DNP
Photo Imaging

User Guide

WCM PLUS

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Introduction

What is WCM-Plus

The DNP WCM-Plus is a device that allows wireless printing to any of the current DNP printers. Printing from mobile devices (iPhone, iPad, and Android), Windows PCs and Tablets, and Macs can be done using the direct printing feature (which allows cropping and basic editing), AirPrint®/IPP, Hot Folder, or FTP.

The WCM-Plus portal is accessed when a device is connected using the hotspot or Ethernet connection and provides access to all the controls and capabilities of the WCM-Plus.

When connected to a local Wi-Fi network, the WCM-Plus provides internet access to anyone that is connected to the hotspot. In addition, the "printers" will be available to any device that is connected to the same Wi-Fi network.

The new WCM-Plus brings incredible speed along with other great features like Print Borders, Basic Editing Capability, Hot Folder & FTP Printing.

Easily connect multiple DNP printers to the WCM-Plus. Connecting different printer/media combinations will provide added print size offerings.

Included in the Box

- The WCM-Plus device
- 5V3A Power Supply with USB-C connection.
- Wi-Fi Dongle (already plugged into the WCM-Plus)
- Printer Cable
- Quick Start Guide

Optional: a high gain antenna can be purchased to improve connection to the local Wi-Fi or improve the range of the hotspot coverage. Compatible antennas include:

- TP Link Archer T3U Plus
- EDUP 1300M Model EP-1687S

DNP makes no guarantee of compatibility of other antennas. If you choose to use another antenna, confirm it supports Linux operating systems.

WCM-Plus

Power Adapter

Printer Cable

Quick Start Guide

Compatibility

WCM-Plus compatibility includes:

- iPhones and iPads running iOS 14 and later
- Microsoft Windows 10 and 11
- Android devices running Android 11 and later
- MacOS version 12 and 13

WCM-Plus supports all of the current DNP printers and select legacy printers, including:

- DS620A
- DS820A
- QW410
- DS-RX1HS
- DS40
- DS80

Note: to ensure optimal performance DNP recommends confirming your printer has the latest firmware.

Key Features

- **Easy Setup!** WCM-Plus identifies the printer and media type so you do not need to setup printer instances for each print size.
- **Fast!** The WCM-Plus uses powerful hardware to provide transfer speeds up to 10 seconds. (results may vary due to variations in connected devices, Wi-Fi traffic, file size, etc.)
- **Panorama Print Sizes!** WCM now supports panoramic print sizes available on the DS620/820 printers.
- **Crop/Edit Capability.** When using the WCM Print feature you can crop and edit images for the best print experience. Edit functions include color correction, filters, fit/fill, and drawing tools!
- **Borders!** Borders can be added to your prints from any of the printing methods. Custom borders can be easily loaded, providing fun and unique frames or business branding to promote your business!
- **Image Archive!** Turn on image archiving to select pictures for reprints, additional edits, and downloads.
- **Instant Reprint!** The print queue includes a printer icon to reprint any of the last ten images directly from the print queue.
- **Changeable Antennas.** WCM-Plus uses two Wi-Fi antennas. One to connect to the hotspot and the other to connect to a local Wi-Fi network. Depending on your needs and the environmental conditions, the antenna that is used for each connection can be switched. High Gain antennas can also be added to improve coverage. (high gain antennas are not provided or sold by DNP)
- **Wired Printing.** An Ethernet adapter for your mobile device can be added to provide a wired connection from your device to the WCM-Plus using an Ethernet cable. This can be helpful in situations where too much Wi-Fi traffic interferes with the transfer of image data.
- **Three USB Ports.** Three USB ports are available for easily connecting three DNP printers simultaneously, allowing a wide range of print sizes or redundancy to reduce media loading frequency.
- **Hot Folder.** Hot folders can be easily setup on iOS, Android, Windows, and Mac systems to drag and drop images for fast and easy printing
- **Print from Multiple Sources.** Many devices can print to the WCM-Plus simultaneously, making the WCM-Plus a great tool for parties and events.
- **Retail.** Provides a basic retail print service that allows a small retailer the ability to offer print services.
- **Party Print!** Party Print is a service from DNP designed for event photographers or venues to expand their product offering and allow event guests to contribute their photos. WCM-Plus can handle the printing and slideshow features of Party Print! See www.partyprint.com for more information.
- **Admin Portal.** Access the admin portal to manage all settings, controls, and features of WCM-Plus from any mobile device, PC, or Mac that is connected to the WCM-Plus hotspot network.

Getting Started

Quick Start

Plug in and power on your DNP printer.

NOTE: Make sure media is properly loaded in your DNP printer and there are no error lights flashing on the front of the printer.

Connect the WCM-Plus to your DNP printer with the provided USB printer cable. The WCM-Plus has three (3) available USB ports, allowing three (3) printers to be connected directly to the WCM-Plus. Any open USB port can be used.

WCM-Plus comes with a 5V3A power supply with a USB-C connector. Plug the power supply connector into the USB-C port on the WCM-Plus.

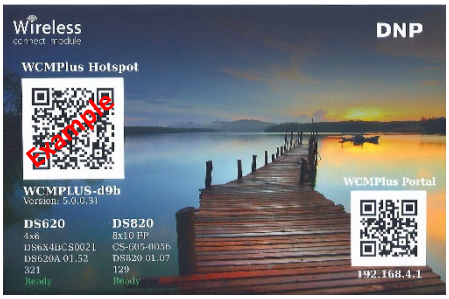
Note: the USB-A port on the QW410 printer outputs 5V2A which is below the specified power requirements for the WCM-Plus. DNP recommends only using the provided 5V3A power supply.

Once the WCM-Plus boots, it will print a test page that includes a QR code for the hotspot SSID, printer info for any printers that are connected, and a QR code to access the WCMPlus Portal.

Connect to the WCM-Plus Hotspot

You can connect to the WCM-Plus hotspot with an iPhone, iPad, Android, Windows, or Mac.

To connect to the WCM-Plus hotspot you can use the QR code that was printed on the test page or go to your Wi-Fi settings and select WCMPlus-xxx.



SSID:	**WCMPlus-xxx** (The last three digits are unique to your WCM-Plus.)
Password:	**dnp12345**
NOTE:	*Both the SSID (name) and password for the hotspot can be changed in the Network Settings. If you forget your password it is difficult to recover. Please store it in a secure manner where you can retrieve it.*

The first time you connect to the WCM-Plus, you are required to acknowledge and agree to the end user license agreement (EULA).

Note: If you are using an **iPad 11-inch (A16)***, you will need to connect to the WCM-Plus Hotspot using the* ***WPA protocol****.*

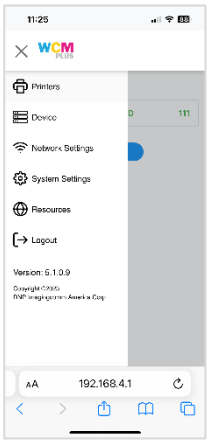
Printing

WCM Print

Note: the following steps are for an iOS device and may be slightly different from Android or Windows.

Note: If you are using cloud storage for your photos, the WCM-Plus needs to be connected to the internet using either a Wi-Fi or Ethernet network connection. Otherwise, you need to download pictures before connecting to the hotspot.

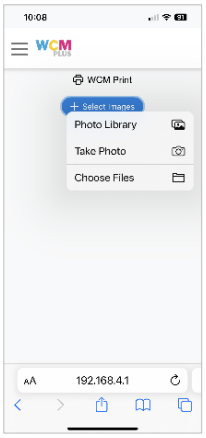
Note: WCMPrint will notify you of image retention policy based on settings detailed in the Archive Image section.

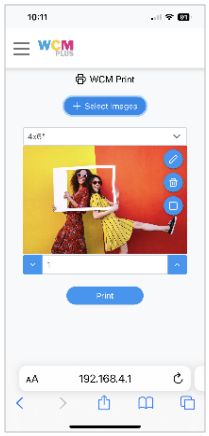


To access the WCM-Plus portal, scan the WCMPlus Portal QR code on the test print or open a browser and enter 192.168.4.1 in the address bar.

The portal should open to the **Printers** menu, which also can be accessed by tapping on the menu bars in the upper left corner, and select **WCM Print**.

Tap the **+Select Images** button, select the images you wish to print, and tap **Add**.





Select the desired print size from the drop-down menu above the preview image.

Select the number of copies you wish to print.

See the image editing section for detailed information about the crop/edit features

Tap **Print**.

