

# SVR2420 Series Mobile PoE NVRs

**KEDACOM**

Installation Guide

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### **Suzhou Keda Technology Co., Ltd.**

131 Jinshan Road

New District, Suzhou, 215011

People's Republic of China

<http://www.kedacom.com>

Tel: +86-512-68418188

Fax: +86-512-68412699

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## Sub-Models

Table 1 Sub-models of SVR2420 series mobile PoE NVRs

Standard	SVR2420-0204A/4P-S SVR2420-0208A/8P-S SVR2420-0212A/8P-S	-	-
Single 4G Module	SVR2420-0204A/4P-G SVR2420-0208A/8P-G SVR2420-0212A/8P-G	Dual 4G Modules	SVR2420-0204A/4P-G2 SVR2420-0208A/8P-G2 SVR2420-0212A/8P-G2
Single 4G Module and High Configuration	SVR2420-0204A/4P-GH SVR2420-0208A/8P-GH SVR2420-0212A/8P-GH	Dual 4G Modules and High Configuration	SVR2420-0204A/4P-G2H SVR2420-0208A/8P-G2H SVR2420-0212A/8P-G2H

## Preparations

### 1 Unpacking

Perform the following steps to unpack the system:

- 1) Inspect the package to make sure that it has not been damaged.  
If you find damage, contact the local authorized Kedacom agent.
- 2) Open the package and check whether any item on the packing list is missing.
- 3) Take all items out of the package and check whether any item is in poor condition.  
If you find damage, contact the local authorized Kedacom agent.

### 2 Safety Instructions

#### 2.1 ESD

To reduce the effects of electrostatic discharge (ESD), you should observe the following guidelines.

- Wear a grounding wrist strap. If a grounding wrist strap is unavailable, touch an unpainted metal surface on the appliance chassis periodically to neutralize any static charge.
- Keep components in their antistatic packaging until they are installed.
- Avoid wearing clothing made of wool or synthetic materials.
- Ensure that an SVR2420 series mobile PoE NVR (hereinafter referred to as the device) is well grounded.
- Keep the area around the device clean, free of clutter, and well ventilated.
- Ensure that the operating temperature and the relative humidity within the range complying with the device.

## 2.2 EMI

To shield electromagnetic interference (EMI), you should observe the following guidelines:

- Keep the ground system of the device away from that of the power supply system or lightning protection system.
- Place the device away from high-frequency devices, such as radio or radar stations.
- When necessary, deploy EMI shielding devices.

## 2.3 Lightning Protection

To prevent the risk of lightning, you are advised to ensure the following:

- The device is well grounded.
- Based on onsite conditions, install lightning arrestors.

## 3 Preventive and Cautionary Tips

### 3.1 Device Specifications

Table 2 Device specifications

<b>DC output</b>	DC 9-36 V
<b>Power consumption</b>	≤96 W (including HDDs and feeding power to cameras)
<b>Operating temperature</b>	-40°C - 70°C (HDDs not included) -40°C - 60°C (HDDs included)
<b>Storage temperature</b>	-40°C - 70°C
<b>Operating humidity</b>	10% - 95% (non-condensing)
<b>Storage humidity</b>	5% - 95% (non-condensing)
<b>Elevation</b>	-60 m - 5000 m
<b>Size (height x width x depth)</b>	100 mm x 173 mm x 314.4 mm (housing included)
<b>Weight</b>	4.6 kg (HDDs not included)

The device specifications must be complied with to prevent device damage.

### 3.2 Equipment Cleanliness

Table 3 Mapping between the particle diameter range and number of particles per cubic meter

Particle Diameter Range	Number of Particles per Cubic Meter
[0, 0.5]	$1.4 \times 10^7$
[0.6, 1]	$7 \times 10^5$
[1.1, 3.0]	$2.4 \times 10^5$
[3.1, 5.0]	$1.3 \times 10^5$

You must install the device in an environment as free from dust and foreign conductive material (such as metal flakes from construction activities) as is possible.

### 3.3 Device Care

- Do not place heavy objects on the device or block the air vent (if any).
- Switch off the device if you are not using it for a long period of time.
- Regularly check the Internet connection status of the device.

