



INSTEK DIGITAL



A complete system to provide high resolution, long term digital video storage and IP based CCTV solution on a scalable and reliable platform

NVR (2C) Quick Start Guide

THANK YOU FOR PURCHASING A QUALITY PRODUCT FROM INSTEK DIGITAL.

THIS QUICK START GUIDE WILL PROVIDE YOU WITH QUICK INSTRUCTIONS NEEDED TO CONFIGURE YOUR DVR (SERVER) AND ALSO VIEW THE VIDEO FROM COMMAND CENTER ONE (CLIENT SOFTWARE).

INSTEK DIGITAL SEPERATES THE CLIENT SOFTWARE FROM THE SERVER INTO TWO SEPERATE ENTITIES.THE REASONING BEHIND THIS SETUP IS THAT IT ALLOWS YOU (THE CUSTOMER) TO PLACE YOUR SERVER IN A SECURE, TAMPER-PROOF LOCATION FOR FURTHER ENHANCING YOUR SECURITY PROTOCOLS.

MatriVideo™ NVR 2C Series is a compact network-based video recording solution designed for the distinctive needs of distributed installations with centralized management. The MatriVideo™ NVR 2C Series supports either 4 or 9 IP Channels with various IP video compression formats (H.264, MPEG-4, and MJPEG).

BOX CONTENTS

1. MatriVideo NVR – x1
2. Document CD – x1
3. Quick Start Guide – x1
4. Power Cable – x1
5. Screws (Set) – x1
6. Warranty Card – x1
7. Registration Card – x1
8. Command Center One – x1

FRONT PANEL OF THE 2C NVR



REAR PANEL OF THE 2C NVR



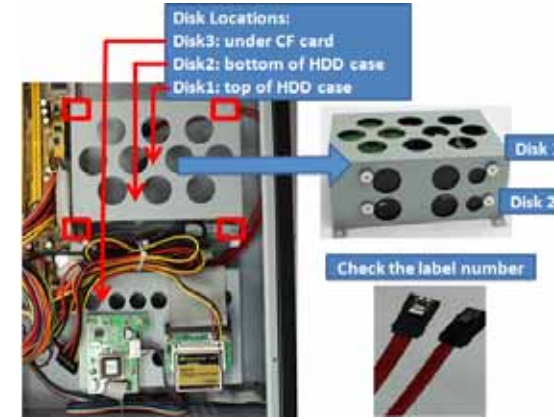
1. Keyboard
2. VGA Port
3. Ethernet Port 0
4. Power Switch
5. Power Socket
6. Voltage Selector (110V/230V)

STEP 1: CONNECT THE NVR

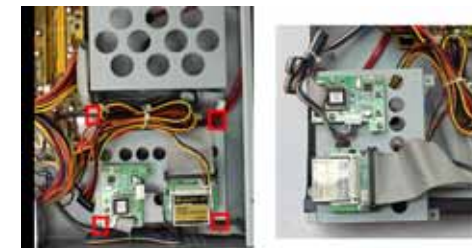
- a. To open the top cover of the NVR, carefully remove the 8 screws: 2 screws on the left, 2 screws on the right, 2 screws on the top and 2 screws on the rear.



- b. Install HDD1 & HDD2: Detach the empty HDD holder tray by removing the 4 screws. Install HDD 1 on top and HDD 2 at the bottom. Secure the HDDs inside the HDD holder tray, with the screws (2 on each side symmetrically). Plug the HDD connector and the power cable to HDD1 and HDD2.



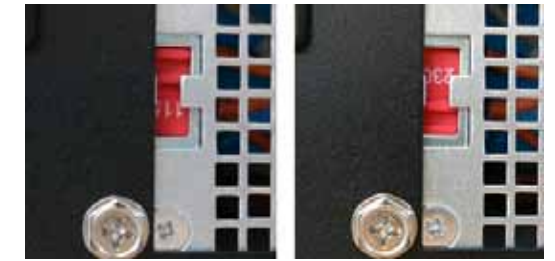
- c. Install HDD3: Loosen the screws and remove the compression card holder and the HDD frame under the Compact Flash Disk. Secure the HDD inside the HDD holder tray with 4 screws. Plug the HDD connector and power cable to HDD3. Fasten all the screws.



