable and plug it into the power port on the dongle.</li> <li>Plug the other end of the power cable into a working power source.</li> </ol>	

### 2.2.5 Connect the PINpad using the multi-purpose dongle for USB connection

Use this cable connection with Direct to Host mode. You will need a USB-to-mini-USB cable and an Ethernet cable (not included).

**Note:** To use the USB connection, you must install the VeriFone Windows driver on your ECR. Refer to section 2.3 Install the Windows USB Driver on page 19 for details on downloading and installing the driver. Do this **before** you power on the PINpad.

<p>1. Locate the multi-purpose dongle provided by Moneris.</p>	
<p>2. Connect the dongle to the PINpad. Refer to the instructions in step 2 under section 2.2.2 <u>Connect the PINpad using the powered serial cable</u> on page 11.</p>	
<p>3. Plug the mini-USB end of the USB cable (not included) into the USB port on the dongle.</p>	

<p>4. Connect the other end of the USB cable to your ECR.</p>	
<p>5. Plug an Ethernet cable (not included) into the RJ45 port labelled <b>ETH</b> on the dongle.</p>	 <p>The diagram illustrates the connection of an Ethernet cable to the PINpad dongle. The top part shows a coiled Ethernet cable with both RJ45 connectors. The bottom part shows the cable's RJ45 connector being inserted into the port on the dongle labeled 'ETH'. A red arrow points to the 'ETH' label on the dongle.</p>
<p>6. Connect the other end of the Ethernet cable to your LAN (hub/router/LAN port).</p>	
<p>7. Connect the power cable.</p> <p><b>IMPORTANT: You must use the exact power cable provided with the P400 PINpad by Moneris. Failure to do so may affect the operability of, or cause damage to, the PINpad.</b></p> <ol style="list-style-type: none"><li>Locate the connector end of the power cable and plug it into the power port on the dongle.</li><li>Plug the other end of the power cable into a working power source.</li></ol>	 <p>The diagram illustrates the connection of a power cable to the PINpad dongle. The top part shows a power cable with a three-prong AC plug on one end and a connector on the other. The bottom part shows the connector being inserted into the power port on the dongle. A red arrow points to the power port on the dongle.</p>

## 2.3 Install the Windows USB driver

**Note:** If the PINpad is connected to the ECR, disconnect it before proceeding.

The VeriFone Unified Windows USB driver supports multiple versions of Microsoft Windows. Refer to the **VeriFone Windows Unified Driver User Guide** for the complete list. This document is included when downloading the USB driver.

There are four steps, as described in the sections below, to install the USB driver on the ECR:

1. Download the USB driver.
2. Install the USB driver.
3. Connect the PINpad, including the power cable.
4. Adjust the port number and port settings, if needed.

### 2.3.1 Download the Windows USB Driver

You will need to download the USB driver and save it on the ECR **BEFORE** you begin the P400 PINpad installation and configuration.

1. Open a web browser and go to <https://github.com/moneris>.
2. When the Moneris page displays, click **Drivers**.
3. On the Drivers page, locate the link for the **VeriFone - Unified Windows USB Driver** and click on it.
4. When the “VeriFone-Unified-Windows-USB-driver” page displays, locate the **VerifoneUnifiedDriverInstaller-5.X.X.X-XX.zip** listing and click on it.
5. On the driver page, click the **Download** button and save the zip file to your ECR.
6. On your ECR, locate the .ZIP file and extract its contents.

### 2.3.2 Install the driver on the ECR

1. In the unzipped files, locate the installation user guide, **VeriFone Unified driver user notes.pdf**.
2. Open the installation user guide and follow the instructions given there.

### 2.3.3 Connect the PINpad hardware

After the driver has been successfully installed on the ECR, connect the PINpad to the ECR. Refer to section [2.2.3 Connect the PINpad using a powered USB cable](#) on page 14, or section [2.2.5 Connect the PINpad using the multi-purpose dongle for USB connection](#) on page 16.

**Note:** If Windows presents you with the “Found New Hardware Wizard” dialog box, click **Cancel**.

### 2.3.4 Configure the port on the ECR (optional)

The port number is assigned automatically when the driver is installed on the ECR, but if required, the assigned Serial Port (COMx) number and operating parameters can be changed. Use the Windows Device Manager to configure the port.

In the Windows Device Manager:

1. Click the **Ports (COM & LPT)** entry and expand the list of ports.
2. Right-click on the **COMx** entry (newly added since installing your driver), then click **Properties** in the drop-down menu.
3. Click the **Port Settings** tab.

The default **Baud Rate (9600)** and **Protocol (8N1)** settings can be changed here.