### 3.4 Battery Replacement

Table 4 Battery replacement details

Type	ML414H-IV01E (a coin-cell battery)
Battery Life	Refer to the manufacturer's instructions or contact the manufacturer for details.
No Charge	When the battery loses its charge, the CMOS data (such as the system time and BIOS settings) may be incorrect or even lost.
Replacement	<ol style="list-style-type: none"><li>1. Prepare a new ML414H-IV01E battery.</li><li>2. Switch off the device and disconnect it from a power outlet.</li><li>3. Wear a grounding wrist strap to replace the old battery with the new one. During replacement, do not mix up the anode and cathode. Contact the local authorized Kedacom agent if you encounter any problem when replacing the battery.</li></ol>
Disposal	Dispose of used batteries according to local laws or regulations.

## Panel Description

### 1 Front Panel

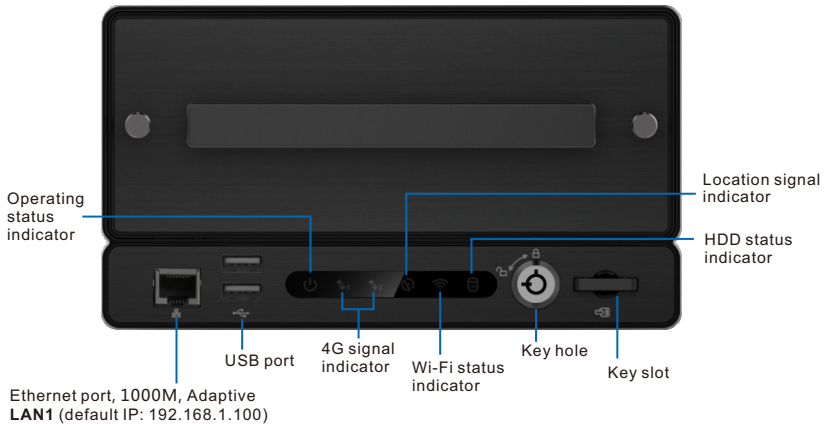
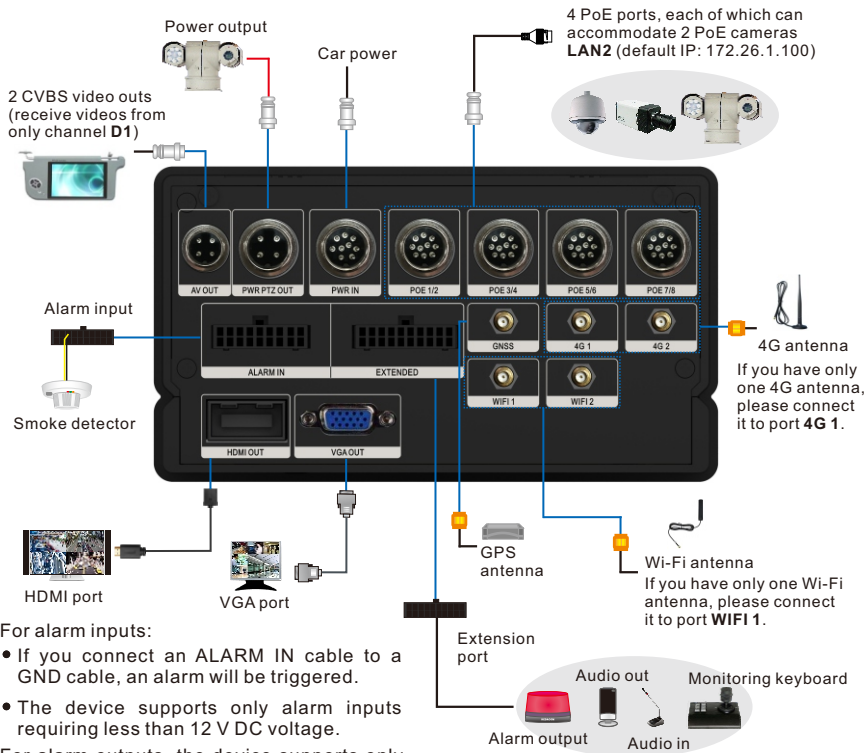


