



## VP6800® User Manual



**80159500-001 Rev AC**  
**27 February 2025**

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#### Warranty Disclaimer

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**FCC warning statement**

This device complies with Part 15 of the 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.

The user manual for an intentional or unintentional radiator shall caution the user that changes, or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**Note:** The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate 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. If this equipment does cause harmful 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:

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

This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This device should be installed to provide a separation distance of at least 20cm from a person.

## ISED Warning Statements

This device complies with Canada's licence-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause interference; and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and any part of your body.

Pour se conformer aux exigences de conformité CNR 102 RF exposition, une distance de séparation d'au moins 20 cm doit être maintenue entre l'antenne de cet appareil et toutes les personnes.

This Class B digital apparatus complies with Canadian ICES-003.  
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

## Cautions and Warnings

|                                                                                     |                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>Caution:</b> Use standard USB 5V power source for USB operation. Use approved power source for RS-232 operation. Device contains a lithium battery. Approved temperature range for storage: -40°C to +80°C. Disposal: Contact your local recycling center. |
|  | This product should only be used with a UL-Listed power supply marked "I.T.E." with an output LPS rated 5 Vdc, minimum 1A, with suitable maximum operating temperature (Tma) in the end-product installation environment.                                     |
|  | <b>Warning:</b> Avoid close proximity to radio transmitters, which may reduce the capabilities of the reader.                                                                                                                                                 |

**Revision History**

| Date       | Rev | Changes                                                                                                                                                                                                                                                                                                                                                             | By |
|------------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| 03/30/2021 | U   | Reimplemented Revision History<br>Added Tamper and Failed Self-Check Indicators section<br>Multiple updates for readability—specifically, condensed section and Basic Operations sections<br>Added Durability section to Specifications<br>Added LED indicator specs<br>Updated Agency Approvals and Compliances list<br>Added card interface insertion/tap diagram | CB |
| 04/22/2021 |     | Updated power supply part number<br>Added power supply photo to section 7.1                                                                                                                                                                                                                                                                                         | CB |
| 05/07/2021 | V   | Added Grounding Requirements to Installation section.                                                                                                                                                                                                                                                                                                               | CB |
| 02/25/2022 | X   | Added mounting angle instructions for drainage purposes.                                                                                                                                                                                                                                                                                                            | CB |
| 06/14/2023 | Y   | Added ISED warning text.                                                                                                                                                                                                                                                                                                                                            | CB |
| 07/01/2024 | Z   | Added Avoiding Device Tamper Issues section.                                                                                                                                                                                                                                                                                                                        | CB |
| 07/16/2024 | AA  | Added UL power supply text to preamble.                                                                                                                                                                                                                                                                                                                             | CB |
| 02/13/2025 | AB  | Updated mounting instructions diagram.                                                                                                                                                                                                                                                                                                                              | CB |
| 02/27/2025 | AC  | Updated mounting guidelines.                                                                                                                                                                                                                                                                                                                                        | CB |

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## 1. Overview

The all-new VP6800 by ID TECH is a state-of-the-art, 3-in-1, PCI PTS 5.x certified unattended payment device that can accept magstripe, chip card (EMV), and/or NFC/contactless payments. The unit features a 4.3-inch high-luminosity color touchscreen display capable of supporting PIN-on-glass transactions and can also display video advertisements when it is not being used for menu displays or customer interactions.

The VP6800 accepts all of today's most popular payment methods, including those based on digital wallet technology, including Apple Pay, Android Pay, and Samsung Pay, along with support for loyalty technologies such as Apple Pay VAS and Google Pay SmartTap. The VP6800 is suitable for payment solutions involving:

- Transportation
- Vending
- Parking
- Quick Service Restaurants
- POS Kiosks

### 1.1. Integration Location

The VP6800 is the next generation vending payment peripheral in the popular ID TECH Vending line (including Vendi and VP6300) of unattended contactless payment hardware. This device is intended to be deployed on unattended kiosks, parking systems, and vending machines that support a variety of different payment methods, digital advertising, and guidance using visual payment prompts.

### 1.2. Integration Options

ID TECH provides a feature-rich Universal SDK to aid rapid development of external (non-device-resident) payment applications that talk to the VP6800. The Universal SDK is available for the C# language on Windows and comes with sample code for demo apps. To obtain the SDK and other useful utilities, demos, and downloads for the VP6800, be sure to check the Downloads link on the [ID TECH Knowledge Base](#) (no registration required).

### 1.3. Encryption

The VP6800 supports industry-standard Triple DES or AES encryption technology, with DUKPT-based key management (per ANSI X.9-24). Encryption can be configured to occur with a PIN variant key, or Data variant, as desired. ID TECH operates a certified Key Injection Facility, capable of injecting your unit(s) with any required keys. Remote Key Injection (RKI) is also available. Consult your ID TECH representative to learn about all available options involving key injection.

As a PCI-validated SRED device, the VP6800 conducts periodic self-checks and incorporates tamper detection features which, if triggered, cause automatic zeroization of sensitive data and keys. Because of its SRED features, the VP6800 is fully capable of being incorporated into a P2PE certified solution.

## 2. Features

- 4.3-inch color digital display (480 x 272 pixels)
- Supports PIN on glass
- Concealed contactless antenna
- PCI PTS 5.x certified with SRED validation
- Connectivity interface – RS-232, USB 2.0 via micro-USB, Ethernet 10/100M<sup>1</sup>, and optional Wi-Fi/BLE
- 3.5mm audio jack
- Optional camera or 2D scanner
- Supports EVA standard external mounting
- Support for contactless loyalty protocols (Apple Pay VAS, Google Pay Smart Tap 2.1)
- Contactless payments (Apple Pay, Google Pay, Samsung Pay)
- Supports the latest EMV Contactless L2 kernels: AMEX, Discover, Interac, JCB, Mastercard, Visa & Union Pay
- Environmental certifications (RoHS, REACH, RED)
- Encryption support (TDES, AES, DUKPT)
- Remote Key Injection Support (PCI validated)
- Firmware upgradeable in the field

---

<sup>1</sup> Note: the VP6800 must be power-cycled to switch between 10M and 100M.

## **2.1. Agency Approvals and Compliances**

- CE
- EMV Contact L1 & L2
- EMV Contactless L1
- EMV Contactless L2s:
  - Amex
  - Discover
  - Interac
  - JCB
  - MasterCard
  - UPI
  - Visa
- FCC (Part 15, Class-B)
- FelCa
- MIC (Japan)
- PCI 5.X
- REACH
- RoHS3
- Telec (Japan)
- UL
- USB 2.0

### 3. Specifications

| Hardware                         |                                                                  |
|----------------------------------|------------------------------------------------------------------|
| <b>CPU</b>                       | 528 MHz application processor                                    |
| <b>Memory</b>                    | 256Mb SDRAM, 1Gb NAND flash                                      |
| <b>Camera</b>                    | 5 megapixels                                                     |
| <b>SAMs</b>                      | 2 slots                                                          |
| <b>SD card slot</b>              | 1 slot                                                           |
| <b>Audio</b>                     | 3.5mm audio jack                                                 |
| <b>Interface</b>                 | USB, RS232, Ethernet, BLE/Wi-Fi                                  |
| <b>Power Supply</b>              | +5VDC 2A                                                         |
| <b>Power Consumption</b>         | Active Power mode: 3.5w<br>Sleep mode: <0.5w                     |
| Physical                         |                                                                  |
| <b>Length</b>                    | 140 mm                                                           |
| <b>Width</b>                     | 95 mm                                                            |
| <b>Depth</b>                     | 52.1 mm                                                          |
| Screen                           |                                                                  |
| <b>Dimensions (in pixels)</b>    | 480 (height) x 272 (width)                                       |
| <b>Luminance/Brightness</b>      | 900 cd/m2                                                        |
| <b>Touch Interface Type</b>      | Capacitive                                                       |
| Environmental                    |                                                                  |
| <b>Operating Temperature</b>     | -25° C to 70° C (-13° F to 158° F), max change of 10° C per hour |
| <b>Storage Temperature</b>       | -40° C to 80° C (-40° F to 176° F)                               |
| <b>Operating Humidity</b>        | Up to 95% non-condensing                                         |
| <b>Storage Humidity</b>          | 10% to 90% non-condensing, duration three months                 |
| <b>IK Rating</b>                 | IK 08                                                            |
| <b>IP Rating</b>                 | IP 65                                                            |
| Durability                       |                                                                  |
| <b>MBTF</b>                      | 200,000 POH                                                      |
| <b>MSR Swipe Durability</b>      | 500,000 times                                                    |
| <b>ICC Connector Reliability</b> | 500,000 times                                                    |