4. Click the **Advanced** button.

The default **COM Port number (COM1)** can be changed here. (Make sure it is not a COM port that is already in use on the ECR).

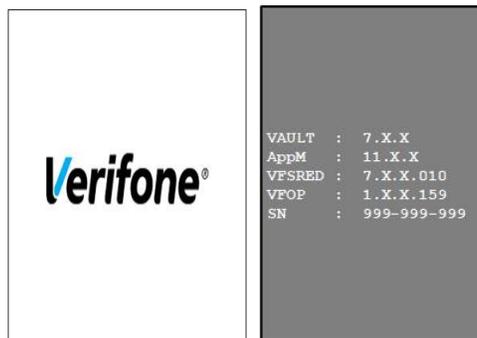
## 2.4 Power up the PINpad

Ensure that you have connected the communication cable and the power cable. For information, refer to section 2.2 [Hardware installation](#) on page 9.

**IMPORTANT: You must use the exact power cable provided with the P400 PINpad by Moneris Solutions. Failure to do so may affect the operability of, or cause damage to, the PINpad.**

### 2.4.1 The power up screens

1. During start-up, these screens appear for several minutes.



2. A screen appears showing application version and serial number information.



- V99999 indicates the version of the PINpad software, for example, V19.01.
- P1999999 shows the last six digits of the PINpad's serial number, preceded by 1.

- During the initial start-up, this screen is followed by the configuration screens (see the next section 2.5 Configure the PINpad on page 21).

3. When the Moneris logo screen appears, the configuration is complete.

## 2.5 Configure the PINpad

When the PINpad boots up for the first time, it will enter the configuration screens automatically, starting at a language selection screen.

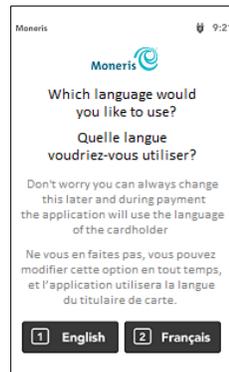
To make a selection at each configuration screen:

- on the touch screen, tap the preferred option, or
- on the keypad, press the number key that corresponds with your choice (if a number is shown).

**Note:** After the initial configuration, if you need to return to the terminal configuration settings, press the **1** key and the yellow  key at the same time.

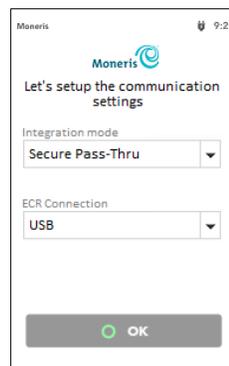
1. Select the interface language:

- Press the **1** key to select **English**.
- Press the **2** key to select **Français**.



2. Select the PINpad's communication method:

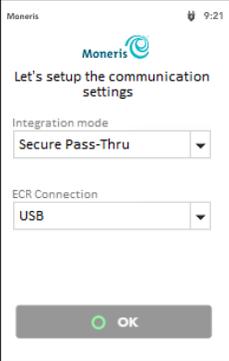
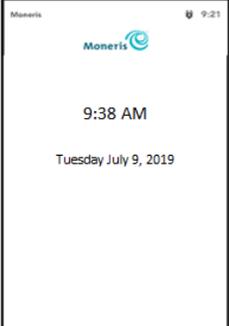
- Based on the table below, choose the integration mode and connection cable you wish to implement, then go to the page number indicated.



Integration mode	PINpad-to-ECR cable	Go to
Secure pass-thru (SPT)	USB cable	Page 22
	RS-232 serial cable	Page 22
	Dongle + Ethernet cable	Page 23
Direct to host (DTH)	Dongle + USB cable	Page 26
	Dongle + Ethernet cable	Page 29
Cloud via Secure Pass-thru	Dongle + Ethernet cable	Page 32

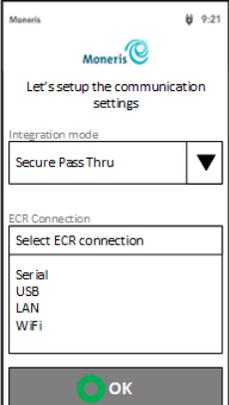
## 2.5.1 Secure Pass-Through mode with USB cable

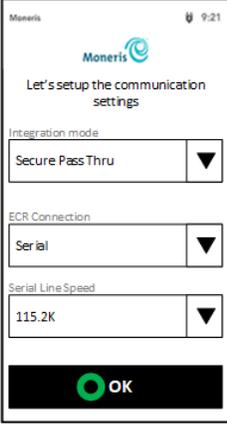
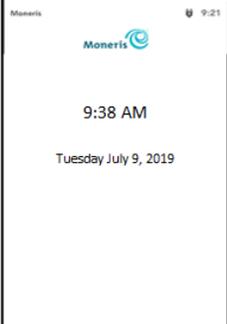
**Note:** The **OK** button is disabled until selections are made on the screen.

