

VHV5 Quick Start Guide

How to set up, and use the VHV5



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Abstract

This document will provide step by step instructions for new users on how to set up and run their first VHV5 program from unboxing to decoding their first barcode.

Readers take note of sections labeled “ *Note ” as they will contain valuable information.

The VHV5 is Omron’s Advanced barcode reader. Its liquid lens and Weblink user interface creates a streamlined programming process that allows new users to easily create and operate a barcode decode program tailored to their manufacturing needs. The Ability to support multiple jobs, robust network connectivity options, and compatibility options make it an ideal choice for any of your traceability needs.

Hardware components and setup



Wiring the Unit

The three options to power the unit are Power over ethernet (PoE), flying leads, or an Omron power supply. The current and voltage requirements are listed below

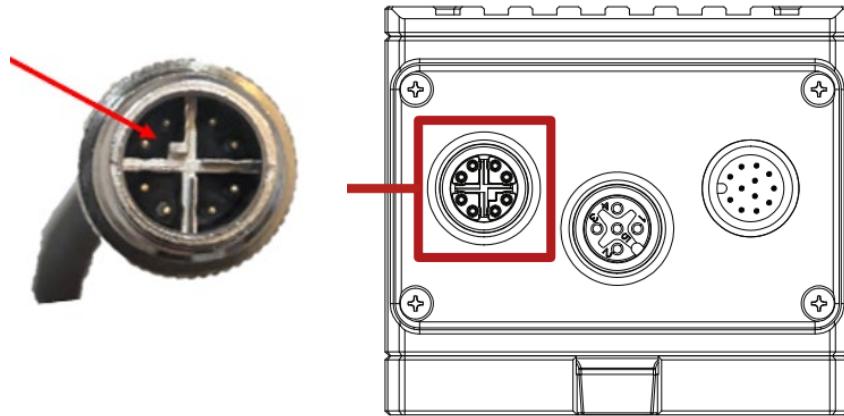
Power Supply Voltage and Current Consumption	
Power Supply Voltage	Power over Ethernet (IEEE 802.3at) / 24 VDC +/- 10%
Current Consumption	PoE+: 44-57 VDC @ 0.6 A (Max.); Direct: 24 VDC @ 1.875 A (Max.); External Light Port Connector: 24 VDC @ 1.5 A (Max) (Internally Current-Limited)

X-Coded Ethernet

1000BASE-T X-Code Ethernet port is a standard connection type across industry and all standard X-coded Ethernet cables should work with the VHV5.

10-3-3 X-Code Ethernet Port

1000BASE-T X-Code Ethernet port. Female M12.

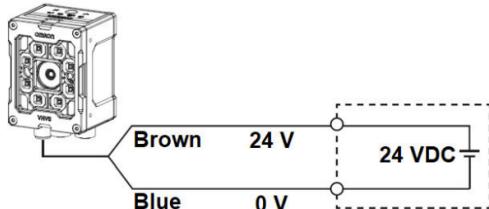


To plug in the cable, Lineup the notch shown above on both the male and female end of the connection, users can rotate the cable with slight inward pressure until they feel the notch fall into place.

*Note if Direct 24V and PoE are connected at the same time the reader will automatically use the direct 24V input.

External Power

The VHV5 is a PoE-enabled reader, however in order to use external lighting or high/ultra-setting for the embedded LED's, external power must be used. If you are using the Omron series flying lead cable the wiring is as follows.



Pin	Name	Function	Flying Lead Color
2	Power (+VIN)	24 Volts	BROWN
7	Ground (-VIN)	24V Reference (GND)	BLUE



*Note if you are using an external flying lead – m12 cable please verify the Pinouts with the wiring diagram

Like the X Coded Ethernet cable, the M12 Power supply port has a notch with a matching female notch on the supply cable.

Connect to the Reader Via ethernet

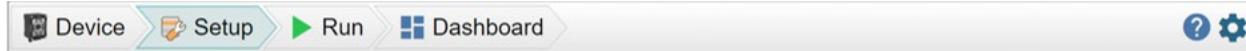
The VHV5 utilizes any internet browser to program. However, the internet browser is just a portal to the camera through a network connection and is not accessing the internet. The camera can be completely air-gapped from the outside world but still accessed anywhere on the internal network.