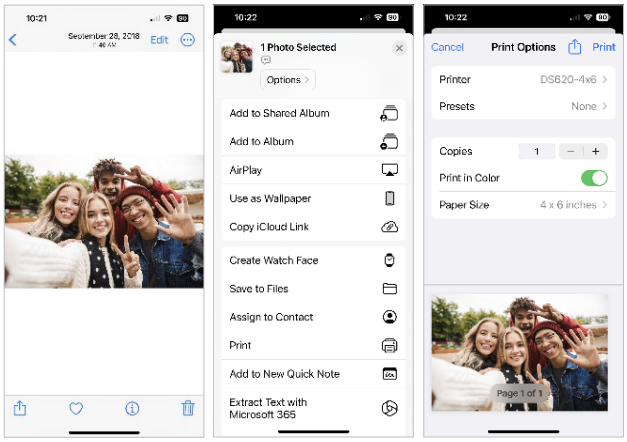
AirPrint®/IPP

Open a picture from your photo gallery.

Tap the **Share** Icon ⬆ (iOS) or the **Menu** Icon (Android).

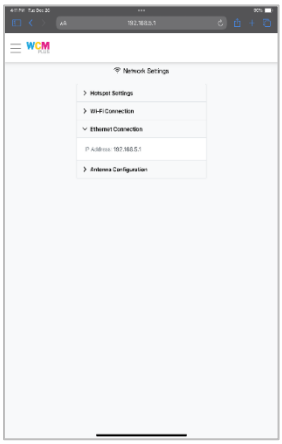
Select **Print** from the menu and select the printer/print size you want.

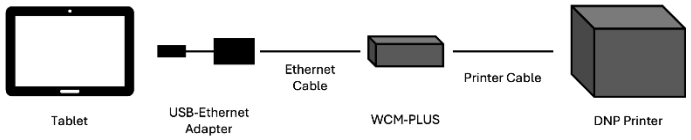
Tap **Print**.



Wired Printing

If you are printing from a mobile device such as a phone or tablet, it is possible to establish a wired connection. You will need to purchase an Ethernet adapter that is compatible with your device. Connect an Ethernet cable from the WCM-Plus to the mobile device with the adapter. Your device can now print from the WCM Print feature or using AirPrint®/IPP.





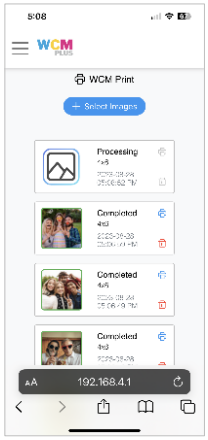
Note: This method of printing is for transferring files (FTP) over a Wired LAN connection and is not used for internet connectivity.

The IP address to access the WCM Plus portal will change in this configuration and you will need to enter 192.168.**5**.1 while the wired LAN is in use. When the Wired LAN is disconnected, the portal address will return to 192.168.4.1.

This capability is especially beneficial to photobooth operators where Wi-Fi is not a viable choice.

Print Queue

The print queue shows the number of images set in the Thumbnails section of Archive Images when turned on. The print queue will indicate if a print is processing, has completed transfer to the WCM-Plus, or if the print failed.



Re-prints can be made quickly and easily by tapping the printer icon in the print queue thumbnail. If you wish to clear an image from the print queue, tap the trash can to remove the thumbnail.

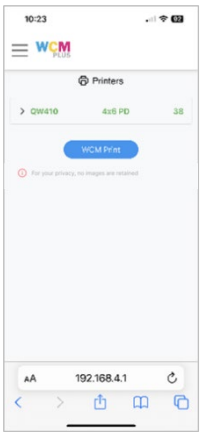
Note: See the Archived Images section for detailed information.

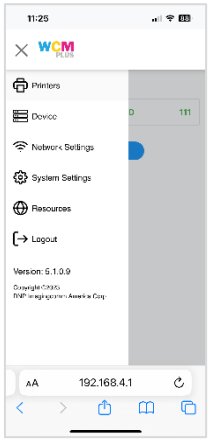
Note: if you have Archive Images turned on, deleting images from the print queue does not remove them from the image archive.

Menu Review

Main Menu

The Main Menu is accessed from the menu bars in the upper left corner of the screen

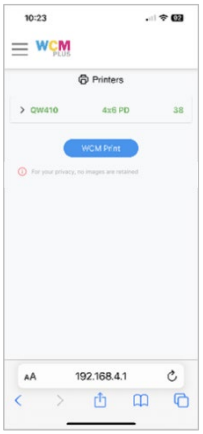


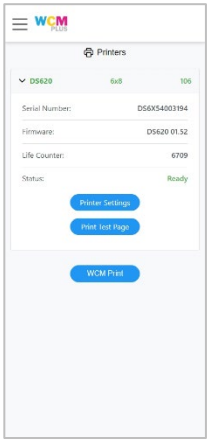


Printers

The printer menu provides a quick display showing the printer, media loaded and remaining prints. If you tap on the printer, the dropdown menu provides information about the printers, including:

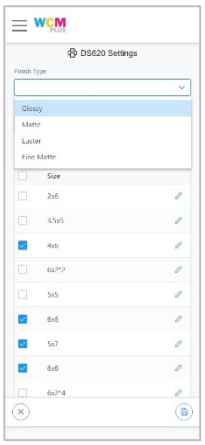
- Printer serial number
- Printer Firmware version
- Printer Life Print Count
- Current Printer Status
- Access to **Printer Settings**
- Ability to **Print a Test Page**

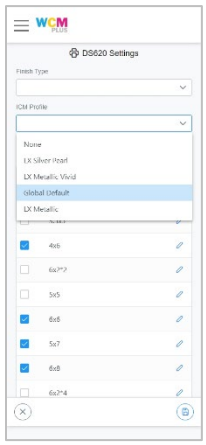




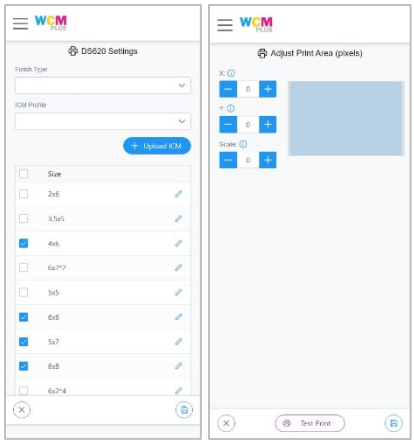
Tap **Printer Settings** to access optional available ICM Profiles, Finish Type, and available Print Sizes.

- ICM Profiles are available to support different media types
- Finish Types allow you to select glossy, matte, or any other available finishes.





- Print Sizes show all available print sizes available for the loaded media. Check the print sizes you want to be available when using the WCM. This can help keep the menu from becoming cluttered with print sizes that are not frequently used.



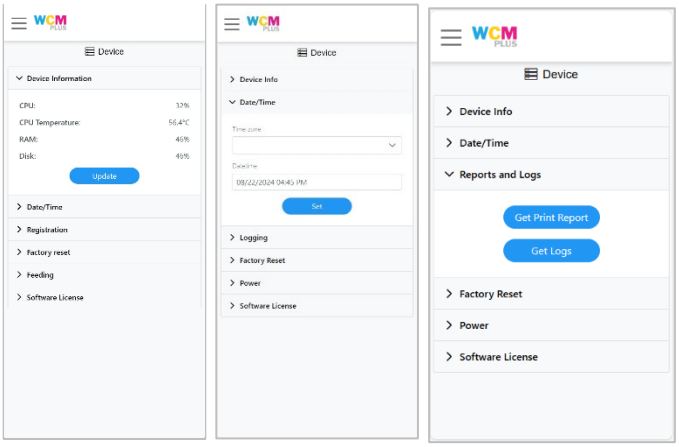
  Note: Panoramic print sizes are available.
  - *DS620 with 6x8 media supports 6x14 and 6x20 prints*
  - *DS820 with 8x10 media supports 8x18 and 8x26 prints*
  - *DS820 with 8x12 media supports 8x22 and 8x32 prints*

  - Bleed Adjustment can be accessed by tapping the edit pen next to each print size.
    - **X** will adjust the side position of the print. Increasing this number will move the print area to the right and decreasing the number will move the image to the left as the print comes out of the printer.
    - **Y** will adjust the position of print direction. Increasing this number will move the image toward the leading edge and decreasing the number will move the image toward the trailing edge as the print comes out of the printer.
    - **Scale** will adjust the size of the print. Increasing the number will increase the size of the print and decreasing the number will make the print area smaller.
    - Each of these changes are available to find the proper balance for your printer.
    - **Test Print** will allow to select an image from your device to quickly test the settings before making additional adjustments.

Tap **Save** to keep any changes.

