X5NPro-H0804 Specifications

Introduction

X5NPro-H0804 is a cost-effective device specially developed for mobile video surveillance and remote video monitoring, featuring high functional scalability. It is equipped with a high-speed processor and an embedded operating system, integrating state-of-the-art H.265 video compression/decompression technologies, 3G/4G/Wi-Fi network transmission technologies, and GPS/BDS positioning technologies in the IT industry. It adopts the latest processor solution and supports recordings in formats of 1080p, 720p, WD1, WHD1, WCIF, D1, HD1, and CIF. Moreover, it allows real-time local recording and wireless uploading of vehicle status data and monitoring data. It can also be used in conjunction with the center software to implement professional functions such as alarm linkage, evidence center, remote management, video playback, track analysis, etc., embodying features of high reliability, installation flexibility, and maintenance convenience.

Strengths

- Embedded Linux operating system
- H.265/H.264 encoding and decoding to improve the memory space utilization
- 3.5-inch hard disk storage, hard disk heating & hard disk power-off protection technologies
- SD card backup
- Connection with storage units such as a fireproof box for disaster recovery backup
- Outstanding anti-vibration performance and high reliability, providing comprehensive functions

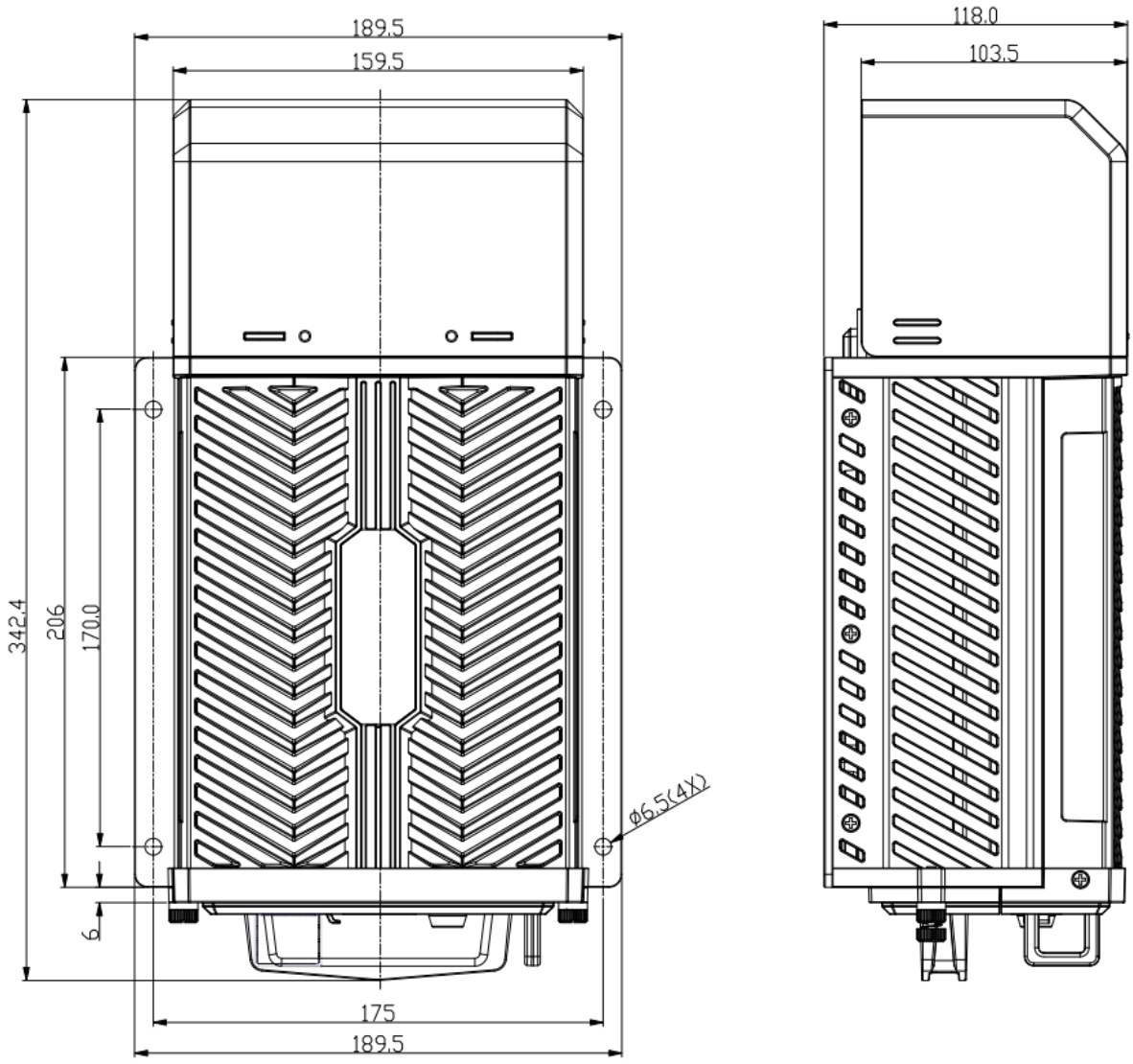
Specifications

Model		
	X5NPro-H0804	
Function Overview		
	Preview, video recording, playback, network transmission, and positioning	
