ALVARADO
dormakaba Group

UltraQ
PUD4478R2-0 Version 1.0

User Guide

Contents

For Assistance: support@alvaradomfg.com +1 (909) 591-8431   PUD4478R2-0

Document Preface

This document describes how to use the Alvarado UltraQ intelligent admission device with ValiD8 software, change some basic configurations, and perform basic troubleshooting.

This document is intended to be used by gate managers, IT personnel, and any other personnel responsible for overseeing the use and maintenance of Alvarado UltraQ devices.

This document assumes the following about your UltraQ device(s).

- The device is installed on a turnstile.

- The device connected to power.

- The device can connect to the venue's validation server.

Support

For questions or comments regarding this guide or using the SVT, contact Alvarado Entertainment Support. Support hours are Monday–Friday 8:00 AM to 4:00 PM Pacific time.

Email: **support@alvaradomfg.com**

Phone: 909-591-8431

Basic Operations

Powering the Unit On and Off

Use a slim object, like a pencil or stylus, to press the recessed power button on the back of the turnstile cabinet, or on the back of the head for OEM units, to power it on. The device runs through its boot-up sequence after it receives power. The unit is typically ready to validate tickets 40 to 60 seconds after startup.
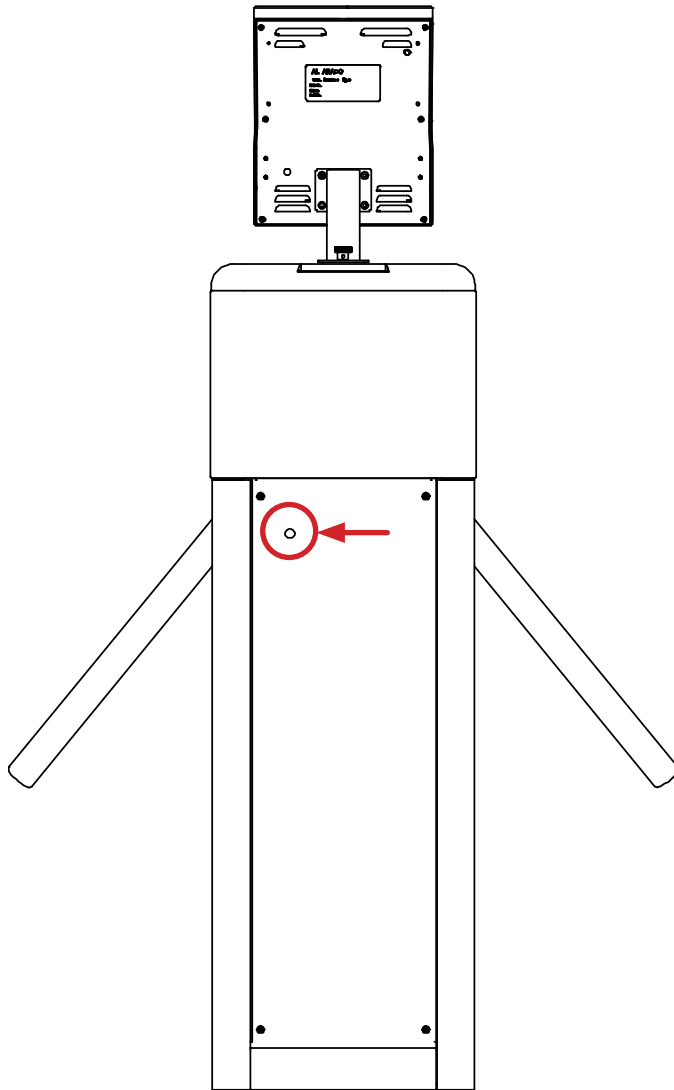
Recessed power button on UltraQ-AMT devices
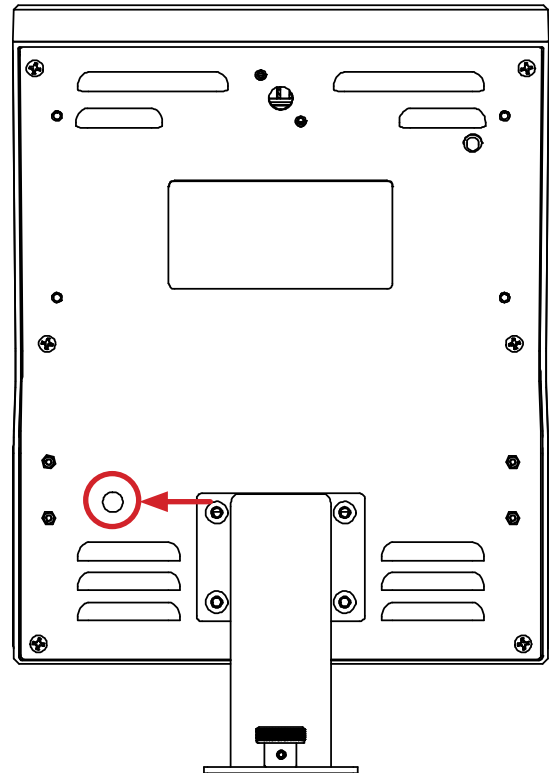
Recessed power button on OEM devices

NOTE	Turn battery-powered devices on shortly before scanning events and turn them off when scanning is finished. Don't leave the devices powered on for long periods of time when not being actively used during a scanning event.

Going Online

After the ValiD8 application launches, the device will try to establish a connection (go online) to the validation server. UltraQ devices typically require only a few seconds to go online but may take up to a minute depending on their connection strength.

If the unit cannot connect to the server, it enters *Offline Mode*. See the **Offline Validation** section on page 9 for more information. The device's connectivity status is shown in the ValiD8 application and indicated by the attendant-facing LED.

To check connectivity status using the ValiD8 application, swipe up from the bottom of the "Please Scan" screen to display network information.

You can also tap the screen three times within two seconds and check the connection status icon. The icon in the upper-right corner of the screen will indicate if the device is currently online or offline.

Connection status icon
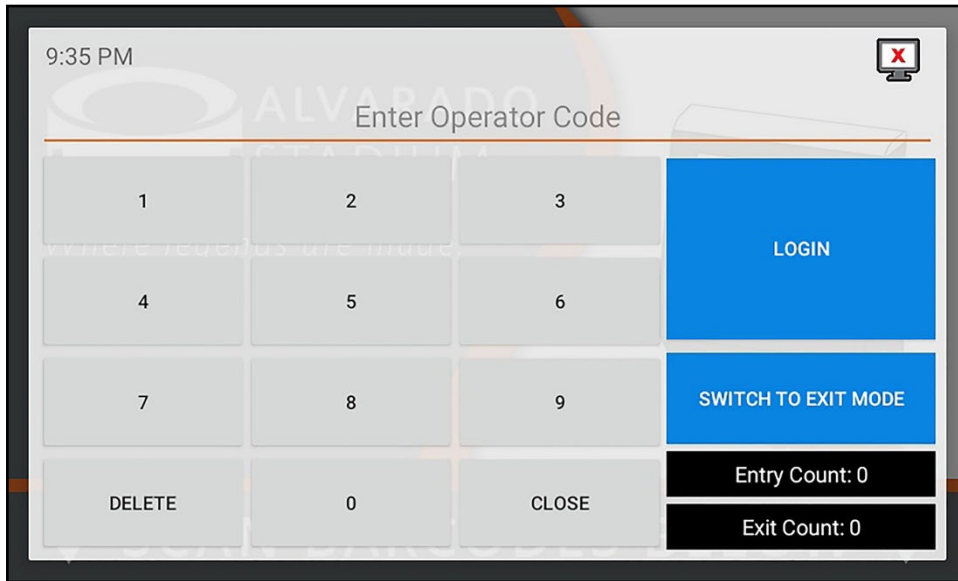
Online icon

Offline icon

The rear-facing LED blinks continuously if the device is offline. If it is constantly illuminated, the device is online.
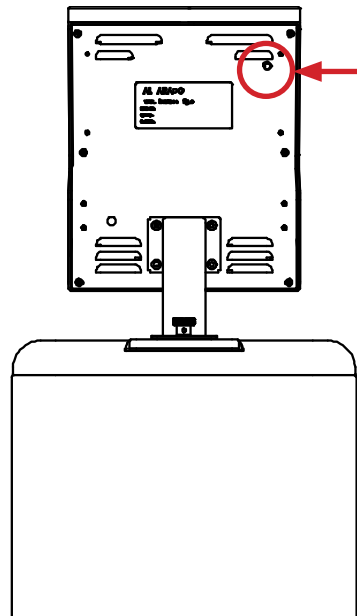

Attendant-facing LED

Scanning Barcodes

The imager in the UltraQ can scan both 1D and 2D barcode symbologies. The imager can detect barcodes on traditional paper media, plastic cards, and mobile phone screens.