Device

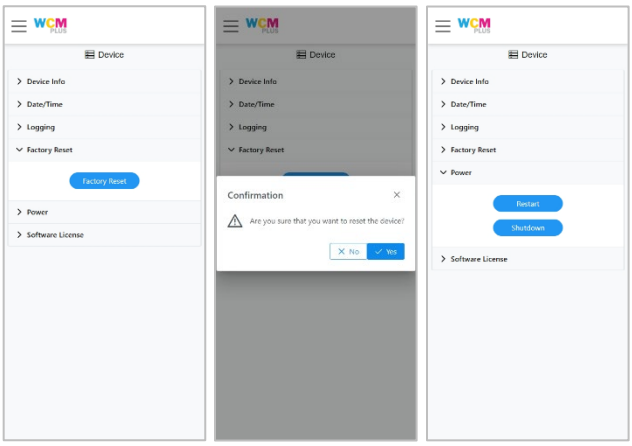
The Device menu provides access to the WCM-Plus information and settings menus.



Device Info – provides system operating conditions that can be helpful in assessing the system's well-being, including CPU usage, CPU temperature, RAM usage, and Disk space in use.

Date/Time – these settings are helpful when viewing the log files. The WCM-Plus does not have an internal battery and cannot maintain time when not powered on. It will register the correct time when it is connected to a Wi-Fi network.

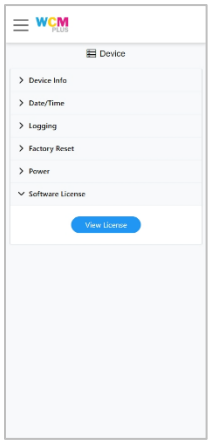
Reports & Logs – In the event there are issues with the WCM-Plus, accessing the logs can provide information that may lead to an understanding of the situation. **Get Logs** provides information from the last 10 days and **Get Print Report** provides the print size(s) and number of prints for the current month, as well as the previous two (2) months.



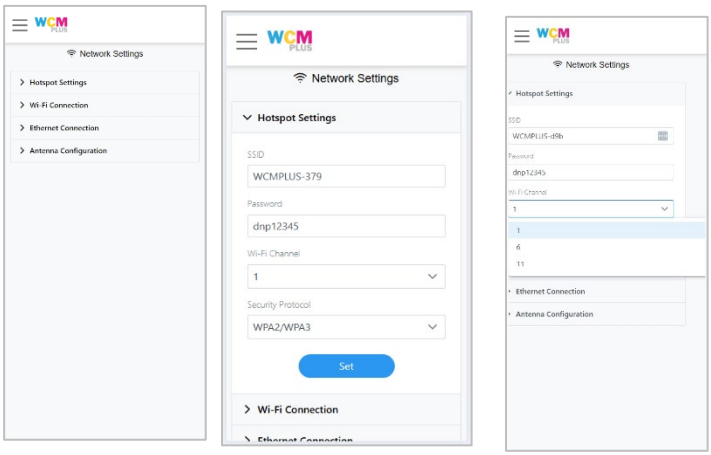
Factory Reset – In the event the WCM-Plus stops working a Factory Reset may be able to restore your device to original working condition. This will install the version of WCM-Plus that was installed when it shipped. Factory reset will delete any stored settings and images. You will need to connect to the internet for the most recent updates.

Power – provides the option to **Restart** or **Shutdown** the WCM-Plus through software instead of disconnecting power.

Software License – This is the document you were required to agree to when first starting the WCM-Plus. It is available for you to review at any time.



Network Settings



Hotspot Settings – allow you to connect your device directly to the WCM-Plus. Both the hotspot SSID and password are case sensitive. The default settings are:

SSID: **WCM-Plus-**xxx (xxx is a unique identifier for the WCM-Plus)

Password: **dnp12345**

Both the SSID and Password can be changed. Once you change either the SSID or password, tap **Set** to save your settings. If you forget your SSID and Password you can access the WCM-Plus using the QR code on the test print.

Wi-Fi Channel allows you to select a different Wi-Fi channel is there is excessive interference causing lost connections or slow data transfers. Channel options are 1 (default), 6, or 11.

Security Protocol

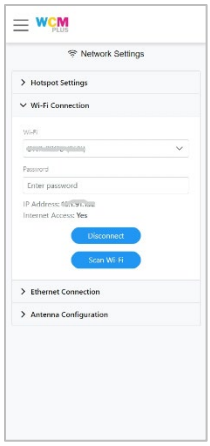
WPA, WPA2, and WPA3 are security and security certification programs developed vy the Wi-Fi Alliance to secure wireless computer networks.

- **WPA** is the predecessor to **WPA2**.
- **WPA2** is the predecessor to **WPA3**.
- **WPA3** is the most advanced WIFI security standard among these three.
- **WPA3** includes more advanced encryption than **WPA2** and **WPA**, making it the safest.

Note: If you are using an **iPad 11-inch (A16)***, you will need to connect to the WCM-Plus Hotspot using the* ***WPA protocol****. Please see the table below for the Hotspot Setting for your iPad model.*

Device	**Internal WIFI**			**External WIFI**		
	WPA	RSN (WPA2/WPA3) (Default)	Both (WPA and RSN)	WPA	RSN (WPA2/WPA3) (Default)	Both (WPA and RSN)
iPad A16 ios 18	**Good**	**Incompatible**	**Good**	**Good**	**Incompatible**	**Incompatible**
iPhone ios 18	Good	Good	Good	Good	Good	Good
iPhone ios 17	Good	Good	Weak Security	Weak Security	Good	Good
iPhone ios 16	Good	Good	Weak Security	Weak Security	Good	Good
Galaxy android 15	Good	Good	Good	Good	Good	Good
Galaxy android 14	Good	Good	Good	Good	Good	Good
Galaxy android 13	Good	Good	Good	Good	Good	Good
WIN 10 PC	Good	Good	Good	Good	Good	Good
WIN 11 PC	Good	Good	Good	Good	Good	Good
MacBook M2	Weak Security	Good	Weak Security	Weak Security	Good	Weak Security

Wi-Fi Connection – allow a connection to a local Wi-Fi network for internet access while your device is connected to the WCM-Plus. It also makes IPP (AirPrint®) possible for all devices connected to the same network.

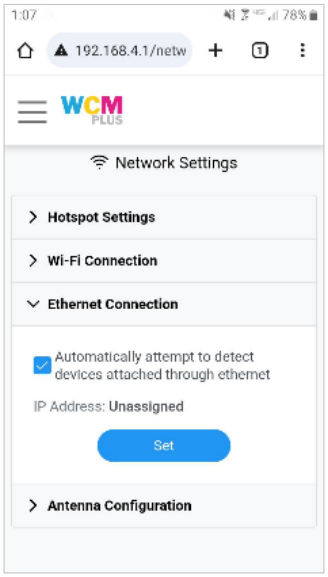


The pull-down under Wi-Fi will display the available local networks. Select the desired network, enter the password for that network, and tap **Join**. Once the connection has been established the IP address will be displayed for the Wi-Fi network.

Tap **Scan Wi-Fi** to search for available networks. This is helpful if the network you are looking for is not initially listed in the pull-down list.

Note: Wi-Fi networks that require an agreement page cannot be used with the WCM-Plus

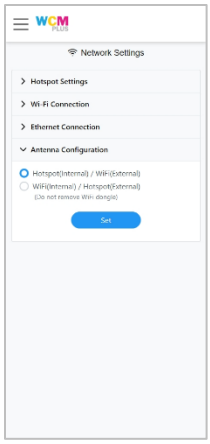
Ethernet Connection - If you select this checkbox, WCM-Plus will automatically attempt to detect if an ethernet connection is a direct wire connection to the device or to an internet connection (e.g. router) to allow the device connection to function as a plug and play device. By selecting this option WCM-Plus will attempt to maintain a connection to the device over ethernet. If a network Ethernet cable is plugged into the WCM-Plus the IP address will be displayed in the Ethernet Connection pull-down. A network Ethernet connection will often increase processing speeds and can eliminate interference on Wi-Fi channels.



Devices will be able to see available printers if the Ethernet connection is on the same network as the Wi-Fi network the devices are connected to.

Note: The system may take a few seconds to detect network connection. This allows the WCM-Plus to determine if the Ethernet connection is being used for networking or printing.

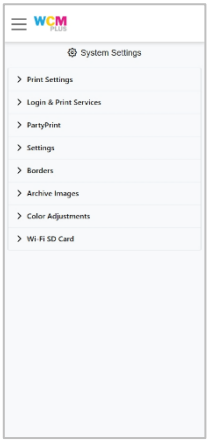
Antenna Configuration – Antenna configuration allows you to switch the antenna that is used for the hotspot and the antenna that is used for Wi-Fi. There are several benefits to this feature.

