

# Device: JVC GY-HM660, and GY-HC900



## Important Notice:

Please notice a more detailed manual can be found at: <https://www.skaarhoj.com/support/manuals/> called "User guide for RM-LP250S + RM-LP250M"

## Introduction

The Device Core "JVC RCP" is used for controlling the JVC GY-HC900 and GY-HC550 with some support for HM660 cameras and allows to control most parameters of the cameras through the official HTTP based API. The Device Core is still in beta.

## Setting up Camera

In order to control the camera a USB/Ethernet adapter must be utilized from the USB2.0 HOST port on the camera, if no native port are on the camera. All communication between a SKAARHOJ interface and the camera is done via wired IP. This tutorial illustrates setup for a JVC GY-HM660U.

For the JVC GY-HC900 the ethernetport directly on the camera can be used.



A number of actions are required for a SKAARHOJ controller to communicate with the camera. Basically the IP address of the camera must match the IP address of the JVC Device Core on a SKAARHOJ controller. This is an example using IP 192.168.10.249.

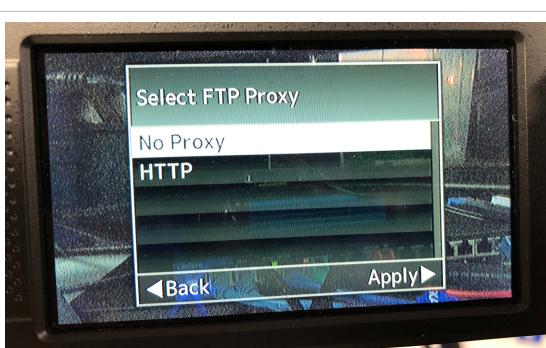
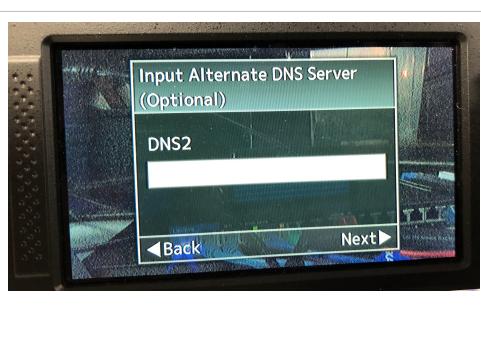
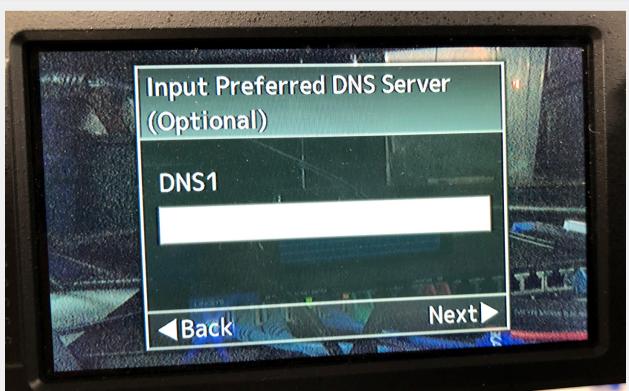
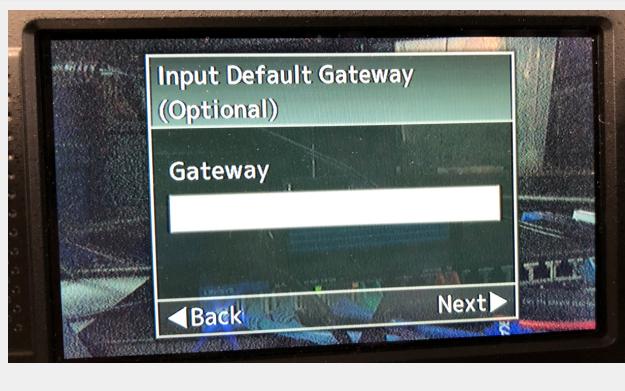
### Set Static IP

Main Menu --> System --> Settings --> Connection Setup...