System		
	Operating System	Linux 4.9
	Control Mode	CP4,mouse, EasyCheck, and network (3G/4G/Wi-Fi)
Video		
	Input	8-channel AHD + 4-channel IPC (PON power supply)
	Output	1-channel CVBS + 1-channel VGA
	Total Resource	AHD: 8*720P@25FPS(PAL) or 8 × 1080p @ 15 FPS (PAL) or 8 × 720p @ 30 FPS (NTSC) or 8 × 1080p @ 15 FPS (NTSC) IPC: 4*1080P@30FPS(IPC)
	Video Signal Standard	Level: 1 Vpp; impedance: 75 ohm NTSC/PAL (optional)
Audio		
	Input	8-channel AHD + 4-channel IPC
	Output	2 channels
	Audio Signal Standard	Level: 2 Vpp; input impedance: 4.7 kilohm
Display		
	Display Split	1/4/9-screen display
	Screen Display	Time/Date, Vehicle Plate, Vehicle Number, Alarm, Speed, Location Information, Channel Name, ACC Information
	Operating Interface	GUI
Recording		
	Audio/Video Compression Format	Video H.264/H.265 Audio ADPCM,G.711U,G.711A
	Image Resolution	AHD: PAL: 1080p (1920 × 1080), 720p (1280 × 720), WD1 (928 × 576), WHD1 (928 × 288), WCIF (464 × 288), D1 (704 × 576), HD1 (704 × 288), CIF (352 × 288); NTSC: 1080p (1920 × 1080), 720p (1280 × 720), WD1 (928 × 480), WHD1 (928 × 240), WCIF (464 × 240), D1 (704 × 480), HD1 (704 × 240), CIF (352 × 240); IPC: 1080p (1920 × 1080), 720p (1280 × 720);
	Image Quality	Levels 1–8 adjustable (preferably Level 1)
	Recording Mode	Startup/Scheduled/Alarm event recording
	Alarm Prerecording	0-60 min
	Alarm Recording Delay	0-30 min
	Mirrored Recording	Supported
Playback		
	Playback Channel	1-channel local playback
	Search Mode	By date/time, channel, or event