- d. Place the NVR cover back on and tighten all the screws.
- e. Connect the NVR to your existing network infrastructure.

STEP 2: POWER ON THE NVR

- a. Select the appropriate voltage by using the voltage selector switch. (115 V or 230V)



Select 115 V

Select 230V

- b. Connect the power cord.
- c. Power on the NVR from the rear panel. The booting process will take a few minutes to complete.
- d. Once the boot-up process is complete, you will see the following information: (System Version, IP Address, Network Connectivity Information and the System Date & Time) on the front LCD Panel.



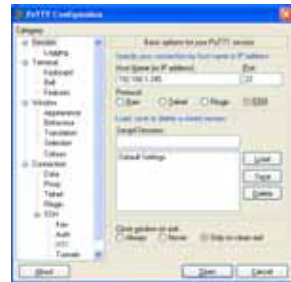
STEP 3: INSTALL COMMAND CENTER One

- a. Insert the Command Center One CD into the CD-ROM drive of your personal laptop or desktop and run the Command Center One application setup.

Optional: You can also use the Command Center Lite (CCLite) application.

STEP 4: CONFIGURE THE NVR

- Configure the NVR either via Putty (see step b) or connect the keyboard and monitor directly to the NVR (jump to step c).
- Putty is an SSH program used to connect to the NVR remotely. On your laptop or desktop, navigate to: Start → All Programs → Instek Digital → Command Center One → Putty. A telnet window will open. Enter the IP address of the NVR in the box labeled, "Host Name or IP Address". (IP address is displayed on the front LCD panel of the NVR, default IP: 192.168.1.245). Click on the "Open" button to start a remote connection (telnet session) to the NVR.

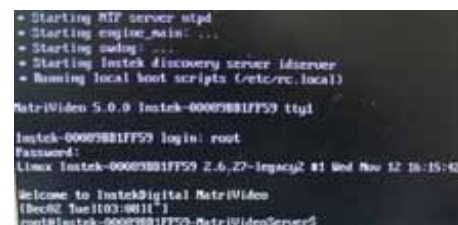


- The NVR uses an Embedded Linux Operating System and is password protected for your own safety. Once the keyboard and monitor is connected to the NVR, you will see the login prompt on the monitor. The NVR's default username is: root and the default password is: id

Connection via Putty:



Direct Connection via NVR:



- Under the OS prompt, type in **hdsm** to run the hDVR System Manager application.



- Change the Time Zone:
System Configuration → Time Zone Change → Select Continent or Area → Select Country/Region. Press "Yes" to confirm.
- Change the Date/Time:
System Configuration → Date/Time Change → Press "Proceed" to stop the hdvr process and wait for the processes to stop → Use [TAB], Up Arrow/Down Arrow to change the Year, the Month and the Date. Use [TAB], Up Arrow/Down Arrow to change the Hour, the Minutes and the Seconds → Press "Proceed" to accept the changes.
- Change the IP Address:
System Configuration → Network Settings → IP Configuration → Select eth0 → Enable eth0 → Static IP Configuration → Enter the IP address, Netmask, Gateway → Press "OK" to proceed. The eth0's IP address is changed to "192.168.1.10" in this document. Please wait for a few seconds for the change to take effect.

Notice: Keep the value of MTU as default (1500) unless you have other devices such as a SAN connected to the same network.



- Add Storage to the NVR:
The first HDD will be added automatically to the NVR. Any subsequent HDDs will need to be added via hDSM.