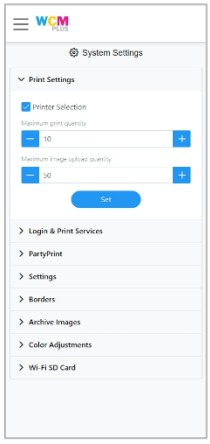


- If either the hotspot or Wi-Fi signal strength are less that optimal, switching the antenna configuration may provide a better connection.
- A high-gain antenna can be purchased to increase range and connectivity. (recommend TP-Link Archer T3U Plus or EDUP 1300M model EP-1687S, these devices can be purchased from Amazon)
- If the external antenna is lost, the system will default to the internal antenna for the hotspot connection

System Settings

Print Settings – provides controls for how print sizes are displayed and controls the number of print copies or picture uploads that are allowed each session.



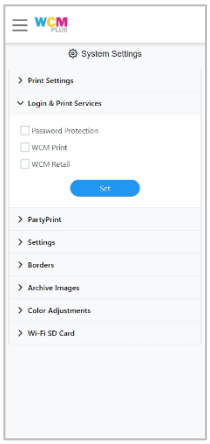


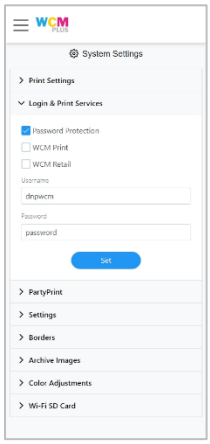
Selecting the Printer Selection checkbox is helpful if multiple printers are connected, and you want to send prints to a specific printer. Printers will be displayed as Printer-PrintSize, for example DS620-4x6.

Maximum print quantity controls the number of copies allowed per session. This can be set at any number between 1 and 100. The default setting is 10.

Maximum image upload quantity controls the number of pictures that can be uploaded for each print session. This can be set at any number between 1 and 50. The default setting is 50

Login & Print Services – provides the ability to restrict access to the WCM-Plus admin portal and sets controls for how guests or customers print pictures through the WCM-Plus.





Password Protection will prompt you for a username and password. Default settings are:

Username: **dnpwcm**
Password: **password**

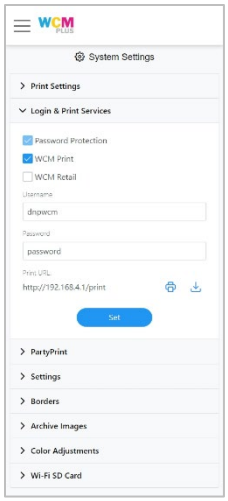
Note: both the username and password are case sensitive.

Note: you are encouraged to create a unique username and password for security purposes.

Tap Set to set the password protection.

Note: the username and password can be reset to the default username and password from the login screen if necessary.

WCM Print – allows guest access to the Print function without providing access to the admin portal. This activates the same login password requirement as above, but still allows access to http://192.168.4.1/print.



Selecting the WCM Print checkbox will prompt you for a for a username and password. Default settings are:

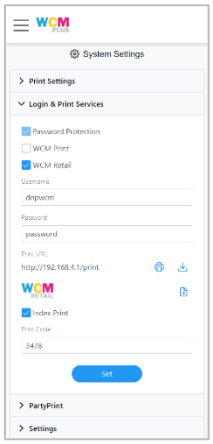
Username: **dnpwcm**
Password: **password**

Note: you are encouraged to create a unique username and password for security purposes.

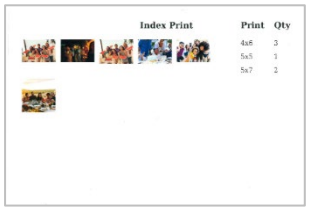
You can also print or download a QR code for guest access to http://192.168.4.1/print.

Note: if WCM Print is offered to guests, thumbnails from ALL prints are visible and reprints are possible on the guest app.

WCM Retail – WCM Retail provides locations that want a retail photo printing solution a simple and cost-effective way to allow their customers to print pictures from their mobile phones. Customers access a web-based application to select images that are on their mobile devices, make basic edits, select the desired (available) print size, and submit the pictures for printing.



The customer portal only allows the customer to see their own pictures. AirPrint® is also deactivated when WCM Retail is enabled.



Each print session from a customer will include a slipsheet that shows thumbnail pictures of the print session.

Selecting the WCM Retail checkbox will enable the retail feature and prompt you for a for a username and password. Default settings are:

Username: **dnpwcm**
Password: **password**

Note: you are encouraged to create a unique username and password for security purposes.

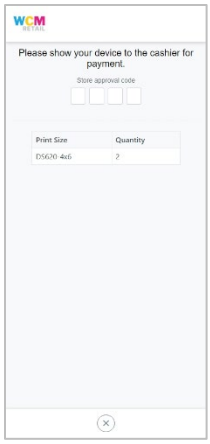
The QR codes for guest or customer access to http://192.168.4.1/print can be downloaded or printed to allow guest or customer access to the customer webapp.

The retail operator can add their logo to the retail settings, which will be displayed on the customer portal. Tap the upload icon to add your business logo. Logos must be .png files and will be sized to fit the space. To remove a logo tap the trashcan icon to restore the WCM Retail default logo or upload a new logo.

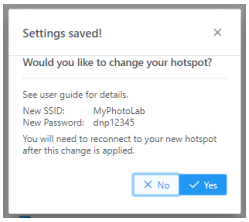
Index Print is a summary print that shows thumbnails of the pictures submitted for a print job and includes a list of print size and quantity of prints. The index print can be turned on or off and is on by default.

The Print Code is a four digit code that must be entered on the customers phone before the prints are released. This allows the retailer to collect payment before prints are made. The code may be changed to any four digit code.

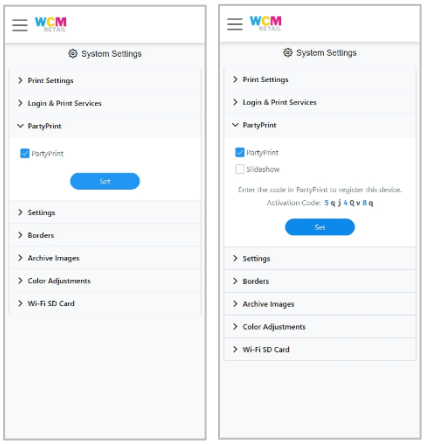
If the retailer does NOT want to pause printing until payment has been made, go to the WCM Retail settings and delete the print code. If there is no print code the WCM will not apply any print restrictions and pictures will start printing when the customer taps Print.

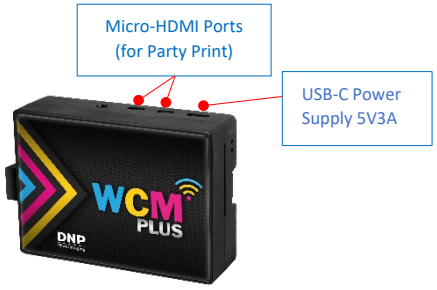


Note: For WCM Retail this can be used to create point-of-sale marketing material. You can also use point-of-sale material provided by DNP. When you save the WCM Retail settings, a popup will ask if you would like to change the hotspot SSID to MyPhotoLab. This setting is to allow the use of DNP provided marketing signage that can provide customers the QR codes to access the customer webapp. This signage can be downloaded from the dnpphoto.com website. Select No keep the current hotspot SSID settings.



Party Print – If you use the Party Print (www.partyprint.com) web app you can use WCM-Plus to manage printing and slideshow displays. Selecting the checkbox for PartyPrint will provide an activation code that will associate the WCM-Plus with the Party Print system. Selecting the checkbox for Slideshow allows a TV/Monitor to be connected to the WCM-Plus using a micro-HDMI to HDMI cable and present a slideshow from Party Print events.

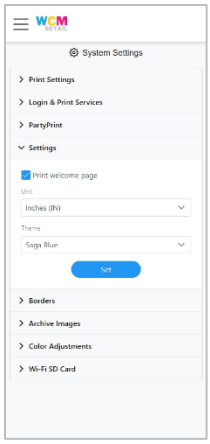




Micro-HDMI to HDMI cables and adapters are available on Amazon. Because the monitor is tethered to the WCM Plus, consideration should be given for the cable length based on the distance the monitor will be placed from the WCM Plus.

Note: When connecting an HDMI cable for a slideshow, the WCM-Plus must be restarted to recognize the HDMI output.

Settings – provides controls for turning the test page on or off, selecting the unit of measure, and the Theme (look) of the WCM-Plus admin portal.

