

## Using a wi-fi Adapter for Remote Control of the AG-UX90 and AG-UX180

The new AG-UX90 and AG-UX180 camcorders offer the capability of utilizing an optional wi-fi adapter to provide remote control from an Apple iPad. This paper will describe the setup procedures for getting the camera to work with the AG ROP app, the free Panasonic app for the iPad that controls the AG-UX90 and AG-UX180 (and also the AG-DVX200).

In this paper I will outline the simplest procedure for setting up the camera and the iPad for remote control operation. The necessary equipment and software include:

1. The camera (either a UX90, UX180, or DVX200)
2. The wireless adapter (I'm using an AJ-WM50P)
3. The Panasonic AG ROP App, available from the Apple App Store.
4. An Apple iPad to run the AG ROP App software. Note, this app works only on the iPad, not on an iPhone.

### The Wireless Adapter

Before considering wireless remote control, you'll first need to secure a wireless wi-fi adapter. The cameras themselves do not have any inherent wi-fi capability, but they can work with a wi-fi adapter through their USB Host ports.



Panasonic AJ-WM50P

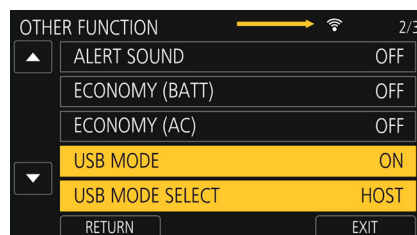
Panasonic has certified three wireless adapters for use with the cameras as of the time of this writing (January 2017). Those adapters are the Panasonic AJ-WM30, the AJ-WM50, and the ASUS USB-N53 (hardware version A1). It is possible that other adapters may work, but is not guaranteed. Check the panasonic.com website for any updated announcements about certified network adapters.

### Simple Network Setup

The networking capability built into the cameras is substantial and you can get as complex as you want, but the process of connecting to the network can be extremely easy as well.

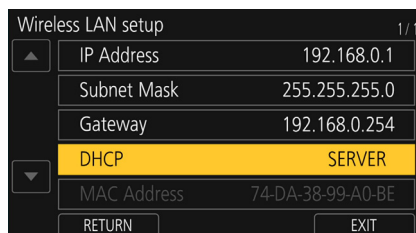


First: install the network adapter in the camera's USB Host port. The USB Host port is located on the right side of the viewfinder, on top of the camera, under a door that says "USB HOST".

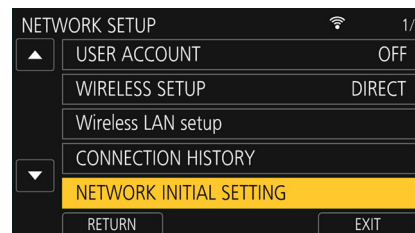


Second: go into the camera's Other Function menu, and set the USB MODE menu item to "ON", and the USB MODE SELECT menu item to "HOST". Within a few seconds, you should see a small "wi-fi" icon appear at the top of the screen, indicating that the wi-fi adapter is active.

Third: go into the camera's Network Setup menu and choose Network Initial Setting->YES. That will restore the camera's settings to their factory-original defaults.



Fourth, go into the camera's Network Setup menu and choose Wireless LAN setup, and set DHCP to "SERVER".



Finally, exit all the menus. This is an important step - you need to exit entirely from the menu system, or the camera may not be able to receive and respond to the networking requests from the iPad.

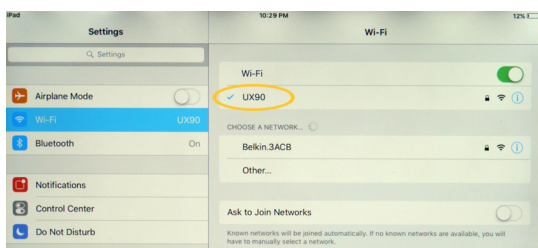
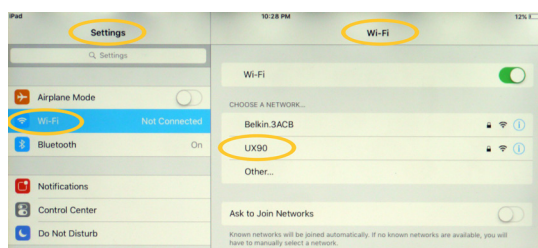
That's it. Your camera is now broadcasting a wireless network and is ready to receive commands from the app.

## Configuring the iPad

The only device that can work with the camera's wireless capability is an Apple iPad, and the only software that works on an iPad to control the camera is the Panasonic AG ROP app. Go to the App store and search for "Panasonic AG ROP". Install that app. Note: do not install the Panasonic P2 ROP app; that's a different app meant for use with a different line of cameras. For the AG-UX90, AG-UX180, or AG-DVX200, you need the "Panasonic AG ROP" app.