<ol style="list-style-type: none"><li>1. Tap the <b>Integration mode</b> drop-down menu and select <b>Secure Pass Thru</b>.</li><li>2. Tap the <b>ECR Connection</b> drop-down menu and select <b>USB</b>.</li></ol>	 <p>The screenshot shows a mobile application interface for Moneris. At the top, it says 'Moneris' and 'Let's setup the communication settings'. There are two dropdown menus: 'Integration mode' which is set to 'Secure Pass-Thru' and 'ECR Connection' which is set to 'USB'. At the bottom, there is a grey button with a green circle and the text 'OK'.</p>
<ol style="list-style-type: none"><li>3. Tap <b>OK</b> or press the green  key.</li></ol>	
<ol style="list-style-type: none"><li>4. When the PINpad's home screen appears, the PINpad configuration is complete.</li></ol>	 <p>The screenshot shows the PINpad's home screen. It displays the Moneris logo at the top, the time '9:38 AM', and the date 'Tuesday July 9, 2019'.</p>

## 2.5.2 Secure Pass-Through mode with RS-232 serial cable

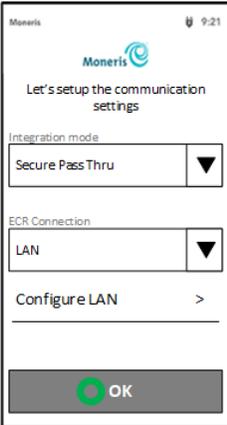
**Note:** The **OK** button is disabled until selections are made on the screen.

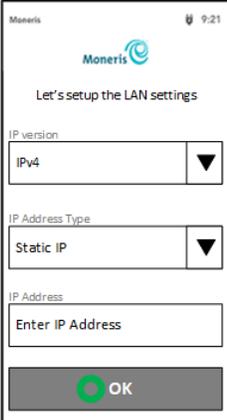
<ol style="list-style-type: none"><li>1. Tap the <b>Integration mode</b> drop-down menu and select <b>Secure Pass Thru</b>.</li><li>2. Tap the <b>ECR Connection</b> drop-down menu and select <b>Serial</b>.</li></ol>	 <p>The screenshot shows a mobile application interface for Moneris. At the top, it says 'Moneris' and 'Let's setup the communication settings'. There are two dropdown menus: 'Integration mode' which is set to 'Secure Pass Thru' and 'ECR Connection' which is set to 'Serial'. Below the 'ECR Connection' dropdown, there is a list of options: 'Serial', 'USB', 'LAN', and 'WiFi'. At the bottom, there is a grey button with a green circle and the text 'OK'.</p>
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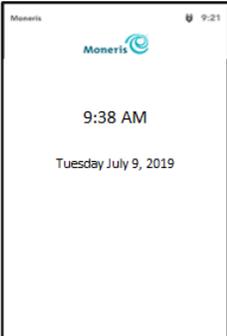
<p>3. Tap the <b>Serial Line Speed</b> drop-down menu and select <b>115.2K</b>.</p> <p><b>Note:</b> <i>The serial line speed setting on your ECR must match this setting. The port settings on your ECR must be <b>8/N/1</b>.</i></p> <p>4. Tap <b>OK</b> or press the green  key.</p>	
<p>5. When the PINpad's home screen appears, the PINpad configuration is complete.</p>	