Figure 1 Front panel of the device

Table 5 Indicator description

Indicator	State	Description
Operating status	On	The device is started.
	Blinking (2s on and 2s off)	The device is operating.
	Off	The device stops operating.
4G signal	On	The device is connected to the mobile network.
	Off	The device is disconnected from the mobile network.
Location signal	On	The device works out its location data.
	Off	The device does not work out its location data.
Wi-Fi	On	The device is connected to a Wi-Fi network.
	Blinking (1s on and 1s off)	The device is transmitting data.
	Off	The device is disconnected from a Wi-Fi network.
HDD	On	The status of all HDDs is normal.
	Blinking (1s on and 1s off)	The device is reading data from or writing data into HDDs.
	Off	The status of an HDD is abnormal.

## 2 Rear Panel



For alarm inputs:

- If you connect an ALARM IN cable to a GND cable, an alarm will be triggered.
- The device supports only alarm inputs requiring less than 12 V DC voltage.

For alarm outputs, the device supports only alarm outputs requiring equal to or less than 1 ADC current.

Figure 2 Rear panel of the device



## [Aviation Plugs]



1 : AV OUT1  
2 : AV OUT2  
3+4 : GND

AV OUT



1+2 : PWR PTZ  
3+4 : GND

PWR PTZ OUT



1+2+3+4 : CAR\_IN+  
5 : ACC  
6+7+8+9 : CAR\_IN-

PWR IN



1 : TXP\_ETH0  
2 : RXN\_ETH0  
3 : RXP\_ETH0  
4 : TXN\_ETH0  
5+6 : NC  
7 : TXP\_ETH1  
8 : RXN\_ETH1  
9 : RXP\_ETH1  
10 : TXN\_ETH1

POE

## [Alarm Input Port and Extension Port]



ALARM IN



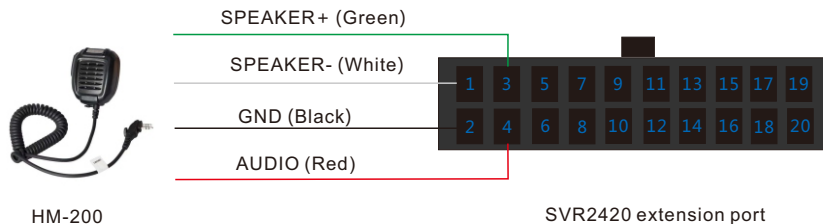
EXTENDED

ALARM IN				EXTENDED			
No.	Description	No.	Description	No.	Description	No.	Description
1	DC12V OUT	11	ALARM IN5	1	SPEAKER-	11	GND
2	GND	12	GND	2	GND	12	GND
3	ALARM IN1	13	ALARM IN6	3	SPEAKER+	13	ALARM OUT A1
4	GND	14	GND	4	AUDIO IN	14	ALARM OUT C1
5	ALARM IN2	15	ALARM IN7	5	GND	15	ALARM OUT A2
6	GND	16	GND	6	GND	16	ALARM OUT C2
7	ALARM IN3	17	ALARM IN8	7	RS485 B	17	ALARM OUT A3
8	GND	18	GND	8	RS232 RXD	18	ALARM OUT C3
9	ALARM IN4			9	RS485 A	19	ALARM OUT A4
10	GND			10	RS232 TXD	20	ALARM OUT C4

### 3 Connecting a Handheld Speaker&Microphone to the Device

You are advised to use the KEDACOM handheld speaker&microphone of model HM-200. You should connect the HM-200 to the following wires of the device.

Color	Tag
Red	AUDIO IN
Black	GND
Green	SPEARKER+
White	SPEARKER-



If you do not use the HM-200, when connecting a handheld speaker&microphone to the device, follow the instructions strictly provided by the vendor. Otherwise, you may not hear or be heard.

### 4 Connecting the Device to a Vehicle

You should connect the following wires of the device to the vehicle.