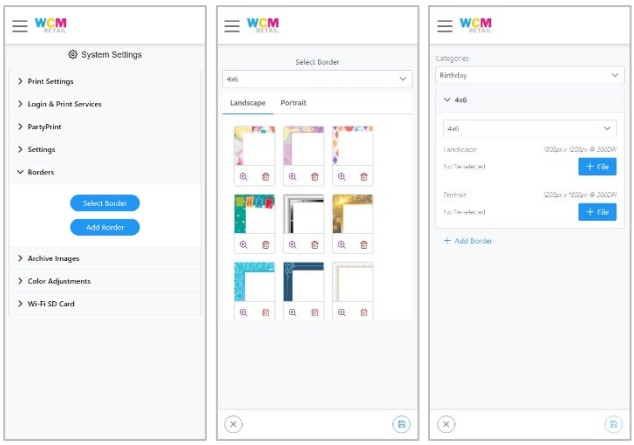


Select the Print welcome page checkbox to print a startup "test" welcome page and unselect the checkbox if you do not wish to print the welcome page. This page provides a color print to confirm the printer is configured correctly, a QR code to easily connect to the WCM-Plus hotspot, the printer status of each printer connected to the WCM, and a second QR code to easily connect to the WCM-Plus admin portal.

Unit lets you choose how you prefer to see print sizes, whether in inches or centimeters

Theme provides several selections for how the WCM-Plus portal looks, including a dark theme.

Borders – provides several border options to select from. Borders are available in the WCM Print feature, but when selected here will apply the selected border to prints using AirPrint®/IPP or Hotfolder.



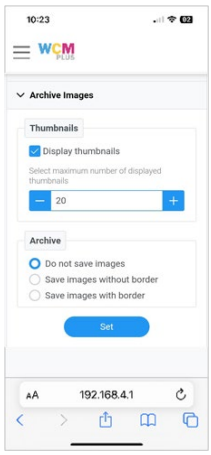
Tap Select Border to choose from several available borders. You must select the print size that will be used and choose a border in both portrait and landscape orientations. Tap the icon to preview the border. Tap the icon to delete a border. Tap the border to select and then save .

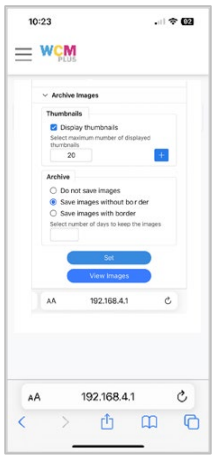
Custom borders can be added and are applied as an overlay.

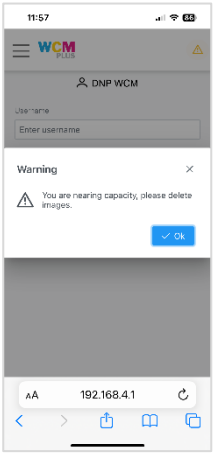
See the Borders section for detailed information about borders.

Archive Images – This section gives you different options for displaying and archiving your images.

Thumbnails







- **Display thumbnails** allows you to display your printed images in the image gallery as thumbnails. You can set the maximum number of thumbnails to be in the gallery.

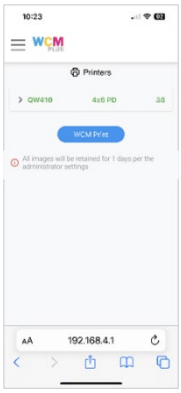
Note: If Display Thumbnails is turned on, thumbnails will be retained until the WCMPlus is rebooted.

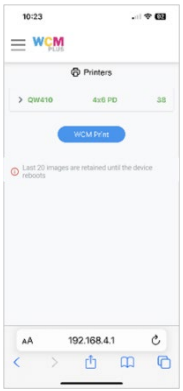
Archive

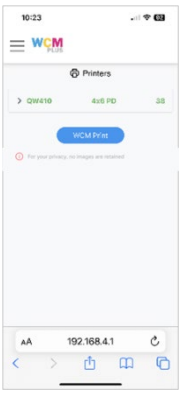
- **Do not save images** will not archive any of the images you have printed.
- **Save images without borders** archives your printed images without any borders.
- **Save images with borders** archives your printed images with print borders as long as you have applied borders to the image(s) when printed. You can also set the number of days you would like the WCM-Plus to store the images, between 1 and 30.

Note: Depending on the file size, the WCM-Plus can store up to 2000 images. If the number of images nears the capacity of the WCM-Plus you will receive a warning that images should be cleared from memory.

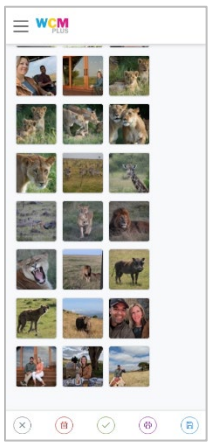
Note: The selection for archiving images will determine if and how long images are retained. The WCM Print screen will display a notification of the selected retention policy.



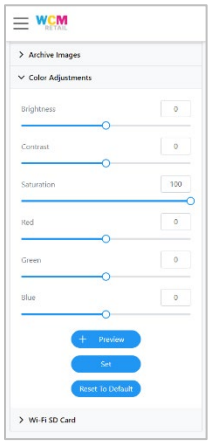




Tap View Images to see the archive gallery. You can reprint images as needed, download them to a USB drive (inserted into the WCM-Plus), or delete the image(s).



From the gallery you can select one or all images to delete or save to a USB drive. You can select up to ten images for reprinting.



Color Adjustments – WCM Plus uses official ICC profiles for each of the DNP printers and there should be no need to make color adjustments. However, to accommodate unique preferences for printer output, color adjustments have been made available. These are global controls and will apply to all print outputs.

The WCM Plus has controls to adjust brightness, contrast, saturation, and hues. Generally, there should not be a need to adjust more than one or two points the achieve the desired look.

After each adjustment it is recommended to select an image to preview before making the next adjustment.

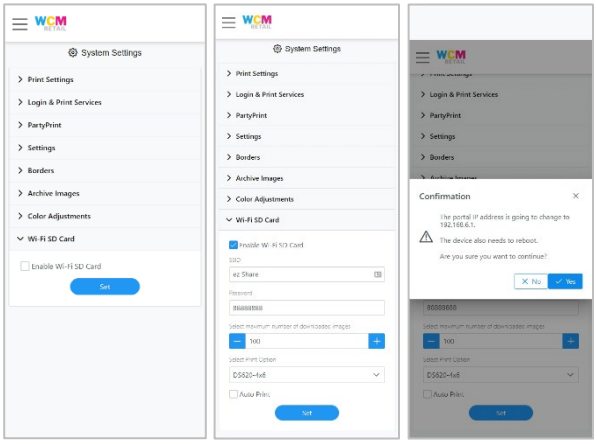
- **Brightness** controls luminosity of the image allowing adjustment for over or under exposed images.
- **Contrast** controls the difference in luminance between an object and the background of a different color.
- **Saturation** adjusts the overall vibrance of the image by boosting or reducing the brilliance of hues.
- **RGB** adjusts the red, green, and blue channels to the desired level. If images are too red decrease the red channel by a point and tap + Preview to check the setting. The same applies for the other channels.

Once the adjustments meet the desired effect, tap Set to save. Reset To Default will return all settings to the default values.

WiFi SD Card – Devices that can use a WiFi enabled SD card (currently EZ Share® is the only Wi-Fi SD card supported) can connect to the WCM for easy image printing from devices that cannot connect to the WCM Plus Hotspot and do not support FTP transfers. This can be useful for DSLR and Mirrorless cameras that need the ability to print images.

Note: The following conditions apply when using a WiFi enabled SD card.

- *Image quality needs to be set to JPEG. RAW files are not compatible with the system.*
- *DSLR and Mirrorless cameras may need to use live view to maintain power to the WiFi enabled SD card. Power saving modes may remove power to the SD card, thus shutting off the hotspot broadcast.*
- *Party Print requires an internet connection. Because the ezShare card uses a Wi-Fi connection, an ethernet connection is required for internet access when running Party Print*



Check Enable WiFi SD Card to enable the feature.

Enter the SSID for the WiFi SD Card (for ez Share cards the SSID is ez Share)

Enter the password for the WiFi SD Card (for ez Share cards the password is 88888888)

The images that are sent from the WiFi SD Card are sent to the WCM Plus and stored for print selection or reprinting. Select maximum number of downloaded images will determine how many images will be stored on the WCM Plus. The value can be set to any number from 1 to 100.