### 2.5.3 Secure Pass-Through mode with Ethernet (LAN) cable

**Note:** *The **OK** button is disabled until selections are made on the screen.*

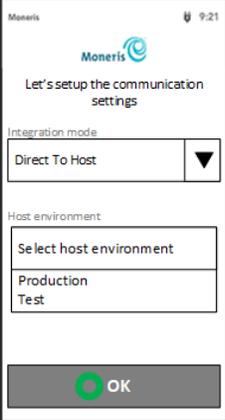
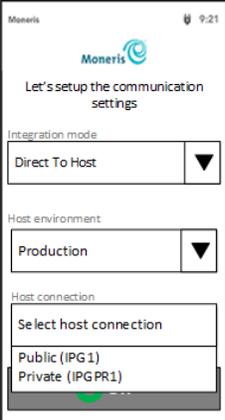
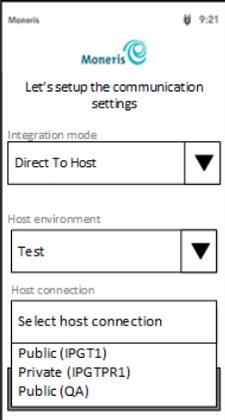
<p>1. Tap the <b>Integration mode</b> drop-down menu and select <b>Secure Pass Thru</b>.</p> <p>2. Tap the <b>ECR Connection</b> drop-down menu and select <b>LAN</b>.</p> <p><b>Note:</b> <i>When LAN is selected, the default IP addressing scheme is set to Dynamic IP. If the installation is using Dynamic IP addressing, proceed to step 11. If the installation will be using Static IPs, proceed to step 3.</i></p> <p>3. Tap <b>Configure LAN</b>.</p>	
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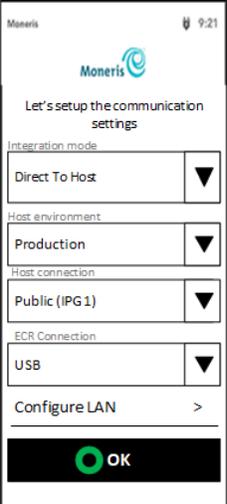
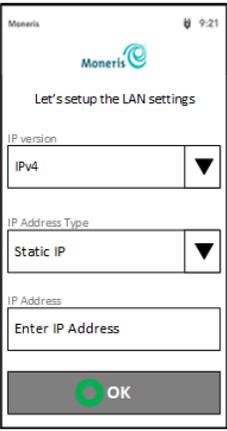
<p>4. On the LAN setup screen, ensure the <b>IP version</b> drop-down menu is set to <b>IPv4</b>.</p> <p>5. Select the IP address type from the <b>IP Address Type</b> drop-down menu:</p> <ul style="list-style-type: none"> <li>▪ For dynamic IP addressing, select <b>Dynamic IP</b>. Proceed to step 11.</li> <li>▪ For static IP addressing, select <b>Static IP</b>. Proceed to step 6.</li> </ul>	
<p>6. Tap inside the <b>IP Address</b> field and use the keypad to enter the PINpad's IP address (enter each segment of the IP address as three digits). Tap <b>OK</b> or press the green  key when finished.</p> <p><b>Note:</b> To enter a period delimiter, press the punctuation  key once.</p>	
<p>7. Tap inside the <b>Subnet Mask</b> field and use the keypad to enter the subnet mask value. Tap <b>OK</b> or press the green  key when finished.</p> <p><b>Note:</b> To enter a period delimiter, press the punctuation  key once.</p>	
<p>8. Tap inside the <b>Gateway</b> field and use the keypad to enter the default gateway value. Tap <b>OK</b> or press the green  key when finished.</p> <p><b>Note:</b> To enter a period delimiter, press the punctuation  key once.</p>	

<p>9. Tap inside the <b>Primary DNS</b> field and use the keypad to enter the primary DNS value. Tap <b>OK</b> or press the green  key when finished.</p> <p>10. Tap inside the <b>Secondary DNS</b> field and use the keypad to enter the secondary DNS value. Tap <b>OK</b> or press the green  key when finished.</p> <p><b>Note:</b> To enter a period delimiter, press the punctuation  key once.</p>	
<p>11. When the PINpad returns to the communication setup screen, tap <b>OK</b> or press the green  key.</p>	
<p>12. When the PINpad's home screen appears, the PINpad configuration is complete.</p>	