Network		
	3G/4G	EVDO/TD-SCDMA/WCDMA/TDD-LTE/FDD-LTE (optional)
	WIFI	W217 module. Supported protocol: 802.11a/b/g/n/ac
	Ethernet	1 × RJ45 (10/100 M/1000 M)
Positioning		
	GPS/BD	Positioning, speed detection, and time synchronization
Sensor		
	G-Sensor	Built-in 6-axis inertial sensor
Storage		
	HDD	1 × 3.5" SATA HDD + 1 × M.2 SSD, hard disk heating supported
	SD	Hot-swapping 32/64/128/256 GB SDXC
Port		
	USB	1 × USB2.0 (5pin aviation connector) + 1 × USB2.0 (Type B)
	SD	1 × SD card slot
	SIM	2 × SIM card slot
	Serial Port	2 × RS232, 3 × RS485 (1 × R-WATCH)
	CAN	2 × CAN
	IO	8-channel input and 2-channel output
	Pulse Speed Detection	1 channel
	Control Panel	CP4
	Intercom	1 × MIC port (CP4)
	VGA	1 × VGA
Power Supply		
	Input	DC 8-36V
	Output	5 V @ 500 mA & 12 V @ 500 mA
	Maximum Typical Power Consumption	100 W
	Standby Power Consumption	≈ 0 W
Physical Characteristics		
	Dimensions (mm)	342.4 × 189.5 × 118.0 (with rear shield and bracket)
	Weight (kg)	4.1 kg (without hard disks)
Environment		
	Operating Temperature	–40°C to +70°C (heated, without hard disks)
	Operating Humidity	8% to 95% (non-condensing)

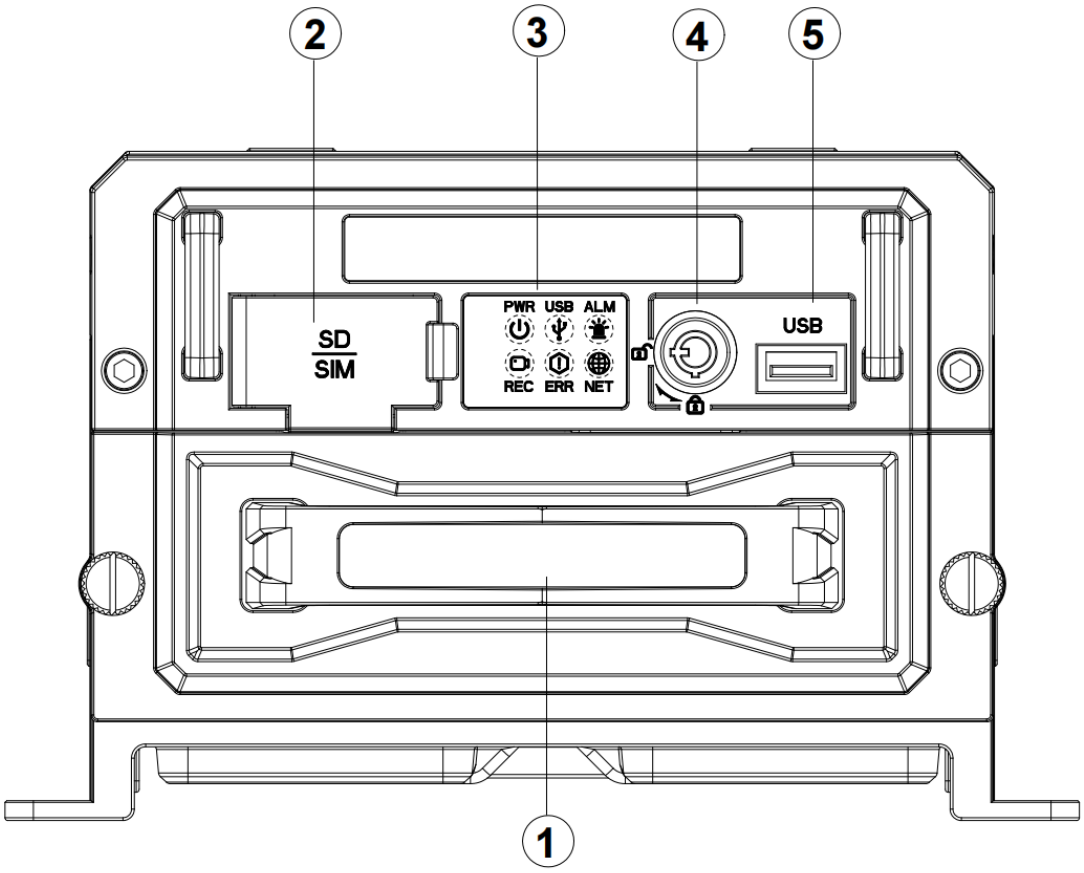
Dimensions

(unit: mm)