The UltraQ indicates it is ready to scan barcodes when the imager is on and the "Scan Ticket" image or video displays on the screen. To scan a ticket, align the barcode with the green aimer light until the device reacts to the scan. The green aimer light is not visible until something is presented to scan.

Green Aimer Light
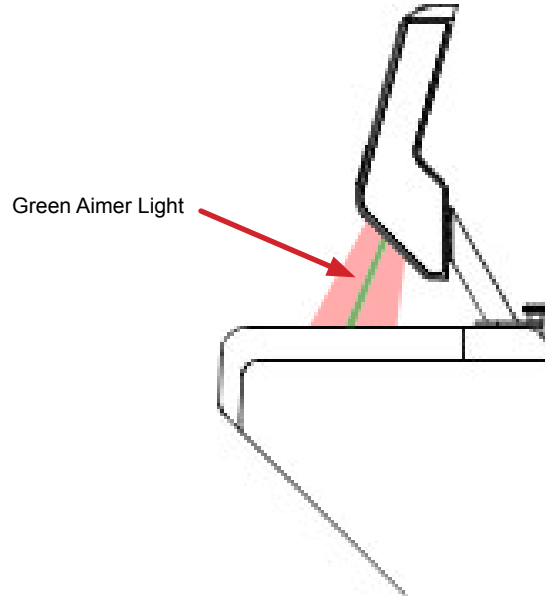
After the device scans a ticket, it requests a validation response from the validation server. The server determines whether a ticket is valid or invalid and returns that response to the device. The device will then display the validation result to the patron.

When the ticket is valid, the UltraQ will:

- Play a "Good Ticket" chime

- Display a "Valid Ticket" image

- Unlock the turnstile arm

THANK YOU
PLEASE PROCEED

When the ticket is invalid, the UltraQ will:

- Play an "Invalid Ticket" alarm

- Display an "Invalid Ticket" image

- Keep the turnstile arms locked

"Valid Ticket" and "Invalid Ticket" images can be customized for specific responses from the validation server, so the images you see may differ from those shown above.

You can check the validation response for any ticket on the *Manual Validation* screen. See the **Manual Validation and Response Lookup** section on page 13 for more information.

Scanning RFID/NFC Media

The RFID/NFC reader installed in UltraQ devices can read both RFID media, such as cards or wristbands, and NFC information on mobile devices like Apple Wallet and Google Pay. UltraQ devices are certified for both Apple Wallet and Google Pay.

The UltraQ indicates it is ready to scan RFID or NFC media when the imager is on and the "Scan Ticket" image or video displays on the screen. To scan, touch the RFID or NFC media directly against the reader zone on the face of the UltraQ unit.
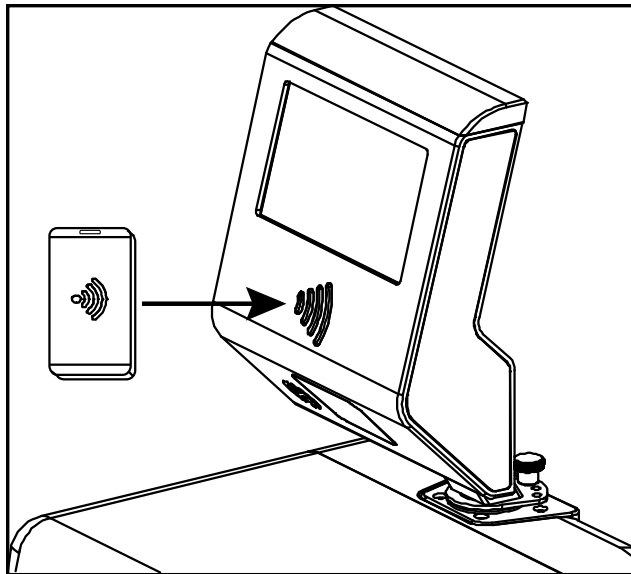
The UltraQ will respond to RFID and NFC scans the same way it responds to standard barcode ticket scans. Refer to the previous section for details.

Exit Mode

Entry/exit validation events allow patrons to enter and exit a facility multiple times using a single ticket. After a ticket is scanned in by a device in entry mode, it can be scanned out by a device in exit mode. After the ticket is scanned out, it can be scanned in again by a device in entry mode.

Offline Validation

Devices can perform limited ticket validation even if they are not connected to the server. The device enters Offline Mode whenever it loses connection to the server or if the device operator manually enables it. Offline Mode can be manually enabled on the *Device Setup* screen. See the **Device Setup** section on page 12.

The default method for validating tickets while in Offline Mode, the device can only use the ticket's barcode length and offline validation masks to determine whether it is valid or not.

The **minimum** and **maximum ticket length** fields on the Device Setup screen define the number of digits the barcode must have for device to accept it for validation. If the device is online, it will not validate any ticket that has barcode number that falls outside this range. When in Offline Mode, the device assumes that any ticket that falls within this range is valid. Unless a validation mask is also set up for the event, the barcode range is the only method the device uses to validate tickets while offline.

Cleaning and Disinfecting

Clean and disinfect UltraQ devices according to the guidelines below.

- **CAUTION:** Disconnect the unit from all power before cleaning any electrical contacts.

- Alvarado recommends using DeoxIT to clean electrical contacts.

- When cleaning the devices, do not pour, spray, or spill any liquid directly onto the devices. Instead, use a soft cloth dampened with an approved cleaning solution to clean and disinfect the UltraQ.

CAUTION
DO NOT pour,
spray, or spill any
liquid directly
onto the devices.

- Do not use paper towels to clean the UltraQ as they may scratch the surfaces.

- For standard daily cleaning, use a damp microfiber cloth to remove dirt particles from any powder coat or stainless-steel surfaces.

- To clean stainless steel surfaces, use a commercially available stainless-steel cleaner or polish. If a heavier scratch mark is apparent, a metal blend and finish pad by 3M Company, or equivalent, may be used before the stainless-steel cleaner is applied. Always polish in the direction of the grain.

- If powder coat surfaces require additional cleaning, use a soft, non-abrasive brush and a dilute solution of a mild detergent, such as pH-neutral liquid hand dishwashing detergent in warm water. Thoroughly rinse the powder coat surfaces with clean, fresh water afterwards. Do not use the brush to clean the IntraQ head or you may get water inside the housing.

- When disinfecting, use a cleaning agent that is free of bleach, ammonia, or any of the other chemicals in the list of known harmful ingredients below. Gently wipe all surfaces that need to be disinfected, including the screen and any powder coat surfaces, and allow to air-dry.

- Examples of acceptable disinfecting products include, but are not limited to, Clorox Non-Bleach Disinfecting Wipes or Sani-Cloth Plus Germicidal Wipes.

- The following ingredients are **known to be harmful** to the devices. **Do not** use cleaning products that include any of these chemicals.

    - Ammonia solutions

    - Compounds of amines or ammonia

    - Acetone

    - Ketones

    - Ethers

Administrator Functions

Logging into the Administrator Menu

Use the *Administrator Menu* to access the device's advanced functionality.

IMPORTANT   Making changes to the device can affect the device's ability to scan tickets, so only authorized personnel should be able to access and use the *Administrator Menu*.

The instructions below show how to access the Administrator Menu.

1. While on the scan screen, **tap the screen three times within two second**s to go to the Login screen.

2. On the Login screen, enter a valid Login ID into the field and press **LOGIN** to go to the *Administrator Menu*, shown below.