## 2.5.4 Direct to Host mode via USB connection to ECR

**Note:** The **OK** button is disabled until selections are made on the screen.

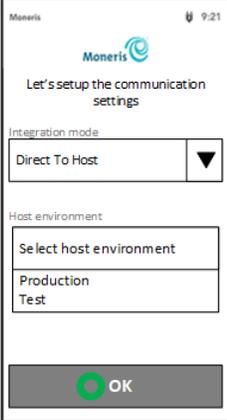
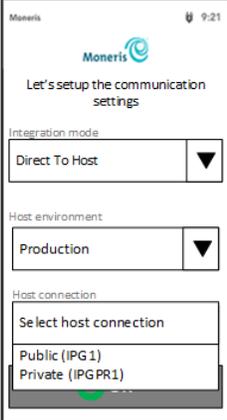
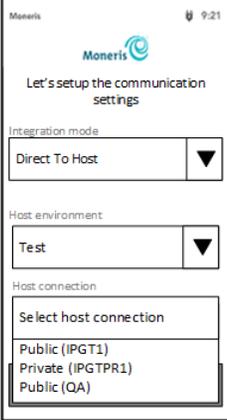
<ol style="list-style-type: none"> <li>1. Tap the <b>Integration mode</b> drop-down menu and select <b>Direct To Host</b>.</li> <li>2. Tap the <b>Host environment</b> drop-down menu and select the host environment in which the PINpad will operate: <ul style="list-style-type: none"> <li>▪ To operate in a <i>production</i> environment, tap <b>Production</b>. Proceed to step 3.</li> <li>▪ To operate in a <i>testing</i> environment, tap <b>Test</b>. Proceed to step 5.</li> </ul> </li> </ol>	
<ol style="list-style-type: none"> <li>3. Tap the <b>Host connection</b> drop-down menu and select the host connection the PINpad will use: <ul style="list-style-type: none"> <li>▪ To operate with a public host connection, tap <b>Public (IPG1)</b>.</li> <li>▪ To operate with a private host connection, tap <b>Private (IPGPR1)</b>.</li> </ul> </li> <li>4. Proceed to step 6.</li> </ol>	
<ol style="list-style-type: none"> <li>5. Tap the <b>Host connection</b> drop-down menu and select the host connection the PINpad will use: <ul style="list-style-type: none"> <li>▪ To operate with a public host connection, tap <b>Public (IPGT1)</b>.</li> <li>▪ To operate with a private host connection, tap <b>Private (IPGTPR1)</b>.</li> <li>▪ To operate with a public QA host connection, tap <b>Public (QA)</b>.</li> </ul> </li> </ol>	

<p>6. Tap the <b>ECR connection</b> drop-down menu and select <b>USB</b>.</p> <p>7. Tap <b>Configure LAN</b>.</p>	
<p>8. On the LAN setup screen, ensure the <b>IP version</b> drop-down menu is set to <b>IPv4</b>.</p> <p>9. Select the IP address type from the <b>IP Address Type</b> drop-down menu:</p> <ul style="list-style-type: none"> <li>▪ For dynamic IP addressing, select <b>Dynamic IP</b>. Proceed to step 15.</li> <li>▪ For static IP addressing, select <b>Static IP</b>. Proceed to step 10.</li> </ul>	
<p>10. Tap inside the <b>IP Address</b> field and use the keypad to enter the PINpad's IP address (enter each segment of the IP address as three digits). Tap <b>OK</b> or press the green  key when finished.</p> <p><b>Note:</b> To enter a period delimiter, press the punctuation  key once.</p>	
<p>11. Tap inside the <b>Subnet Mask</b> field and use the keypad to enter the subnet mask value. Tap <b>OK</b> or press the green  key when finished.</p> <p><b>Note:</b> To enter a period delimiter, press the punctuation  key once.</p>	

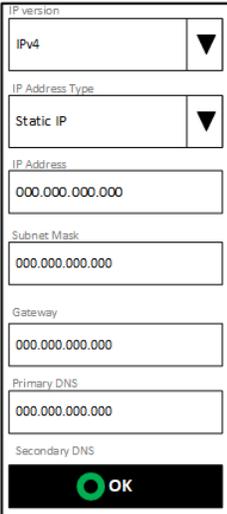
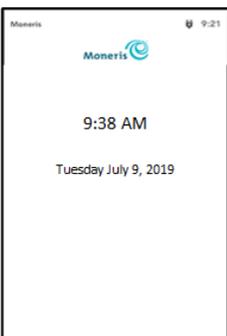
<p>12. Tap inside the <b>Gateway</b> field and use the keypad to enter the default gateway value. Tap <b>OK</b> or press the green  key when finished.</p> <p><b>Note:</b> To enter a period delimiter, press the punctuation  key once.</p>	
<p>13. Tap inside the <b>Primary DNS</b> field and use the keypad to enter the primary DNS value. Tap <b>OK</b> or press the green  key when finished.</p> <p>14. Tap inside the <b>Secondary DNS</b> field and use the keypad to enter the secondary DNS value. Tap <b>OK</b> or press the green  key when finished.</p> <p><b>Note:</b> To enter a period delimiter, press the punctuation  key once.</p>	
<p>15. When the PINpad returns to the communication setup screen, tap <b>OK</b> or press the green  key.</p>	
<p>16. When the PINpad's home screen appears, the PINpad configuration is complete.</p>	