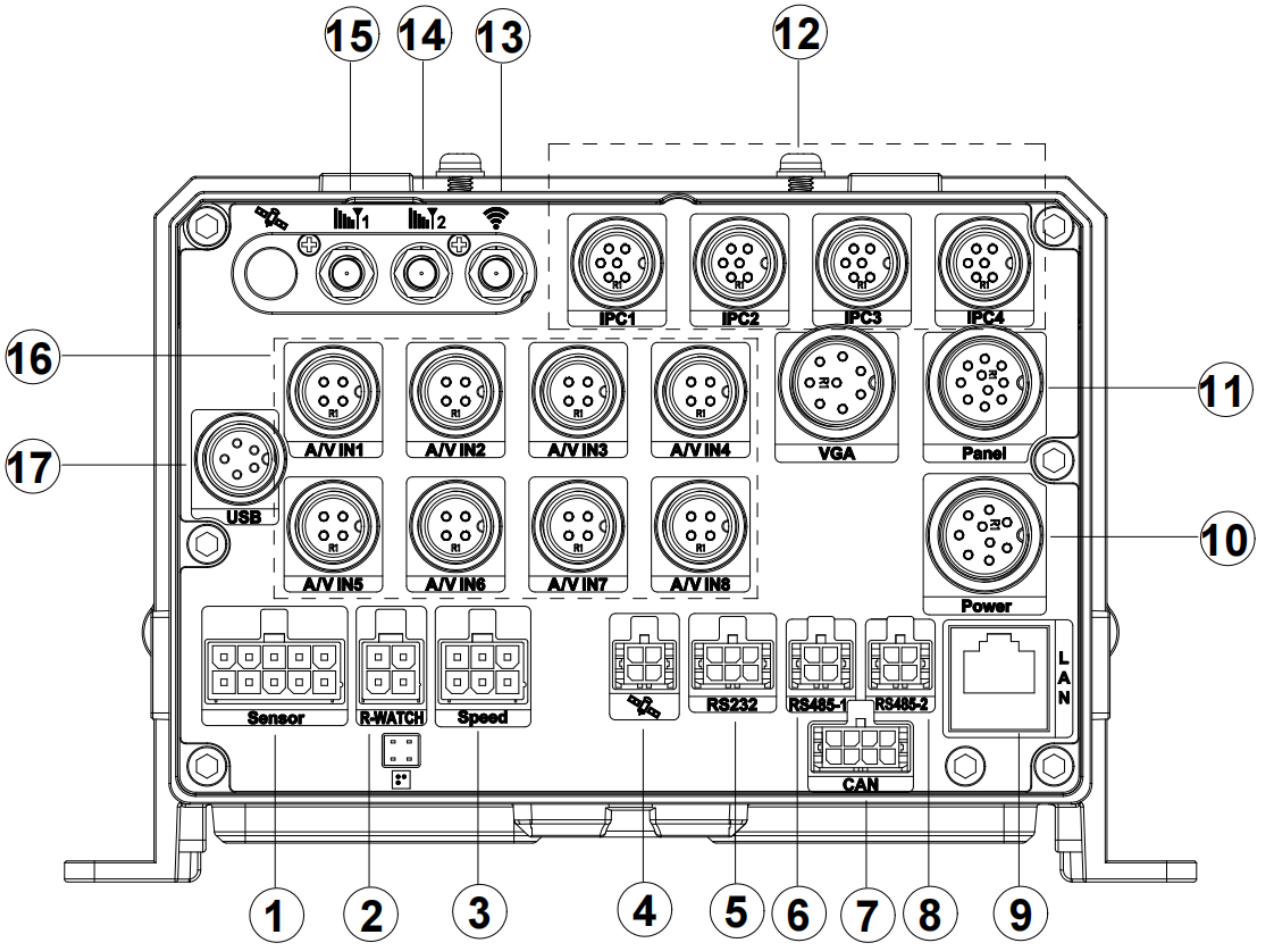
Panel Ports

Front panel



S/N	Name
1	Hard disk case (for holding a hard disk)
2	SD/SIM card slot
3	Indicator: power (PWR), USB, alarms (ALM), recording (REC), errors (ERR), network (NET)
4	Device lock
5	USB interface

