

PIXie

User Guide



**AMERICAN
PRINTING
HOUSE**

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Catalog No. 1-08070-00

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Introduction

Welcome to the APH PIXie, an AirPrint®-compatible wireless print server for the PixBlaster™ embosser (Catalog No. 1-08070-00).

Connect your embosser to PIXie to send a text from mobile devices for text-to-braille translation and embossing. It works with mobile devices through Common Unix® Printing System (CUPS®) utilizing the AirPrint protocol.

PIXie enables embossing of braille and tactile graphics on the fly from mobile devices according to user preference settings for language, braille type, and page layout. Only true text information is translated to braille.

PIXie is also compatible with current ViewPlus® (VP) embosser models including: EmBraille®, Cub, Max, SpotDot®, Columbia, Delta, Premier, and Elite.



Image 1: Shows the PIXie box

Getting PIXie Ready for Use

PIXie Items in the Box

- PIXie box
- PIXie power adapter
- PIXie USB flash drive (includes PIXie reset file)

Setting up PIXie Hardware

Set up the PIXie hardware using these steps:

1. Insert the micro USB end of the provided power adapter into the PIXie, and the other end into a grounded outlet or a surge protector (recommended).
2. If you are planning to set up the PIXie in Network Client mode to an existing local area network, connect it to the corresponding router using an Ethernet cable (not provided).
3. Connect the PixBlaster embosser to PIXie using a standard USB device cable. Please note that only one of the four accessible USB ports is active, but it is your choice which one you occupy.

PIXie boots up upon power connection. The red LED should emit a steady light. The green light should be blinking, indicating proper Wi-Fi function.

Setting up Multiple PIXies in the Same Building or Location

If you are planning to run multiple PIXies within the same local area, it is helpful for future identification if you rename each PIXie with a new network or hostname in a way that makes them easy to identify.

For example, if you have two PIXies to set up in the same room, you might name them PIXie-1 and PIXie-2. Another example would be if you had three PIXies to set up on three different floors in the same building; you might name them PIXie-1st Floor, PIXie-2nd Floor, and PIXie-3rd Floor.

A unique SSID (network name) is for when you are running the PIXie in Wi-Fi Direct mode (Wi-Fi from the PIXie). A unique hostname is for when you are running in Network Client mode (Wi-Fi from your local device, such as a PC). Please see the section [Using the PIXie for Wireless Printing](#) for further information.

Setting up PIXie Software

PIXie software is compatible with iOS® and Android™ mobile devices. Setup procedures differ, so read the section that is applicable to your device.