Color	Tag	Vehicle
Red	CAR_IN+	VCC of the vehicle battery
Yellow	ACC	ACC of the ignition switch
Blue	CAR_IN-	GND of the vehicle battery

## Installing the Device

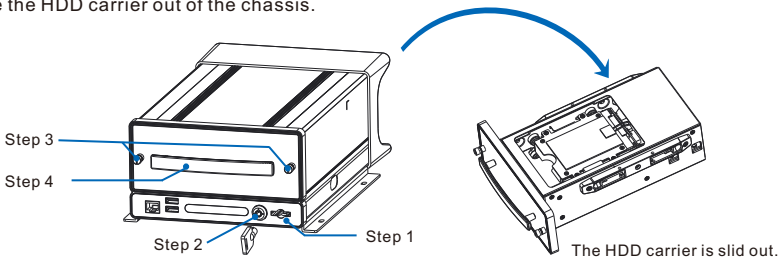
### 1 Installing an HDD and a SIM Card

You are advised to install an HDD before using the device. If you do not install an HDD:

- You cannot use the recording function.
- When the device starts operating and detects that no HDD is installed, the beeper will go off and an alarm will be generated. To clear the alarm, on the OSD or NVR Web of the device, choose **Settings > System > Exception and deselect "Sound Alert" for "No HDD"**.

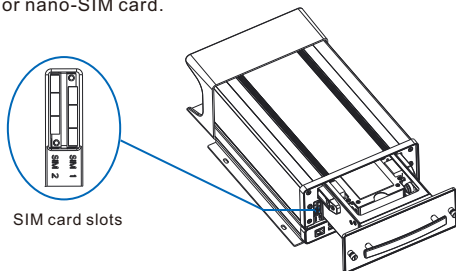
To install an HDD (2.5-inch 1/3/4 TB HDDs only):

1. Take out the key from the key slot.
2. Insert the key into the lock and turn the key counterclockwise to unlock the HDD carrier. After this step is performed, the beeper will go off.
3. Uninstall the two screws near the HDD carrier handle.
4. Slide the HDD carrier out of the chassis.



5. (Optional) Insert a micro- or nano-SIM card.

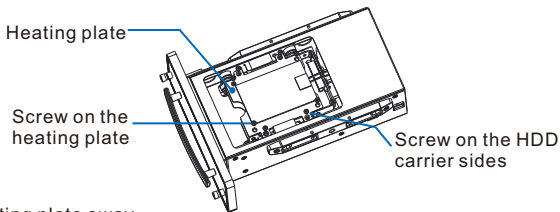
If you have only one SIM card, please insert it to slot **SIM 1**. Always insert or remove a SIM card when the device is powered off.



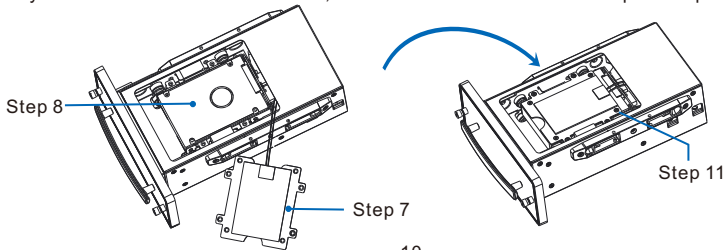
After the HDD carrier is slid out, you will find SIM card slots 1 and 2 on the left side of the chassis. You can now install a SIM card. If you do not install a SIM card, the device cannot access the mobile network.

To insert a SIM card:

- 1) Insert the end of a SIM eject tool into the hole near the SIM card slot.  
If you do not have a SIM eject tool, you can use the end of a paper clip.
  - 2) Press firmly and push the eject tool straight in until the SIM card tray pops out.
  - 3) Pull out the tray and place the SIM card in it, following the shape of the tray.
  - 4) Carefully push the tray containing the SIM card back into the SIM card slot, making the tray face the slot separation plate.
6. Uninstall the four screws on the HDD carrier sides and the four screws on the heating plate.



7. Take the heating plate away.
  8. Put the HDD inside.
  9. Take the heating plate back.
  10. Align the eight holes on the heating plate with those on the HDD carrier sides.
  11. Install the eight screws back to the HDD carrier sides and heating plate.
- If you want to install a second HDD, turn the HDD carrier over and repeat steps 6 through 11.



- Slide the HDD carrier back into the chassis.
- Install the two screws near the HDD carrier handle back.
- Turn the key clockwise to lock the HDD carrier.
- Take the key back to the key slot.