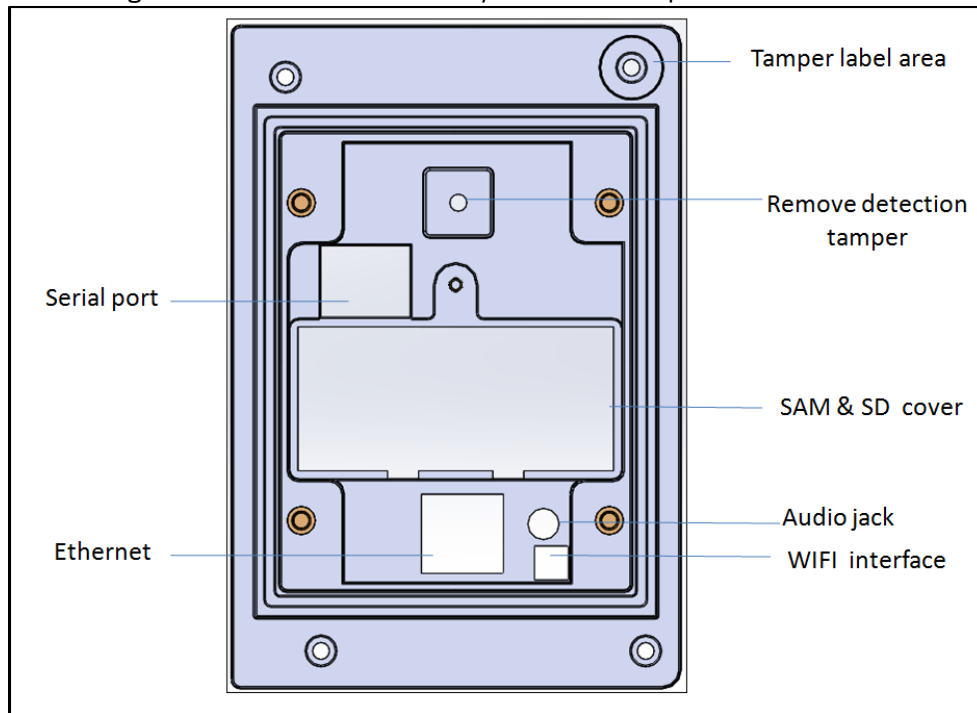
**Note:** Boot-up time can vary for VP6800 readers depending on configuration; boot-up is usually complete within 15 seconds. "Power On" is defined as the length of time from pressing the power button to the screen displaying the ID TECH logo; "Wake Up" is defined as the length of time from tapping the screen to the screen displaying the ID TECH logo.

| Mode                                | Boot Up Time |         |
|-------------------------------------|--------------|---------|
|                                     | Average      | Maximum |
| Power On                            | 7s           | 15s     |
| Wake Up from Sleep Mode             | 0.5s         | 1s      |
| Wake Up from Stop Mode <sup>2</sup> | 7s           | 15s     |

<sup>2</sup> Stop Mode is a low-power version of Sleep Mode. It consumes less power than Sleep Mode but requires a soft reboot to wake up from sleeping.

## 4. Communications

The VP6800 can communicate with a host via serial (RS-232), Wi-Fi, Bluetooth, USB, or Ethernet connections. The diagram below illustrates the layout of various ports.

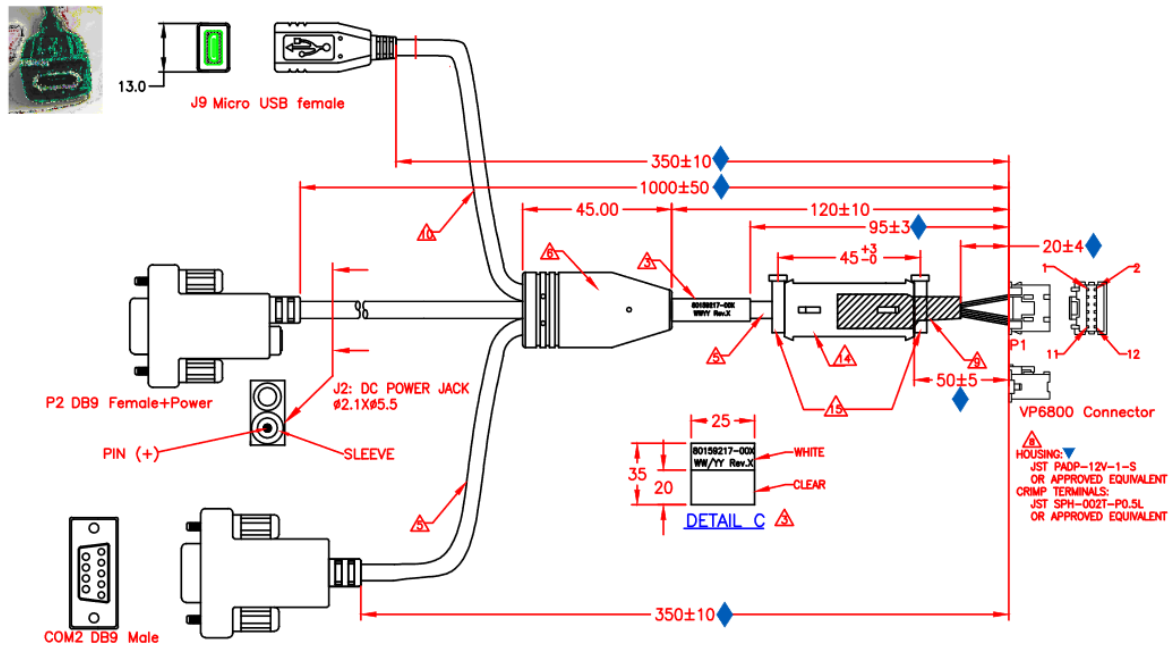


### 4.1. Audio Support

While the VP6800 does not have an internal speaker, it can host 16mb .WAV files and connect to an external speaker via the 3.5mm audio jack.

## 5. Cable

The VP6800 uses a serial port to USB + RS-232+RS-232 cable. The cable connectors follow the schematic illustrated below.



| DB9 Male   | DB9 Female+Power |              | Micro USB female | VP6800 Connector |            |    |
|------------|------------------|--------------|------------------|------------------|------------|----|
| COM2       | P2               | J2           | J9               | SIGNAL           | COLOR      | P1 |
| —          | —                | PIN (+)RED   | —                | +5V_OUT          | RED        | 1  |
| 3 YELLOW   | —                | —            | —                | RS232B_TX2       | YELLOW     | 2  |
| 2 WHITE    | —                | —            | —                | RS232B_RX2       | BROWN      | 3  |
| —          | 3 YELLOW         | —            | —                | RS232A_RX1       | BLUE       | 4  |
| —          | 2 WHITE          | —            | —                | RS232A_TX1       | PURPLE     | 5  |
| —          | —                | —            | 4 BLACK          | USB ID           | LIGHT BLUE | 6  |
| SHIELD GND | SHIELD GND       | —            | SHIELD GND       | GND_EARTH        | GND        | 7  |
| —          | —                | —            | 1 RED            | OTG 5V OUT       | ORANGE     | 8  |
| 5 BLACK    | 5 BLACK          | SLEEVE BLACK | 5 GND            | GND              | BLACK      | 9  |
| —          | —                | —            | 2 WHITE          | USB D—           | WHITE      | 10 |
| 5 BLACK    | 5 BLACK          | SLEEVE BLACK | 5 GND            | GND              | GREY       | 11 |
| —          | —                | —            | 3 GREEN          | USB D+           | GREEN      | 12 |