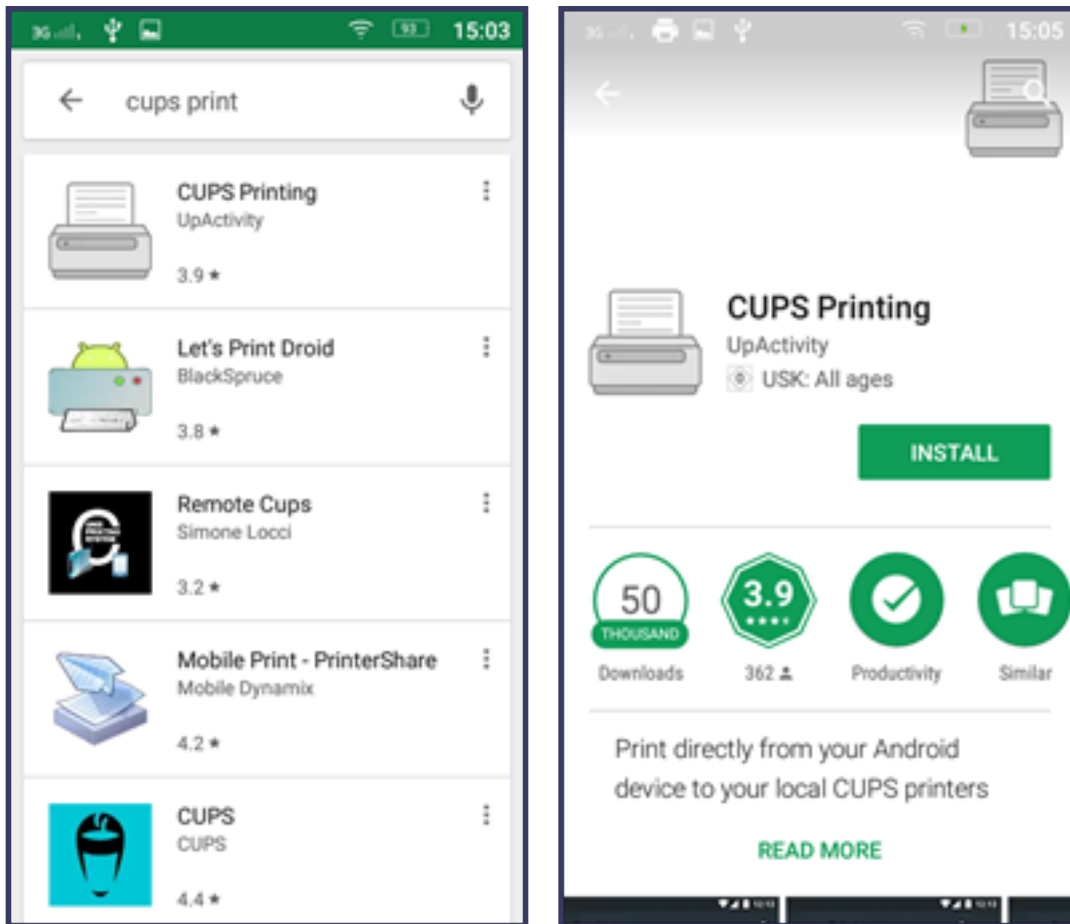
Setting up PIXie software with iOS® mobile devices

No specific software setup is needed on iOS mobile devices. You are able to print wirelessly to your PixBlaster embosser by connecting to a Wi-Fi network called PIXie.

Depending on your network configurations, a network discovery app (e.g., [Fing® App](#)) might be useful for finding the PIXie IP address when configured in Network Client mode. This user guide explains situations where this could be useful.

Setting up PIXie software with Android™ mobile devices

To begin, make sure that your mobile device is running the Common Unix Printing System (CUPS) printing service. Depending on the version of your Android operating system, it might be necessary to install Android CUPS printing app before printing from your device is possible. This is a free app in the Google Play™ store. Search for CUPS Print to find it, and click to install. See Images 2 and 3.



Images 2 and 3: Screenshots of installing CUPS

Depending on your network configurations, a network discovery app (e.g., [Fing App](#)) might be useful for finding the PIXie IP address when configured in Network Client mode. This user manual explains situations where this could be useful.

Please also note, that the capability to print through PIXie from your mobile device also depends on the printing capabilities of the application from which you are sending data to be embossed.

