HIKVISION

Digital Video Recorder

Quick Start Guide

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Quick Start Guide

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About this Manual

This Manual is applicable to Turbo HD Digital Video Recorder (DVR).

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website (http://overseas.hikvision.com/en/).

Please use this user manual under the guidance of professionals.

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Regulatory Information

FCC Information

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC compliance: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference.
- 2. This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement

This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the LVD Directive 2014/35/EU, the RoHS Directive 2011/65/EU.



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info



2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info

Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

Applicable Models

This manual is applicable to the models listed in the following table.

| Series | Model |
|------------------|------------------|
| DS-7100HGHI-F1/N | DS-7104HGHI-F1/N |
| | DS-7108HGHI-F1/N |
| | DS-7116HGHI-F1/N |
| DS-7200HGHI-F1/N | DS-7204HGHI-F1/N |
| | DS-7208HGHI-F1/N |
| | DS-7216HGHI-F1/N |
| DS-7100HGHI-E1 | DS-7104HGHI-E1 |
| | DS-7108HGHI-E1 |
| | DS-7116HGHI-E1 |
| DS-7200HGHI-E1 | DS-7204HGHI-E1 |
| | DS-7208HGHI-E1 |
| | DS-7216HGHI-E1 |
| DS-7200HGHI-E2 | DS-7208HGHI-E2 |
| | DS-7216HGHI-E2 |
| DS-7100HGHI-F1 | DS-7104HGHI-F1 |
| | DS-7108HGHI-F1 |
| | DS-7116HGHI-F1 |
| DS-7200HGHI-F1 | DS-7204HGHI-F1 |
| | DS-7208HGHI-F1 |
| | DS-7216HGHI-F1 |
| DS-7200HGHI-F2 | DS-7208HGHI-F2 |
| | DS-7216HGHI-F2 |
| DS-7200HQHI-F1/N | DS-7204HQHI-F1/N |
| | DS-7208HQHI-F1/N |
| | DS-7216HQHI-F1/N |
| DS-7200HQHI-F2/N | DS-7208HQHI-F2/N |
| | DS-7216HQHI-F2/N |
| DS-7100HQHI-F1/N | DS-7104HQHI-F1/N |
| | DS-7108HQHI-F1/N |
| | DS-7116HQHI-F1/N |
| DS-7300HQHI-F4/N | DS-7304HQHI-F4/N |
| | DS-7308HQHI-F4/N |
| | DS-7316HQHI-F4/N |
| DS-8100HQHI-F8/N | DS-8104HQHI-F8/N |
| | DS-8108HQHI-F8/N |
| | DS-8116HQHI-F8/N |
| DS-7200HUHI-F1/N | DS-7204HUHI-F1/N |
| | DS-7208HUHI-F1/N |

| DS-7200HUHI-F2/N | DS-7204HUHI-F2/N |
|-------------------|-------------------|
| | DS-7208HUHI-F2/N |
| | DS-7216HUHI-F2/N |
| DC 730011111 F1/C | DS-7204HUHI-F1/S |
| DS-7200HUHI-F1/S | DS-7208HUHI-F1/S |
| | DS-7204HUHI-F2/S |
| DS-7200HUHI-F2/S | DS-7208HUHI-F2/S |
| | DS-7216HUHI-F2/S |
| DS-7600HUHI-F2/N | DS-7604HUHI-F1/N |
| | DS-7608HUHI-F2/N |
| | DS-7616HUHI-F2/N |
| DS-7300HUHI-F4/N | DS-7304HUHI-F4/N |
| | DS-7308HUHI-F4/N |
| | DS-7316HUHI-F4/N |
| DS-8100HUHI-F8/N | DS-8104HUHI-F8/N |
| | DS-8108HUHI-F8/N |
| | DS-8116HUHI-F8/N |
| DS-9000HUHI-F8/N | DS-9004HUHI-F8/N |
| | DS-9008HUHI-F8/N |
| | DS-9016HUHI-F8/N |
| DS-9000HUHI-F16/N | DS-9008HUHI-F16/N |
| | DS-9016HUHI-F16/N |