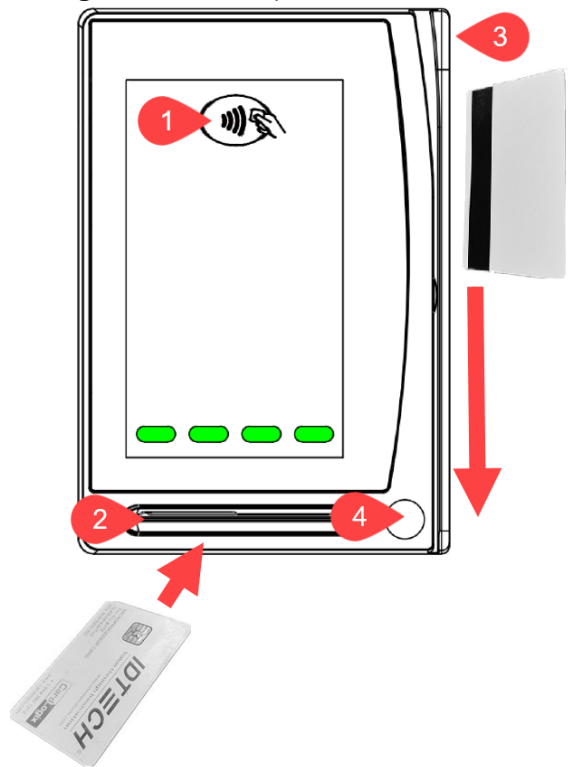
**Note:** For development purposes, ID TECH can supply a serial port interface cable that supports RS-232 or USB. If you wish to develop your own cable, ID TECH uses a JST PADP-12v-1-S housing with JST-SPH-002T-P0.5L crimp terminals. See the schematic above for pin outs.

## 6. Basic Operation

When powered on, the VP6800 boots automatically and illuminates within about five seconds. For development purposes, use cable P/N 80159217-001. Plug the 12-pin Molex connector into the back of the VP6800, and supply 5VDC 2A power (via cannon connector at the powered DB9 connection) using an ID TECH P/N AC0005R-26 or equivalent power supply. Optionally also connect a standard Ethernet cable between the RJ45 ports on the back of the VP6800 and the network port of the host system.

### 6.1. VP6800 Card Interfaces

VP6800 readers have the following card interface points, shown below.



| Interface              | Note                                              |
|------------------------|---------------------------------------------------|
| 1. Contactless antenna |                                                   |
| 2. ICC slot            | Smart chip must face upward for ICC transactions. |
| 3. MSR slot            | MagStripe must face left for MSR swipes.          |
| 4. QR Code camera      |                                                   |

## 6.2. LEDs and LCD Status Indicators

The VP6800 uses LEDs and the main LCD display to denote its status during transactions and in case of errors. The small LED lights beside the main digital display used during a contactless transaction. Contactless LED lights also appear on the digital display.



| LED and Behavior                             | Status Indicated                       |
|----------------------------------------------|----------------------------------------|
| First left virtual LED blink green regularly | VP6800 in standby awaiting transaction |
| First left virtual LED is solid green        | Contactless transaction started        |
| All four virtual LEDs blink green            | Contactless transaction complete       |
| ICC slot LED is on                           | ICC transaction started                |
| MSD LEDs on                                  | MSR transaction started                |

## 6.3. Device State and UI

| State        | Beep                     | LCD                                 | Indicating                                                                                                                                                                           |
|--------------|--------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| De-activated | Short beep for 5 seconds | "Deactivated"                       | Device is in "Manufactory mode;" no security functions enabled.                                                                                                                      |
| Activated    | No Beeper                | "Activated"                         | Manufactory data and certificate loaded into device, but no working keys.                                                                                                            |
| Common       | No Beeper                | "Need More Key"<br>"Self-test Fail" | Device activated but not ready for sensitive functions.<br>The reason should be due to missing working keys, device is suspended due to self-test fail or sensitive limitation, etc. |
| Ready        | No Beeper                | "Welcome"                           | Device ready for sensitive functions, like transaction, Get PIN ,GET account, etc.                                                                                                   |

| State  | Beep                | LCD        | Indicating                                                                                                                                                                                                                |
|--------|---------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tamper | Beeper per 1 second | "Tampered" | Device was tampered by physical, temperature, or voltage attack. All sensitive information is erased or unrecoverable. Device blocks all sensitive function. There is no way to recover except to return to manufacturer. |

#### 6.4. Tamper and Failed Self-Check Indicators

The VP6800 displays the following indicators when it has been tampered or has any of the other following internal issues, such as an expired certificate, missing key, or similar fault discovered during a self-check.

Note that the Tampered screen also displays configuration information used to diagnose the cause of the issue, similar to the image below on the right:



| Indicator                  | Tampered Status      | Other Issue Status   |
|----------------------------|----------------------|----------------------|
| <b>Virtual LEDs</b>        | All Virtual LEDs off | All Virtual LEDs off |
| <b>LCD Display Message</b> | TAMPERED             | See below            |
| <b>Buzzer</b>              | Alarm tone           | See below            |

## 6.5. Avoiding Device Tamper Issues

All ID TECH PCI-certified devices integrate tamper switches and disable the card reader when it has been compromised. The section below describes best practices when handling PCI-secure devices to help prevent triggering the tamper switches.

Note that following these guidelines does not guarantee a device will not tamper if inadvertently mishandled or breached. User-induced tamper events will incur repair fees, key injection fees, and shipping both to and from ID TECH, regardless of warranty status.

### 6.5.1. Device Handling Best Practices

- Do not excessively shake the reader.
- Do not drop the reader.
- Do not strike the reader.
- Do not attempt to twist or cause any torsion to the reader.
- Do not expose the reader to extreme heat or cold.
- Do not intentionally subject the reader to electrical shocks.
- Do not submerge the reader in liquids of any type for extended time.
- Do not attempt to open the reader.
- Do not provide power to the reader until all connectors are plugged into the unit.
- Check the device manual to ensure the reader receives the correct power voltage. Providing power to wires and connectors before plugging them into the device may cause power spikes that can trigger a tamper event.
- When working with or installing the reader, minimize exposure to static electricity.

### 6.5.2. ID TECH Support

In the event the reader does tamper when under warranty, report the tampered device to ID TECH to troubleshoot and, if needed, be returned to ID TECH for analysis. Contact ID TECH support at [support@idtechproducts.com](mailto:support@idtechproducts.com) for assistance.

## 6.6. Other Status Messages

The VP6800's LCD can display the following messages for both regular status and in the event of a failed self-check:

| State                         | Buzzer                   | LCD                                  | Indicating                                                                                                                                                                                                                              |
|-------------------------------|--------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tamper triggered              | Beeps every 1 second     | "Tampered"                           | Device was tampered by physical, temperature, or voltage attack. All sensitive information is erased or unrecoverable. The reader blocks all sensitive functions. There is no way to recover the reader except to return it to ID TECH. |
| Certification check fail      | No sound                 | "Cert Fail"                          | Certificate tree self-check has failed (example of failure: expiration of certification).                                                                                                                                               |
| Firmware integrity check fail | No sound                 | "MSRFail"                            | MSR failure, usually caused by the abnormal state of the MSR module.                                                                                                                                                                    |
|                               | No sound                 | "FW/BL Fail"                         | Firmware self-check has failed                                                                                                                                                                                                          |
| Abnormal Key Status           | No sound                 | "Keys Fail"                          | Encryption key self-check has failed.                                                                                                                                                                                                   |
|                               | No sound                 | "Need More Key"<br>"Self –test Fail" | The reader is activated but not ready for sensitive functions. The reason is most likely due to missing working keys, the reader being suspended due to self-test failure, sensitive limitation, or similar causes.                     |
| Deactivated                   | Short beep for 5 seconds | "Deactivated"                        | The reader is in "Manufactory mode;" no security functions are enabled.                                                                                                                                                                 |
| Activated                     | No sound                 | "Activated"                          | Manufactory data and certificate are loaded into the reader, but no working keys.                                                                                                                                                       |
| Ready                         | No sound                 | "Welcome"                            | The reader is ready for sensitive functions like transactions, Get PIN ,GET account, and similar commands.                                                                                                                              |

If your VP6800 is tampered, contact [ID TECH support](#) for assistance.

## 7. Installation

The sections below describe VP6800 installation.