3. Press one of the buttons on the *Administrator Menu* to go to that screen.
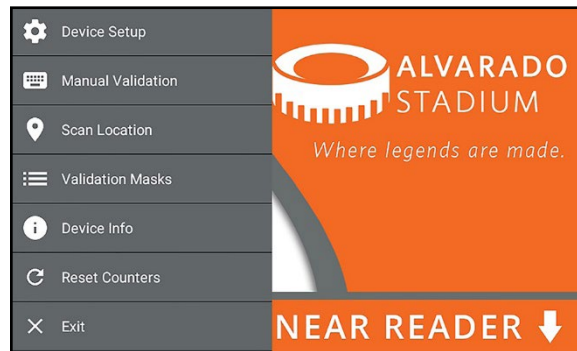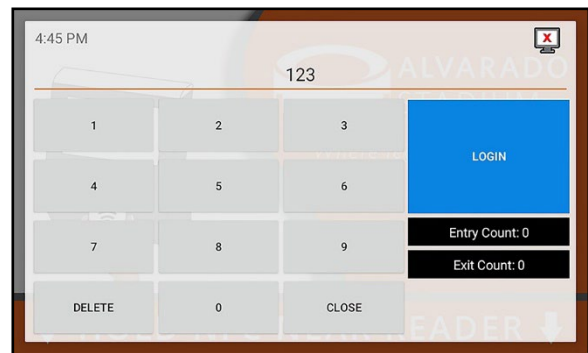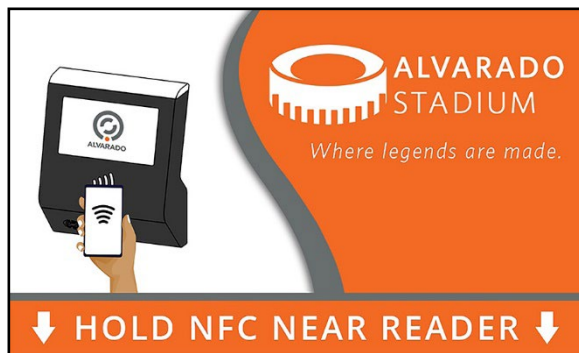
Device Setup

The *Device Setup* menus allow you to manually configure each device. See the *ValiD8 Advanced Configuration Guide (PUD4454)* for information on the individual device setup options. Contact Alvarado Entertainment Support for a copy.

| IMPORTANT | These settings can affect communication with the validation server and how the device validates tickets. Alvarado does not recommend changing configuration settings manually during normal operations. |

If you need to make the same configuration changes to multiple devices, Alvarado recommends using **Gate Utility** instead of updating each device manually. See the *GateUtility User Guide (PUD4318)* for more information. Contact Alvarado Entertainment Support for a copy.

To go to the *Device Setup* screen, log into the *Administrator Menu* and select **Device Setup**. The Device Setup screen can be password protected to prevent unauthorized access. The default password is **alvarado**.

Performing Hardware Tests

There are some hardware tests you can perform under the *Device Setup > Advanced Setup > Hardware menu* to verify proper operation of your UltraQ and turnstile, if applicable. The hardware tests can be found at the very bottom of the *Hardware* configuration screen.
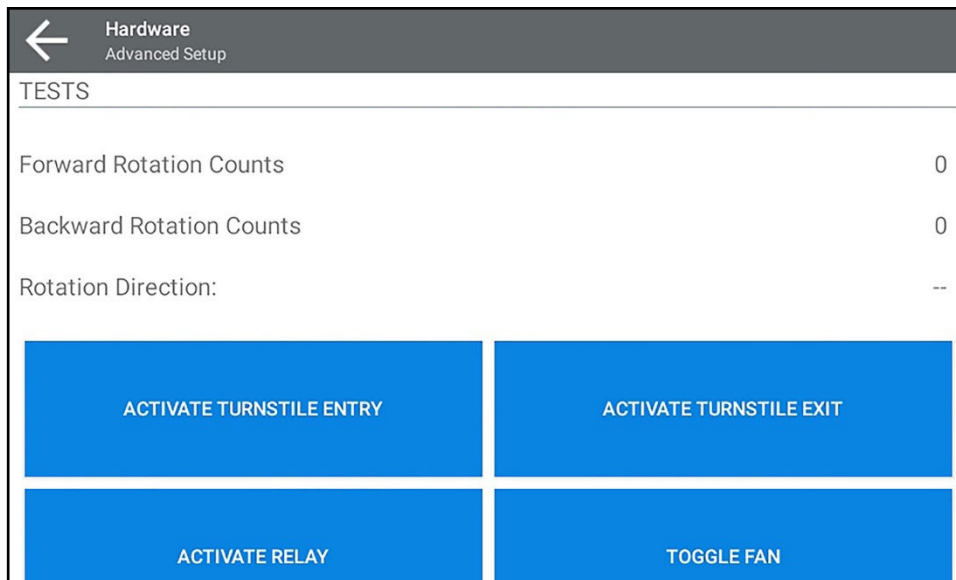
The following tests are available.

- **Activate Turnstile Entry** – Unlocks the turnstile arm so you can rotate it once in the entry direction. The Forward Rotation Counts number will increment to indicate a successful rotation.

- **Activate Turnstile Exit** - Unlocks the turnstile arm so you can rotate it once in the exit direction. The Backward *Rotation Counts* number will increment to indicate a successful rotation.

- **Activate Relay** – Activates the connected relay, if installed.

- **Toggle Fan** – Turns the fan on or off.

Manual Validation and Response Lookup

Device operators can manually enter a ticket number for validation, such as when a printed barcode is of poor quality and cannot be read by the imager. Operators can also use the *Manual Validation* screen to check the response code returned when a ticket is validated, such as when a ticket is invalid but is only displaying the generic "Invalid Ticket" image.

Go to the *Manual Validation* screen by logging into the *Administrator Menu* and pressing the **Manual Validation** button.

If you only want to manually validate or check the response of a single ticket, tap the screen two times and swipe to the left. Once the ticket is validated, the device will return to the "Please Scan" screen.
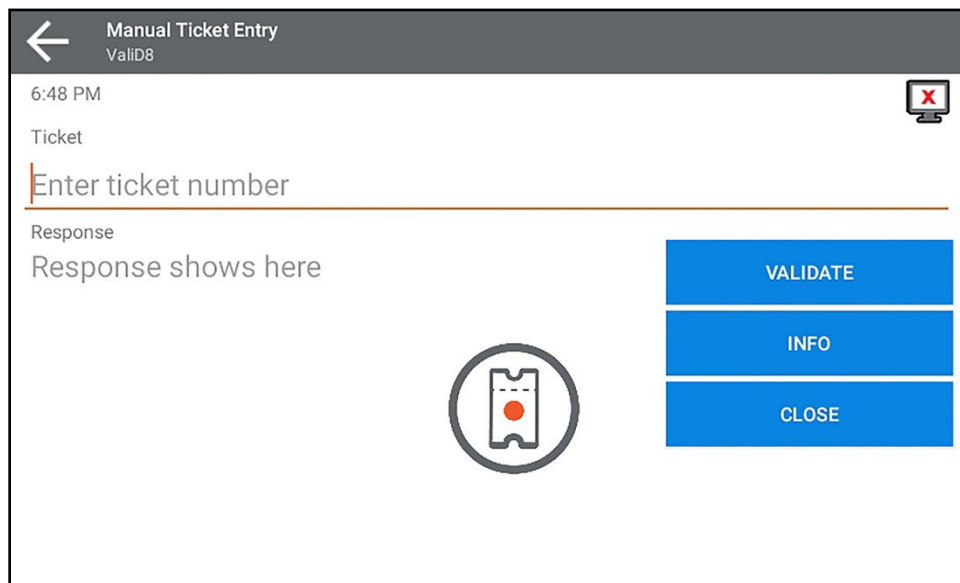
When on the *Manual Validation* screen, you can either scan a ticket normally using the imager or RFID/NFC reader, or you can tap the *Enter ticket number* field and manually enter the ticket number.

Operators can also use *Ticket Information Mode* to display details about a ticket. The device does not attempt to validate a ticket while it is in *Ticket Information Mode*. Information Mode displays the following information about a ticket after a scan or manual entry.

- The ticket number (if the ticket was scanned instead of entered manually).