## 2.5.5 Direct to Host mode via Ethernet (LAN) connection to ECR

**Note:** The **OK** button is disabled until selections are made on the screen.

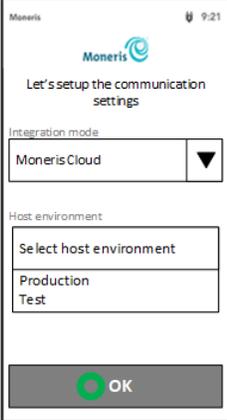
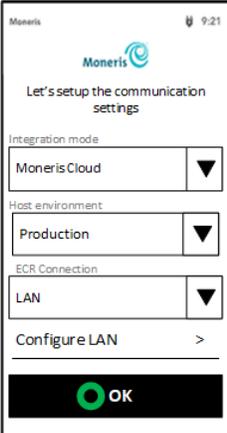
<ol style="list-style-type: none"> <li>1. Tap the <b>Integration mode</b> drop-down menu and select <b>Direct To Host</b>.</li> <li>2. Tap the <b>Host environment</b> drop-down menu and select the host environment in which the PINpad will operate: <ul style="list-style-type: none"> <li>▪ To operate in a <i>production</i> environment, tap <b>Production</b>. Proceed to step 3.</li> <li>▪ To operate in a <i>testing</i> environment, tap <b>Test</b>. Proceed to step 5.</li> </ul> </li> </ol>	
<ol style="list-style-type: none"> <li>3. Tap the <b>Host connection</b> drop-down menu and select the host connection the PINpad will use: <ul style="list-style-type: none"> <li>▪ To operate with a public host connection, tap <b>Public (IPG1)</b>.</li> <li>▪ To operate with a private host connection, tap <b>Private (IPGPR1)</b>.</li> </ul> </li> <li>4. Proceed to step 6.</li> </ol>	
<ol style="list-style-type: none"> <li>5. Tap the <b>Host connection</b> drop-down menu and select the host connection the PINpad will use: <ul style="list-style-type: none"> <li>▪ To operate with a public host connection, tap <b>Public (IPGT1)</b>.</li> <li>▪ To operate with a private host connection, tap <b>Private (IPGTPR1)</b>.</li> <li>▪ To operate with a public QA host connection, tap <b>Public (QA)</b>.</li> </ul> </li> </ol>	
<ol style="list-style-type: none"> <li>6. Tap the <b>ECR connection</b> drop-down menu and select <b>LAN</b>.</li> <li>7. Tap <b>Configure LAN</b>.</li> </ol>	

<p>8. On the LAN setup screen, ensure the <b>IP version</b> drop-down menu is set to <b>IPv4</b>.</p> <p>9. Select the IP address type from the <b>IP Address Type</b> drop-down menu:</p> <ul style="list-style-type: none"> <li>▪ For dynamic IP addressing, select <b>Dynamic IP</b>. Proceed to step 15.</li> <li>▪ For static IP addressing, select <b>Static IP</b>. Proceed to step 10.</li> </ul>	
<p>10. Tap inside the <b>IP Address</b> field and use the keypad to enter the PINpad's IP address (enter each segment of the IP address as three digits). Tap <b>OK</b> or press the green  key when finished.</p> <p><b>Note:</b> To enter a period delimiter, press the punctuation  key once.</p>	
<p>11. Tap inside the <b>Subnet Mask</b> field and use the keypad to enter the subnet mask value. Tap <b>OK</b> or press the green  key when finished.</p> <p><b>Note:</b> To enter a period delimiter, press the punctuation  key once.</p>	
<p>12. Tap inside the <b>Gateway</b> field and use the keypad to enter the default gateway value. Tap <b>OK</b> or press the green  key when finished.</p> <p><b>Note:</b> To enter a period delimiter, press the punctuation  key once.</p>	

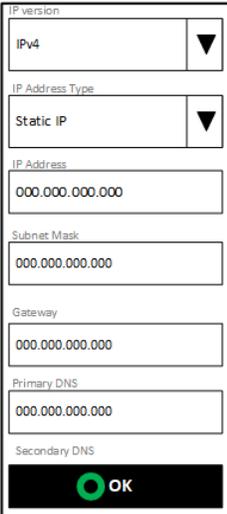
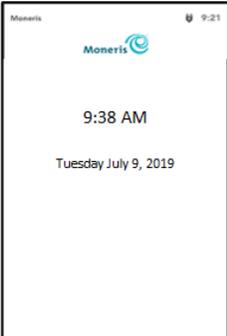
<p>13. Tap inside the <b>Primary DNS</b> field and use the keypad to enter the primary DNS value. Tap <b>OK</b> or press the green  key when finished.</p> <p>14. Tap inside the <b>Secondary DNS</b> field and use the keypad to enter the secondary DNS value. Tap <b>OK</b> or press the green  key when finished.</p> <p><b>Note:</b> To enter a period delimiter, press the punctuation  key once.</p>	
<p>15. When the PINpad returns to the communication setup screen, tap <b>OK</b> or press the green  key.</p>	
<p>16. When the PINpad's home screen appears, the PINpad configuration is complete.</p>	