### 7.1. Parts List for Development

Verify that you have the following hardware for the installation of the VP6800:

- Cable 80159217-001



Power supply AC0005R-26



## 7.2. VP6800 Mounting Guidelines and Installation

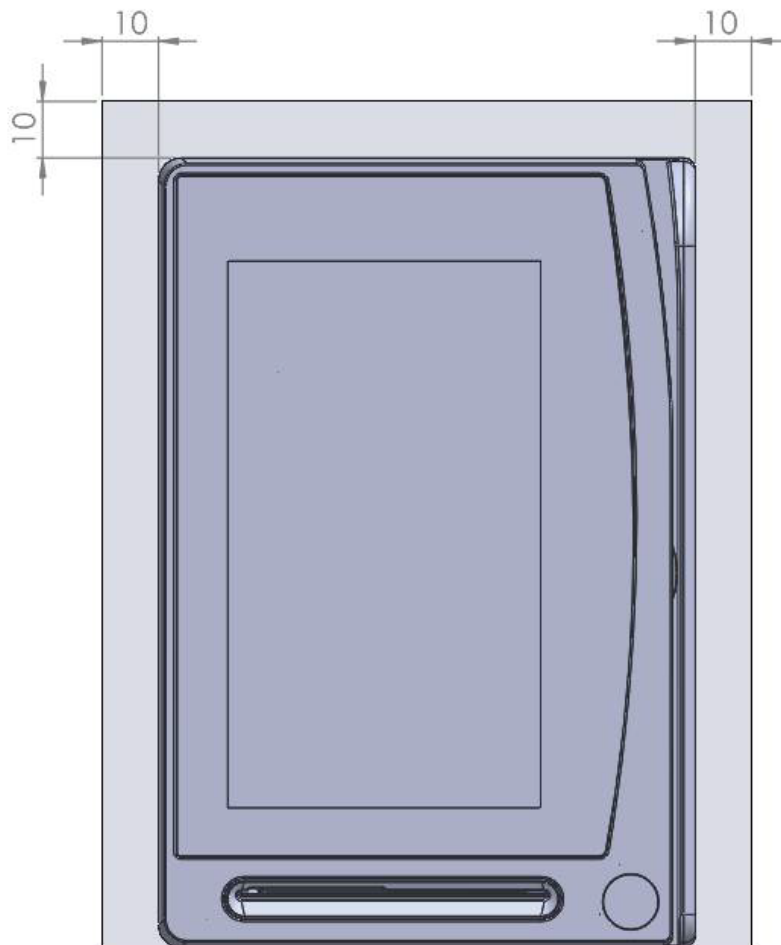
Mount the unit according to the drawings shown, with #8-32 studs spaced 65mm apart horizontally and 67mm vertically. Use a torque wrench to tighten the screws to 8kgf.

For safety reasons, make sure to mount the VP6800 at a height no greater than two meters from the floor.

VP6800 readers should be mounted with the associated small gasket (IDT P/N 200-2361-00) and large gasket (IDT P/N 80159270-001) to ensure proper water resistance and proper installation.

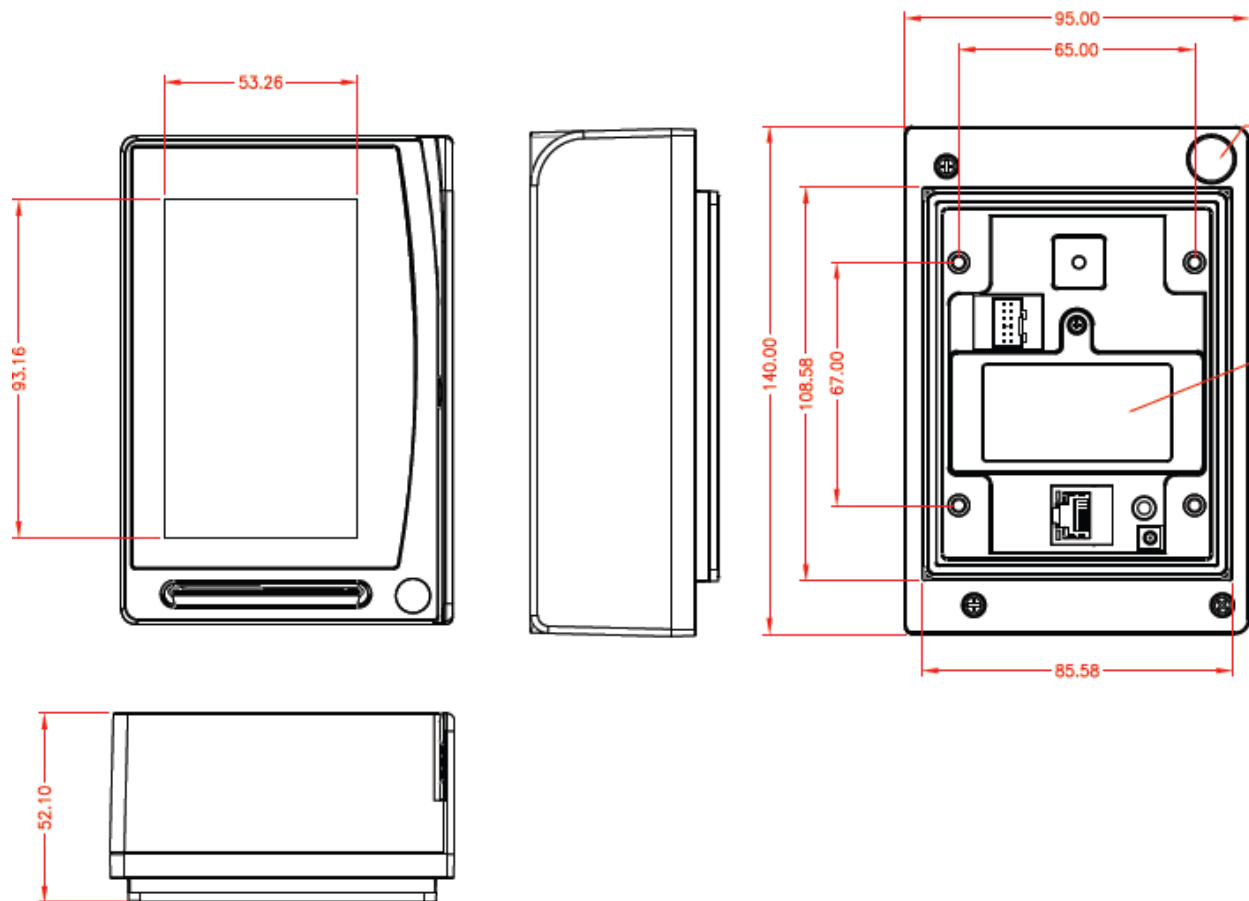
The diagrams below show the required clearance area when mounting VP6800s in metal:

- VP6800 readers should not contact metal within 10mm of the unit's left, top, and right sides.
- VP6800 readers should not contact metal within 45mm below the unit's front (LCD) surface.