- The response message that would appear if the ticket was validated.

- The date, time, and device at which the most recent scanning activity occurred.

- The ticket's User Field information (Level, Section, Row, and Seat by default and if applicable).

NOTE	The information displayed when in *Information Mode* may change depending on what information is provided by your ticketing provider. Information Mode may not be compatible with some ticketing providers.

You can set whether *Ticket Validation Mode* or *Ticket Information Mode* applies by default by enabling the **Information Mode** option in the *Device Setup* menu.

Use one of the following methods to bring up information about a ticket.

- Scan a ticket while in *Ticket Information Mode*.

- Manually enter a ticket number and press the **Info** button.

- Press the **Info** button after validating a ticket.

NOTE	Pressing the **Info** button while in Ticket Validation Mode will display information for the last ticket the device validated.

Validation Masks

Go to the *Validation Masks* screen by logging into the *Administrator Menu* and pressing the **Validation Masks** button.


The *Validation Masks* screen allows operators to add, edit, or delete validation masks, if the device is not currently connected to the server and the Edit Validation Masks setting is enabled. A validation mask is a pattern that ticket barcodes must match to be considered valid.

The device automatically downloads validation masks that are valid for the day when the device first comes online. Each device can have up to eight validation masks active at one time. In cases where there are more than eight events with validation masks that are valid for the day, the device will download masks by event name in alphanumeric order.
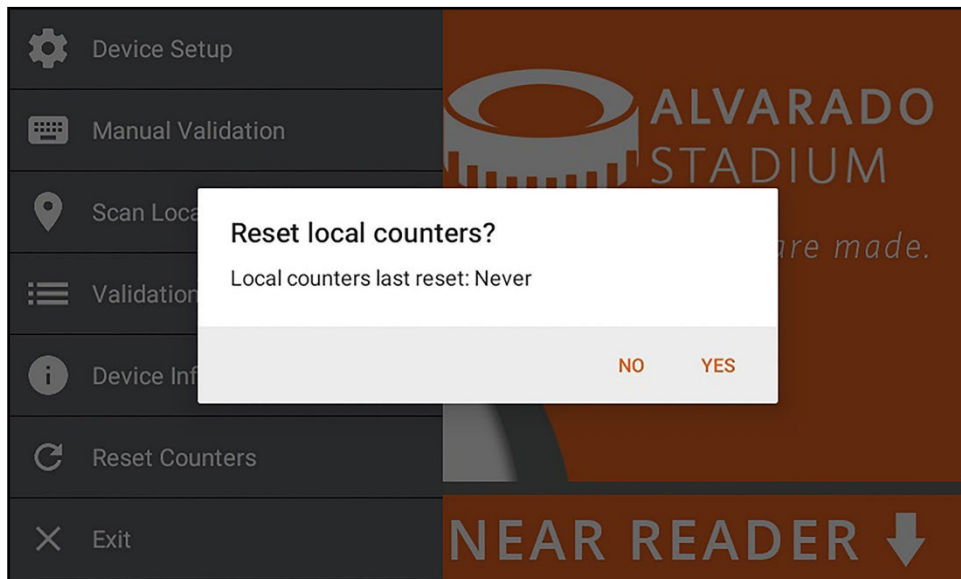
Reset Counters

Device counters keep track of entry and exit passages recorded by the device and are visible on the *Operator Login* screen.
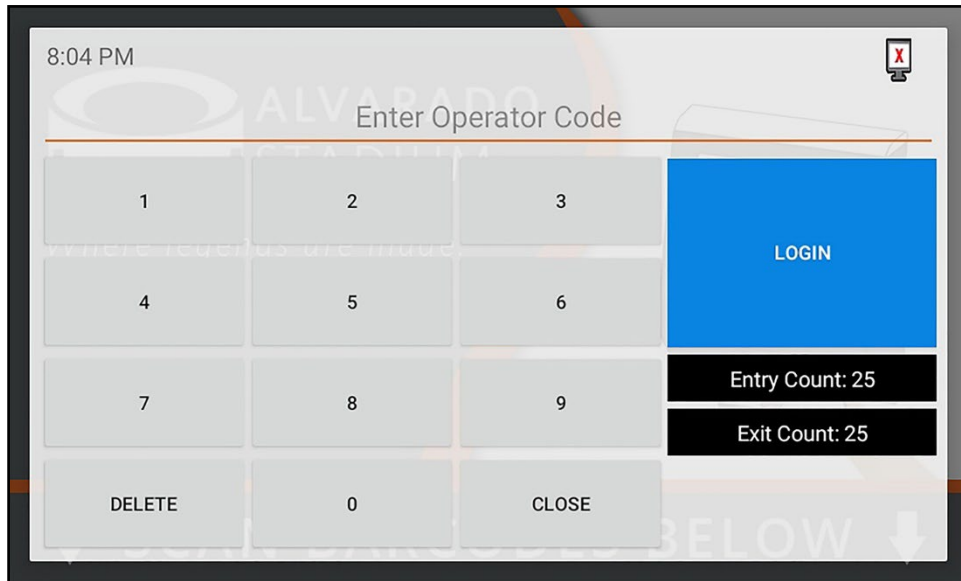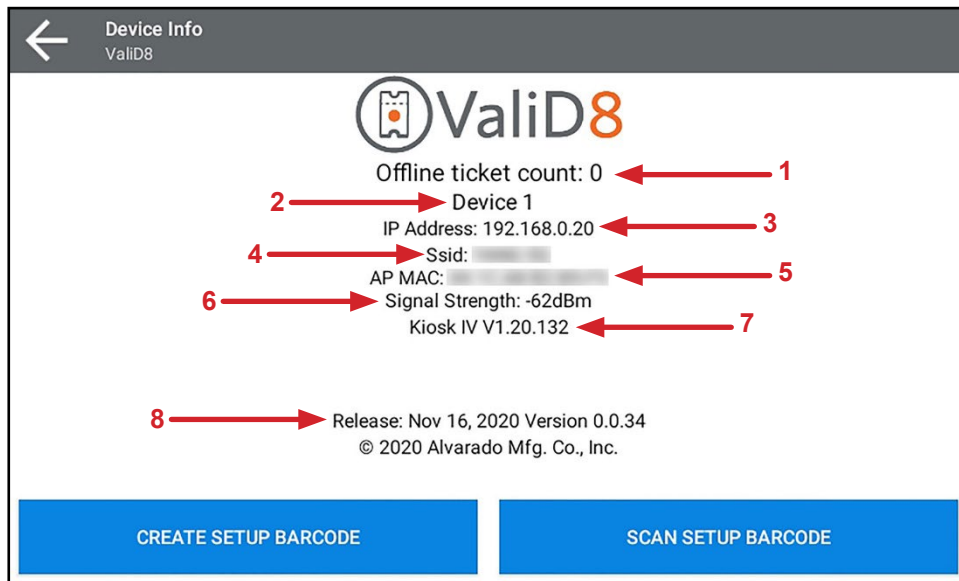

Entry/Exit Counts

To reset the device counts, log into the *Administrator Menu* and press **Reset Counters**. Press **Yes** when prompted.

Device Information

Go to the *Device Information* screen by logging into the *Administrator Menu* and pressing the **Device Info** button.

The *Device Info* screen displays the following information:

1. Number of **offline tickets** the device has stored in its local memory.

2. The **device name**, which it obtains from the server.

3. The **IP address** the device is currently assigned.

4. The name **(SSID)** of the network the device is currently connected to.

5. The **MAC address** of the access point the device is connected to.

6. The **signal strength** of the device's connection to the access point.

7. The **firmware version** of the RFID/NFC reader, if applicable.

8. The **release date and version** of ValiD8 the device is currently running.

Create and Export Configuration File

You can create a setup file that can be used to configure other devices with identical settings.