Using the PIXie for Wireless Printing

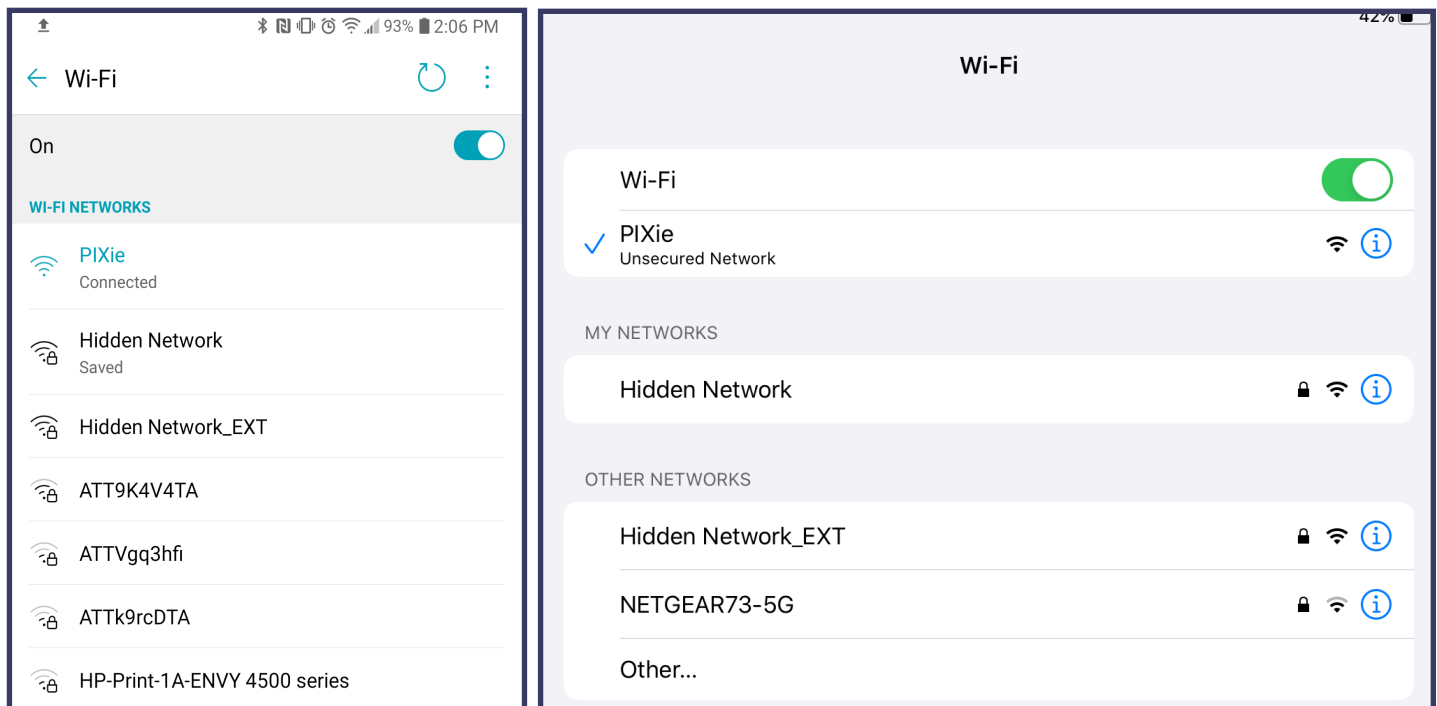
There are two operating modes for PIXie: Wi-Fi Direct mode and Wi-Fi Network Client mode. By default, Wi-Fi Direct mode is running after the initial hardware setup of PIXie.

Connecting to PIXie Using the PIXie's Wi-Fi (Direct mode)

Wi-Fi Direct provides a direct wireless connection to your supported embossers, which allows you to print without joining a local network or connecting to the internet. When you activate Wi-Fi Direct on your embosser, you can securely print documents from most Wi-Fi-capable computers and mobile devices. The technology is similar to *Bluetooth*® wireless technology, but uses Wi-Fi to work at greater distances and faster speeds.

PIXie is hosting direct Wi-Fi named PIXie by factory default. To access settings and configurations for printing, and to print to a connected embosser with PIXie configured to Wi-Fi Direct mode, your mobile device or PC should also be connected to this Wi-Fi. Device screens may vary from the screenshots shown in Images 4 and 5; however, these general steps should help you connect to PIXie Wi-Fi and access network configuration settings:

1. Open Settings on your mobile device and select Wi-Fi. Known networks are listed (see Image 4).
2. Select PIXie network (see Image 5). Connection to Wi-Fi happens automatically.