**Warning:**

**The device does not support hot swapping for HDDs, indicating that you must power off the device before you can install or uninstall HDDs.**

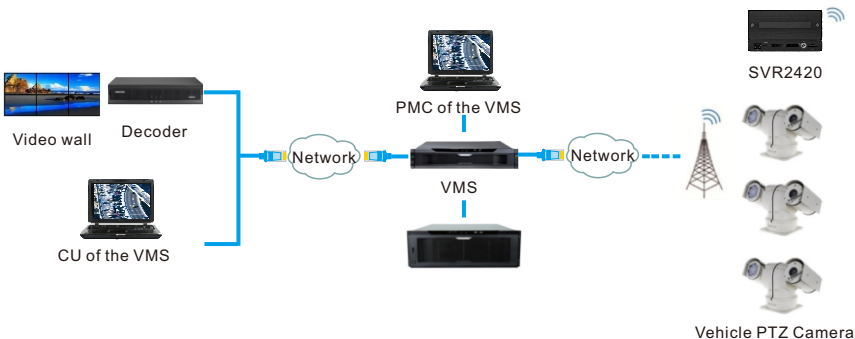
## 2 Installing the Device

Put the device in the trunk or under a passenger seat. Then, note the following.

- To power on the device, turn on your car engine.
- To power off the device, shut your car engine off.
- For details on how to use the device, see the user guide included in the KEDACOM Document and Utility CD.

After the device is powered on, check whether the indicators on the front panel are normal. If not, contact the local authorized Kedacom agent.

### Typical Network Topology



## Activation and Initial Configuration

To activate the device through the Internet Explorer:


1. Connect a network cable to the network port on the front panel (default IP of **LAN1**: 192.168.1.100) of the device.
2. Add an IP address from the 192.168.1.X network segment with the subnet mask being 255.255.255.0 to your PC.
3. Enter the IP address (default: 192.168.1.100) of the device into the address bar of your web page browser.
4. In the displayed window, click **Click here to download** to install the NVR web add-on.
5. Close your web page browser.
6. Repeat step 2 after the add-on is installed.
7. In the **Log In** dialog box, create a strong password, confirm the password, and enter a mail address for password resetting.

The more a password contains special characters, the stronger the password is.

You are advised to use a strong password to ensure your data safety. Periodically changing your password at 3-month intervals would be appreciated. If your network environment is risky, you should change your password at weekly or monthly intervals. Additionally, do not leak your username and password.

8. Click **Activate**.

### Log In



Weak  Strong

A password can be 8-16 bits long and can consist of digits, letters (upper/lower case), and special characters. A password cannot consist of only digits/letters/special characters.

**This mail address will be used to reset your password.**

To initially configure the device on the NVR Web:

1. Configure the time settings.
2. Configure the network settings.
  - 1) Local network
  - 2) Wireless network
  - 3) Wi-Fi WLAN
  - 4) Wi-Fi AP
3. Add cameras.
  - 1) PoE or ONVIF cameras
  - 2) VSIP cameras
  - 3) RTSP cameras
  - 4) SIP cameras
4. Initialize HDDs.
5. Scheduling recordings.
6. Enabling the Cloud Service, which allows you to view camera videos of the device on your mobile phone.
7. Configuring mobile settings.
8. Configure Session Initiation Protocol (SIP) settings for the device to register with a SIP platform (for example, the KEDACOM VMS).

For details on how to initially configure the device, see chapter *Getting Started of User Manual for Mobile PoE NVRs*.

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## **Kedacom Two (2) Year Limited Hardware Warranty**

### **WHAT IS COVERED BY THIS WARRANTY?**

Kedacom warrants the Kedacom-branded hardware product and accessories contained in the original packaging (hereinafter referred to as "Kedacom Product") against defects in materials and workmanship when used normally in accordance with Kedacom's published guidelines for a period of TWO (2) YEARS from the date of original retail purchase in areas other than mainland China by the end-user purchaser (hereinafter referred to as "Warranty Period"). For the Kedacom Product purchased in mainland China, see the simplified Chinese version of this warranty for details. Kedacom's published guidelines include but are not limited to information contained in technical specifications, user guides, and service communications. The preceding applies unless otherwise agreed in the contract.