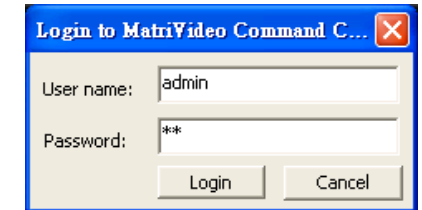
- Add Storage to the NVR, Part II:
From hDSM → Storage Management → Add Storage Repository → Select the available storage to add individually or alternatively select "All" to add the entire storage repository and then select "OK". Subsequently, proceed to the menu: "Detect Available Disk Volume" to check the status of the HDDs. The status of the HDDs should be "In Use"
- Remember to go back to the hDSM main menu → hDVR → Start, to start the NVR services. This will take a few seconds to complete.

STEP 5: SUBSCRIBE THE NVR

- Run the Command Center One software. During the first run, you will be asked to subscribe (or add) the NVR to the video recorder subscription list.
- Enter the IP address, Command Port, Live Port and the Playback Port of the NVR.
Command Port: 80
Live Port: 3514
Playback Port: 60006
Note: Do not change these port numbers if connecting the NVR to a LAN environment.
- Hit the "Add" button to continue. Add additional NVRs in a similar fashion. When all the NVRs have been added, hit "Next" to continue.
Note: Command Center One supports only one NVR.

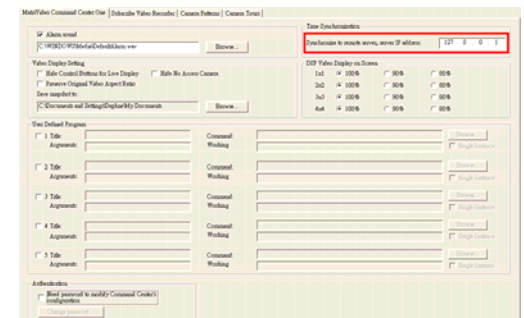


- Finish the configuration wizard and log into the Command Center Application. The default username is: admin and the default password is: id



STEP 6: TIME SYNC WITH THE NVR

- Click on the MatriVideo Command Center Setup (or the Command Center One) tab on the bottom left corner of the screen.
- Type in the IP address of the time server. This will keep the time in sync between the NVR, your laptop/desktop running Command Center One application and the NTP Server.



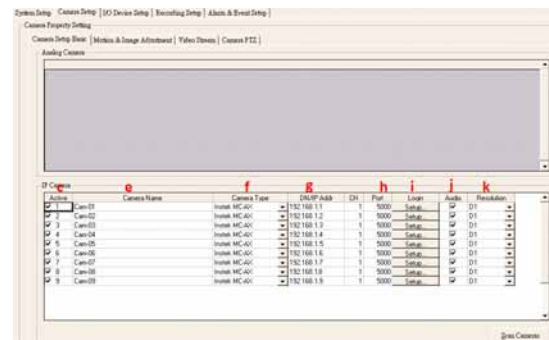
**STEP 7: SETUP CAMERA NAME
/BITRATE/FRAMERATE/24x7
RECORDING**

- a. Right click on the NVR IP address from the camera tree. From the menu selection, select "Video Recorder Setup". A single NVR can manage either 4 or 9 cameras on the network (depending on the model). The default username is "admin" and the default password is "id"



- b. Select the "Camera Setup" tab.
- c. Select the "Camera Setup Basic" tab. Check the "Active" box next to the camera name(s) to enable the camera.

Note: Please refer to the camera manual to configure the IP address of each camera prior to this configuration.



- d. If the Instek MC-AX cameras are installed on the same network as the laptop/desktop running Command Center One, then click on "Scan Cameras" to find the IP addresses of the MC-AX cameras.

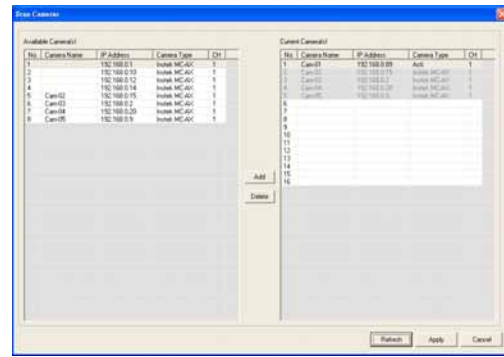
"Add": Add one available MC-AX camera on the left list.