Images 4 and 5: Screenshots of connecting to PIXie Wi-Fi

Your device recognizes that PIXie does not have internet access and might try to disconnect and connect to a different Wi-Fi network instead (because the known network with internet access is preferred by your device). You may need to acknowledge that you want to stay connected, and possibly also select Forget Other Networks and turn off mobile data.

3. When successfully connected to the PIXie Wi-Fi network, open your preferred web browser application.
4. Enter **http://10.10.0.1** for PIXie dedicated IP address, or URL address **http://PIXie** within the address line. The PIXie Home webpage opens, shown in Image 6.

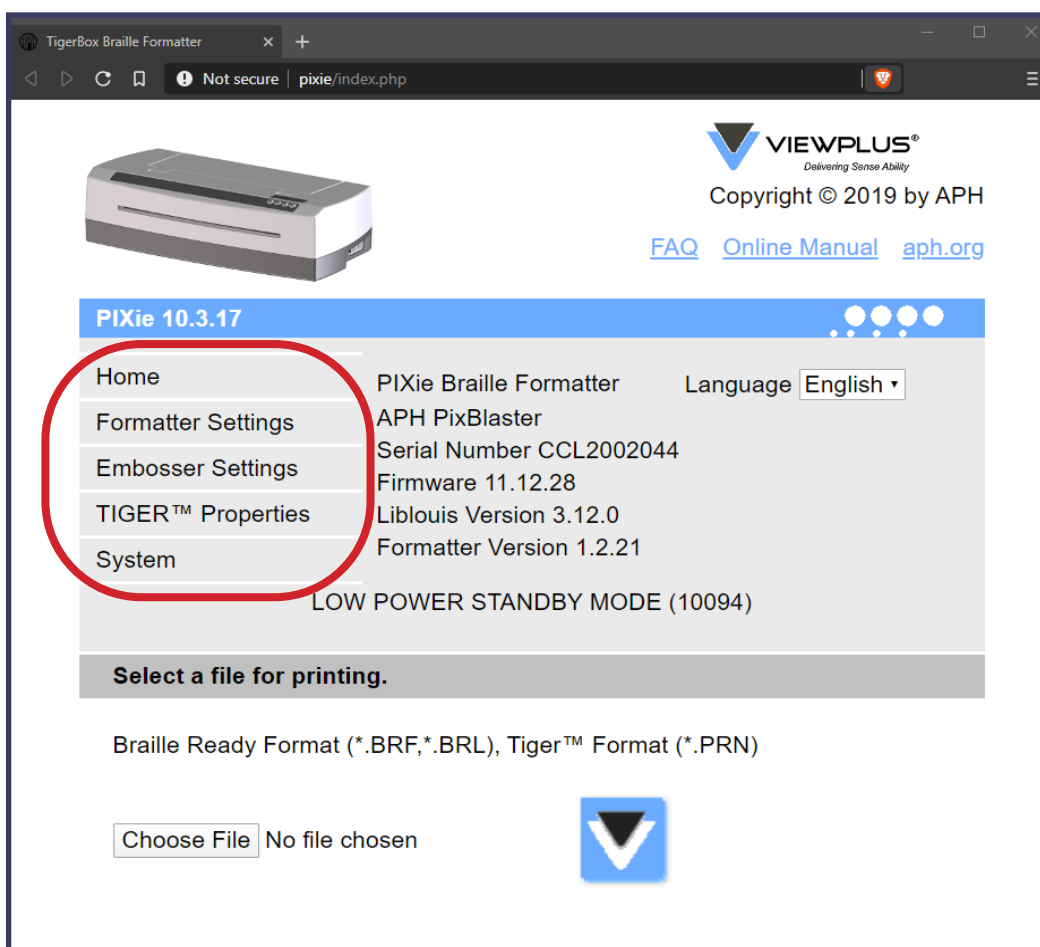


Image 6: PIXie app Home page

Depending on the APH embosser model that you have currently connected to your PIXie, printer-specific information is displayed. With no embosser connected to PIXie, printer-specific information is not available.