Symbol Conventions

The symbols that may be found in this document are defined as follows.

| Symbol | Description | |
|---|--|--|
| NOTE | Provides additional information to emphasize or supplement important points of the main text. | |
| WARNING | Indicates a potentially hazardous situation, which if not avoided could result in equipment damage, data loss, performance degradation, or unexpected results. | |
| Indicates a hazard with a high level of risk, which if not avoided, we result in death or serious injury. | | |

Safety Instructions

- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.
- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region. Please refer to technical specifications for detailed information.
- Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with 100~240 VAC or 12 VDC according to the IEC60950-1 standard. Please refer to technical specifications for detailed information.
- Do not connect several devices to one power adapter as adapter overload may cause over-heating or a fire hazard.
- Please make sure that the plug is firmly connected to the power socket.
- If smoke, odor or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.

Preventive and Cautionary Tips

Before connecting and operating your device, please be advised of the following tips:

- Ensure unit is installed in a well-ventilated, dust-free environment.
- Unit is designed for indoor use only.
- Keep all liquids away from the device.
- Ensure environmental conditions meet factory specifications.
- Ensure unit is properly secured to a rack or shelf. Major shocks or jolts to the unit as a result of dropping it may cause damage to the sensitive electronics within the unit.
- Use the device in conjunction with an UPS if possible.
- Power down the unit before connecting and disconnecting accessories and peripherals.
- A factory recommended HDD should be used for this device.
- Improper use or replacement of the battery may result in hazard of explosion. Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.

Power Supply Instructions

Use only power supplies listed in the user instructions for DS-7104HGHI-F1, DS-7108HGHI-F1, DS-7104HGHI-F1/N, and DS-7108HGHI-F1/N.

| Standard | Power Supply Models | Manufacturer |
|-----------|------------------------|-------------------------------------|
| | MSA-C1500IC12.0-18P-GB | MOSO Technology Co., Ltd. |
| British | ADS-26FSG-12 12018EPB | Shenzhen Honor Electronic Co., Ltd. |
| F | MSA-C1500IC12.0-18P-DE | MOSO Technology Co., Ltd. |
| European | ADS-26FSG-12 12018EPG | Shenzhen Honor Electronic Co., Ltd. |
| Australia | MSA-C1500IC12.0-18P-AU | MOSO Technology Co., Ltd. |
| | ADS-25FSG-12 12018GPSA | Shenzhen Honor Electronic Co., Ltd. |

Chapter1 Panels Description

1.1 Front Panel



The front panel vaires according to different models. Please refer to the actual product. The following figures only take examples of several models.

• Front Panel 1

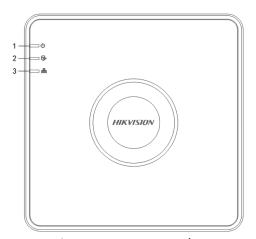


Figure 1-1 Front Panel 1

Table 1-1 Description of Front Panel 1

| No. | Icon | Description |
|-----|------|--|
| 1 | | Turns red when DVR is powered up. |
| 2 | Ó | Turns red when data is being read from or written to HDD. |
| 3 | | Flickers blue when network connection is functioning properly. |

• Front Panel 2



Figure 1-2 Front Panel 2

Table 1-2 Description of Front Panel 2

| No. | Name | Function Description | |
|-----|----------------|--|--|
| | POWER | Turns yellow when the power switch on the rear panel is turned on. | |
| 1 | STATUS | Flickers red when data is being read from or written to HDD. | |
| | Tx/Rx | Flickers yellow when network connection is functioning properly. | |
| 2 | IR Receiver | Receiver for IR remote | |
| 3 | USB Interfaces | Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD). | |