Clone Device Settings

1. Configure the *Device Setup* as desired.

2. Press the **Menu** button and select **Device Info**.

3. Press **Create Setup Barcode**. The device exports an INI file containing the current configuration to the device's *Internal Storage\Documents* folder.
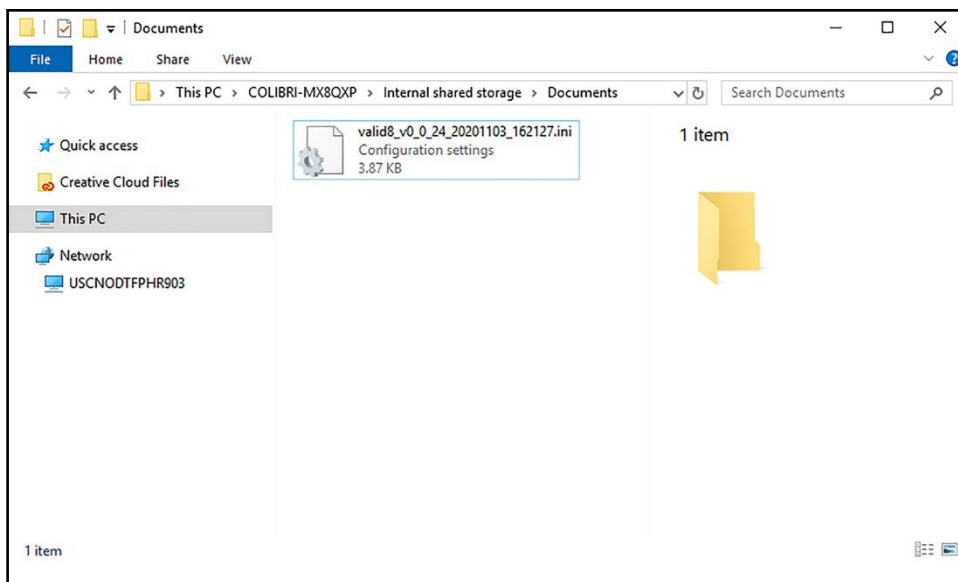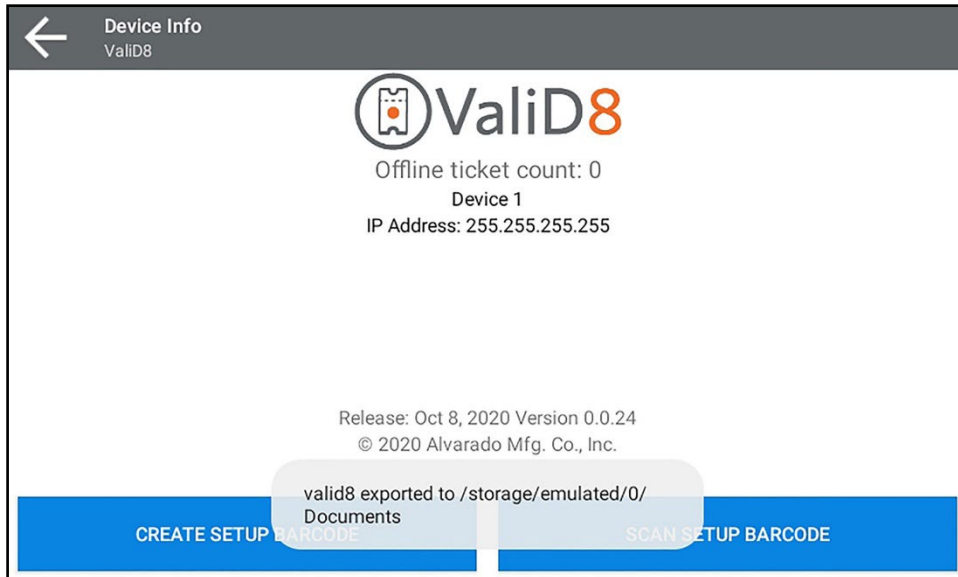
Setup file save location as seen from your computer

Load INI File on Device Startup

You can clone device settings from one device onto any other device using the INI file.

NOTE	See **Appendix 1** on page 21 for information about connecting to the device to add, remove, or edit files.

1. Follow the steps in the **Clone Device Settings** section on page 18.

2. Cut or copy the INI file from the original device to your computer.

3. Rename the file to **valid8.ini**.

4. Paste the INI file into the *Internal Shared Storage\Settings* folder of each device you would like to update.
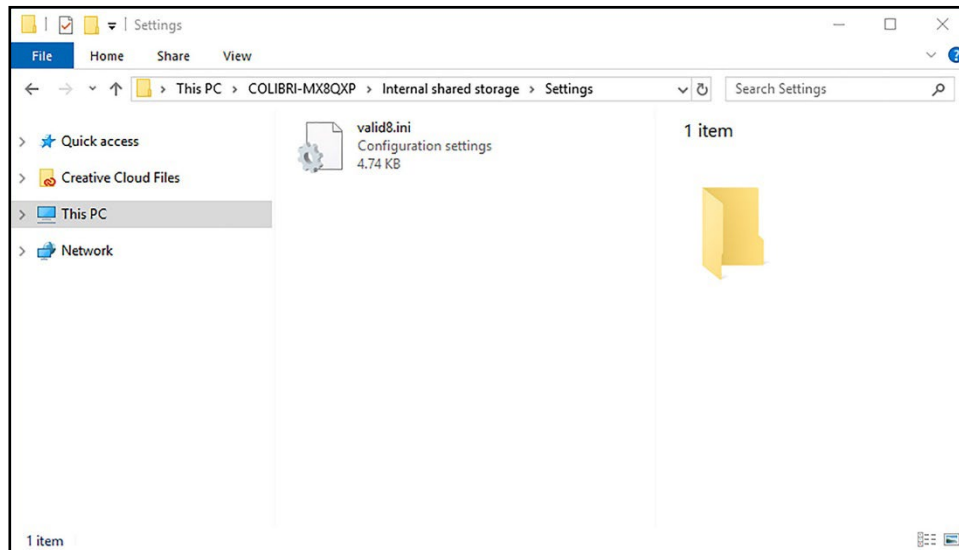
5. Restart the device(s). The settings from the *valid8.ini file* will be applied to the devices when the application starts and the INI file will be removed from the Settings folder.

Scan Setup Barcode

Instead of moving the INI file to devices to update their configuration, you can create a setup barcode.
Scanning the setup barcode will update the device's configuration.

1. Follow the steps in the **Clone Device Settings** section on page 18.

2. Cut or copy the INI file from the original device to your computer.

3. Use a barcode generator to turn the text of the INI file into a QR code.

4. On a device you want to update, log into the *Administrator Menu* and select **Device Info**.

5. Press the **Scan Setup Barcode** button.

6. Present the setup barcode to the imager. The device will report when it successfully scans the barcode.

Exiting the ValiD8 Application

To exit the application and go to the applications menu, go to the *Device Information* screen by logging into the *Administrator Menu* and press the **Exit** button. Tap the (password) field to bring up the on-screen keyboard. Enter the password into the field and press **Confirm**. The default password is **alvarado**.
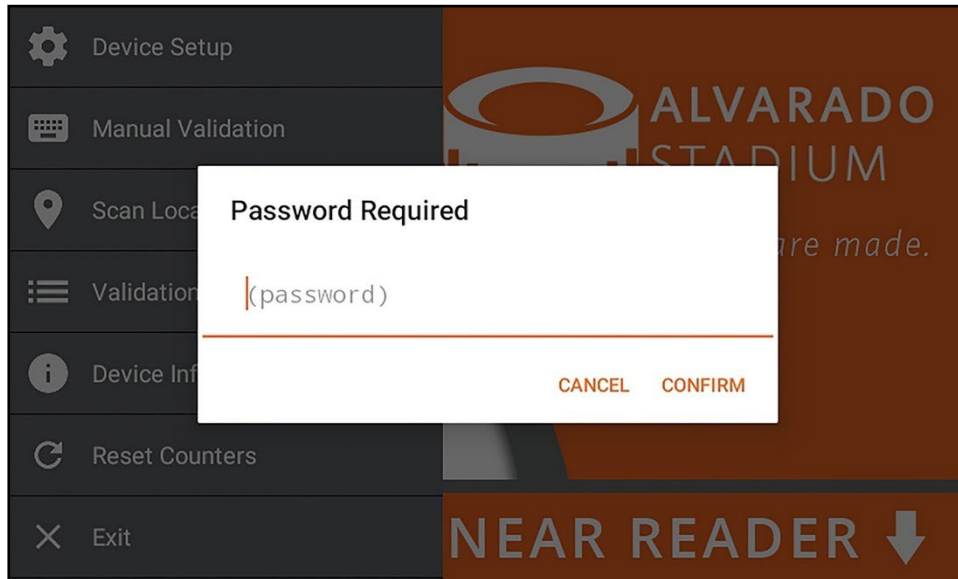
## Appendix 1 – Viewing and Editing Device Files