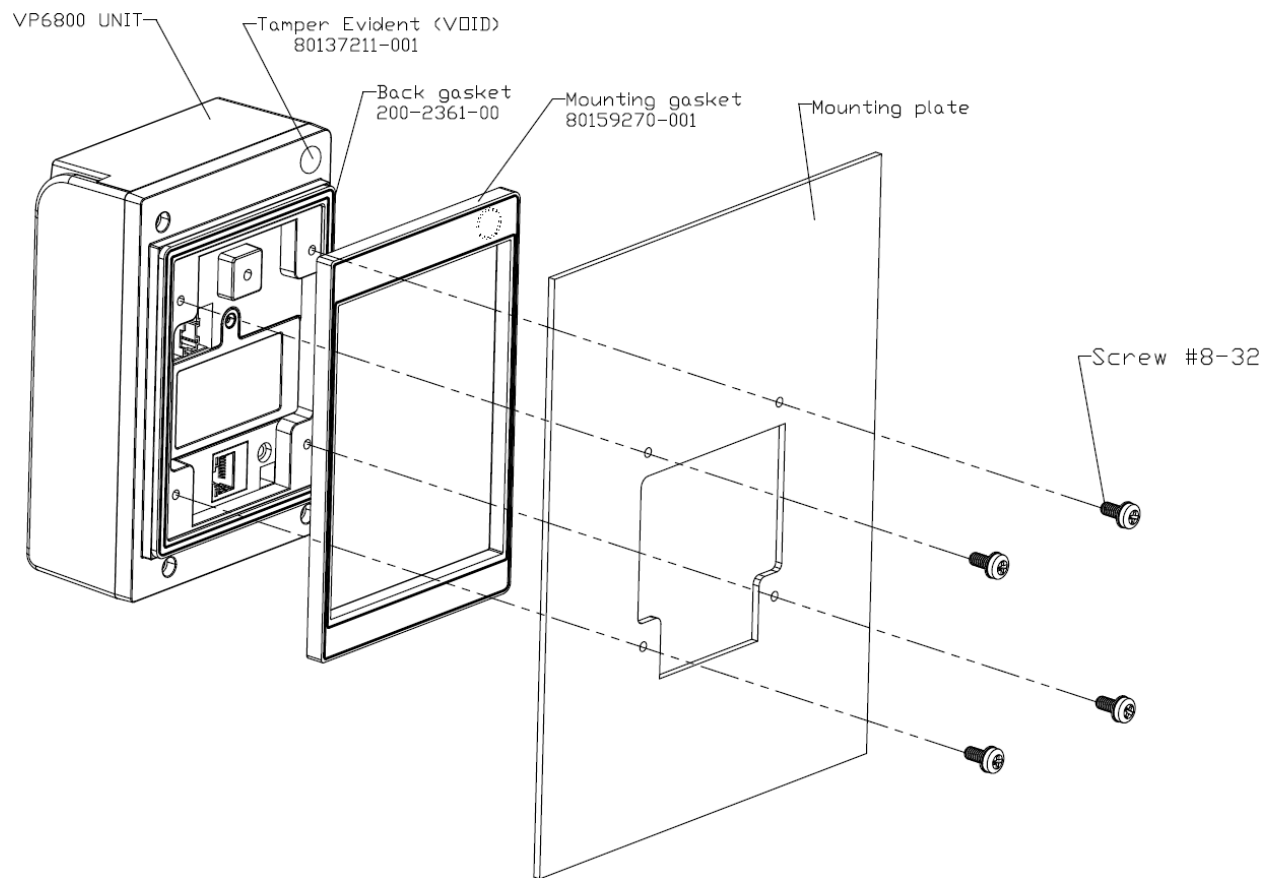
### 7.2.1. VP6800 Mounting Dimensions

Use the following dimensions for mounting VP6800 readers.



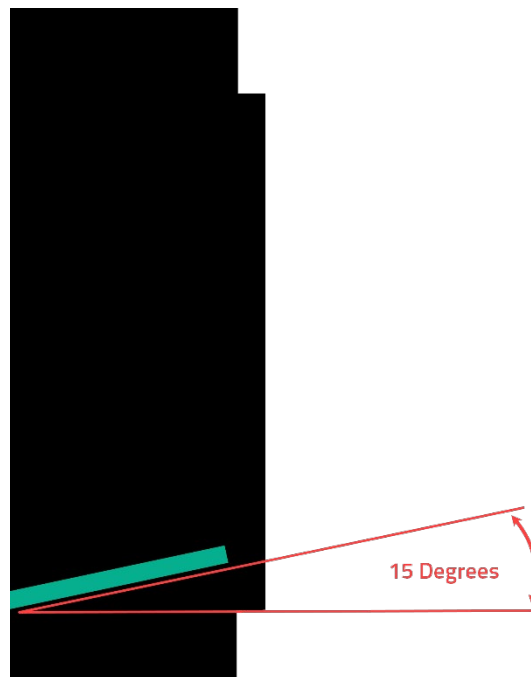
### 7.2.2. Mounting Assembly Diagram

The diagram below shows the correct assembly for mounting a VP6800 reader.

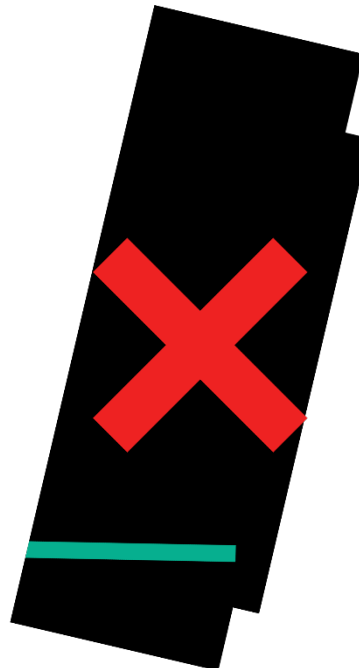


### 7.2.3. VP6800 Mounting Angle Requirements

The VP6800's ICC card slot is designed with a 15-degree angle (pointed outward) to drain water.



To prevent drainage issues, **make sure the angle between the VP6800 LCD plane and the ground is less than 90 degrees.**



### 7.3. VP6800 Grounding Requirements

The VP6800 is designed such that it is isolated from the signal noise of other devices and does not require additional grounding. However, to add your own grounding cable, follow the diagrams provided in the [Cable](#) section above. Note that the Shield GND and GND are separate from the cable.

**Note:** The metal plate on the back of the card swipe area of the VP6800 is not designed for grounding; this plate is used only to prevent wear of the plastic housing during card swipes.

### 7.4. Connecting Cable and Power

**Note:** The VP6800 requires a power supply whether connected by RS-232 or USB.

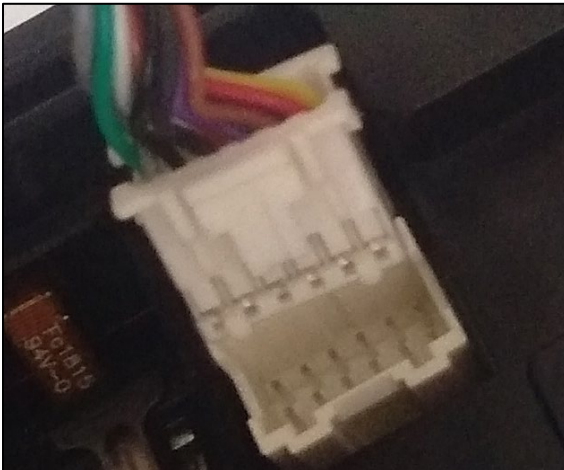
1. When developing for the VP6800, connect the power supply to the RS-232 interface.



2. Connect the RS-233 interface to PC serial port.



Or connect Ethernet interface.

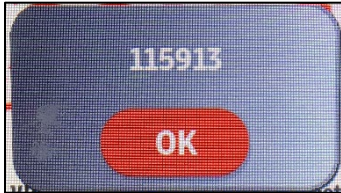


3. Connect the +5VDC power supply to the barrel receptacle on the RS-232 cable. Plug the unit into an AC outlet and verify that the VP6800 lights up.

## 7.5. Bluetooth Connection

When using Bluetooth communication with the host, follow these steps:

1. Search for Bluetooth name of **VP6800** on the mobile host.
2. Select **Pairing**.
3. The VP6800 will display a window with a random passkey:



## 8. VP6800 Configuration Settings

Setting up the VP6800 requires users to enter the main menu **each time they enter a sub-menu, even if they do not save any setting changes.**

Note that users can change many of the settings below via firmware commands. To use firmware commands to configure a VP6800 unit, refer to the *NEO 2 Interface Developer's Guide*, available from your ID TECH representative.

Follow the steps below to access the main menu.

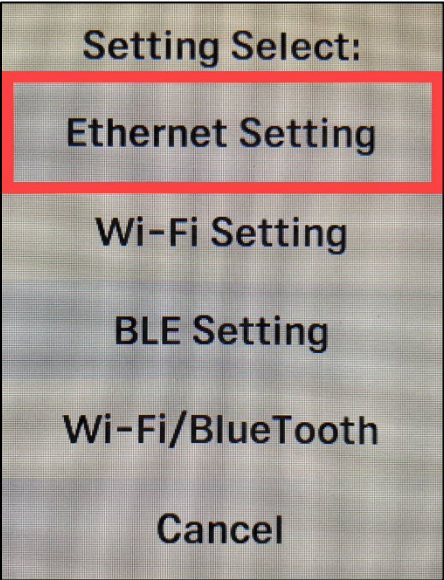
1. Power on the VP6800.
2. Perform a quick press in the top-right corner, then a long press in the top-left corner to enter the **Settings** menu.



