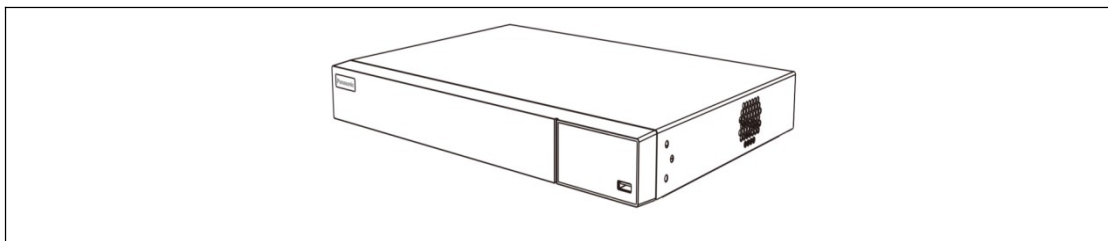


Product Maintenance Manual

16CH Network Video Recorder
PM-EN16CH



SPECIFICATIONS

Video	IP Video Input	16CH
	Resolution	Max 16MP-CIF
	Output	HDMI×1; VGA×1
Audio	Network input	16CH IPC audio input
Record	Resolution	Max 16MP-CIF
Network	Interface	RJ45 1000Mbps×2
Port	USB	USB2.0×2; USB3.0×1
Others	Power	DC12V/4A
	Consumption	≤20W (without HDD)
	Dimensions	380×268×45 (W×D×H)
	Weight	0.25KG
	Working Environment	-10~50℃; Humidity: 10%~90%

Panasonic

WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.

It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.

Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
CAUTION TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK), NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		



This symbol warns the user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this unit.



This symbol alerts the user that important literature concerning the operation and maintenance of this has been included. Therefore, it should be read carefully in order to avoid any problems.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are indicated by the “” mark on the replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent X-radiation, shock, fire, or other hazards. Do not modify the original design without permission of manufacture.

About lead free solder (PbF)

Distribution of PbF PCB:

PCBs (manufactured) using lead free solder (PbF) will have a stamp on the PCB.

Caution:

- Lead free solder has a higher melting point than standard solder. Typically, the melting points is 35°C - 40°C (95°F - 104°F) higher. Please use a soldering iron with temperature control and adjust it to 360°C - 370°C (680°F - 698°F). In case of using high temperature soldering iron, please be careful not to heat too long.
- Lead free solder will tend to splash when heated too high (600°C/1112°F).
- Lead free solder (Sn-3.0Ag-0.5Cu) or equivalents are recommended on repairing our lead solder PCB.

LITHIUM BATTERY

WARNING

The lithium battery in this equipment must only be replaced by qualified personnel. When necessary, contact your local Panasonic supplier.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instruction.

Contents

Chapter 1: How do customers get a dynamic password of NVR?

Chapter 2: How to upgrade your device?

Chapter 1 How do customers get a dynamic password of NVR?

The contents in the NVR are sensitive and to protect the recorded details, customers are requested to contact the Panasonic service center.

The following information shall be provided to retrieve Password:

- Model. Number of the NVR:
- Device MAC Address:
- Device Current Time:

To collect the above information, customer is required to access the NVR.

1) Click Menu, and select "Login"



2) Click "Retrieve Password"



3) Choose "Dynamic Password";

4) Collect related information.

Important Note: Keep dialog above open until receive and enter new password.

5) After generating Dynamic Password, User can enter this dynamic password and set a new password. NVR user can use new password to login.



(Enter the Dynamic Password and NVR dialog will change)

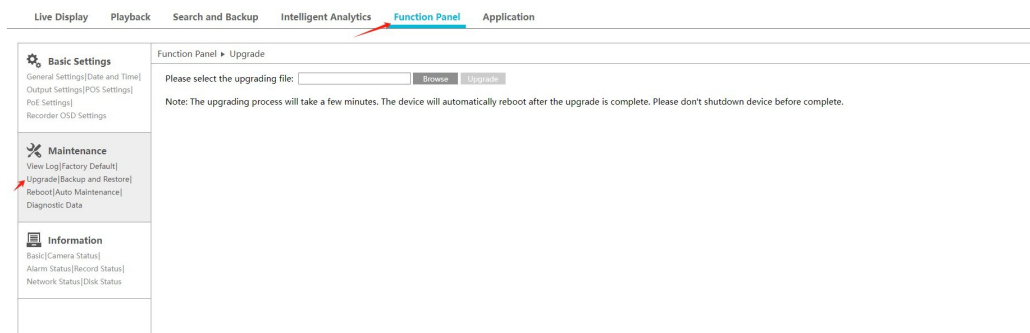
Chapter 2: How to upgrade your device?

You can click **Start → Settings → System → Information → Basic** to view MCU, kernel version and firmware version and so on. Before upgrade, please get the upgrade file from the Panasonic website.

The upgrade steps are as follows:

- ① Copy the upgrade software onto the USB storage device.
- ② Insert the USB storage device into the USB interface of the NVR.
- ③ Click **Start → Settings → System → Maintenance → Upgrade** to go to “Upgrade” interface. Select the USB device in “Device Name” option and go to the path where the upgrade software resides. Select the upgrade software and then click “Upgrade”. The system may automatically restart during upgrading. Please wait for the upgrade to finish and it's critical to not power off the NVR during the upgrade process.
- ④ In addition, you can also upgrade on the web.

Click **Function Panel → System → Maintenance → Upgrade** to go to “Upgrade” interface then select the upgrading file and then click “Upgrade”. The system may automatically restart during upgrading.



Note: The file system of the USB mobile device which is used for upgrade, backup and restoration should be FAT32/NTFS format (only some models support NTFS format).

- Please ensure that the HDD is added to the NVR before upgrading the firmware.