Front Panel 3

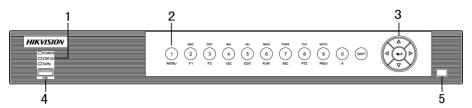


Figure 1-3 Front Panel 3

Table 1-3 Description of Front Panel 3

| No. | Name | | Function Description |
|------------------|-----------|---|---|
| POWER STATUS | | | Turns green when the device is running. |
| | | | Flickers red when data is being read from or written to HDD, and turns green when the SHIFT function is realized. |
| | Tx/Rx | | Flickers green when network connection is functioning properly. |
| 2 Composite Keys | | SHIFT | Switches between the numeric or letter input and functions of the composite keys. |
| | Composite | 1/MENU | Enters numeral "1"; Accesses the main menu interface. |
| | - | | Enters numeral "2"; |
| | 2/ABC/F1 | 2/ABC/F1 | Enters letters "ABC"; |
| | | Uses the F1 button to select all items in a list field; | |

| | | Turns on/off PTZ light in PTZ Control mode, and use it to zoom out the image; |
|-------------|------------------------|---|
| | | Switches between main and spot video output in live view or playback mode. |
| | | Enters numeral "3"; |
| | | Enters letters "DEF"; |
| | 3/DEF/F2 | Uses the F2 button to change the tab pages; |
| | | Zooms in the image in PTZ control mode. |
| | | Enters numeral "4"; |
| | 4/GHI/ESC | Enters letters "GHI"; |
| | | Exits and back to the previous menu. |
| | | Enters numeral "5"; |
| | | Enters letters "JKL"; |
| | 5/JKL/EDIT | Deletes characters before cursor; |
| | | Checks the checkbox and select the ON/OFF switch; |
| | | Starts/stops record clipping in playback. |
| | 6/MNO/PLAY | Enters numeral "6"; |
| | | Enters letters "MNO"; |
| | | Accesses to playback interface in Playback mode. |
| | | Enters numeral "7"; |
| | 7/PQRS/REC | Enters letters "PQRS"; |
| | 771 QNS/NEC | Accesses to manual record interface; Manually enables/disables record. |
| | 8/TUV/PTZ | Enters numeral "8"; |
| | | Enters letters "TUV"; |
| | | Accesses PTZ control interface. |
| 9/WXYZ/PREV | 0/14/0/17/2020/ | Enters numeral "9"; |
| | Enters letters "WXYZ"; | |

| | | | Multi-channel display in live view. |
|-----------|---------------|--|--|
| | | | Enters numeral "0"; |
| | 0/A | Shifts the input methods in the editing text field. (Upper and lowercase, alphabet, symbols or numeric input). | |
| | | | Navigates between different fields and items in menus. |
| DIRECTION | | | Uses the Up and Down buttons to speed up and slow down the playing of video files in Playback mode. |
| | DIRECTION | | The Left and Right button will select the next and previous record files. |
| | | | Cycles through channels in Live View mode. |
| 3 | 3 | | Controls the movement of the PTZ camera in PTZ control mode. |
| | | | Confirms selection in any of the menu modes. |
| | | | Checks the checkbox. |
| | ENTER | | Plays or pauses the playing of video files in Playback mode. |
| | | | Advances the video by a single frame in single-frame Playback mode. |
| | | | Stops/starts auto switch in Auto-switch mode. |
| 4 | USB Interface | | Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD). |
| 5 | IR Receiver | | Receiver for IR remote control. |

• Front Panel 4

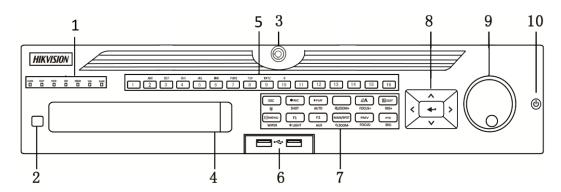


Figure 1-4 Front Panel 4

Front Panel 5

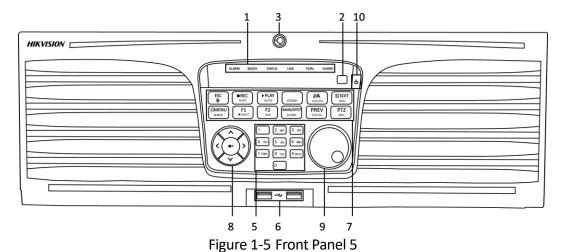


Table 1-4 Description of Front Panel 4 and 5

| No. | Name | Function Description | |
|--|--------|--|--|
| | ALARM | Turns red when a sensor alarm is detected. | |
| | READY | Turns green, indicating that the DVR is functioning properly. | |
| Turns blue when device is controlled by an | | Turns blue when device is controlled by an IR remote. | |
| 1 | STATUS | Turns red when controlled by a keyboard and purple when IR remote and keyboard is used at the same time. | |
| | HDD | Flickers in red when data is being read from or written to HDD. | |
| | MODEM | Flickers in green when network connection is functioning properly. | |
| | Tx/Rx | Turns blue when the device is in armed status; at this | |