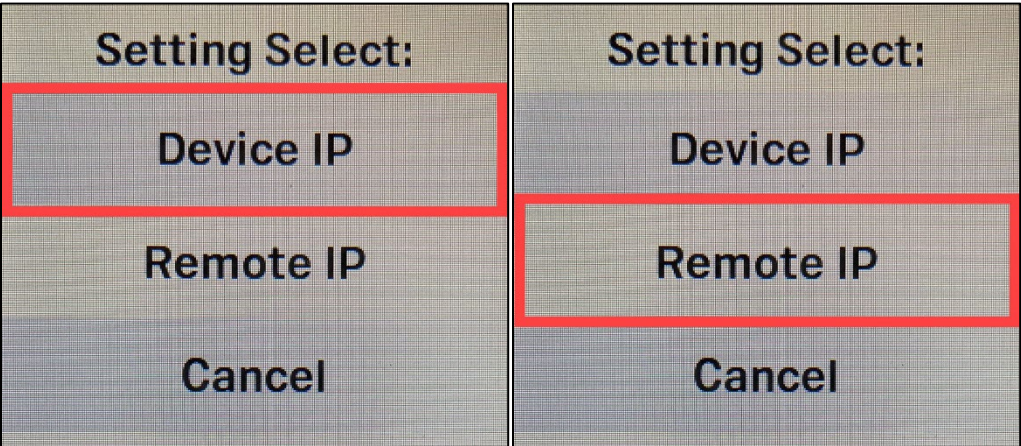
### 8.1. Configuring Ethernet Settings

Follow the steps below to configure ethernet settings.

1. Enter the main menu and select **Ethernet Settings**.



2. Select **Device IP** or **Remote IP** as needed.



### 8.1.1. Setting the Device IP

1. To set the Device IP, enter IP address information in the field highlighted in blue.

**Ethernet Device IP**

IP: 192.168.6.233

Subnet Mask: 255.255.255.0

Gateway: 192.168.6.11

|   |   |      |
|---|---|------|
| 1 | 2 | 3    |
| 4 | 5 | 6    |
| 7 | 8 | 9    |
| . | 0 | Next |

CANCEL BACK ENTER

- a. Select **Next** to move to the next field.
  - b. Select **Enter** after completing the configuration to save.
  - c. To clear a field, select **Cancel**.
  - d. To exit the menu without making changes, select **Cancel** again.
2. The VP6800's screen displays an **IP is Set** dialog on success.

### 8.1.2. Setting the Remote IP

1. To set the Remote IP, enter IP address information in the field highlighted in blue.

ID TECH's Encryption protocol port is **1443**; make sure to enter that number as the port.

**Ethernet Remote IP**

IP:

Port:

|   |   |      |
|---|---|------|
| 1 | 2 | 3    |
| 4 | 5 | 6    |
| 7 | 8 | 9    |
| . | 0 | Next |

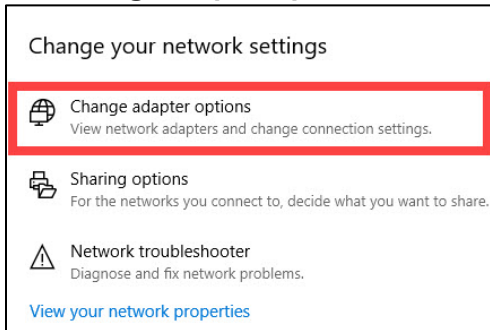
CANCEL BACK ENTER

- a. Select **Next** to move to the next field.
- b. Select **Enter** after completing the configuration to save.

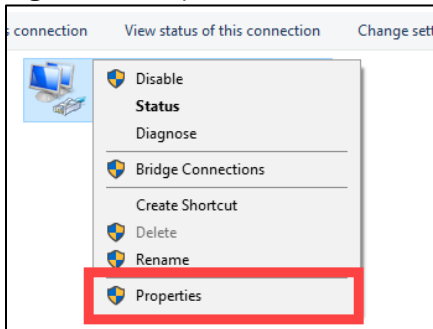
- c. To clear a field, select **Cancel**.
  - d. To exit the menu without making changes, select **Cancel** again.
2. The VP6800's screen displays an **IP is Set** dialog on success.
3. Next, on a Windows computer, open **Network & Internet Settings** by right-clicking the internet connection icon in the taskbar.



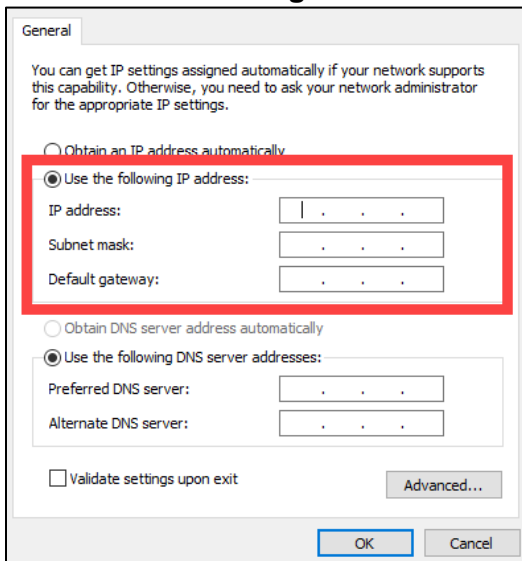
4. Click **Change Adapter Options**.



5. Right-click on your Network Connection and select **Properties**.



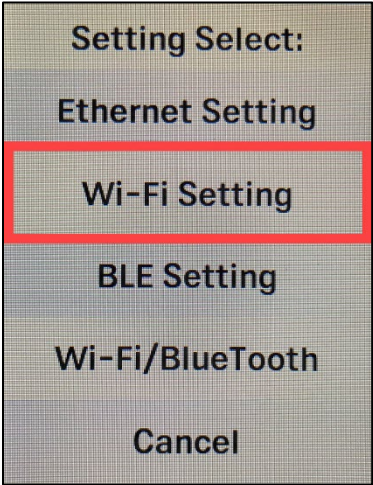
6. Select **Use the following IP address**, enter the required IP information, then click **OK**.



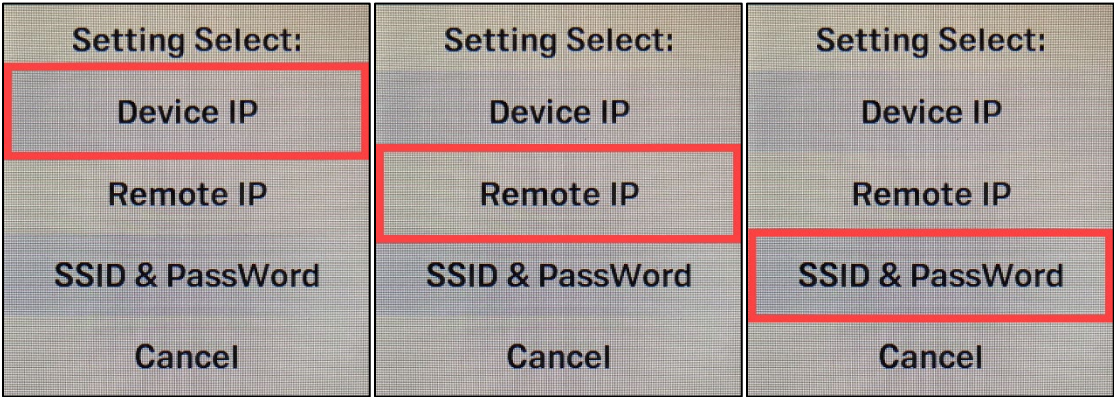
8.2. Configuring Wi-Fi Settings

Follow the steps below to configure Wi-Fi settings.

- 1. Enter the main menu and select **Wi-Fi Settings**.

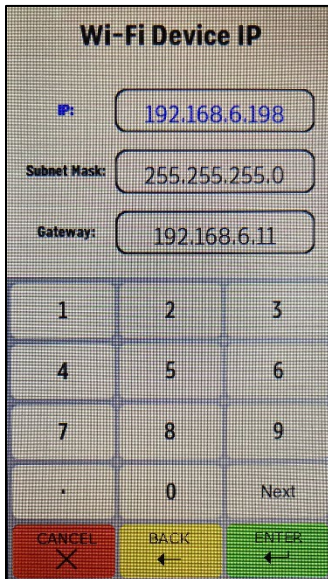


- 2. Select **Device IP**, **Remote IP**, or **SSID & Password** as needed.