Using GateUtility

GateUtility is an application that allows files to be distributed to multiple devices at once. Contact Alvarado Entertainment Support for installation files and instructions.
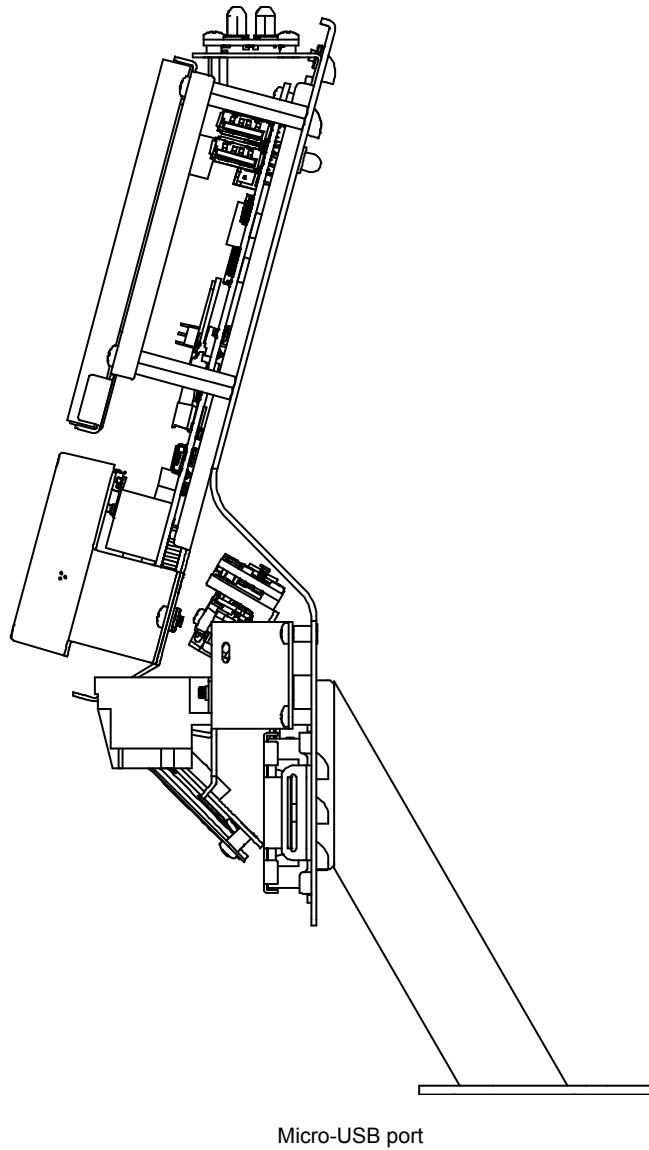
Using a Computer

To connect to the device with a computer, you will need a Phillips-head screwdriver and a micro-USB cable.

1. Use a Phillips-head screwdriver to remove the six screws securing the case to the UltraQ head.
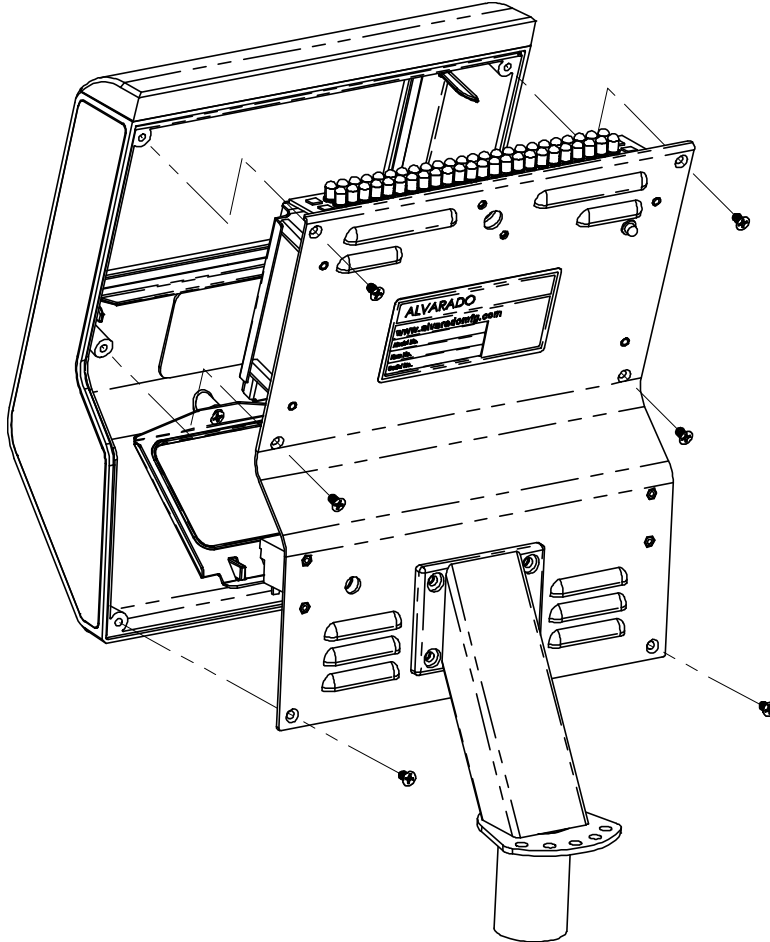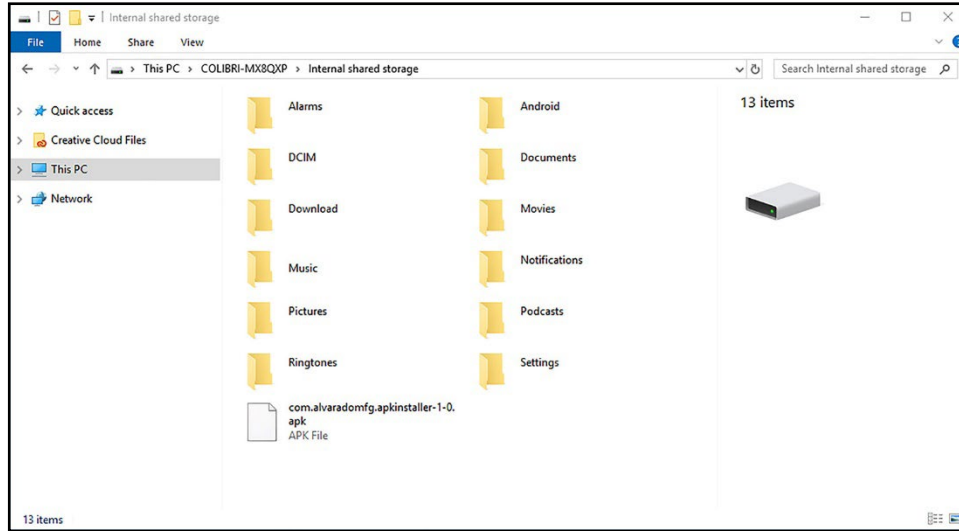
2. Connect your computer to the UltraQ with the micro-USB cable.

Micro-USB port

3. Open Windows *File Explorer* on your computer and navigate to the *This PC\COLIBRI-MX8QXP\Internal shared storage*.


| Folder	Contents
Download	Place any APK update files into this folder when updating the ValiD8 application.
Pictures	Place custom image files into this folder to replace "Please Scan", valid, and invalid screens in the application.
Ringtones	Place custom sound files for scan results into this folder.
Movies	Place custom "Please Scan" video files into this folder.
Settings	Place updated valid8.ini files in this folder. The next time the application starts, it will read and apply the settings in the valid8.ini file in this folder and then delete it.