| | | time, an alarm is enabled when an event is detected. | |
|---|-------------------------|--|--|
| | GUARD | Turns off when the device is unarmed. The arm/disarm status can be changed by pressing and holding on the ESC button for more than 3 seconds in live view mode. | |
| | | Turns red when a sensor alarm is detected. | |
| 2 | IR Receiver | Receiver for IR remote | |
| 3 | Front Panel Lock | Lock or unlock the panel by the key. | |
| 4 | DVD-R/W | Slot for DVD-R/W. | |
| | | Switches to the corresponding channel in live view or PTZ control mode. | |
| | | Inputs numbers and characters in edit mode. | |
| 5 | Alphanumeric Buttons | Switches between different channels in playback mode. | |
| | | Turns blue when the corresponding channel is recording; turns red when the channel is in network transmission status; turns pink when the channel is recording and transmitting. | |
| 6 | USB Interfaces | Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD). | |
| | | Returns to the previous menu. | |
| | ESC | Presses for arming/disarming the device in live view mode. | |
| | | Enters the Manual Record settings menu. | |
| 7 | REC/SHOT | Presses this button followed by a numeric button to call a PTZ preset in PTZ control settings. | |
| , | | Turns audio on/off in the playback mode. | |
| | PLAY/AUTO ZOOM+ | Enters the playback mode. | |
| | | Automatically scans in the PTZ control menu. | |
| | | Zooms in the PTZ camera in the PTZ control setting. | |
| | A/FOCUS+ | Adjusts focus in the PTZ Control menu. | |

| Switches between input methods (upp | | Switches between input methods (upper and lower |
|-------------------------------------|---------------------|--|
| | | case alphabet, symbols and numeric input). |
| | | Edits text fields. When editing text fields, it also deletes the character in front of the cursor. |
| | EDIT/IRIS+ | Checks the checkbox in the checkbox fields. |
| | | Adjusts the iris of the camera in PTZ control mode. |
| | | Generates video clips for backup in playback mode. |
| | MAIN/SDOT/ZOOM | Enters/exits the folder of USB device and eSATA HDD. |
| | | Switches between main and spot output. |
| | MAIN/SPOT/ZOOM- | Zooms out the image in PTZ control mode. |
| | | Selects all items on the list when used in a list field. |
| | F1/ LIGHT | Turns on/off PTZ light (if applicable) in PTZ control mode. |
| | | Switches between play and reverse play in playback mode. |
| | | Cycles through tab pages. |
| | F2/ AUX MENU/WIPER | Switches between channels in synchronous playback mode. |
| | | Returns to the Main menu (after successful login). |
| | | Presses and holds the button for five seconds to turn off audible key beep. |
| | | Starts wiper (if applicable) in PTZ control mode. |
| | PREV/FOCUS- | Shows/hides the control interface in playback mode. |
| | | Switches between single screen and multi-screen mode. |
| | | Adjusts the focus in conjunction with the A/FOCUS+ button in PTZ control mode. |
| | PTZ/IRIS- | Enters the PTZ Control mode. |
| | | Adjusts the iris of the PTZ camera in PTZ control mode. |
| 8 | DIRECTION | Navigates between different fields and items in menus. |

| | | Uses the Up and Down buttons to speed up and slow down the playing of video files in Playback mode. The Left and Right button will select the next and previous record files. |
|----|------------------------|--|
| | | Cycles through channels in Live View mode. |
| | | Controls the movement of the PTZ camera in PTZ control mode. |
| | ENTER | Confirms selection in any of the menu modes. |
| | | Checks the checkbox. |
| | | Plays or pauses the playing of video files in Playback mode. |
| | | Advances the video by a single frame in single-frame Playback mode. |
| | JOG SHUTTLE Control | Stops/starts auto switch in Auto-switch mode. |
| | | Moves the active selection up and down in a menu. |
| | | Cycles through different channels in live view mode. |
| 9 | | Jumps 30s forward/backward in video files in the playback mode. |
| | | Controls the movement of the PTZ camera in PTZ control mode. |
| 10 | POWER ON/OFF | Power on/off switch. |