### 8.2.1. Setting the Device IP

1. To set the Device IP, enter IP address information in the field highlighted in blue.



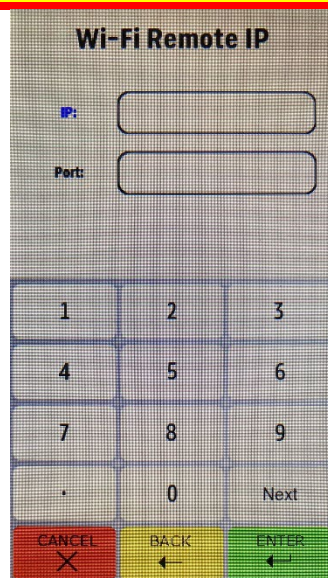
The image shows a 'Wi-Fi Device IP' configuration screen. It has three input fields: 'IP:' (highlighted in blue), 'Subnet Mask:', and 'Gateway:'. The 'IP:' field contains '192.168.6.198', 'Subnet Mask:' contains '255.255.255.0', and 'Gateway:' contains '192.168.6.11'. Below these fields is a numeric keypad with digits 1-9, a decimal point, and a 'Next' button. At the bottom are three buttons: 'CANCEL' (red with an X), 'BACK' (yellow with a left arrow), and 'ENTER' (green with a right arrow).

- a. Select **Next** to move to the next field.
  - b. Select **Enter** after completing the configuration to save.
  - c. To clear a field, select **Cancel**.
  - d. To exit the menu without making changes, select **Cancel** again.
2. The VP6800's screen displays an **IP is Set** dialog on success.

### 8.2.2. Setting the Remote IP

1. To set the Remote IP, enter IP address information in the field highlighted in blue.

ID TECH's Encryption protocol port is **1443**; make sure to enter that number as the port.



The image shows a 'Wi-Fi Remote IP' configuration screen. It has two input fields: 'IP:' (highlighted in blue) and 'Port:'. Below these fields is a numeric keypad with digits 1-9, a decimal point, and a 'Next' button. At the bottom are three buttons: 'CANCEL' (red with an X), 'BACK' (yellow with a left arrow), and 'ENTER' (green with a right arrow).

- a. Select **Next** to move to the next field.
- b. Select **Enter** after completing the configuration to save.

- c. To clear a field, select **Cancel**.
  - d. To exit the menu without making changes, select **Cancel** again.
2. The VP6800's screen displays an **IP is Set** dialog on success.

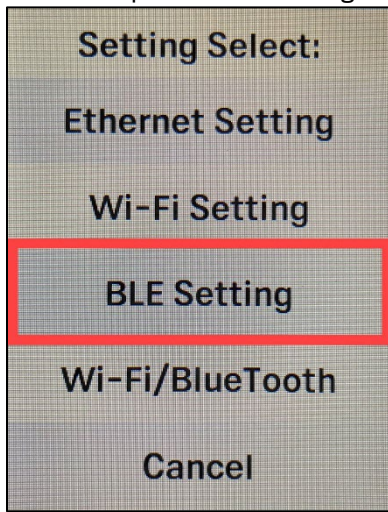
### 8.2.3. Setting the SSID and Password

1. To set the SSID and Password, enter the required information in the field highlighted in blue.

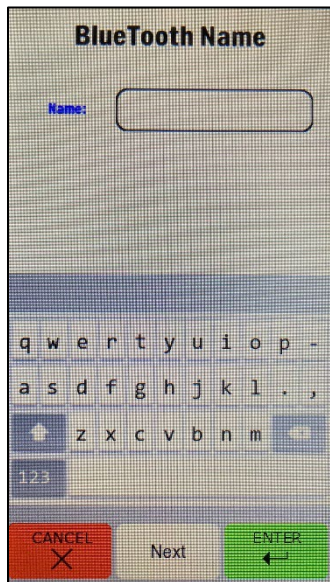
- a. Select **Next** to move to the next field.
  - b. Select **Enter** after completing the configuration to save.
  - c. To clear a field, select **Cancel**.
  - d. To exit the menu without making changes, select **Cancel** again.
2. The VP6800's screen displays an **Account is Set** dialog on success.

### 8.3. Configuring BLE Settings

Follow the steps below to configure Bluetooth name settings.



1. Enter the main menu and select **BLE Settings**.



2. Select **Name**.
3. Enter the desired Bluetooth identifier name in the Name field.
  - a. Select **Enter** after completing the configuration to save.
  - b. To clear a field, select **Cancel**.
  - c. To exit the menu without making changes, select **Cancel** again.
3. The VP6800's screen displays a **Name is Set** dialog on success.

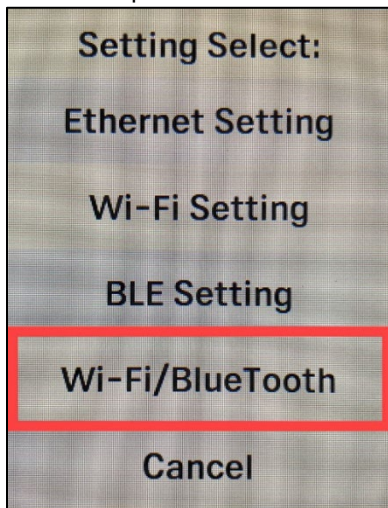
### 8.3.1. Selecting Wi-Fi or Bluetooth

**Note:** VP6800 units can only transmit wirelessly over one communication format at a time: Wi-Fi or Bluetooth. In addition to the steps below, see the following commands in the *NEO 2 Interface Developer's Guide*:

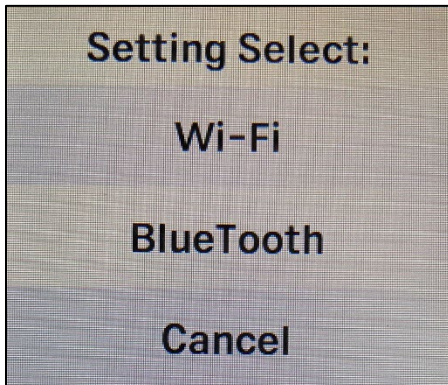
- **Enable/Disable Communication Port (D2-03)**
- **Set Wireless Work Mode (D1-19)**

When using an iOS device, make sure to enable Bluetooth communication.

Follow the steps below to choose either Wi-Fi or Bluetooth.



1. Enter the main menu and select **Wi-Fi/Bluetooth**.



2. Select **Wi-Fi** or Bluetooth to choose the desired communication format.
  - a. Select **Cancel** to exit the menu without making any changes.

## 9. Security Guide

The VP6800 is an unattended device. Contact your ID TECH representative or send an e-mail to [support@idtechproducts.com](mailto:support@idtechproducts.com) if you have any questions involving the product's daily use. We recommend you conduct daily checks of the device as follows:

- Check the tamper evidence physical seals, to make sure they are intact.
- Power on the device, check the beeper, and the display message, making sure there is no tamper indication (see earlier chart for beeper interpretation). Also read the firmware version, making sure the firmware version is correct.
- Check the touchpad, to make sure there is no physical overlay on the touchpad.
- Check the appearance of device, to make sure there isn't any hole on the device or suspicious object around the ICC card slot.
- Check the MSR (magnetic stripe) slot, to make sure there is no alteration of the device.

## 10. Decommissioning PCI-Certified Devices

All PCI devices require proper decommissioning prior to device disposal in order to ensure the protection of all sensitive financial card data. For instructions on decommissioning your device, see [Decommissioning of PCI-Certified Devices](#) on the ID TECH Knowledge Base.

## 11. Troubleshooting

Consult the [ID TECH Knowledge Base](#) for troubleshooting assistance.

## 12. 24-Hour Device Reboot

Per PCI Requirements, this device reboots every 24 hours. Please contact your device integrator if you need to check the reboot time for your unit.

## 13. Firmware Reference

The VP6800 uses ID TECH's NEO 2 firmware. For a comprehensive guide to the device's firmware-level commands, ask your ID TECH representative for the *NEO 2 Interface Developer's Guide* (or IDG). It is available at no charge to customers on request.

## 14. Software Development Support

To facilitate integration of the VP6800 into vending, POS, and other environments, ID TECH makes available a Universal SDK that enables the rapid development of software apps for the VP6800 using C# on Windows or C++ on Linux. To obtain the Universal SDK, go to the ID TECH [Knowledge Base](#) and choose the VP6800 from the Product page listings. Further information will be available there.