Select from the available print sizes

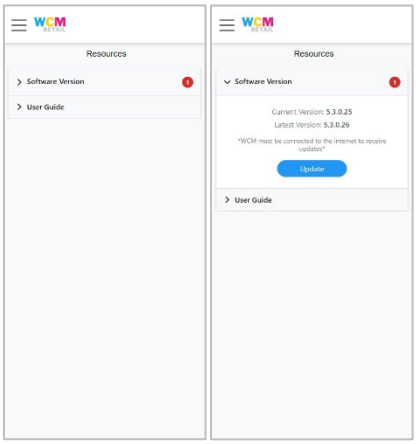
Checking Auto Print will send every picture taken to the WCM Plus. If Auto Print is not checked images can be selected from the WiFi SD Card gallery, tap View Images

Tap Set to save the settings

*Note: Using a WiFi SD Card will require the WCM Plus to use a different IP address to avoid conflicts and will cause the WCM Plus to reboot. The new Hotspot SSID to access the WCM Plus portal will be 192.168.**6**.1.*

Resources

Software Version – provides the current software version running on the WCM-Plus. When connected to the internet, it will also indicate any available updates that can be installed. Software updates can include feature improvements or bug fixes. After tapping Update, you will be asked to confirm the update. The update process will take several minutes. During that time the WCM-Plus will not be functional. Once the update is complete the WCM-Plus will print a test print with the new version number for confirmation.



User Guide – tapping View User Guide will open an on-board version of the WCM Plus that was shipped with the unit or provided in the latest update. If the User Guide is edited before sending a version update, the most recent version on the DNPPhoto.com website will be available.

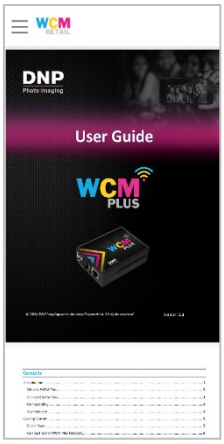


Image Editing

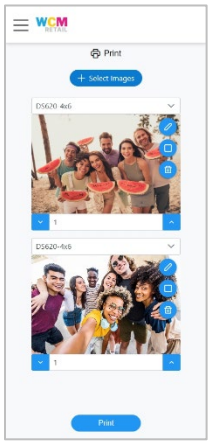
Images can be edited in the WCM-Plus portal when using the WCM-Print feature.

On the **Printers Menu** select **WCM Print** and **+ Select Images**

Images can be selected from your Photo Library, from your Camera, or from Files.

This will add the picture to the edit gallery.

Tap the pencil icon to enter the edit menu



The edit menu allows you to crop and rotate images, apply image controls, add filters, and annotate images.

Crop / Rotate

Selecting the crop icon provides the ability to crop or rotate the image

To crop the image, select **Scale** and either drag the crop corners, pinch the image, or move the slider to adjust the size.

Tap the check mark in the upper right corner to save or select another edit tool to make additional adjustments.

To rotate the image, select Rotation and use the slider to rotate the image to the desired position.

Finetune

Selecting the Finetune icon provides the ability to adjust the following color controls:

- Brightness
- Contrast, Saturation
- Exposure
- Temperature
- Gamma
- Clarity
- Vignette

Each element can be adjusted with the sliders.

Tap the check mark in the upper right corner to save or select another edit tool to make additional adjustments.

Filter

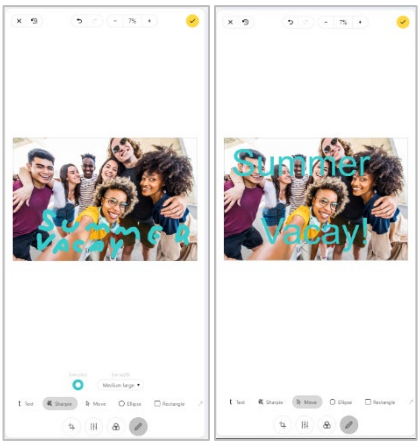
Selecting the Filter icon provides the ability to add filters like:

- Enhanced
- Greyscale
- Sepia

Tap to select the desired filter.

Tap the check mark in the upper right corner to save or select another edit tool to make additional adjustments.

Annotate



Selecting the Annotate icon opens tools to mark or add text to the image.

Tools like the Sharpie and text allow you to add messages to the pictures.

Tap the check mark in the upper right corner to save or select another edit tool to make additional adjustments.

Borders

Borders refer to an overlay that can be applied to prints. Borders can be a frame that is printed around the picture or a business logo to promote your business. The WCM-Plus has a few ready to use borders that can be selected, and custom borders can be created and uploaded.

Requirements:

File type: Files must be saved as **.png** to support transparency. Borders are overlays so there must be a transparent area to allow the picture to show.

File Size: Border files need to be sized to match each print size that will be used. Picture orientation also needs to be considered, each border template should include a portrait and landscape orientation.

Basic print sizes are:

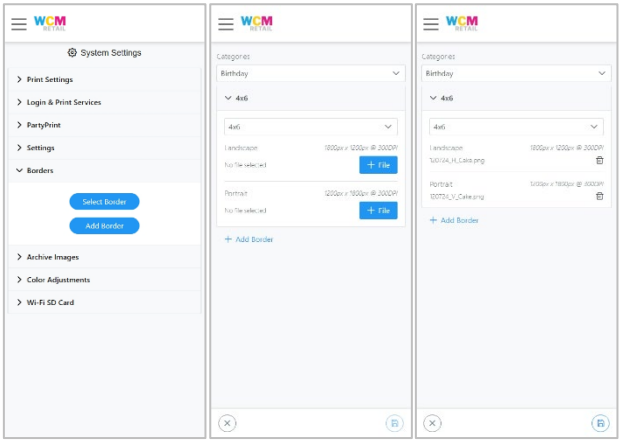
Print Size	Portrait pixel size (300 dpi)	Landscape pixel size (300 dpi)
4 x 6	1200 x 1800	1800 x 1200
5 x 7	1500 x 2100	2100 x 1500
6 x 8	1800 x 2400	2400 x 1800
8 x 10	2400 x 3000	3000 x 2400
8 x 12	2400 x 3600	3600 x 2400

Custom borders can be created in Photoshop or other graphic editing software that supports transparent layers. Borders can include other overlay images such as your company logo.

Uploading custom borders:

Once you have created the custom borders, save them on the device you are using to access the WCM-Plus portal.

From the WCM-Plus portal menu, tap **System Settings** and **Borders** and then tap **Add Border**.



To add a border, choose the category you wish to use followed by the print size the border will be applied to. In the Landscape section, tap **+ File** to select the custom border that was created for the landscape orientation. Follow the same process for the Portrait section but select the file that was created for the portrait orientation.

Once the borders have been added, tap or click the **Save** icon on the lower right of the screen.

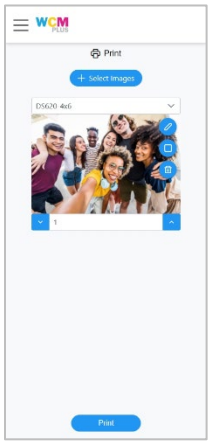
Once the border has been saved it can be applied two ways. Either by using the Edit feature in **WCM Print** or by choosing **Select Border** in the **System Settings/Borders** menu.

Applying borders using WCM Print:

Open **WCM Print** under **Printers** Menu

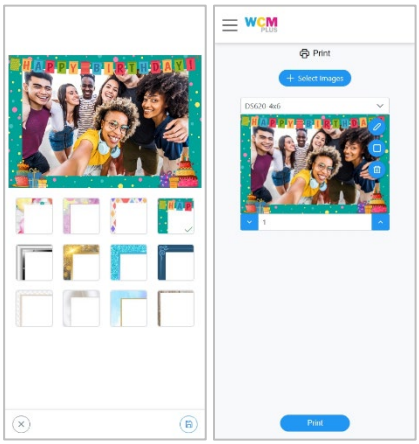
Tap **+ Select** Images and choose pictures from the photo gallery, the camera, or from files.

Tap the Border icon to see the available borders.



Select the border of choice and tap the Save icon in the lower right of the screen.

The picture with the border will be previewed. Tap **Print** to send the image to the printer.



Applying borders AirPrint®/IPP, Hot Folder, and FTP/FTP printing:

Go to the **System Settings/Borders** menu

Tap Select Border to see the available borders.

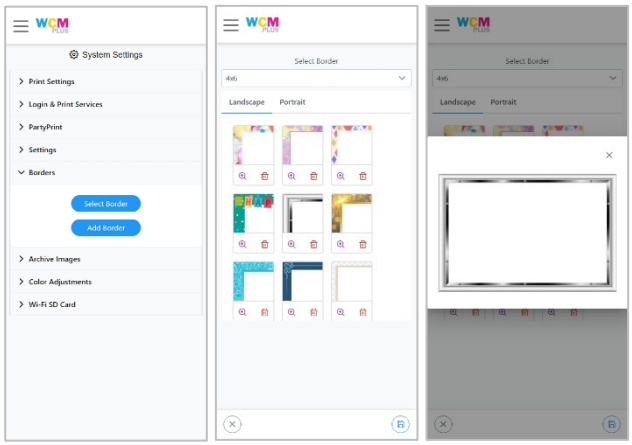
Choose the print size you will apply the border to.