1.2 Rear Panel



The rear panel vaires according to different models. Please refer to the actual product. The following figures only take examples of several models.

Rear Panel 1

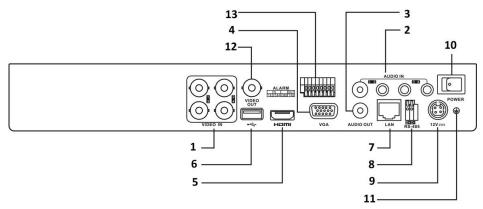


Figure 1-6 Rear Panel 1

Table 1-5 Description of Rear Panel 1

| No. | Item | Description | |
|-----|-------------------|---|--|
| 1 | VIDEO IN | BNC interface for Turbo HD and analog video input. | |
| 2 | AUDIO IN | RCA connector | |
| 3 | AUDIO OUT | RCA connector. | |
| 4 | VGA | DB15 connector for VGA output. Display local video output and menu. | |
| 5 | номі | HDMI video output connector. | |
| 6 | USB Port | Universal Serial Bus (USB) port for additional devices. | |
| 7 | Network Interface | Connector for network | |
| 8 | RS-485 Interface | Connector for RS-485 devices. | |
| 9 | Power Supply | 12VDC power supply. | |
| 10 | Power Switch | Switch for turning on/off the device. | |
| 11 | GND | Ground | |
| 12 | VIDEO OUT | BNC connector for video output. | |
| 13 | Alarm In/Out | Connector for alarm input and output. | |

• Rear Panel 2

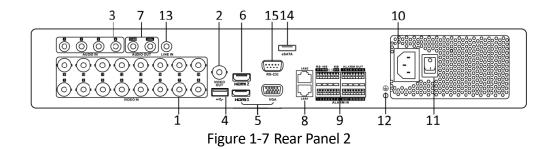


Table 1-6 Description of Rear Panel 2

| | Table 1-6 Description of Rear Panel 2 | | |
|-----|---|--|--|
| No. | Item | Function Description | |
| 1 | VIDEO IN | BNC interface for TVI and analog video input. | |
| 2 | VIDEO OUT | BNC connector for video output. NOTE CVBS output is not provided for DS-7100/7200HGHI-E1, DS-7200HGHI-E2, DS-7100/7200HGHI-F1, DS-7200HGHI-F2, DS-7100HQHI-F1/N and DS-7100HGHI-F1/N series DVR. | |
| 3 | AUDIO IN | RCA connector | |
| 4 | USB Port | Universal Serial Bus (USB) port for additional devices. | |
| 5 | HDMI1/VGA Simultaneous HDMI1/VGA output. Display video output and menu. | | |
| 6 | HDMI2 HDMI2 video output connector. | | |
| 7 | AUDIO OUT RCA connector. | | |
| 8 | Network Interface | etwork Interface Connector for network | |
| | RS-485 and Alarm Interface | Connector for RS-485 devices. T+ and T- pins connect to R+ and R- pins of PTZ receiver respectively. | |
| 9 | | D+, D- pin connects to Ta, Tb pin of controller. For cascading devices, the first DVR's D+, D- pin should be connected with the D+, D- pin of the next DVR. | |
| | | Connector for alarm input. | |
| | | Connector for alarm output. | |
| 10 | Power Supply | 100 to 240V AC power supply. | |

| No. | Item | Function Description | |
|-----|------------------|--|--|
| 11 | Power Switch | Switch for turning on/off the device. | |
| 12 | GND | Ground | |
| 13 | LINE IN | BNC connector for audio input. | |
| 14 | eSATA | Connects external SATA HDD, CD/DVD-RW. | |
| 15 | RS-232 Interface | Connector for RS-232 devices. | |

