

Technical Newsletter

May 2025 Service Operation Team

Contents

Technology Information

- How to unzip ZIP backup files with Web Viewer
- Precautions for repairing NVRs with a TPM
- Information on improved Sleeve Fan Holder parts
- Precautions for updating AI 4-channel multi camera FW

Latest Firmware Information (Feb. 2025 – Mar. 2025)

How to unzip ZIP backup files with Web Viewer

Info. Type

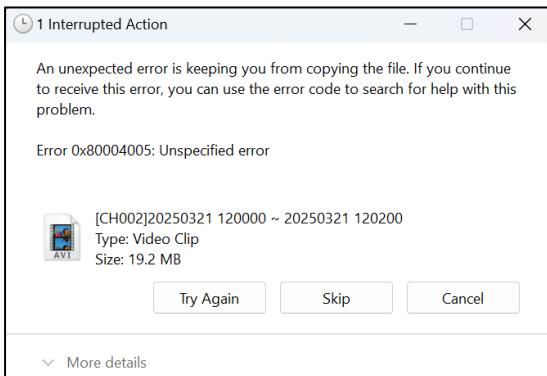
 Quality Settings Repair S/W Etc

● Target model

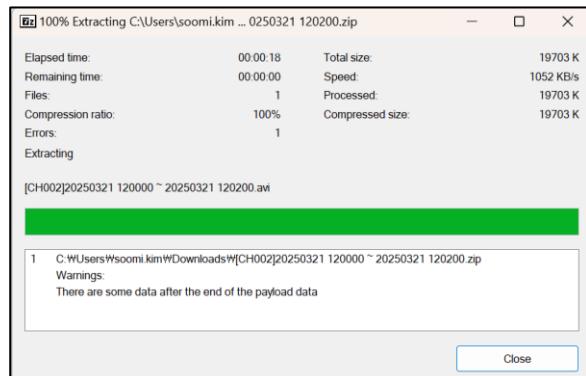
- All Hanwha Vision models

● Changed specifications for web viewer backup files

- **Password setting has been changed to a mandatory requirement for selecting a web viewer backup file as a ZIP type.**
 - . You cannot unzip ZIP files with Winzip.
 - . You can use a decompression program that supports the encryption algorithm (AES-256).



[Unzip failed]



[Unzip succeeded]

● Reasons (Security Enhancement)

- For enhanced security, the specifications have been changed to support encryption algorithm (AES-256)
- The default Windows compression program uses the ZipCrypto encryption algorithm.
- Our devices adopt the AES-256 algorithm with enhanced security.
- For the above reasons, it is impossible to use the default Windows compression program for decompression.
- The changed specifications is also to apply to the storage and camera backups in ZIP format.

● Service Guide

- **To decompress backup files, we recommend you to use Bandizip/EasyCrypt/7-Zip tools supporting the AES-256 algorithm.**

Precautions for repairing NVRs with a TPM

Info. Type

 Quality Settings Repair S/W Etc

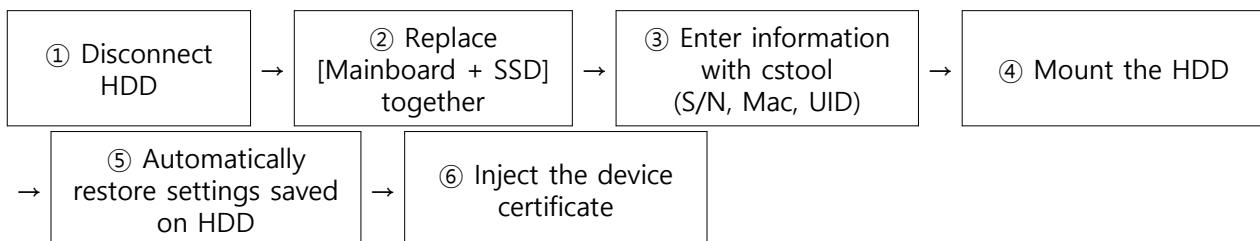
● Target model

- All NVR models with 12th Gen Intel CPU
 - . XRN-6420DB4-60, XRN-6420B4-60, XRN-6420B2-60, XRN-6420RB2-60
 - . XRN-3220B4-30, XRN-3220RB2-30, XRN-3220B2-30

● TPM (Trusted Platform Module)?