You can use the Wizard to guide you to set the following addresses

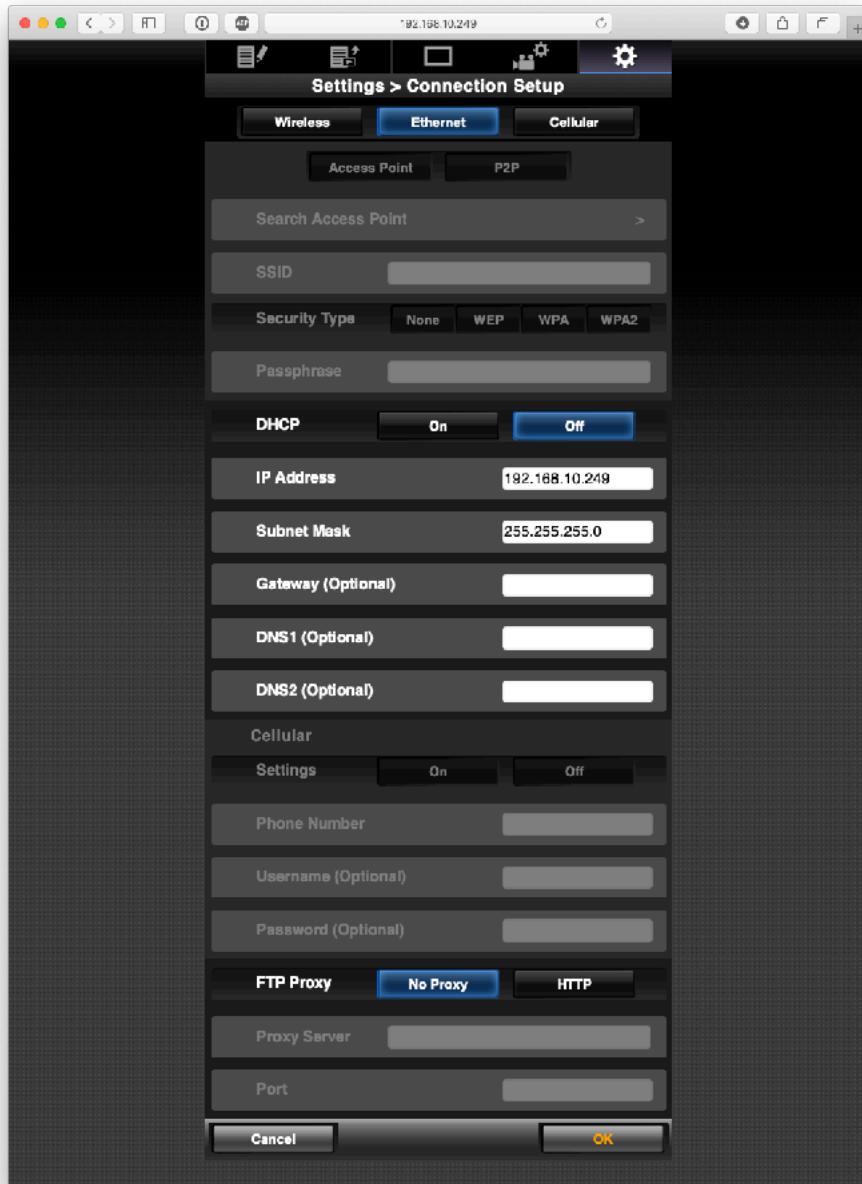
- DHCP: **OFF**
- IP ADDRESS: **192.168.10.249**
- SUBNET MASK: **255.255.255.0**





## SKAARHOJ DEVICE CORES

The configuration can also be set on the web interface of the camera it self (if Web Access have been enabled)



**Enable Web Access**

Web access must be enabled on the camera with

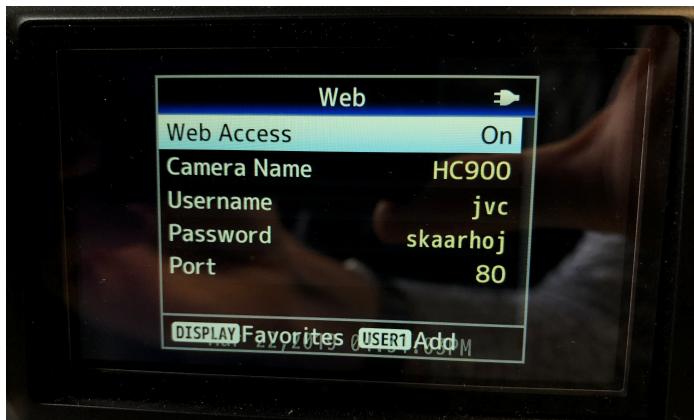
Login Name: jvc

Login Password: skaarhoj

In order for our controllers to authenticate with the cameras. The above login name and login password are set by default on our controllers.