You can switch between the sections Home, Formatter Settings, Legacy Settings, and System by selecting the center-left menu items, shown in Image 6.

5. Go to System page for Wi-Fi Direct or Wi-Fi Network Client configuration settings (see Image 7).

PIXie 10.3.17

Home	PIXie Braille Formatter	Language English ▾
Formatter Settings	APH PixBlaster	
Embosser Settings	Serial Number CCL2002044	
TIGER™ Properties	Firmware 11.12.28	
System	Liblouis Version 3.12.0	
	Formatter Version 1.2.21	

LOW POWER STANDBY MODE (10094)

Main Settings

PIXie Hostname:

Wireless LAN Configuration

☐ WiFi-Direct ☒ Connect to another Network

Available Networks: Hidden Network ▾

SSID:

Passphrase:

Providing WLAN Network (PIXie)
IPv4 Address: 10.10.0.1

Wired LAN Configuration

☒ DHCP ☐ Static

IP Address:

Subnet Mask:

Gateway:

Name Server:

This is the section of the System page, where wireless configuration can be changed between Wi-Fi Direct and Wi-Fi Network operating mode.

This section is used for wired LAN configuration when connecting to your router via Ethernet cable.

At the bottom you find a Refresh button to refresh the display of values after any change, as well as a button to check for updates on PIXie. Please note, that internet connection is required when performing Check for Update.

Image 7: PIXie System page

Main Settings

PIXie Hostname:

Wireless LAN Configuration

☒ WiFi-Direct ☐ Connect to another Network

SSID:

Passphrase:

(Network has no security when passphrase is empty. Passphrase needs to be at least 8 characters long.)

Providing WLAN Network (PIXie)
IPv4 Address: 10.10.0.1

Image 8: PIXie main settings on System page

6. (Alternative step) In Wireless LAN Configurations, PIXie initially provides Wi-Fi Direct network with SSID PIXie and no password. If you like, you can secure PIXie Direct Wi-Fi by entering a passphrase (see Image 8).

You may also change SSID, for example, to differentiate between multiple PIXie devices in Wi-Fi Direct mode.

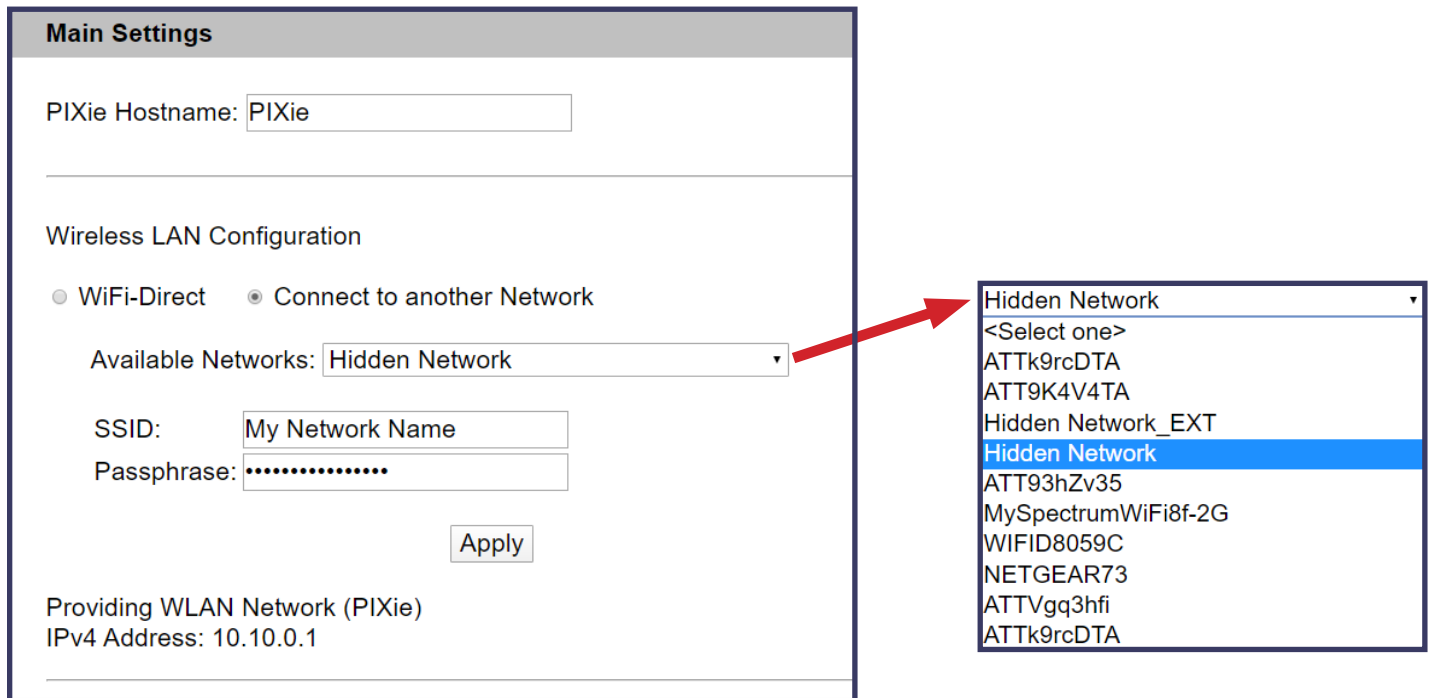
7. Press Apply to save any changes made within main settings.
8. Important: Save the SSID and passphrase to be able to connect to PIXie again at a later time.