Rear Panel 3

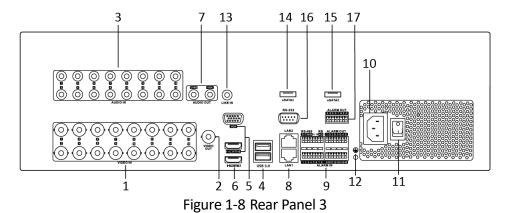


Table 1-7 Description of Rear Panel 3

| No. | Item | Description | |
|-----|-----------|--|--|
| 1 | VIDEO IN | BNC interface for TVI and analog video input. | |
| 2 | VIDEO OUT | BNC connector for video output. NOTE CVBS output is not provided by DS-7100/7200HGHI-E1, DS-7200HGHI-E2, DS-7100/7200HGHI-F1, DS-7200HGHI-F2, DS-7100HQHI-F1/N, and DS-7100HGHI-F1/N series DVR. | |
| 3 | AUDIO IN | BNC connector | |
| 4 | USB Port | Universal Serial Bus (USB) port for additional devices. | |
| 5 | HDMI1/VGA | Simultaneous HDMI1/VGA output. Display local video output and menu. | |

| 6 | HDMI2 | HDMI2 video output connector. | |
|----|--|---|--|
| 7 | AUDIO OUT | BNC connector. | |
| 8 | Network Interface | Connector for network | |
| | RS-485 and Alarm Interface | Connector for RS-485 devices. T+ and T- pins connect to R+ and R- pins of PTZ receiver respectively. | |
| 9 | | D+, D- pin connects to Ta, Tb pin of controller. For cascading devices, the first DVR's D+, D- pin should be connected with the D+, D- pin of the next DVR. | |
| | | Connector for alarm input. | |
| | | Connector for alarm output. | |
| 10 | Power Supply 100 to 240 VAC power supply. | | |
| 11 | Power Switch Switch for turning on/off the device. | | |
| 12 | GND Ground | | |
| 13 | LINE IN BNC connector for audio input. | | |
| 14 | eSATA 1 | Connects external SATA HDD, CD/DVD-RW. | |
| 15 | eSATA 2 | Connects external SATA HDD, CD/DVD-RW. | |
| 16 | RS-232 Interface | Connector for RS-232 devices. | |
| 17 | ALARM OUT | Connector for alarm output. | |

Chapter 2 Installation and Connections

2.1 DVR Installation

During installation of the DVR:

- Use brackets for rack mounting.
- Ensure ample room for audio and video cables.
- When routing cables, ensure that the bend radius of the cables are no less than five times than
 its diameter.
- Connect the alarm cable.
- Allow at least 2cm (≈0.75-inch) of space between racks mounted devices.
- Ensure the DVR is grounded.
- Environmental temperature should be within the range of -10 to +55° C, +14 to +131° F.
- Environmental humidity should be within the range of 10% to 90%.

2.2 Hard Disk Installation

Before you start

Before installing a hard disk drive (HDD), please make sure the power is disconnected from the DVR. A factory recommended HDD should be used for this installation.

One or two SATA hard disks can be installed depending on different models.

Tools Required: Screwdriver.



As the installation steps of HDD are similar among different models, here we take the steps of the DS-7200HQHI as the example.

Step 1 Remove the cover from the DVR by unfastening the screws on the back and side.





Figure 2-1 Fasten Hard Disk

Step 2 Connect one end of the data cable to the motherboard of DVR and the other end to the HDD.

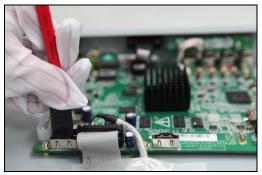




Figure 2-2 Insert Panel Key

Step 3 Connect the power cable to the HDD.

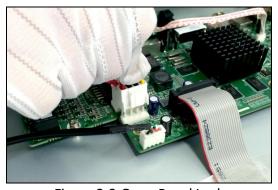


Figure 2-3 Open Panel Lock

Step 4 Place the HDD on the bottom of the device and then fasten the screws on the bottom to fix the HDD.