After the app is installed, you need to connect your iPad to the wi-fi network that the camera is creating. From the iPad's home screen, choose "Settings", then "Wi-Fi". In the "Choose A Network" window, it will show all the available wi-fi networks. One of them will be from your camera. If you're using an AG-UX90 camera, the wi-fi network will be named "UX90". If you were instead using an AG-UX180 camera, the wi-fi network will be named "UX180." And, logically, if you were using an AG-DVX200 camera, the wi-fi network will be named "DVX200".



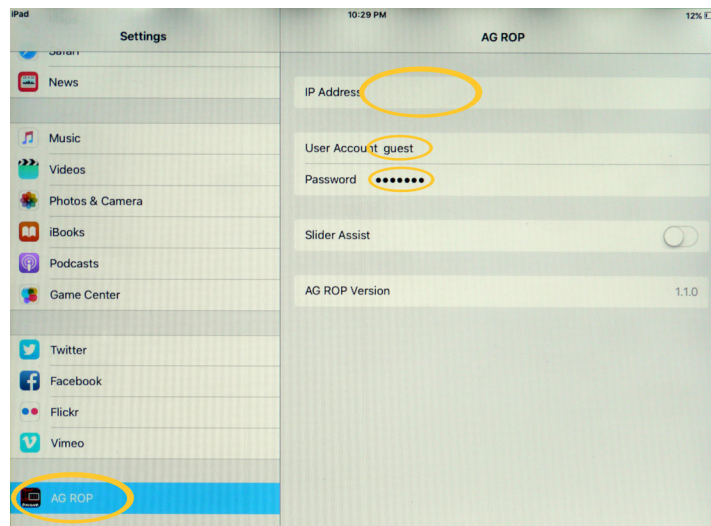
Select the network that your camera is creating. The iPad will attempt to connect, but it will need a password. The default password is "01234567890123456789abcdef". Enter that password, using lowercase letters, and the iPad should connect to the wi-fi network.

You're almost done. The camera is broadcasting a network, and the iPad has connected to that network. There's one last step, which is configuring the application.

## Configuring The AG ROP App For A Direct Connection

There's a little bit of setup you need to do to the AG ROP app before it can connect to the camera. You have to supply a username and password to the app. This is very simple to do.

You should already be in the "Settings" section of the iPad, from having connected the network in the previous step. On the leftmost edge of the screen, there's a panel labeled "Settings", offering items such as "General", "Display & Brightness", "Wallpaper", etc. Scroll down through the list of items until you find "AG ROP". Select it, and the right side of the iPad's display will change to show the available settings for the AG ROP app.



For the IP Address, make sure that field is empty. You do not have to set an IP Address, when the camera is set to DHCP->SERVER.

Set the "User Account" to "guest" and set the password to "agguest". Then, exit the Settings by pressing the "home" button.

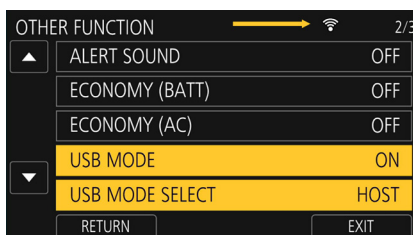
At this point, you're done. You can now run the AG ROP app, and it should successfully connect to your camera; you can then use the AG ROP app's capabilities to take control of your camera.

## Connecting Through An Existing Network

The procedures outlined previously will get the camera connected to the iPad and get the application working. However, there are many more advanced options you can use. One such example would be if you wanted to connect the camera and iPad to an existing wireless network, instead of making a direct connection between the camera and iPad as described previously. This section will describe the process of connecting to an existing wi-fi network.

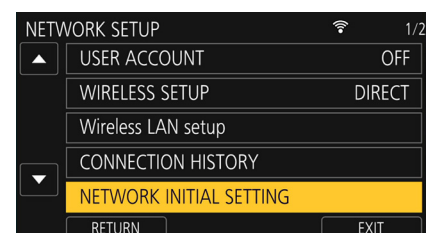
## Configuring The Camera To Connect Through An Existing Network

First: install the network adapter in the camera's USB Host port.



Second: go into the camera's Other Function menu, and set the USB MODE menu item to "ON", and the USB MODE SELECT menu item to "HOST". Within a few seconds, you should see a small "wi-fi" icon appear at the top of the screen, indicating that the wi-fi adapter is active.