Connecting the PIXie to Your Wi-Fi (Network Client mode)

You can switch configurations from the default Wi-Fi Direct mode to run PIXie in Network Client mode. Network Client mode connects the PIXie to your local Wi-Fi so that your print-from device can also be on your local Wi-Fi and have full internet access. Another advantage is that the embosser connected to PIXie is immediately accessible for braille printing from any PC or other device connected to the same host network.

Follow these steps to connect PIXie in Network Client mode:

1. In the Main Settings of System Home page, select the radio button Connect to another Network, shown in Image 9.



Images 9 and 10: PIXie main settings on System page and Networks selection box

2. A selection box opens; select your preferred local network from the list (see Image 10).
3. SSID of the selected network shows in the edit fields below. Enter the passphrase (password) for access of selected network if your device does not remember it.
4. (Alternative step) You may also change the hostname of your PIXie, for example, to differentiate between multiple PIXie devices connected as clients to the same network.
5. Press Apply. PIXie switches to Wi-Fi Network Client mode. The current app webpage no longer responds as soon as PIXie is switched to Network Client.

Connection to a new host network is required (see [Connecting the PIXie to Your Wi-Fi](#)). If this happens automatically (because the device remembers that network), restart the browser window or perform a power cycle on PIXie.

NOTE: From this point on, to print through PIXie or access the PIXie app webpage requires a connection to the chosen local network and knowledge of the passphrase.

If you are planning any changes to the host network of PIXie (SSID, passphrase) or are planning to move PIXie out of reach of current host network, first reset PIXie to Wi-Fi Direct mode and then re-configure to Network Client mode with new properties. Otherwise, PIXie does not connect to the network anymore, and consequently it is not accessible for printing.

If for whatever reason, access to PIXie is not possible through any device connected to the same network, a hardware reset is required as described in the section [Resetting PIXie to Factory Default](#).

Reconnecting to the PIXie After Setting up Wi-Fi

After connecting PIXie in Wi-Fi Direct mode, it is time to connect to the specified network to gain access to PIXie again. When you first connect PIXie to your local network client you lose access to PIXie, so you reconnect using the following steps:

1. Open Settings on your mobile device and select Wi-Fi. A list of known networks opens.
2. Select the network that you specified to connect PIXie to.
3. To access PIXie user interface through a web browser home page, you need to know the PIXie hostname, or its IP address. The hostname is PIXie by default, unless you have changed it. Enter `http://<hostname>` in your web browser address line to access PIXie user interface.