**JVC GY-HM660U      Main Menu -> System -> Settings -> Web...**

**JVC GY-HC900      Main Menu -> Network -> Web...**



Set Web Access to On



Set "Login Password" to: skaarhoj

As an alternative to the above default authentication username and password, custom username and password can be set via Devices Core Options. Please see section: [Device Configurations](#)

## Device Configurations

Device configuration options exist:

- Index 0: **Sets username (maximum characters = 9)**
- Index 1: **Sets Password (maximum characters = 9)**
- Index 2: **Sets port**

Example 1:

Setting username + password could look like this device configuration code in the generic form:

D0:0="**Username**";D0:1="**Password**"

A example could be

D0:0="**bryan**";D0:1="**1234567**"

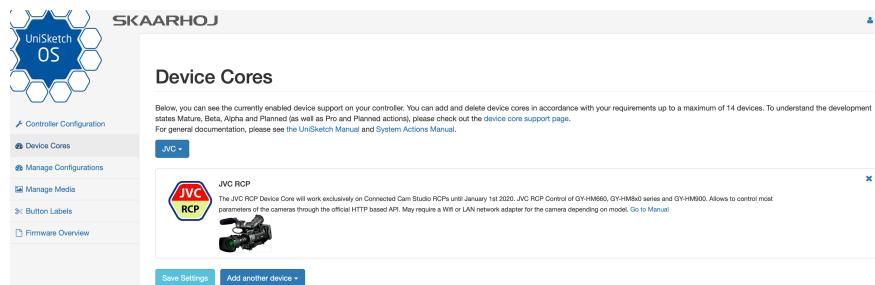
Where username is set to: bryan and password set to: 1234567

The general form of Device Core options are "Dx:y=z" where "x" is the number of the device core as installed on the controller (starting with zero for the first device core), "y" the index number and "z" the value for that index.

To confirm that a device configuration is in fact detected by the controller, please check it out on the serial monitor where it will be mentioned:



Example: If the JVC device core is the first like below:



Then setting the username + password would be set by this configuration under "Manage Media" on your configuration page for your controller on [cores.skaarhoj.com](https://cores.skaarhoj.com)

## Device Core Options

Some device cores support additional options that can be defined through this text field. Please refer to the manual for the particular device core for details.

D0:0="**bryan**";D0:1="**1234567**"

Example 2:

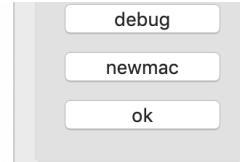
## SKAARHOJ DEVICE CORES

Setting port could look like this device configuration code in the generic form:

D0:2=12345

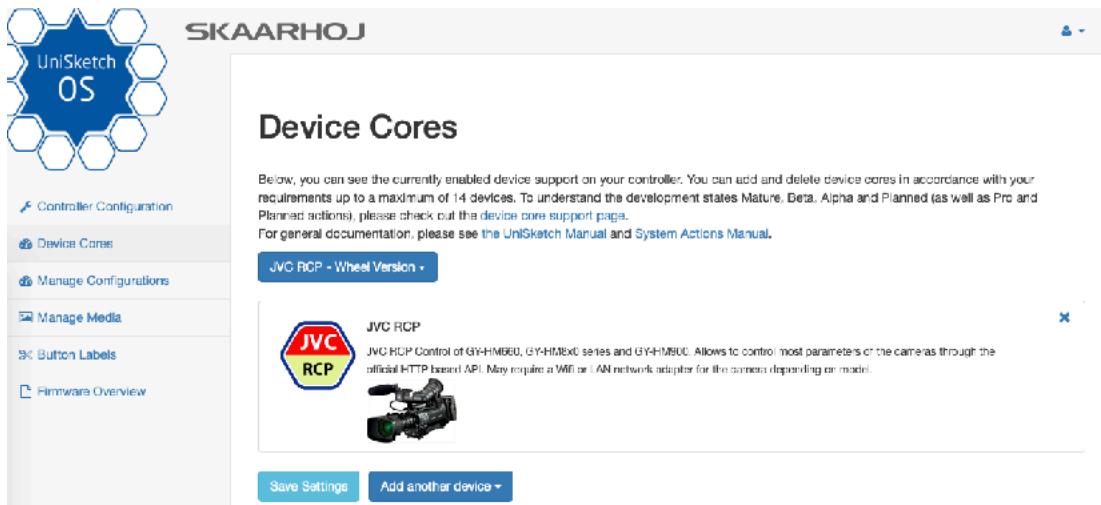
To confirm that a device configuration is in fact detected by the controller, please check it out on the serial monitor where it will be mentioned:

```
D0[2] = 12345
DeviceCore #0: JVCRPC0, IP = 192.168.10.137
JVC: Using Port 12345
setup() Done
-----
HWC#46 Down Analog: 63
System action 2
Mem A: 1
System action 23
```