Choose the orientation (Landscape or Portrait)

Tap the icon to preview the full border.

Tap the border to choose the one you want to use and tap the Save icon in the lower right of the screen.

Follow steps 4~6 for the other orientation.



All prints that are sent from AirPrint®/IPP, Hot Folder, or FTP/FTP will have the chosen border applied.

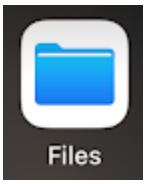
Hot Folder

Hot Folder Printing

Setting up a hot folder allows image files to be placed in a specific folder which automatically sends the image to print a specific size and a specific printer. A hot folder can be set up for iOS, Android, Mac, and Windows.

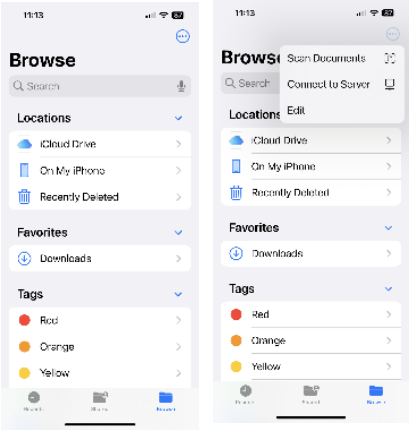
To use a hot folder the device must be connected to the WCM-Plus hotspot and have a DNP printer connected to the WCM-Plus.

To setup hot folders for iOS



1. Connect the iOS device to the WCM-Plus hotspot.
2. Open the Files app on your iPad or iPhone

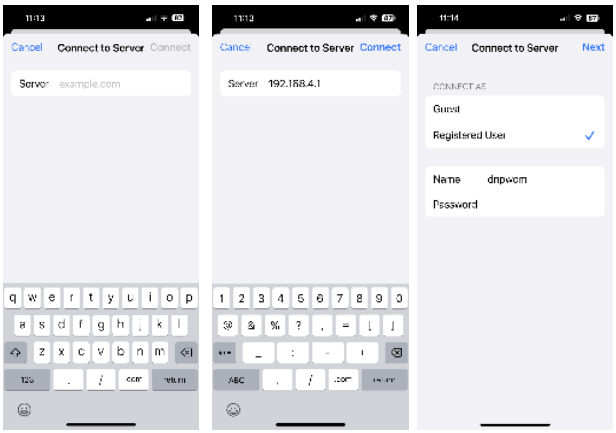
3. Tap the circle with three dots and then tap “Connect to Server”



Enter **192.168.4.1** and **tap Connect**

Connect as Registered User and enter the name and password:

- Name = **dnpwcm**
- Password = **dnp12345**



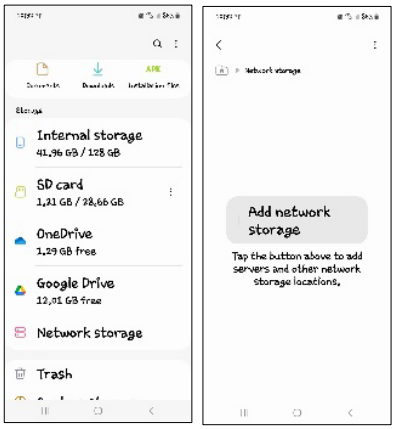
This will show the shared network folder: **dnpwcm**. Open the **dnpwcm** folder to see the hot folders. There will be a hot folder for each available print size. You can copy image files into the desired print size folder, and it will print on the first available printer that supports the desired print size.

If you have multiple printers connected to the WCM-Plus and want the print to go to a specific printer, open the print size folder to see the connected printer. You can copy image files into the printer folder, and it will print the desired print size on the specified printer.

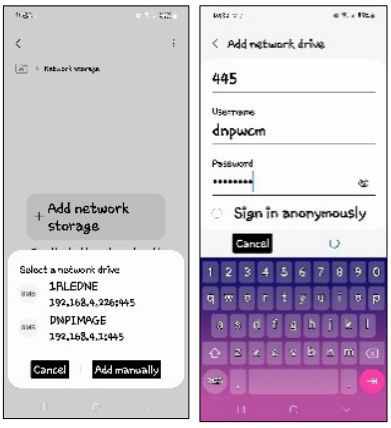
To setup hot folders for Android

1. Connect the Android device to the WCM-Plus hotspot.

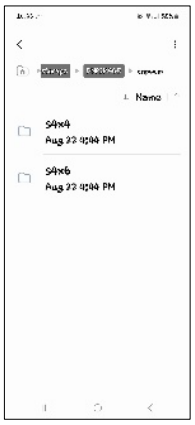
2. Open the My Files app and scroll down and tap **Network storage** and **Add network storage**.

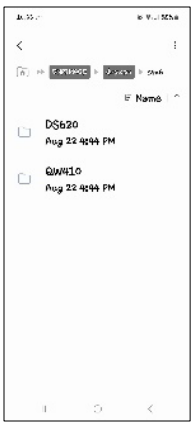


3. Select DNPIMAGE (it may take a few seconds to appear)
4. Enter the username and password
   - Name = **dnpwcm**
   - Password = **dnp12345**



This will show the shared network folder: **dnpwcm**. Open the **dnpwcm** folder to see the hot folders. There will be a hot folder for each available print size. You can copy image files into the desired print size folder and it will print on the first available printer that supports the desired print size.





If you have multiple printers connected to the WCM-Plus and want the print to go to a specific printer, open the print size folder to see the connected printer. You can copy image files into the printer folder and it will print the desired print size on the specified printer

Return to the primary page in **My Files** and select the **Images** folder.

Tap and hold the image(s) you want to print and tap **Copy** (or **Move**)

Return to the **dnpwcm** folder and select the print size folder

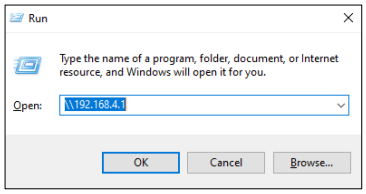
Tap **Copy Here** (or **Move Here**) to drop the image file(s) in the hot folder

To setup hot folders for Windows

Connect the Windows device to the WCM-Plus hotspot.

Click on the Start Menu, type **run**, and enter

Enter **\\192.168.4.1** and click OK to open the shared folders

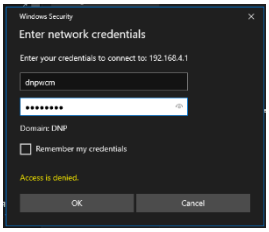


Double click the **dnpwcm** shared network folder to access the hot folders.

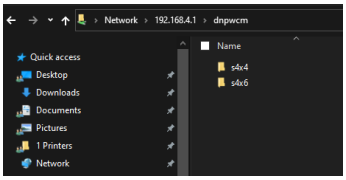
You will need to enter your network credentials

Name = **dnpwcm**

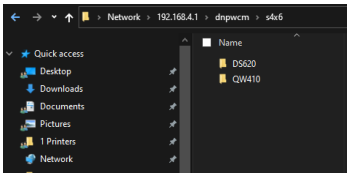
Password = **dnp12345**



There will be a hot folder for each available print size. You can drag-and-drop or copy image files into the desired print size folder and it will print on the first available printer that supports the desired print size.



If you have multiple printers connected to the WCM-Plus and want the print to go to a specific printer, open the print size folder to see the connected printer. You can drag-and-drop or copy image files into the printer folder and it will print the desired print size on the specified printer.



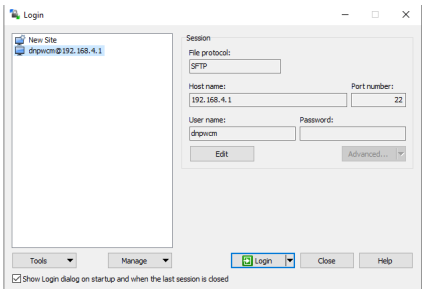
FTP

File Transfer Protocol (FTP/SFTP)

Devices or programs that are compatible with FTP/SFTP can have files sent to a hot folder for direct printing. Some Higher end cameras such as the Sony A7 or Canon EOS R5 support FTP.

Note: The screenshots below are from WinSCP and may not be the same in other programs.