Rear panel:

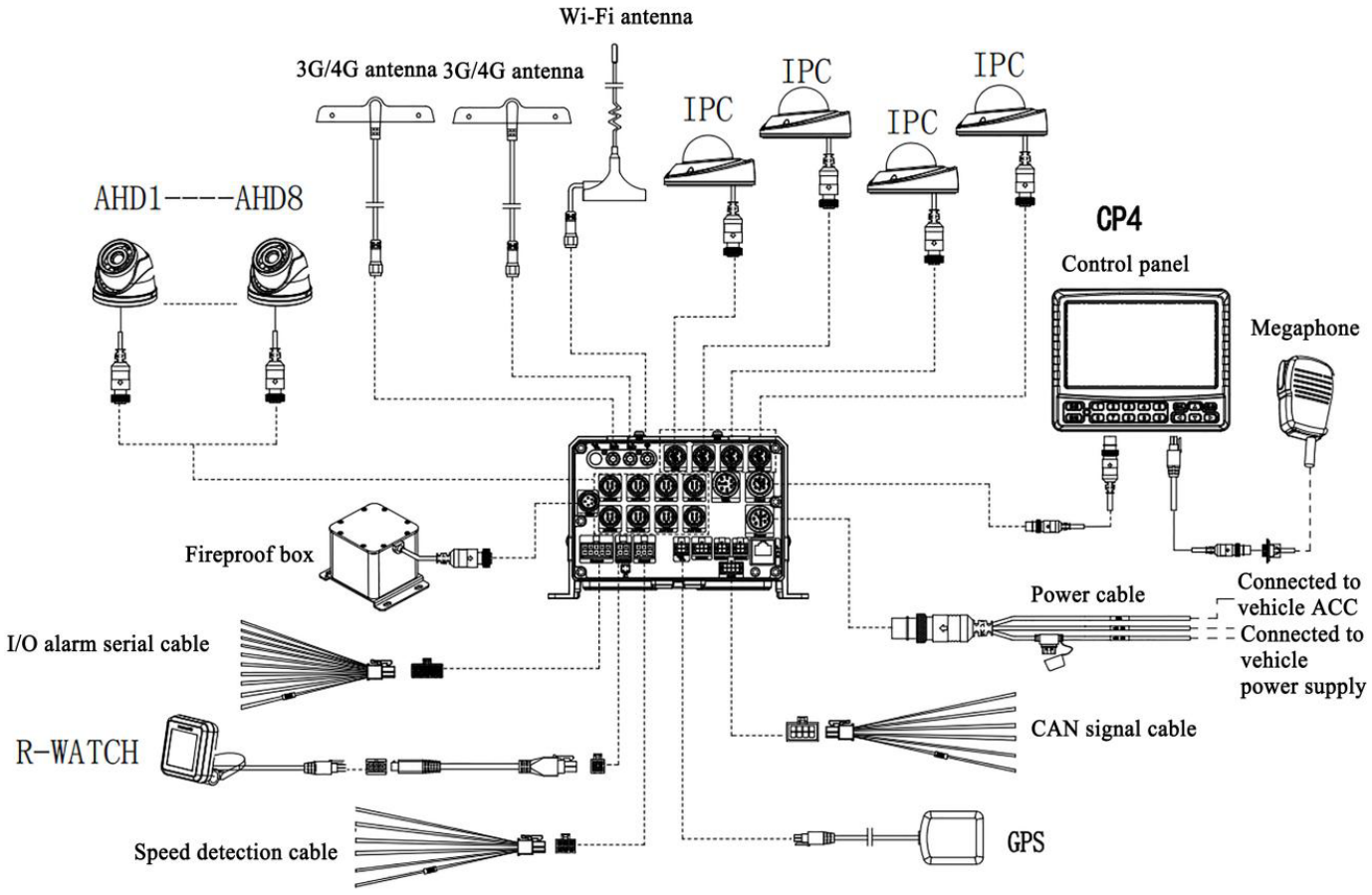


S/N	Silk Screen	Description
1	Sensor	Serial port
2	R-WATCH	R-WATCH port
3	Speed	Pulse velocity measurement input port/alarm output port
4		External positioning module port
5	RS232	2 RS232 ports
6	RS485-1	1 RS485 port
7	CAN	2 CAN ports
8	RS485-2	1 RS485 port
9	LAN	LAN port
10	Power	Power Input
11	Panel	CP4 port

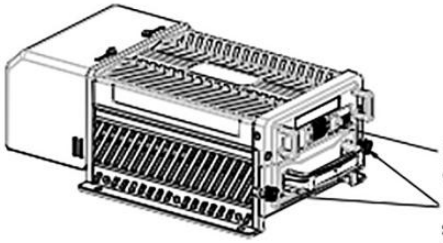
12	IPC1~IPC4	IPC (PON power supply) audio/video input ports 1-4
13		Wi-Fi antenna port
14		3G/4G antenna port
15		3G/4G antenna port
16	A/V IN1~A/V IN8	Analog audio/video input ports 1 to 8
17	USB	USB interface

Installation