## 2.5.6 Cloud mode via Ethernet (LAN)

**Note:** The **OK** button is disabled until selections are made on the screen.

<ol style="list-style-type: none"><li>1. Tap the <b>Integration mode</b> drop-down menu and select <b>Moneris Cloud</b>.</li><li>2. Tap the <b>Host environment</b> drop-down menu and select the host environment in which the PINpad will operate:<ul style="list-style-type: none"><li>▪ To operate in a <i>production</i> environment, tap <b>Production</b>. Proceed to step 4.</li><li>▪ To operate in a <i>testing</i> environment, tap <b>Test</b>. Proceed to step 3.</li></ul></li></ol>	
<ol style="list-style-type: none"><li>3. Tap the <b>Host connection</b> drop-down menu and select the host connection you wish to use:<ul style="list-style-type: none"><li>▪ To use an internal QA connection, tap <b>Internal QA</b>.</li><li>▪ To use the QA1 connection, tap <b>QA1</b>.</li><li>▪ To use the QA2 connection, tap <b>QA2</b>.</li></ul></li></ol> <p><b>Note:</b> The QA1 and QA2 options are used for internal testing purposes only.</p>	
<ol style="list-style-type: none"><li>4. Tap the <b>ECR Connection</b> drop-down menu and select <b>LAN</b>.</li><li>5. Tap <b>Configure LAN</b>.</li></ol>	

<p>6. On the LAN setup screen, ensure the <b>IP version</b> drop-down menu is set to <b>IPv4</b>.</p> <p>7. Select the IP address type from the <b>IP Address Type</b> drop-down menu:</p> <ul style="list-style-type: none"> <li>▪ For dynamic IP addressing, select <b>Dynamic IP</b>. Proceed to step 13.</li> <li>▪ For static IP addressing, select <b>Static IP</b>. Proceed to step 8.</li> </ul>	
<p>8. Tap inside the <b>IP Address</b> field and use the keypad to enter the PINpad's IP address (enter each segment of the IP address as three digits). Tap <b>OK</b> or press the green  key when finished.</p> <p><b>Note:</b> To enter a period delimiter, press the punctuation  key once.</p>	
<p>9. Tap inside the <b>Subnet Mask</b> field and use the keypad to enter the subnet mask value. Tap <b>OK</b> or press the green  key when finished.</p> <p><b>Note:</b> To enter a period delimiter, press the punctuation  key once.</p>	
<p>10. Tap inside the <b>Gateway</b> field and use the keypad to enter the default gateway value. Tap <b>OK</b> or press the green  key when finished.</p> <p><b>Note:</b> To enter a period delimiter, press the punctuation  key once.</p>	

<p>11. Tap inside the <b>Primary DNS</b> field and use the keypad to enter the primary DNS value. Tap <b>OK</b> or press the green  key when finished.</p> <p>12. Tap inside the <b>Secondary DNS</b> field and use the keypad to enter the secondary DNS value. Tap <b>OK</b> or press the green  key when finished.</p> <p><b>Note:</b> To enter a period delimiter, press the punctuation  key once.</p>	
<p>13. When the PINpad returns to the communication setup screen, tap <b>OK</b> or press the green  key.</p>	
<p>14. When the PINpad's home screen appears, the PINpad configuration is complete.</p>	

## 3 Troubleshooting

This section describes errors and messages that may appear on the PINpad, as well as basic troubleshooting steps.

Please refer to the following documents (provided to you during the certification process by your Client Integration Specialist) for the most up-to-date list of:

- Host Response Codes that appear on the PINpad, refer to the ***Moneris Receipt Requirements Specification***.
- POS Condition Codes (also known as PINpad Condition Codes), refer to the ***POSpad API Spec for POS Condition Codes***.

### 3.1 Basic troubleshooting steps

#### 3.1.1 Power cycle the PINpad

There are two methods of rebooting the PINpad:

- using the keys;
- using the power cable.

##### Using the keys (9 + yellow Correction key)

On the keypad, press the **9** key and the yellow  key at the same time to reboot the PINpad. Use this method when the screen is unresponsive.

The terminal displays a warning message, “The terminal will now reboot. Please wait”, then it restarts.

##### Using the power cable

Disconnect the power cable from the power source, then reconnect it.