NOTE: If this does not work, enter the PIXie IP address in your web browser address line: `http://<ipaddress>` (i.e., `http://172.20.21.128`).

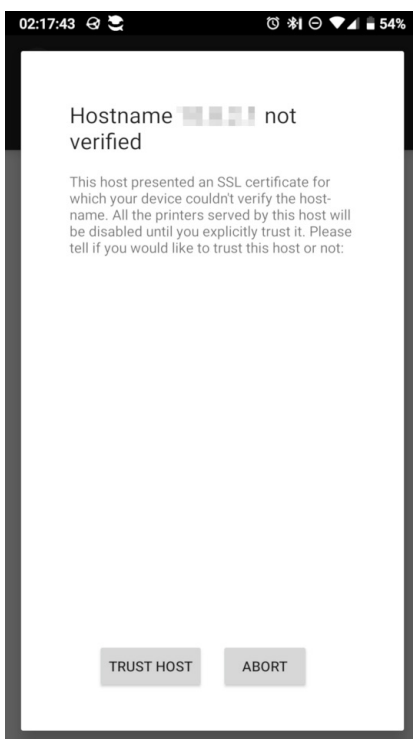
When using iOS, the IP address is found by going to the print option of any app and looking up the list of available printers. Along with the name of the PIXie printer, the IP address is given, shown in Image 11.



Image 11: iOS available PIXie printers with IP address information

When using Android or iOS, a free network discovery app (e.g., [Fing App](#)) can also be used to find the current IP client address of PIXie. This app finds all devices connected to the network that your mobile device is connected to currently. Find PIXie (or whatever given hostname for PIXie) in the list of Devices and see the corresponding IP address paired with this name.

4. (Extra step) If you are getting a warning message when accessing PIXie user interface through IP address for the first time, please select Trust Host, shown in Image 12.



The web browser interface is the same as in Wi-Fi Direct mode. It shows the Home page first with printer-specific information for the APH embosser that is currently connected, if any, shown in Image 13.