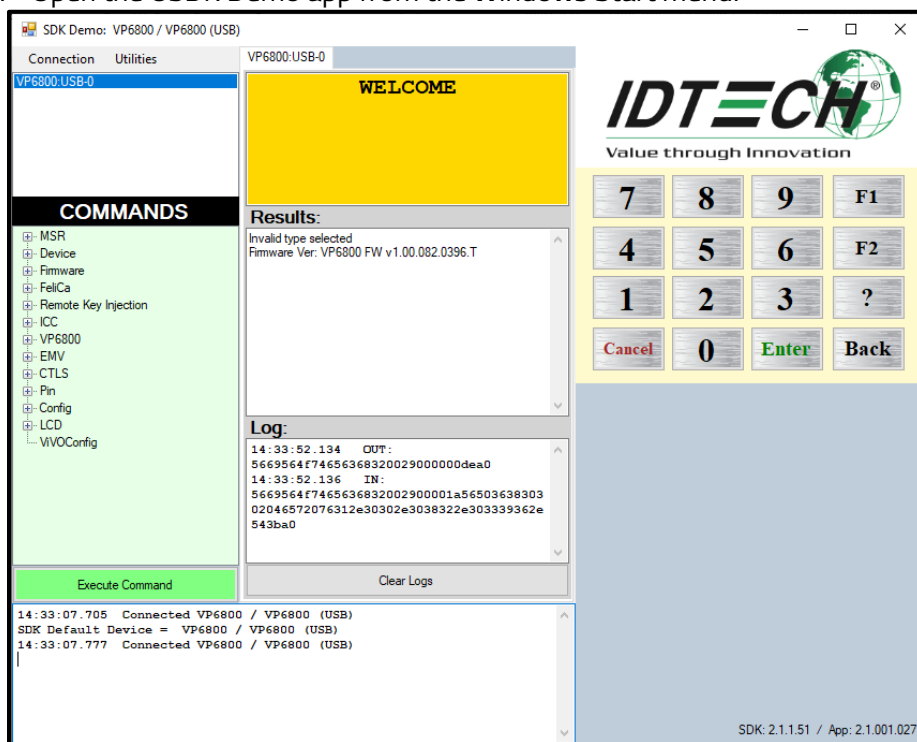
The Universal SDK contains redistributable libraries, sample code, and other materials that will aid you in quickly creating the VP6800 applications, greatly reducing the time spent in configuring the device, parsing transaction data, etc.

## 15. Updating VP6800 Firmware

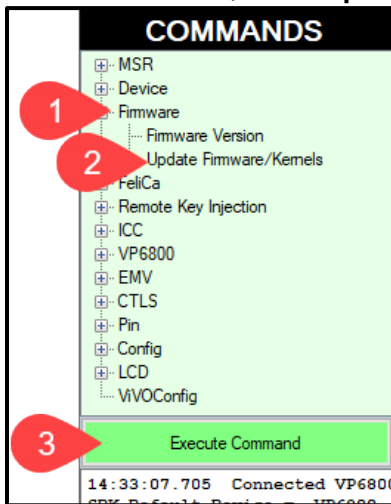
The steps below describe the process for updating VP6800's firmware (for both its K81 and RT1050 processors) via the Universal SDK Demo.

**Note:** Before you begin, contact your ID TECH representative to receive the most recent VP6800 firmware. Download the ZIP file and extract it to your computer.

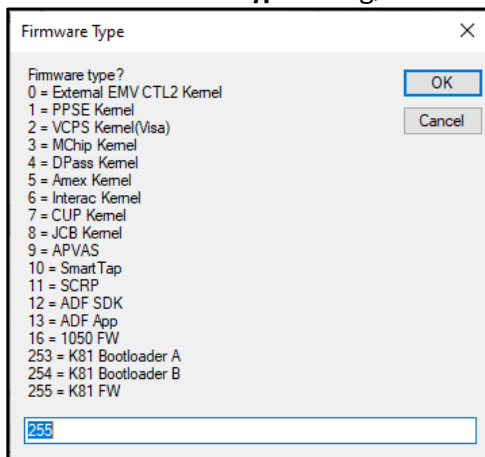
1. Connect the VP6800 to your PC via USB or serial port.
2. Download and install the latest [USDK Demo app](#) from the ID TECH Knowledge Base (if you cannot access the link, please [contact support](#)).
3. Open the USDK Demo app from the Windows Start menu.



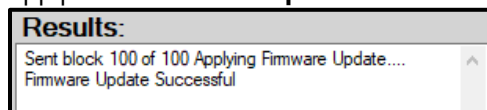
4. Under **Firmware**, select **Update Device Firmware**, then click **Execute Command**.



5. In the **Firmware Type** dialog, enter **255** for **K81 FW** and click **OK**.

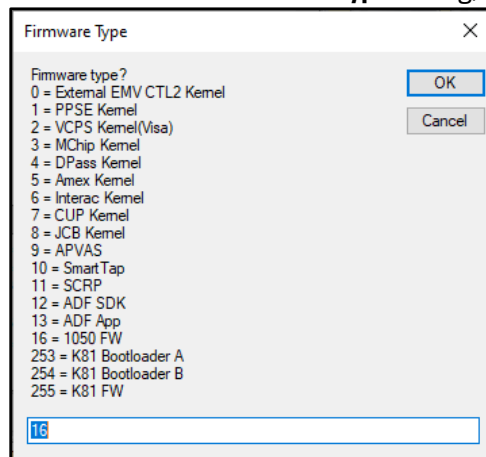


6. In the File Explorer window, navigate to the directory where you saved the K81 firmware update, select the FW file that starts with **NEO\_II\_vp6800\_...** and click **Open**.
7. The VP6800 reboots and enters the bootloader, at which point the USDK Demo app begins updating the device's K81 firmware.
8. When the K81 firmware update completes, the VP6800 reboots again and the USDK Demo app prints **Firmware Update Successful** in the **Results** panel.



9. Next, to update the RT1050 Firmware select **Firmware**, select **Update Device Firmware**, then click **Execute Command** again.

10. This time in the **Firmware Type** dialog, enter **16** for **RT1050 FW** and click **OK**.



11. In the File Explorer window, navigate to the directory where you saved the RT1050 firmware update, select the RT1050 FW file that starts with **VP6800FW\_RT1050\_...** and click **Open**.
12. The VP6800 reboots and enters the bootloader again to update the device's RT1050 firmware.
13. When the RT1050 firmware update completes, the VP6800 reboots again and the USDK Demo app prints **Firmware Update Successful** in the **Results** panel.

## 16. Appendix A: Power Over Ethernet Splitter

In environments that require communication with the VP6800 via powered ethernet, ID TECH offers an optional POE splitter (P/N: 80159280-001).

### 16.1. ID TECH POE Splitter

**Color:** Black

**Material:** SABIC Lexan 925U

#### POE Splitter SPEC

|                              |                                                                                        |
|------------------------------|----------------------------------------------------------------------------------------|
| <b>POE Power input</b>       | 44-57VDC                                                                               |
| <b>POE protocol</b>          | IEEE802.3af                                                                            |
| <b>Output Power</b>          | 5V/2.4A (+/- 0.3V Noise/ripple<100mVp-p)<br>Efficiency :70% min<br>Temperature protect |
| <b>Ethernet Data</b>         | 10/100M                                                                                |
| <b>LED</b>                   | LED Color: Green<br>Sleep Mode: Blinking<br>Run Mode: Constantly bright                |
| <b>Operating Temperature</b> | -25°C - +70°C (at least 5V/2.4A)                                                       |
| <b>Storage Temperature</b>   | -40°C - +80°C                                                                          |
| <b>Working Humidity</b>      | 10%~95%                                                                                |
| <b>Storage Humidity</b>      | 5%~95%                                                                                 |
| <b>Certifications</b>        | FCC part 15 class B/CE/RoHS2                                                           |
| <b>ESD</b>                   | Contact ±8KV, Air ±10KV                                                                |
| <b>Isolation</b>             | 1.0KV                                                                                  |
| <b>Power/Data cables</b>     | 23cm Length                                                                            |

## 17. Appendix B: Supported Micro SD Cards

The VP6800 supports a limited number of Micro SD cards; the following cards have been tested and verified for the device:

- Kingston/SDC4/8GB
- Kingston/SDCS/16GB
- SanDisk/micro SDHC UHS-I card/16G