- It securely stores and manages security keys (PW, cryptographic keys) with a security chipset mounted on the mainboard.
- Hardware-wise, it is separated from CPU. Thus, it is relatively free from hackers' bypass and neutralization
- **It enhances security to make the product unusable by preventing it from booting if the mainboard or booting disk is changed.**

● How to replace the NVR Mainboard (Intel 12th gen x86) and restore DB



- If there is a DB Backup file of the NVR, run DB Restore between Step ③ and Step ④.

✓ Note

- If the NVR is bootable before replacement, be sure to back up the existing DB.
- The Mainboard must be replaced with SSD as 1 set.
(It is impossible to replace only the MAIN PCB or the SSD)
- The [Mainboard + SSD] Set to be replaced must be factory reset.
- The mainboard used in another device cannot be used even if it is replaced with SSD as a set
 - . If the MAC address is changed while there are settings for other equipment, it is considered hacking and TPM security is violated.

● In case of violation of precautions

- There is a mismatch with the security key issued to the TPM.
- The NVR boots but cannot display the live screen, and there will be a warning message, "Not a normal access".
- If a warning message is displayed, recovery is not possible. Thus, the existing set must be replaced with a new mainboard + SSD set.

Information on improved Sleeve Fan Holder parts

Info. Type

 Quality Settings Repair S/W Etc

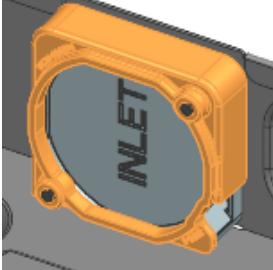
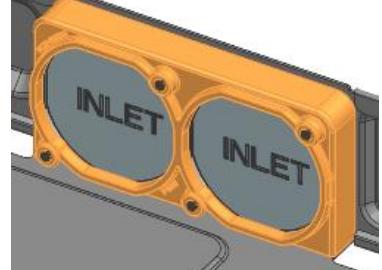
● Target model

- NVR : XRN-815S/820S/K820S/K821S, QRN-1630S, KRN-K1600S, WRN-2010S/810S, SRP-800S
- Hybrid DVR : HRX-1634/435, ARD-1610
- Encoder : SPE-1630

● Purpose

- Adding Holder parts to solve the problem of damage and noise caused by the stress of Sleeve FAN fixing Screws.

● Parts

| Types | FAN Holder (Single) | FAN Holder (Dual) | Remarks |
|---------------------|---|---|-----------------------------------|
| Holder appearance |  |  | Compatible with existing FAN/Case |
| Holder Material No. | FC29-018204A | FC29-018205A | |
| Applicable models | XRN-815S/820S, XRN-K820S/K821S, QRN-1630S, KRN-K1600S, WRN-2010S, WRN-810S, SPE-1630, SRP-800S, | HRX-1634/435, ARD-1610 | |
| Screw | Use dedicated Screw (M4, L16) (Material No. : Z6002002701A) | | Existing screws unusable |

- Effective Date: May 1, 2025

● Repair Procedure

- Holder parts can be used for products (market products) where the holder is not applied.
 - . Single Fan : FAN(1EA) + Holder(FC29-018204A) + Screw(Z6002002701A)-2EA replacement
 - . Dual Fan : FAN(2EA) + Holder(FC29-018205A) + Screw(Z6002002701A)-4EA replacement

Precautions for updating AI 4-channel multi camera FW

Info. Type

 Quality Settings Repair S/W Etc

● Target model

- PNM-C34404RQPZ, PNM-C32083RVQ, PNM-C16083RVQ

● Purpose

- To update to the latest firmware version (24.01.05 or later), it is necessary to perform a bridge FW update to expand the file capacity.