Image 12: Possible warning message when accessing PIXie user interface

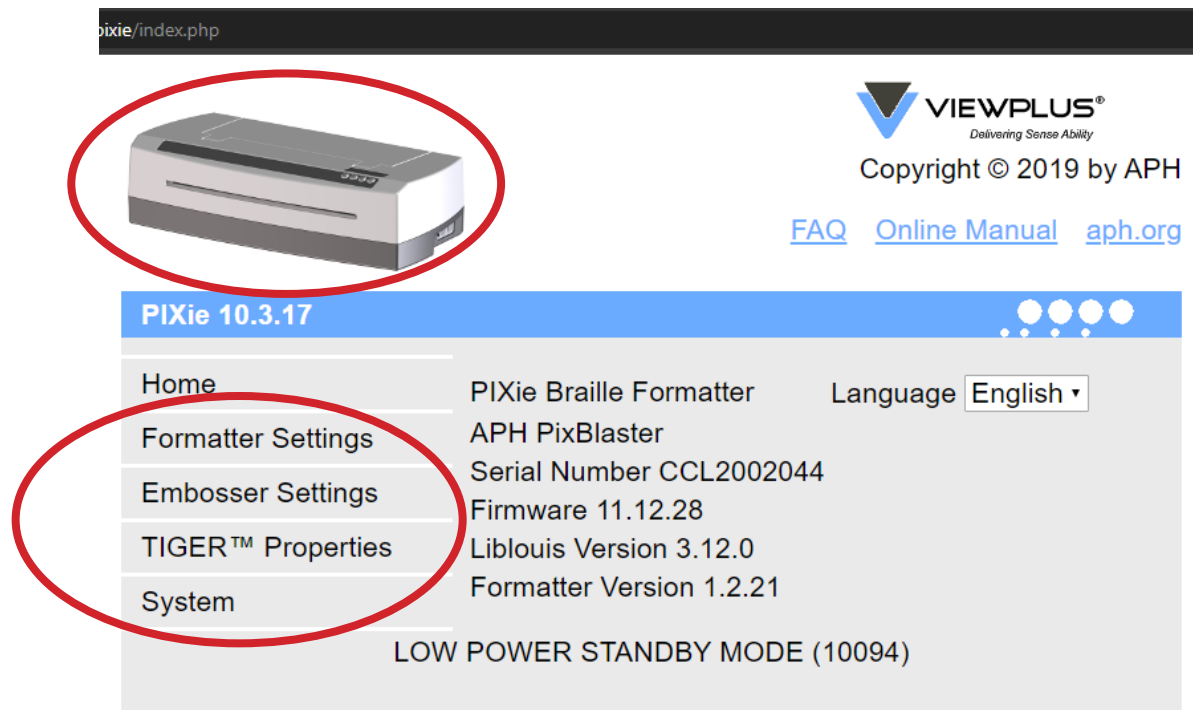


Image 13: PIXie user interface Home page

You can switch between sections Home, Formatter Settings, Legacy Settings, and System by selecting the center-left menu items. The embosser picture also serves as a link to the Home section (see Image 13).

If for whatever reason, access to PIXie is not possible from any device connected to the same network, a hardware reset is required as described in section [Resetting PIXie to Factory Default](#).

Resetting PIXie to Factory Default

You might run into situations where PIXie is configured to Wi-Fi Network Client mode, but the connection to the previous host network is not possible anymore. Without the connection to the host network, it is not possible to access the PIXie user interface to change configuration settings.

In this case, follow these steps to perform a hardware reset of your PIXie. This results in Wi-Fi Direct operation, and thus, provides direct access to PIXie Wi-Fi again.

1. Power PIXie OFF.
2. Plug in the PIXie USB flash drive provided with your PIXie.
3. Power PIXie back ON.
4. Wait a minute.
5. Power PIXie OFF again.
6. Remove the PIXie USB flash drive.
7. Power PIXie ON again, and check if it is running in Wi-Fi Direct mode again by trying to connect to it with a mobile device.
8. If PIXie is not available for Wi-Fi Direct connection, repeat steps 1 through 7, and wait a little longer in step 4.
9. When successfully connected to PIXie Direct Wi-Fi, browse to the app Home page to change to desired configurations again, as explained in [Using the PIXie for Wireless Printing](#).

Contacting APH Customer Service

Please note that online options from PIXie user interface as described below do require internet access at the same time, which means that these options do not work if running PIXie in Wi-Fi Direct configuration.

On the top right of the PIXie app System page, below the APH logo, are links to APH online FAQ, the online PIXie User Guide, and the APH website, as shown in Image 14.



Images 14 and 15: Top and bottom sections of PIXie app System page

At the bottom of the System page on the PIXie app is the Check for Update button (see Image 15). Click to retrieve updates from APH online, which might include new braille tables for text-to-braille translation in certain languages or new device features. Contact the American Printing House (APH) for your technical support questions. E-mail to cs@aph.org or call APH Customer Service at +1 (800) 223-1839.

PIXie Specifications

PIXie Specifications Table	
Operating Systems	Android 6+, iOS, Windows 7, 8, 8.1 or 10
Network	10/100 MBps Ethernet, 802.11n Wireless Lan, Bluetooth 4.0
Connections	Ethernet, Wi-Fi Direct, Wi-Fi Network
Security	WPA2

Table 1: PIXie Box Specifications

Proper Trademark Notice and Attributions

AirPrint is a trademark, registered in the U.S. and other countries.

Bluetooth is a registered trademark of Bluetooth SIG, Inc.

CUPS is a trademark of Apple Inc.

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