Users can connect to the VHV5 by directly inputting the Reader's IP address (Default: 192.168.188.2) into the URL address bar, where you would input a website location.



Weblink walkthrough 4 main tabs

The weblink platform has four major tabs shown in the Top left of the image screen and below the URL, **Device – Setup – Run – Dashboard**, these will be how we navigate the different functionalities of the VHV5 hardware.



Device Tab – this tab is used to set the parameters of the reader at a hardware level, these settings apply to all jobs within the individual reader.

*Note: The VHV5 has the ability to store and call on multiple jobs unlike its predecessors

Setup Tab – This is where all programming for each individual job will occur

Run/Dashboard – Both the Run and Dashboard tab put the reader into run mode and will be how the reader is run after programming. Both views will allow for an operational view of the image capture and decode process.

Setup your first program

Out of the box the VHV5 will have its auto focus and auto photometry enabled as well as a decode tool, scanning the full image window in continuous operation mode.

In this Default mode the VHV5 will automatically adjust both focus and exposure times to read any code placed into its imaging window, as long as the reader has the resolution needed and it is within the read range capabilities of the lens.

If users would like to fine tune the image capture settings of the VHV5, they can use the Quick Focus and Quick exposure steps described below!

Triggered mode

to change the read cycle to triggered, navigate to the Setup Tab select the “Read Cycle” dialog box in the top left below the device tab and change it to “Triggered”



Quick Exposure

Select the Quick exposure Icon to activate the ROI tool for Exposure, then create an area surrounding the barcode, exact precision is not needed in most cases, a reasonably sized ROI should suffice



The reader will cycle through multiple Image captures to select the proper exposure time.

Quick Focus

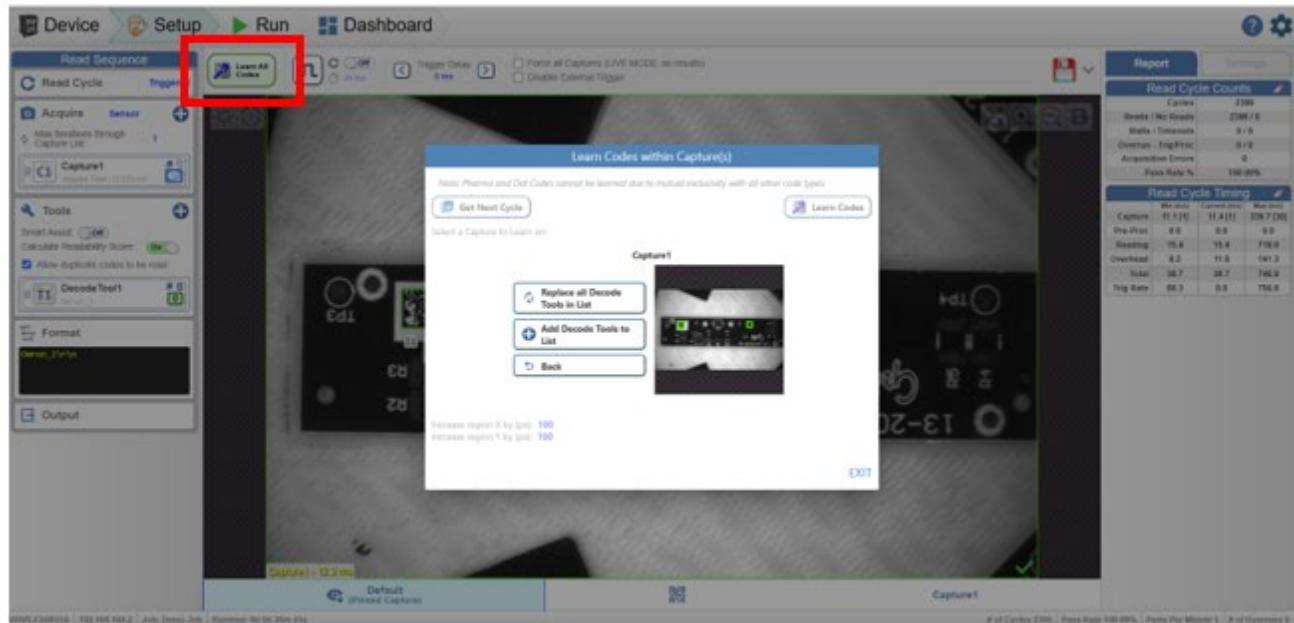
Select the Auto Focus Icon to activate the ROI tool for auto Focus, then create an area surrounding the barcode, exact precision is not needed in most cases, a reasonably sized ROI should suffice, ensure there are not multiple levels working distance within the created ROI.