● Procedure for updating to the latest firmware version

- Check the current FW version of the following models: PNM-C34404RQPZ, PNM-C32083RVQ, PNM-C16083RVQ
- 23.01.XX version -> Update to 23.01.04 Bridge FW -> Update to the Latest FW version
- If you need the 23.01.04 bridge FW, find it on the following website:

Salesforce > Information Plaza > Search for **LI-202504220027**

| |
|------------|
| 23.01.00 |
| 23.01.01 |
| 23.01.02 |
| 23.01.03 ↴ |
| ↓ 23.01.04 |
| ↓ 24.01.05 |

✓ Major updates for 24.01.05 FW

- Provided the WiseAI application supporting AI functions
- Added checkboxes to enable or disable Bridge and Port mapping options in the Jetson port section
- Improved the Jetson Flashing upgrade function
- Optimized CPU usage to improve application performance and efficiency

● Restrictions

- It is impossible to downgrade to an older version (23.01.03 or lower) after applying the Bridge FW.

| |
|--|
| 23.01.00 |
| 23.01.01 |
| 23.01.02 |
| 23.01.03 |
| ↑ 23.01.04 X Version Downgrade NOT Supported |
| 24.01.05 |

New updated firmware (2025 MAR ~ APR)

| | MODEL NAME | FIRMWARE | VER | DATE | REMARK |
|---------|---|------------------------|----------|------------|---|
| ENCODER | SPE-1630 | SPE-1630_2.21.03 | 2.21.03 | 2025-03-11 | - Increased HDMI output frame rate from 15fps to 30fps |
| NW CAM | PNM-C16083RQZ PNM-C32083RQZ | PNM-C32083RQZ_24.01.01 | 24.01.01 | 2025-03-06 | <ul style="list-style-type: none"> - Corrected an issue where only information for channel 1 was being received instead of information for all channels when requesting videocodecinfo related SUNAPI - Corrected an issue where motion detection events were not triggered when connecting cameras via ONVIF |
| | TNS-9050IBC TNS-9040IBC TNS-9060IBC | TNS-9050IBC_2.21.02 | 2.21.02 | 2025-03-26 | <ul style="list-style-type: none"> - Added support for the ONVIF profile M function - Added support for the MQTT function - Increased the number of barcodes you can set from 12 to 192 - Changed the number of the last N codes from 12 to 100 you can enter in [Don't read the last N codes] |
| | PNB-A9001LP | PNB-A9001LP_2.23.01 | 2.23.01 | 2025-04-04 | <ul style="list-style-type: none"> - Updated the Ambarella Chip SDK version from v2 to v3 - Updated the version of Wisenet Road AI according to the version update of Ambarella Chip SDK - Removed support for SD card related CGI to prevent functionality conflicts within a camera equipped with Wisenet Road AI (an app installed on the open platform) using dedicated SD cards (Using the SD card for purposes other than Wisenet Road AI functionality will cause functionality conflicts.) |
| | QNF-C9010 | QNF-C9010_2.21.10 | 2.21.10 | 2025-04-19 | |
| | QND/O/V-C8013R QND/O/V-C8023R | QNV-C8013R_2.21.10 | 2.21.10 | 2025-04-19 | |
| | TNV-C8014RM | TNV-C8014RM_2.21.10 | 2.21.10 | 2025-04-19 | |
| | TNV-C8034RM | TNV-C8034RM_2.21.10 | 2.21.10 | 2025-04-19 | |
| | QNE-C8013RL | QNE-C8013RL_2.22.02 | 2.22.02 | 2025-04-19 | |
| | QNE-C9013RL | QNE-C9013RL_2.22.02 | 2.22.02 | 2025-04-19 | |
| | QNO-C6083R QNV-C6083R | QNV-C6083R_2.22.02 | 2.22.02 | 2025-04-19 | |
| | QNV-C8011R | QNV-C8011R_2.22.02 | 2.22.02 | 2025-04-19 | |
| | QNV-C8012 | QNV-C8012_2.22.02 | 2.22.02 | 2025-04-19 | |
| | QNO-C8083R QNV-C8083R | QNV-C8083R_2.22.02 | 2.22.02 | 2025-04-19 | |
| | QNV-C9011R | QNV-C9011R_2.22.02 | 2.22.02 | 2025-04-19 | |
| | QNO-C9083R QNV-C9083R | QNV-C9083R_2.22.02 | 2.22.02 | 2025-04-19 | |
| | TNV-C8011RW | TNV-C8011RW_2.22.02 | 2.22.02 | 2025-04-19 | |
| | PNB-A6001 | PNB-A6001_2.23.01 | 2.23.01 | 2025-04-19 | |
| | PNB-A9001 | PNB-A9001_2.23.01 | 2.23.01 | 2025-04-19 | |
| | PND-A6081RF(RV) PNO-A6081R PNV-A6081R | PNO-A6081R_2.23.01 | 2.23.01 | 2025-04-19 | |