"Delete": Remove one MC-AX camera from the right list.

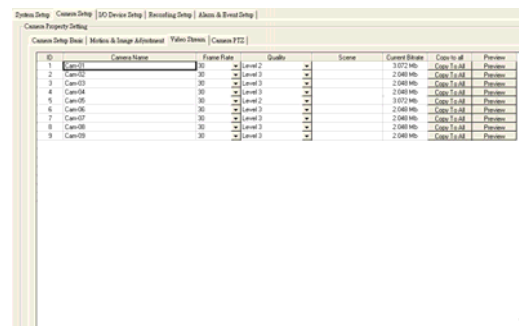
"Refresh": Rescan the available cameras.

"Apply": Update the selected cameras to "IP Camera" table in step c.

"Cancel": Cancel all actions on this page.

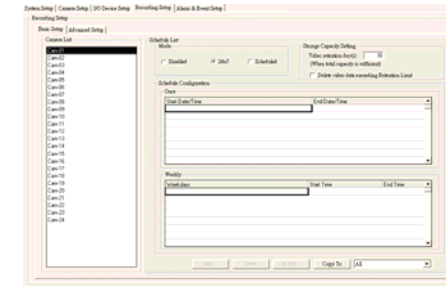


- e. Under the "IP Camera" table, enter the Camera Name.
- f. Select "Camera Type".
- g. Enter the "IP Address" of the IP camera(s) accordingly. NDS is also supported if available on the surveillance network.
- h. "Port" number is dependent on the IP camera. "Ch" number is the channel number of the video server. Please refer to the IP camera or the video server manual for additional information.
- i. The "Login" option is for used for accessing the cameras to save the configuration changes. Refer to your camera user manual for the login information.
- j. Check "Audio", if supported. Refer to your camera manual.
- k. Select the "Resolution".
- l. Click on the "Video Stream" tab to setup the Frame Rate and Bitrate (Quality) for each individual camera.



- m. To setup 24x7 recording, click on the "Recording Setup" tab and then click on the "Basic Setup" tab. Make your camera selection and change its recording mode to "24x7". Alternatively, you can also select "24x7" and then at the bottom, select the button: "Copy to

All", to apply this setting to all cameras in the group.



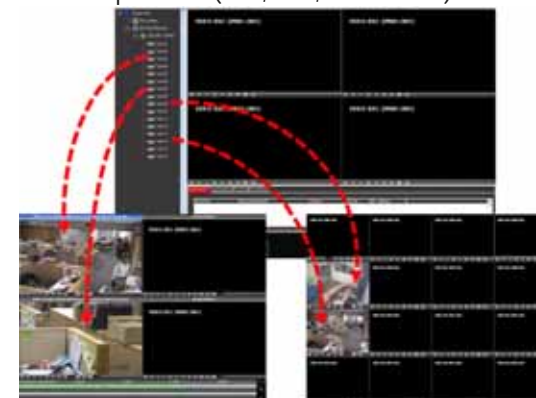
- n. Once the camera(s) have been added and configured, please restart both the NVR and Command Center One for the settings to take effect. To restart the NVR, click on the "System Setup" tab then click on the option "Restart Video Recorder Service". To restart Command Center One, exit the application and run it again.

STEP8: VIEW THE VIDEO

- a. Click on the "+" icon next to the IP address of the NVR to expand your camera tree.



- b. To view the video, drag and drop the video source(s) from the camera tree to the blank patterns (1x1, 2x2, 3x3 or 4x4).



CONTACT INFORMATION

We would like to graciously thank you for investing your faith in Instek Digital and being a valuable part of our corporation. Instek Digital's prime goal is to deliver leading edge technology in addition to exceptional customer service and technical support.

Instek Digital technical support representatives are always available to answer any of your support related questions or concerns. Please refer to our website for your regional support contacts:

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