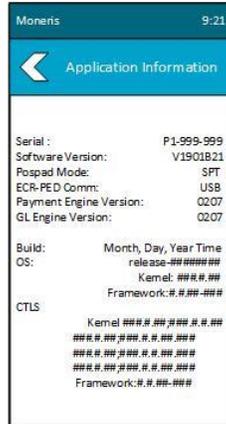
For more information on the PINpad power-up sequence, refer to section 2.4 [Power up the PINpad](#) on page 20.

For more information on the cable connections, refer to section 2.2 [Hardware installation](#) on page 9.

### 3.1.2 Verify the version on the PINpad

There are two methods for accessing the software version screen on the PINpad:

- Press the yellow  key and the **3** key at the PINpad's idle screen. The Application Information screen appears. Tap the arrow in the top left corner when finished viewing.



- Power cycle the PINpad and look for the version information screen. Follow the instructions in the [3.1.1 Power cycle the PINpad](#) section on page 35.



*The version information screen*

This screen shows:

- “V999999” where 999999 represents the application version (e.g. 19.01).
- “P19999999” where 9999999 represents the last six digits of the PINpad serial number.

## 3.2 PINpad error messages

This section includes only those error messages that may occur during the installation and configuration. It does not include transaction-related error messages.

Error Message on the PINpad	Error & Resolution
<b>CHECK ECR CONNECTION</b>	<p>This message is displayed when the PINpad fails to establish a connection with the ECR.</p> <ul style="list-style-type: none"><li>• Power cycle the PINpad (refer to the instructions in the <a href="#">3.1.1 Power cycle the PINpad</a> section on page 35).</li><li>• Disconnect/reconnect the cable to the ECR (refer to the instructions in the <a href="#">2.2 Hardware installation section</a> on page 9).</li></ul>
<b>CHECK CONNECTION</b>	<p>This message is displayed when the PINpad fails to establish a connection with the ECR.</p> <ul style="list-style-type: none"><li>• Power cycle the PINpad (refer to the instructions in the <a href="#">3.1.1 Power cycle the PINpad</a> section on page 35).</li><li>• Disconnect/reconnect the cable to the ECR (refer to the instructions in the <a href="#">2.2 Hardware installation section</a> on page 9).</li></ul>

### 3.3 PINpad hardware issues

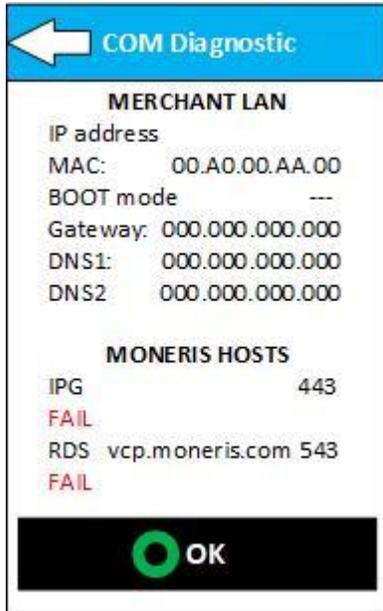
This section describes situations in which the PINpad does not display an error message, but does not perform as expected.

Issue with PINpad	Error & Resolution
The PINpad does not power up.	<ul style="list-style-type: none"> <li>▪ Confirm that the PINpad power cable is securely attached and the power outlet is functioning.</li> <li>▪ If the power cable is securely attached and the PINpad still does not respond, try connecting another power cable of the same type, if another one is available.               <ul style="list-style-type: none"> <li>• If the second cable fixes the problem, return the first cable to Moneris Solutions.</li> </ul> </li> <li>▪ If the PINpad still does not power up, return the PINpad and cables to Moneris Solutions.</li> </ul>
The PINpad is locked or frozen at a prompt.	<ul style="list-style-type: none"> <li>• Power cycle the PINpad (refer to the instructions in the <a href="#">3.1.1 Power cycle the PINpad</a> section on page 35).</li> </ul>
The PINpad is not connecting to the network.	<p>If the PINpad is powered up (or rebooted) when the merchant network is not available, the PINpad will not connect to the network. This may occur, for example, after a power outage, in which case the PINpad will often recover before the network is restored.</p> <p>To allow the PINpad to reconnect to the network:</p> <ol style="list-style-type: none"> <li>1. Make sure the merchant network is available.</li> <li>2. Power cycle the PINpad (refer to the instructions in the <a href="#">3.1.1 Power cycle the PINpad</a> section on page 35).</li> </ol>

## 3.4 Ethernet diagnostic

Use the COM diagnostic screen to troubleshoot a failed Ethernet connection.

For example:



1. To access the COM Diagnostic menu:
  - From any screen, press the yellow  key and the **4** key to access the COM diagnostic screen.
2. When finished viewing the diagnostic screen, tap **OK** or press the green  key.



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