New updated firmware (2025 MAR ~ APR)

| | MODEL NAME | FIRMWARE | VER | DATE | REMARK |
|--------|---|---------------------|---------|------------|--|
| NW CAM | PND-A9081RF PND-A9081RV PNO-A9081R PNV-A9081R | PNO-A9081R_2.23.01 | 2.23.01 | 2025-04-19 | |
| | PNO-A9311R | PNO-A9311R_2.23.01 | 2.23.01 | 2025-04-19 | |
| | TNV-C7013RC | TNV-C7013RC_2.23.05 | 2.23.05 | 2025-04-19 | |
| | XNB-6002 | XNB-6002_2.23.05 | 2.23.05 | 2025-04-19 | |
| | XNB-8003 XNB-9003 XND-8083RV XND-8093RV XND-9083RV XNO/V-8083R XNO/V-9083R XNV-8093R | XND-9083RV_2.23.05 | 2.23.05 | 2025-04-19 | |
| | XND-C6083RV XND-C7083RV XNV-C6083R XNV-C7083R | XND-C7083RV_2.23.05 | 2.23.05 | 2025-04-19 | |
| | XND-C8083RV XND-C9083RV XNV-C8083R XNV-C9083R | XND-C9083RV_2.23.05 | 2.23.05 | 2025-04-19 | |
| | XNF-9010RV(RVM) | XNF-9010RV_2.23.05 | 2.23.05 | 2025-04-19 | |
| | XNF-9013RV | XNF-9013RV_2.23.05 | 2.23.05 | 2025-04-19 | |
| | XNP-C6403(R,RW) XNP-C8253(R,RW) XNP-C9253(R,RW) | XNP-C9303RW_2.23.05 | 2.23.05 | 2025-04-19 | |
| | XNP-C7310R XNP-C9310R | XNP-C9310R_2.23.05 | 2.23.05 | 2025-04-19 | |
| | XNV-6083RZ | XNV-6083RZ_2.23.05 | 2.23.05 | 2025-04-19 | |
| | XNO-6123R XNV-6123R | XNV-6123R_2.23.05 | 2.23.05 | 2025-04-19 | |
| | XNB-8002 XNB-9002 XND-8082RF (RV,RF) XND-9082RV XNO-8082R, 9082R XNV-8082R, 9082R | XNV-9082R_2.23.05 | 2.23.05 | 2025-04-19 | |
| | XNV-8083RZ XNV-9083RZ | XNV-9083RZ_2.23.05 | 2.23.05 | 2025-04-19 | <ul style="list-style-type: none"> - Added support for the [Edge recording] function in Cloud Connector - Removed support for the recording and playback functions of the camera when the [Edge recording] feature of Cloud Connector is enabled (The recording and playback menus in the camera webviewer will disappear) |