Typical Wiring Diagram

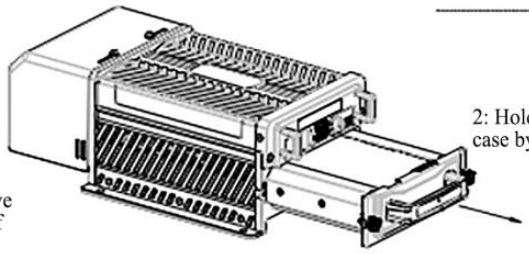


Hard Disk Installation

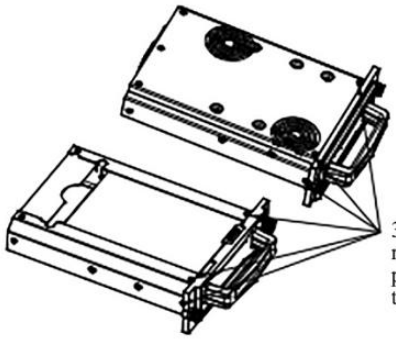


1-1: Use the key to open the lock.

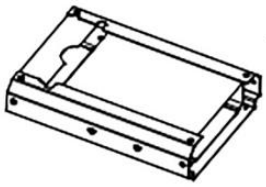
1-2: Remove the captive screws on both sides of the hard disk case.



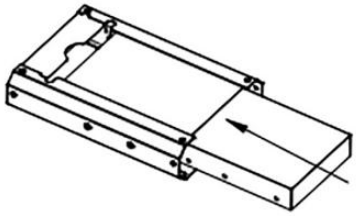
2: Hold the handler of the case by hand to pull it out.



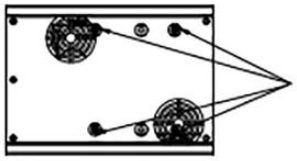
3: Use a cross screwdriver to remove the 6 screws of the front panel of the hard disk case and take off the panel.



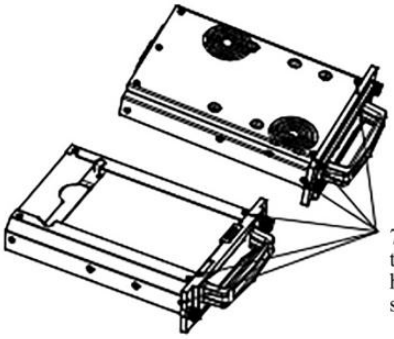
4: This is what the case looks like after you take off its front panel.