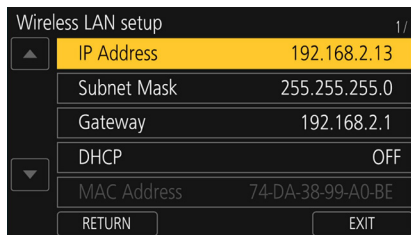
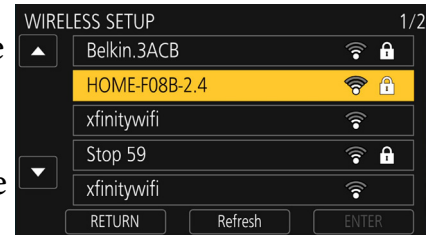
Third: go into the camera's Network Setup menu and choose Network Initial Setting->YES. That will restore the camera's settings to their factory-original defaults.





network, you'll have to enter the password. Choose your network and press "ENTER". Then enter the password (remember, it's case-sensitive; if you need to toggle between upper and lowercase, use the "A-a" button in the lower left). The camera will then connect to the wireless network.

Fourth: go into the camera's Network Setup menu and choose WIRELESS SETUP->SSID (SELECT). The camera will scan for available networks and, after a few seconds, it will display a screen full of the wireless networks it found. You have to choose the network that you want to use for both the camera and the iPad, and if it's a secure



At this point the camera is connected and ready to go, but we need one more piece of information. Go to the Network Setup menu's WIRELESS LAN SETUP menu, and make note of the IP Address. You won't be changing it on the camera, but we need to know what it is in order to enter it on the iPad. In this example, the camera chose IP Address 192.168.2.13, but your camera's IP address will

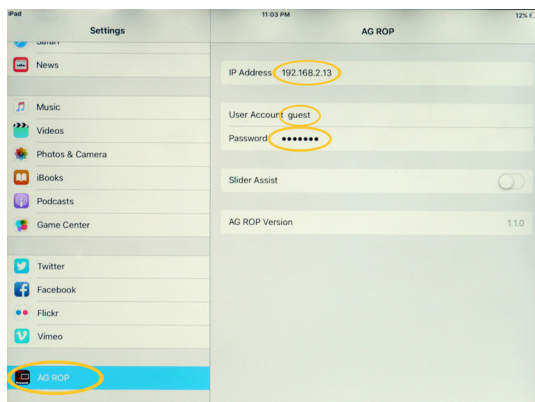
probably be different, so make note of what it is.

## Configuring The iPad To Connect Through An Existing Network

This process is similar to the direct connection; you need to tell the iPad which network to connect to. From the home screen, choose "Settings", and then select Wi-Fi. The iPad will bring up a list of the available networks to choose from. Choose the same network that you chose for the camera, and join that network.

## Configuring The AG ROP App To Connect Through An Existing Network

The process here is similar to the direct connection. From the iPad's Settings screen, scroll through the choices on the left until you find the AG ROP entry, and select it. The right side of the display will change to "AG ROP" and show the same fields: IP Address, User Account, and Password.



Set the IP Address to the same address that the camera is displaying. Copy the IP address from the Camera's WIRELESS LAN SETUP->IP ADDRESS field, and enter it here in the iPad's "IP Address" field. In this example, the camera was showing its current IP Address as 192.168.2.13, so I've entered "192.168.2.13" into the iPad's "IP Address" field. Again, your camera's IP Address will probably be something different; just copy the numbers from your camera into this field.

Just like before, set the "User Account" to "guest" and set the password to "agguest". Then, exit the Settings by pressing the "home" button.

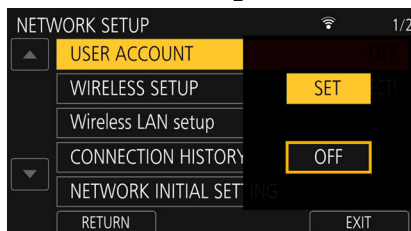


Now, exit the menus on the camera. It's important to exit the menus, and you want to see the wi-fi icon being displayed on the camera's screen.

At this point, you're done. You can now run the AG ROP app, and take control of your camera.

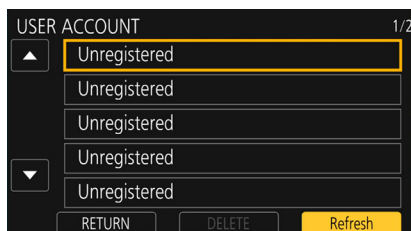
## Changing The Username

The default username is "guest", with a default password of "agguest", but you're free to change the username and password to whatever you want. The camera provides the ability to store and retrieve up to 10 User Accounts. If you want to use a different User Account other than "guest", follow these steps:

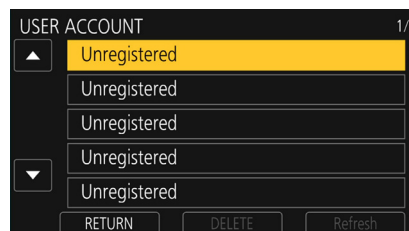


First, go to the camera's Network Setup menu and choose USER ACCOUNT->SET.