Using a USB Flash Drive

1. Place any update files on a USB flash drive.

2. Use a Phillips-head screwdriver to remove the six screws securing the case to the UltraQ head.
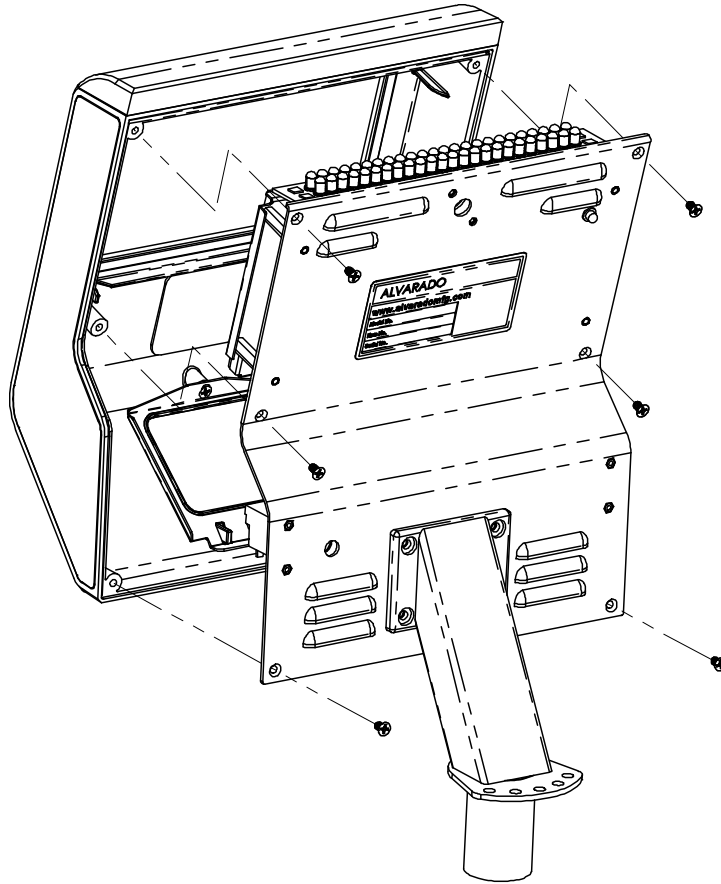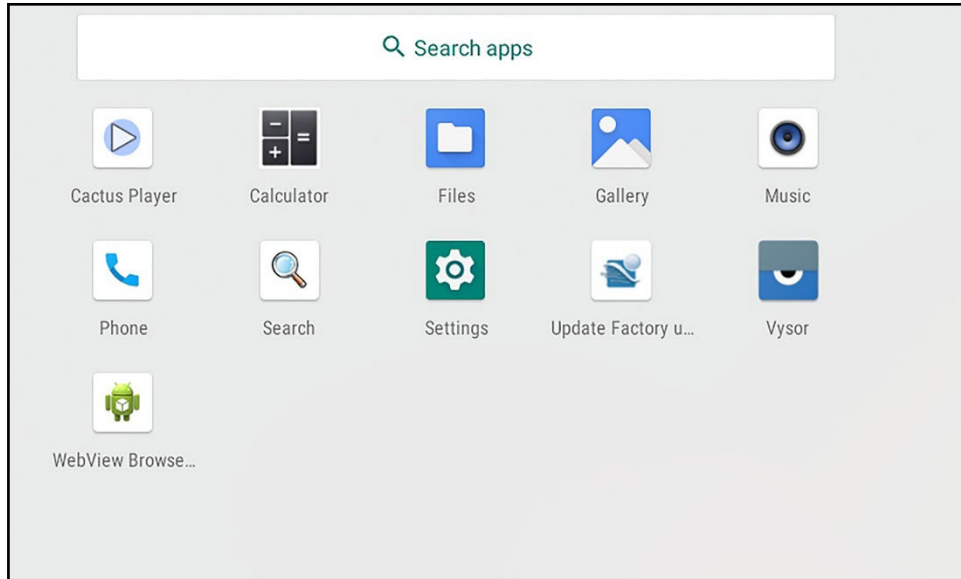
3. Connect the USB flash drive to one of the USB ports.

Micro-USB port
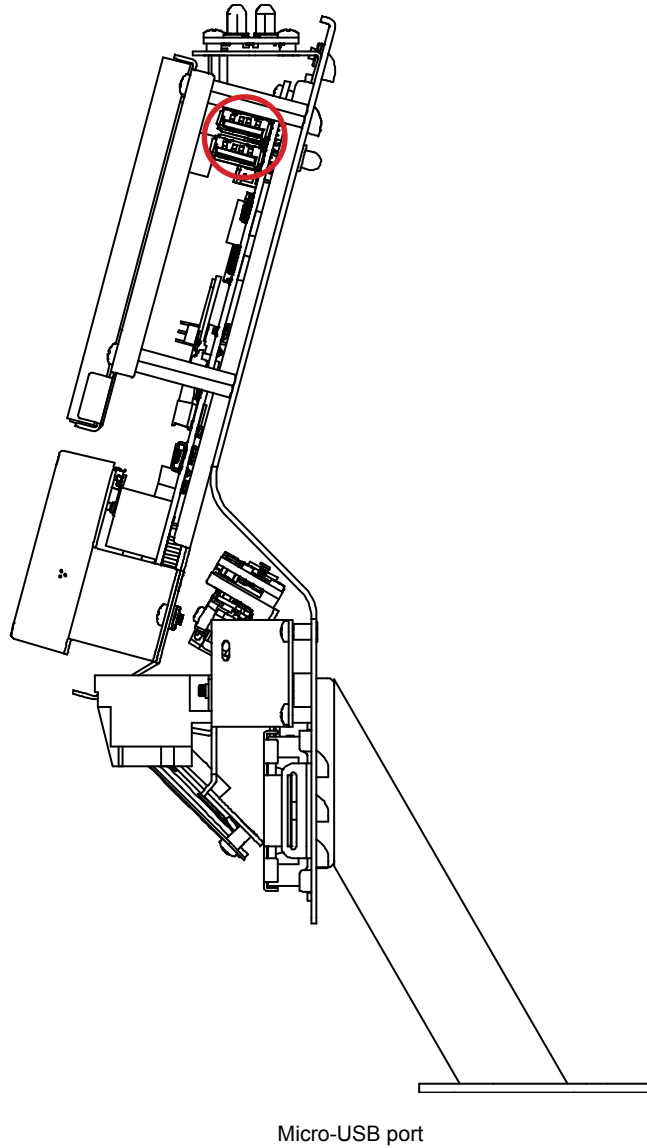
4. Follow the steps in the **Exiting the ValiD8 Application** section on page 20 to go to the device's Applications screen.
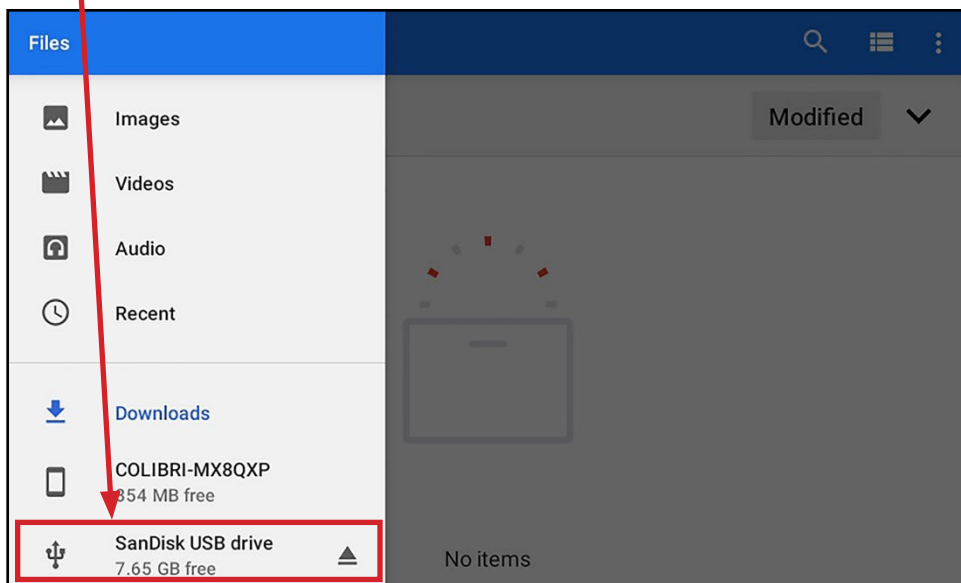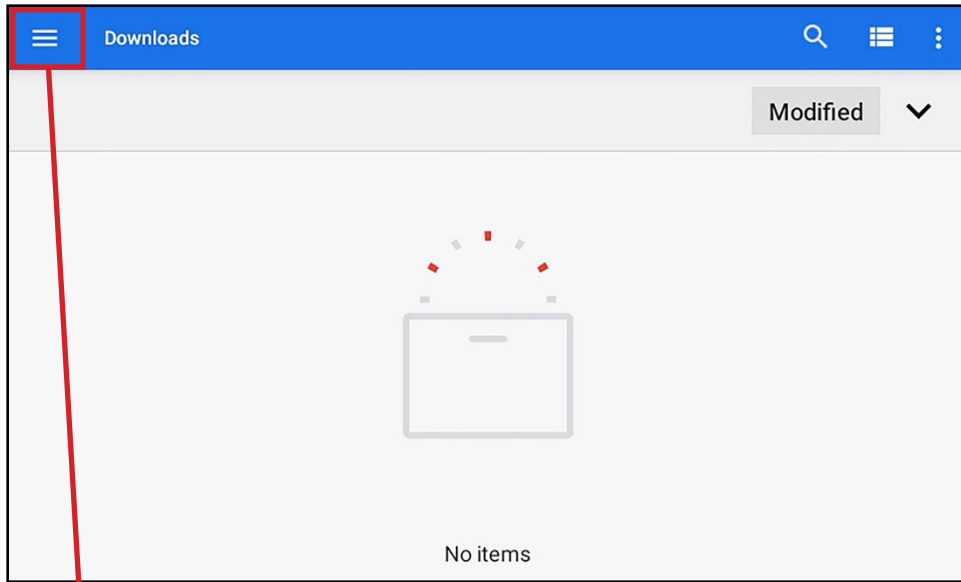
5.   On the device, swipe up on the screen and press **Files**.