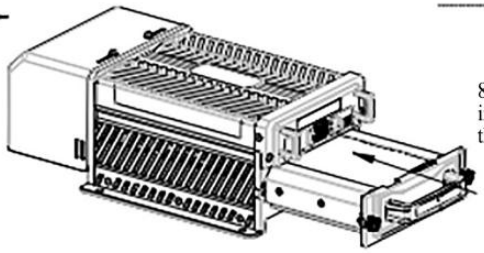
5: Insert the 3.5-inch hard disk into the case in the direction of the arrow (put the hard disk in carefully to avoid damaging it).



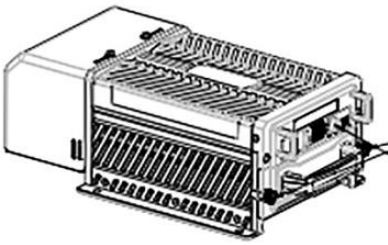
6: Fix the hard disk using 4 screws at the positions indicated by the arrows.



7: Use a cross screwdriver to fix the front panel of the hard disk case with the 6 screws.



8: Install the hard disk case in the device according to the direction of the arrow.

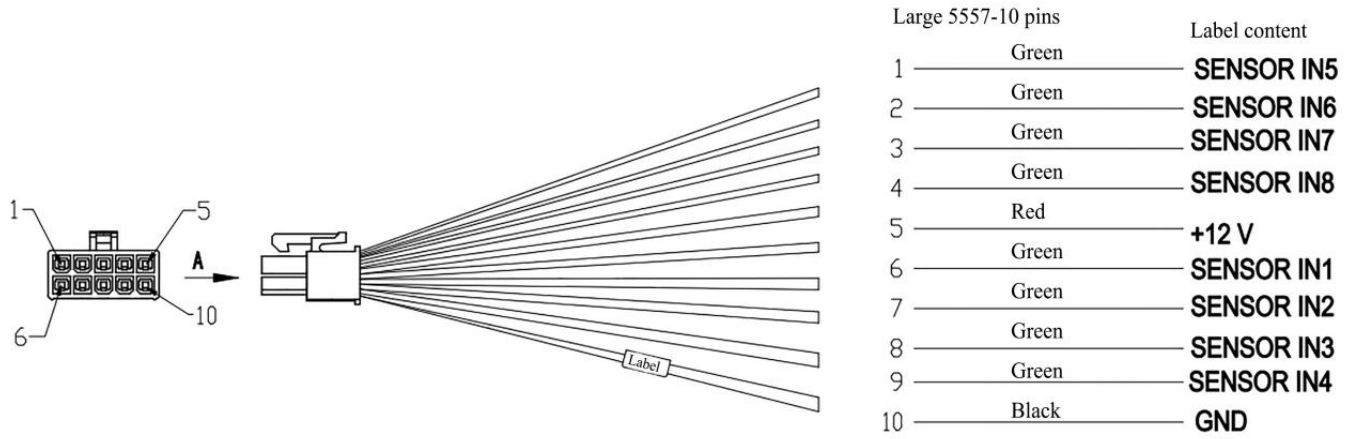


9-1: Fix the case using the captive screws on both sides of it.

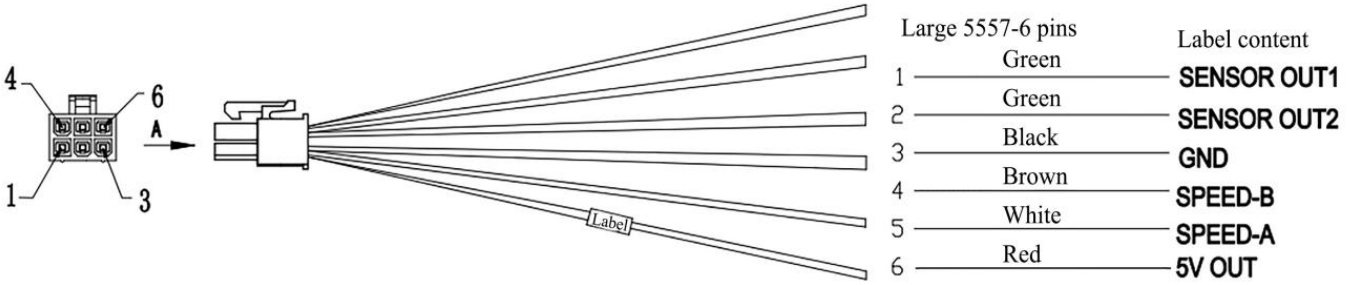
9-2: Lock with the key.