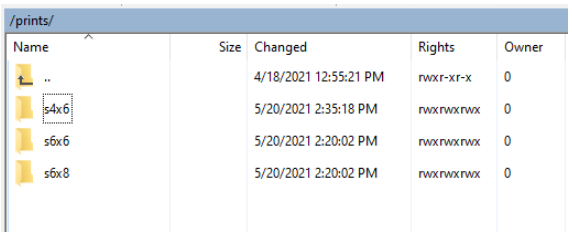
	FTP	**SFTP**
Hostname	192.168.4.1	192.168.4.1
Port	21	22
Username	wcmftp	dnpwcm
Password	dnp12345	dnp12345



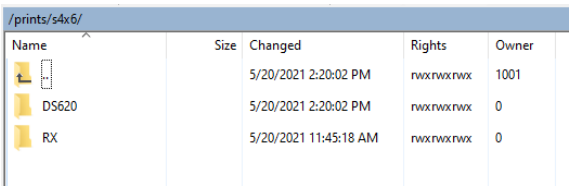
Sending files by FTP

Files can be sent to a specified print size.

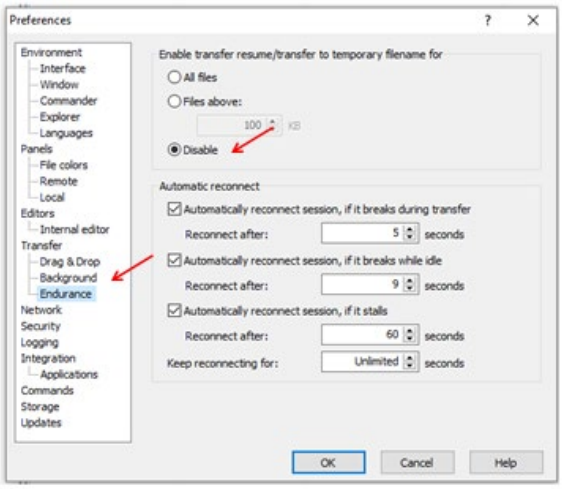
If there are multiple printers connected to the WCM, placing images in the print size folder will send prints to the first available printer.



If a specific printer needs to be specified, open the print size folder, and select the desired printer.

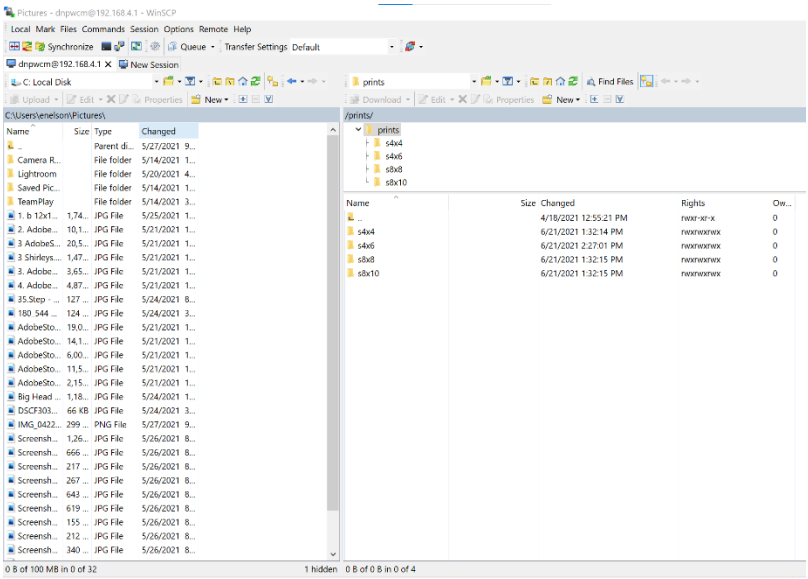


Note: WinSCP has a setting that is enabled by default that transfers files larger than 100kb to a temporary file name, with the .filepart extension, and then renames the file. This should be disabled for the WCM to function correctly. To disable this setting go to Options, preferences, select Endurance in the Transfer tree, and disable the setting for "Enable transfer resume/transfer to temporary file name for"



Selecting images

Images can be selected in WINSCP by selecting the folder containing the images on the "home" directory (left side of the screen). The images can be dragged and dropped to the appropriate WCM folder (right side of the screen).



API

Application Programming Interface (API)

The WCM API enables third-party software developers to integrate WCM (Wireless Connect Module) functionality into their applications, allowing seamless communication with DNP photo printers. This API provides essential tools for managing print jobs, retrieving printer status, and handling image processing tasks within a custom software environment. By leveraging the WCM API, developers can enhance their applications with efficient and reliable wireless printing capabilities. To obtain access to the API and its documentation, interested developers must contact DNP directly for further details and support.

For further information and/or assistance, please contact DNP Technical Support at:

Phone: 855-367-7604

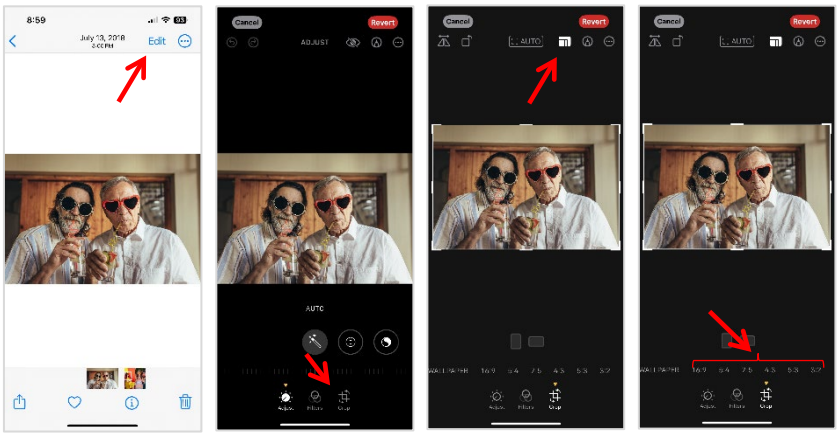
Email: dnpsupport@dnp.imgcomm.com

Known Issues

Blank Prints from Apple device

AirPrint has a known issue that causes images sent to a printer to come out blank. The best method to fix this issue is to use WCM Print instead of AirPrint. If AirPrint is preferred, the following steps will prevent the blank print.

- Open an image from the Apple Gallery
- Tap Edit in the Apple Gallery
- Select the crop tool
- Select an aspect ratio (the table below provides the aspect ratio for print sizes)



White Borders from Apple Device

Phones that save images in heic (high efficiency image container) format send the image to the WCM that will not allow the WCM-Plus to see the actual size of the picture. Because of this the printed picture may have white edges because the WCM-Plus cannot properly crop the image.

There are two options to address this condition.

1. Go to the camera settings and select Most Compatible as the format. This will save images as .jpg and the WCM can correctly see the edges of the image and crop to fill the print size.
2. Resize the image to the correct print size before sending it to print. This can be done in the WCM Print edit feature
   a. Select the desired image in WCM Print and choose the pencil icon to edit the image.
   b. For 4x6 prints select the crop tool and select 4:6 for portrait and 6:4 for portrait. Drag the edit buttons to include the desired print area and save.
   c. If another print size is wanted, select the resize tool and enter the pixel size for the desired print. Pixel size can be calculated by multiplying the print size in inches by 300dpi. So, a 5x7 print size will be 1500x2100 pixels. Tap the lock icon to unlock the aspect ratio and enter the correct sizes.
   d. You can also use native edit tools in the phone's gallery to select the correct aspect ratio.

   Aspect ratios are as follows:

4x6	=	2:3
5x7	=	5:7
6x8	=	3:4
6x9	=	2:3
8x10	=	4:5
8x12	=	2:3
Square	=	1:1

Android Internet Printing Protocol (IPP) Fit/Fill issues

Android phones that save images in ultra-HDR format send images to the WCM that do not allow the WCM-Plus to see the actual size of the picture. Because of this the printed picture may have white edges because the WCM-Plus cannot properly crop the image.

Panoramic pictures can be magnified and crop out a significant portion of the image.

Both of these conditions can be resolved by using WCM Print, Hot Folder, or FTP transfers instead of the IPP (AirPrint®) method.

WCM-Plus Hotspot Connection Using an iPad 11-inch (A16)

There is a known is issue when trying to connect an **iPad 11-inch (A16)** to the WCM-Plus Hotspot If you attempt to connect to the Hotspot using either WPA2 or WPA3 security protocol, you will receive an error message stating that you cannot to the network. To connect your **iPad 11-inch (A16)** to the WCM-Plus Hotspot, you will need to use WPA protocols.

Acknowledgements

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Version History

Date	S/W Version	Change
1/25/2024	5.1	Updated for v5.1 WiFi enabled SD card (ezShare) Enhanced Party Print integration Bleed adjustment settings Global color changes
3/25/2024	5.1	Corrected FTP username to wcmftp
7/26/2024	5.3	Added retail feature Added retail branding Added hotspot channel selection Added ez Share to Party Print compatibility
3/13/2025	5.4	Skipped
3/13/2025	5.5	Added panorama print sizes Added API availability