The camera will bring up 10 potential slots (which all probably read "Unregistered").



Choose one of the "Unregistered" slots, and press "REFRESH".



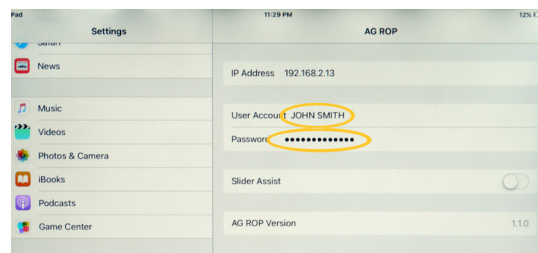
Then you can enter a User Account Name and a User Account Password for this particular account. In this example I entered the name "JOHN SMITH".



Finally, select the name you want to use, and press the RETURN button. This will cause the camera to choose the account name and password that you have chosen, rather than the default "guest" account name and "agguest" account password.



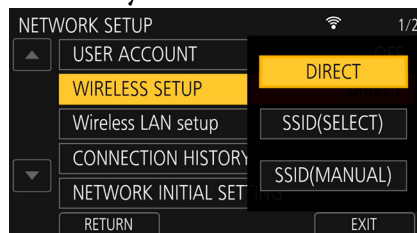
You then have to match this User Name and Password in the iPad's AG ROP settings. It's not enough to connect to the same network; the camera and the AG ROP app have to both be connected to the same account name and use the same password. If you choose to use an account name on the camera, you'll have to use the same account name and password on the iPad ROP App settings. And, note - once you've selected a User Account



on the camera, it will no longer respond to any other account name or password. “guest” and “agguest” won’t work anymore; the only way to connect to the camera is to use the User Account name and password that the camera is currently using. If you want to go back to using “guest” and “agguest”, you’ll have to go back into the camera’s User Account menu and set it to OFF.

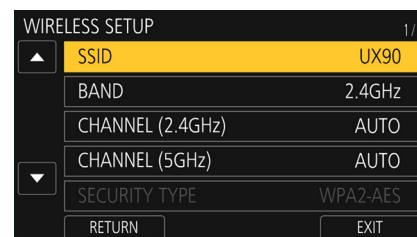
## Changing The Network Name

If you’re planning on using the camera in the simple direct-connection settings, but you want more security and privacy than using the default network name, you can easily change it. Remember, the default network name is “UX90”, “UX180”, or “DVX200” depending on which camera you have.



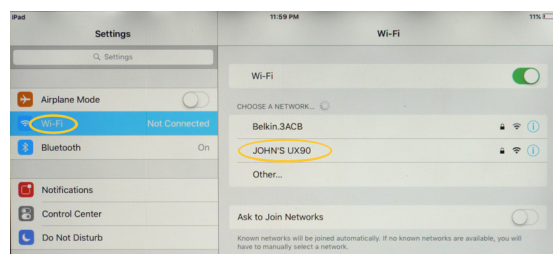
Go to the Network Setup menu, and choose DIRECT. Selecting DIRECT instructs the camera that it will be generating its own wireless network.

After choosing the Direct option, it shows you the current settings. The first field is showing the network name (the SSID) that the camera will be broadcasting. Selecting that field brings up a menu that gives you the chance to change the SSID.



Next, enter a new name for the network. If, for example, you’re working a show where there are multiple UX180 cameras, you might change one to be “UX180-A”, another to be “UX180-B”, another to be “UX180-C”, etc. That way you avoid the conflict of there being multiple devices trying to broadcast the same network name, and you’ll know exactly which camera is which when you

go to connect to it with the iPad. In this example, I’ve changed the network SSID to “JOHN’S UX90”. You can also choose to change the password, or leave it as the existing password. Either way, remember the password, as you’ll need to enter it on the iPad to connect to the camera.



Finally, you’ll need to change the wi-fi settings on your iPad to connect to the correct camera. Go to the Settings, and choose Wi-Fi. In the “CHOOSE A NETWORK” window, look for the new network name that your camera is broadcasting. Select that network, and enter the password, and the iPad should connect to the camera.

## Summary

The networking capabilities of these cameras provide for comprehensive remote control through the AG-ROP app. Because there are so many settings and options, it can be a bit complicated for someone attempting to connect for the first time. Hopefully this step-by-step guide will enable you to get your camera connected to your iPad and the AG ROP app quickly and easily.