Learn All Codes

Press the “learn all codes” button and the wizard will populate, users can either gather a new image using “get net cycle” if the image has changed and then select learn all codes in the top right.

Replace all codes is the recommended option as it will replace any preexisting decode tools leading to a more compact program



This concludes the basic setup and configuration of Omron's VHV5 Advanced Barcode reader. If you still have questions, you can find more support documents at <https://automation.omron.com/en/us/products/family/VHV5> or by contacting your local Omron Representative.

Appendix

Setting Network connection

If you are unable to connect to the camera it is most likely a conflict with the IP addresses of the network.

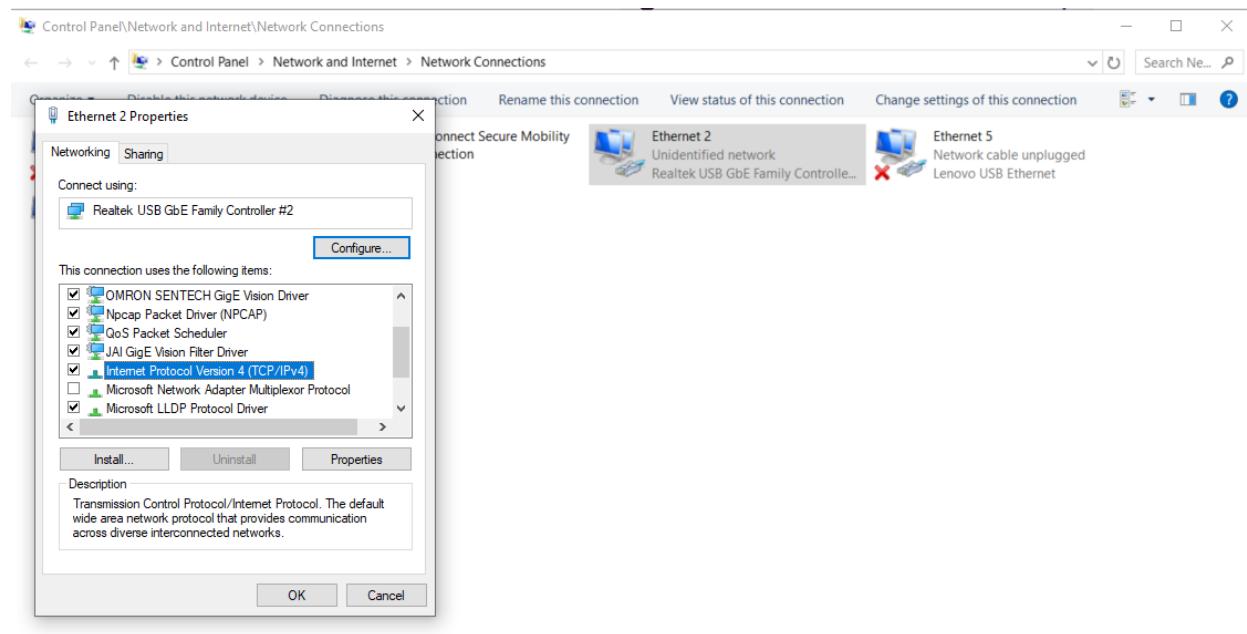
It is important to ensure the VHV5 and the fixed IP address of the network are on the same subnet.

To change the IP address of the ethernet adapter in use please follow the steps outlined,
NOTE this will require admin privileges on the computer

To do so open settings – Network Settings – Change Adapter options



Then select the Adapter network adapter the VHV5 is connected, Right click and Select Properties



From here Double click on “internet Protocol version 4” to edit the IP address and subnet mask of the Camera. Please match it to that of the camera, the default of which is shown below