6. Click the **Menu** button in the top-left corner of the screen and select the USB flash drive. In the image below, the USB flash drive is called *SanDisk USB drive*, but yours may be different.

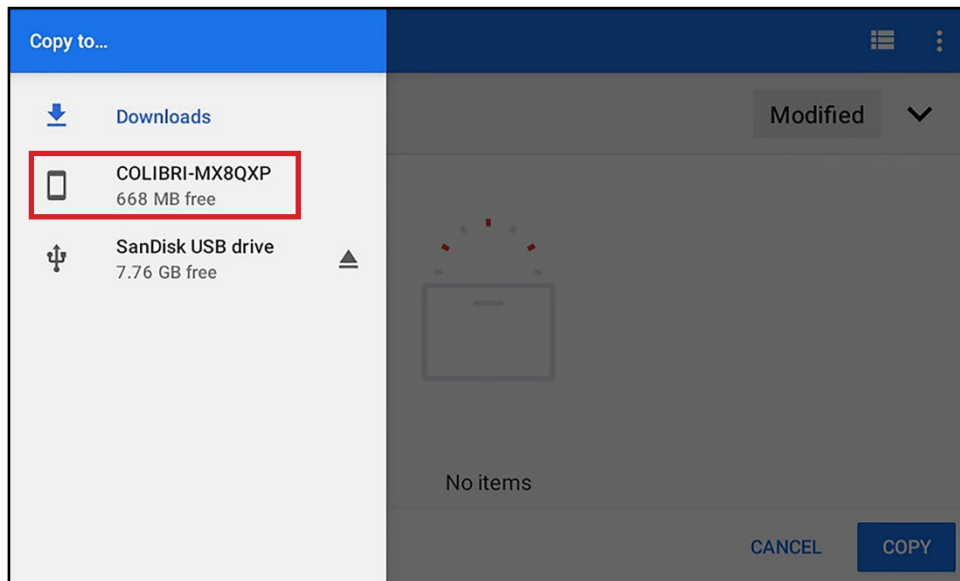For Assistance: support@alvaradomfg.com +1 (909) 591-8431

7. Press and briefly hold or drag a box around any files or folders you want to move to the device, press the **Settings** button in the top-right of the screen, and select **Copy to**….
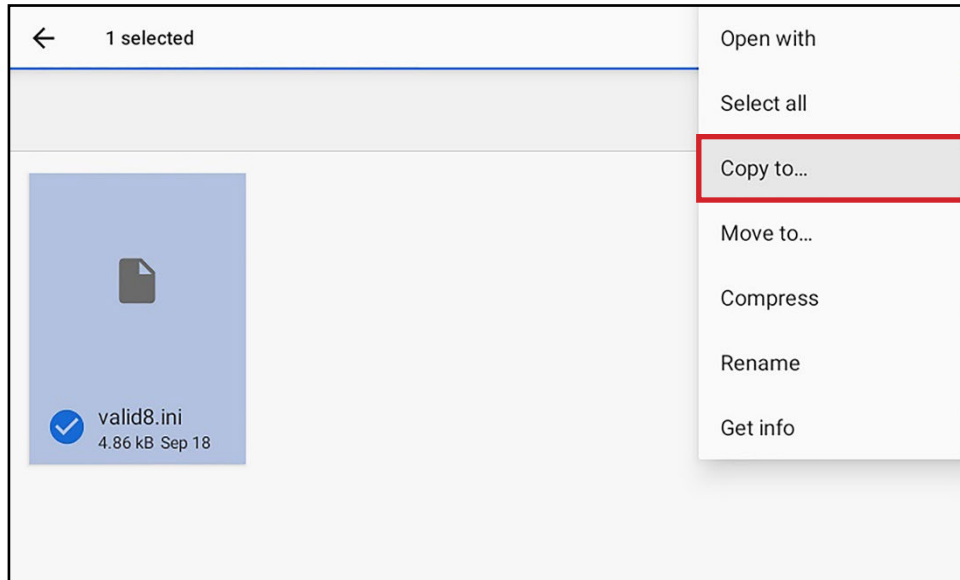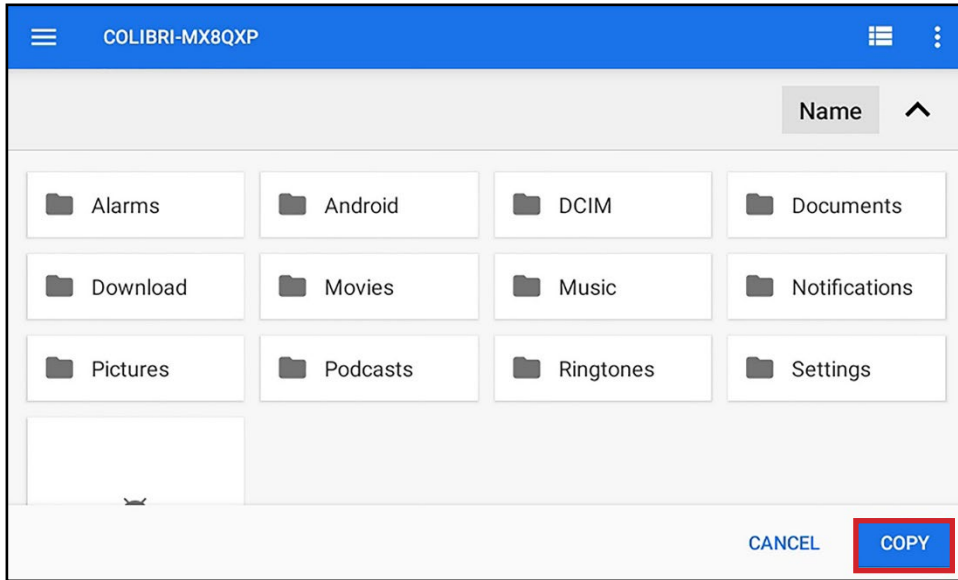

8. Press the **Menu** button in the top-left corner and select **COLIBRI-MX8QXP**.

9. Navigate to the location on the device's drive where you want to copy the file(s) and press **Copy**.

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Revision History

Revision	Date	Author	Revision History/Description
1.0	12/31/2020	D Bohannon	Original Document

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