External Cable Connector Pinouts

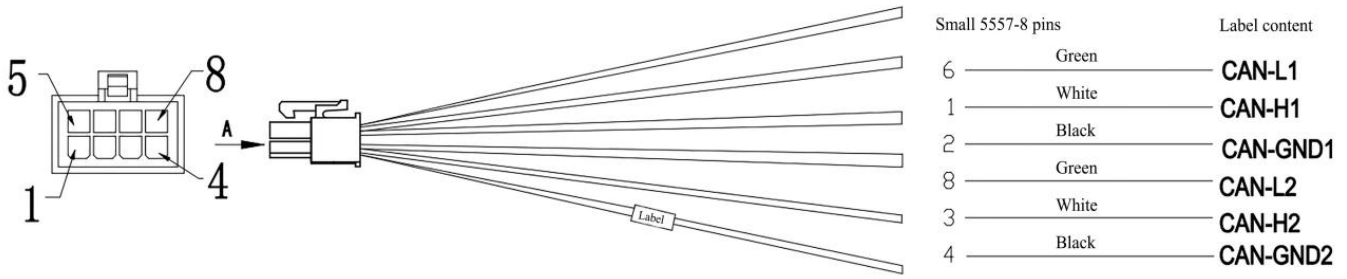
I/O alarm and serial cable connector pinouts:



Speed detection cable connector pinouts:



CAN signal cable connector pinouts:



MDVR Fails to Start

- ✧ Check the input power supply of the device by checking whether the power cable is correctly connected, whether the ground cable is connected to the battery, and whether the fuse in the power cable is intact.
- ✧ Check whether the ACC signal cable of the power supply device has a voltage (greater than 7 V).
- ✧ Check whether the key on the device is switched off.

MDVR Keeps Restarting

- ✧ Check whether the voltage is too low to start the device, causing the device to randomly restart.
- ✧ Hard disk/SD card failures may cause device startup failure. Remove the storage unit and turn on the device again to determine whether the storage unit is faulty.

Video Recording Does Not Work

- ✧ Check whether a storage unit is installed and in good contact and whether the storage unit can read data normally when connecting to a computer.
- ✧ The storage unit is not formatted. After the storage unit is inserted into our device, it needs to be formatted to perform normal data storage.
- ✧ Check whether there is a video signal input from the camera to the MDVR and whether there is a video image shown on the live view screen.

Video Files Have No Sound

- ✧ Check whether there is an external pickup connected or whether the camera features audio acquisition.
- ✧ Access the video channel settings and check whether the audio option is enabled.
- ✧ The channel that realizes the sound recording function must have video input and can perform video recording normally.

GPS Abnormality

- ✧ Check whether the GPS antenna is correctly installed and whether there is a GPS silk screen on the GPS antenna pedestal on the back of the MDVR.
- ✧ Check whether the antenna receiver is blocked. The antenna receiver must not be covered, or else signal reception

failure may occur as a result.

- ✧ The impacts caused by surrounding environments such as tree shelters, tunnels, driving near tall buildings and overpasses, thunderstorm weather, etc. may cause GPS signal loss or GPS to receive the wrong signal.

Device Cannot Be Shut Down in the Ignition Startup & Shutdown Mode

- ✧ Check whether the ACC signal cable connection is correct and whether there is no voltage on the ACC yellow line after the key is switched off.
- ✧ If the Timing Video Record is enabled and the current time has not exceeded the limit set in the recording time task table, the device cannot be shut down.

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