## Setting up Controller

If you are not using a default configuration then the Device Core "JVC RCP" must be added to your controller

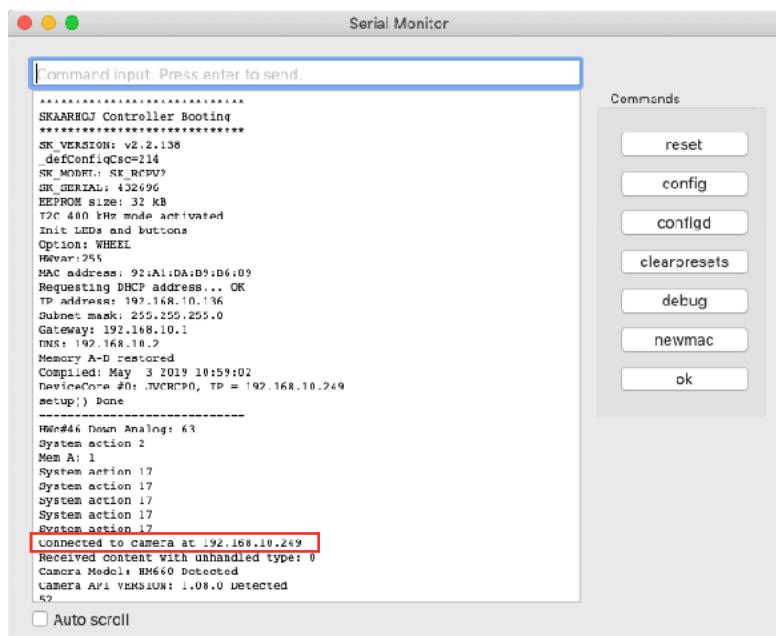


The Device Core *must* have the IP address matching, the one set on the camera it self (see "Setting up Camera" section).

The left screenshot shows the "Devices Settings" page with the "Controller IP Settings" section. It includes fields for IP (192.168.10.99), Subnet Mask (255.255.255.0), Gateway (192.168.10.1), and DNS (192.168.10.1). Below these is the "JVC RCP" section with an IP address of 192.168.10.249. A green "Save Settings" button is visible.

The right screenshot shows the "IP Configuration" window. It has a checkbox for "Use DHCP" which is unchecked. The IP Address is set to 192.168.10.99, Subnet is 255.255.255.0, Gateway is 192.168.10.1, and DNS is 192.168.10.1. The "JVC RCP" entry has an IP of 192.168.10.249 and a checked "Enabled" checkbox. A "Save IP Settings" button is at the bottom right.

Connection to the camera can be confirmed from the Serial Monitor with the command: *Connected to camera at 192.168.10.249*



This is a overview of the actions implemented in the Device Core

- JVC RCP: Zoom (Joystick)
- JVC RCP: Zoom (Binary)
- JVC RCP: Recording
- JVC RCP: Streaming
- JVC RCP: Full Auto
- JVC RCP: Master Black
- JVC RCP: Iris
- JVC RCP: Iris OnePush
- JVC RCP: Iris Mode
- JVC RCP: Iris Range
- JVC RCP: Gain Mode
- JVC RCP: Ae Level
- JVC RCP: Shutter Speed
- JVC RCP: Shutter Mode
- JVC RCP: WB Mode
- JVC RCP: WB OnePush
- ✓ JVC RCP: WB Paint
- JVC RCP: Focus Mode
- JVC RCP: Focus OnePush
- JVC RCP: Focus
- JVC RCP: User Switch
- JVC RCP: Menu
- JVC RCP: Menu Navigation
- JVC RCP: Character Output Mix
- JVC RCP: Detail
- JVC RCP: Tally
- JVC RCP: Speed Limit

We have tested control of 3 x cameras simultaneously with succes. Control of 4 x cameras should also be possible (but not tested), but above that performance will most likely degrade and connection stability will become an issue.