### **WHAT IS NOT COVERED BY THIS WARRANTY?**

This warranty does not apply to any non-Kedacom branded hardware products or any software, even if packaged or sold with Kedacom hardware. Manufacturers, suppliers, or publishers, other than Kedacom, may provide their own warranties to you but Kedacom, in so far as permitted by law, provides their products "AS IS". Software distributed by Kedacom with or without the Kedacom brand (including, but not limited to system software) is not covered by this warranty. Please refer to the licensing agreement accompanying the software for details of your rights with respect to its use. Kedacom does not warrant that the operation of the Kedacom Product will be uninterrupted or error-free. Kedacom is not responsible for damage arising from failures to follow instructions relating to the Kedacom Product's use.

This warranty does not apply: (a) to consumable parts, such as batteries, unless failure has occurred due to a defect in materials or workmanship; (b) to cosmetic damage, including but not limited to scratches, dents, and broken plastic on ports; (c) to damage caused by use with another product; (d) to damage caused by acts outside the control of Kedacom, including without limitation acts of God, accidents, abuse, misuse, fire, storms, earthquakes, flood, or other external cause; (e) to damage caused by exposure of the product to heat, bright light, sun, liquids, sand, or other contaminants; (f) to damage caused by operating the Kedacom Product outside Kedacom's published guidelines; (g) to damage caused by service (including upgrades and expansions) performed by anyone other than a representative of Kedacom, Kedacom employee, or authorized Kedacom agent; (h) to an Kedacom Product that has been modified to alter functionality or capability without the written permission of Kedacom; (i) to defects caused by normal wear and tear or otherwise due to the normal aging of the Kedacom Product, or (j) if any serial number has been removed or defaced from the Kedacom Product.

### **YOUR RESPONSIBILITIES**

If your Kedacom product is capable of storing data and other information, you should make periodic backup copies of the information contained on the storage media to protect the contents and as a precaution against possible operational failures.

Before receiving warranty service, Kedacom or its authorized agents may require that you furnish proof of purchase details, respond to questions designed to assist with diagnosing potential issues, and follow Kedacom's procedures for obtaining warranty service. Before submitting your Kedacom Product for warranty service, you should maintain a separate backup copy of the contents of its storage media, remove all personal information that you want to protect, and disable all security passwords.

During warranty service, it is possible that the contents of the Kedacom product's storage media will be lost, replaced or reformatted. In such an event, Kedacom and its authorized agents are not responsible for any loss of data or other information contained on the storage media or any other part of the Kedacom product serviced.

Following warranty service, your Kedacom Product or a replacement product will be returned to you as your Kedacom Product was configured when originally purchased, subject to applicable updates. You will be responsible for reinstalling all other data and information. Recovery and reinstallation of other data and information are not covered under this warranty.

### **WHAT WILL KEDACOM DO IF THE WARRANTY IS BREACHED?**

If during the Warranty Period, you submit a valid claim to Kedacom or an authorized Kedacom agent, Kedacom will, at its option, (i) repair the Kedacom Product using new or previously used parts that are equivalent to new in performance and reliability, or (ii) exchange the Kedacom Product for a refund of your purchase price.

A Kedacom replacement part or product, including a user-installable Kedacom part that has been installed in accordance with instructions provided by Kedacom, assumes the remaining warranty of the Kedacom Product or ninety (90) days from the date of replacement or repair, whichever provides longer coverage for you. When a product or part is replaced or a refund provided, any replacement item becomes your property and the replaced or refunded item becomes Kedacom's property.

Kedacom reserves the right to refund the purchase price as its exclusive warranty remedy.

### **HOW TO OBTAIN WARRANTY SERVICE?**

To seek warranty service, please contact a local authorized Kedacom agent. When contacting the agent via telephone, other charges may apply depending on your location.

### **User Information**

Complete the form below and keep for ready reference.

User Name:	
Address:	Postal Code:
Tel:	Mobile:
Fax:	E-Mail:
Product Name:	Product Model:
Date of Purchase:	



## **KEDACOM**

Suzhou Keda Technology Co.,Ltd.

Tel: +86-512-68418188 Fax: 86-512-68412699

Suzhou Keda Technology Co.,Ltd.

Singapore: 627A Aljunied Road, #09-07, BizTech Centre, Singapore 389842

Tel: +65-6842-5700 Fax: +65-6842-5900