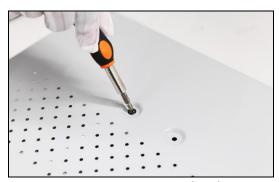


Figure 2-4 Insert Hard Disk

Step 5 Re-install the cover of the DVR and fasten screws.

2.3 RS-485 and Controller Connection

Typical Connection:

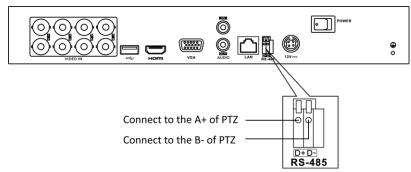


Figure 2-5 Controller Connection A

To connect PTZ to the DVR:

- Step 1 Disconnect pluggable block from the RS-485 terminal block.
- Step 2 Press and hold the orange part of the pluggable block; insert signal cables into slots and release the orange part. Ensure signal cables are in tight.
- Step 3 Connect A+ on PTZ to D+ on terminal block and B- on controller to D- on terminal block. Fasten stop screws.
- Step 4 Connect pluggable block back into terminal block.



Make sure both the controller and DVR are grounded.

2.4 HDD Storage Calculation Chart

The following chart shows an estimation of storage space used based on recording at one channel for an hour at a fixed bit rate.

| Bit Rate | Storage Used |
|----------|--------------|
| 96K | 42M |
| 128K | 56M |
| 160K | 70M |
| 192K | 84M |
| 224K | 98M |
| 256K | 112M |
| 320K | 140M |
| 384K | 168M |
| 448K | 196M |
| 512K | 225M |
| 640K | 281M |
| 768K | 337M |
| 896K | 393M |
| 1024K | 450M |
| 1280K | 562M |
| 1536K | 675M |
| 1792K | 787M |
| 2048K | 900M |
| 4096K | 1.76G |
| 8192K | 3.52G |
| 16384K | 7.03G |



Please note that supplied values for storage space used is just for reference. The storage values in the chart are estimated by formulas and may have some deviation from actual value.

Chapter 3 Menu Operation

3.1 Menu Structure



The menu structure varies according to different models.

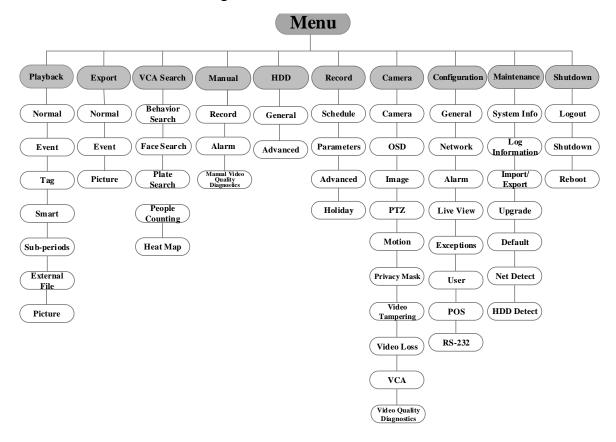


Figure 3-1 Menu Structure

3.2 Startup and Shutdown

Proper startup and shutdown procedures are crucial to expanding the life of the DVR.

To start your DVR:

Step 1 Check the power supply is plugged into an electrical outlet. It is HIGHLY recommended that an Uninterruptible Power Supply (UPS) be used in conjunction with the device. The Power button) on the front panel should be red, indicating the device is receiving the power.

Step 2 Press the POWER button on the front panel. The Power LED should turn blue. The unit will begin to start.

After the device starts up, the wizard will guide you through the initial settings, including modifying password, date and time settings, network settings, HDD initializing, and recording.

To shut down the DVR:

Step 1 Enter the Shutdown menu.

Menu > Shutdown



Figure 3-2 Shutdown

Step 2 Select the **Shutdown** button.

Step 3 Click the Yes button.

3.3 Activate Your Device

Purpose:

For the first-time access, you need to activate the device by setting an admin password. No operation is allowed before activation. You can also activate the device via Web Browser, SADP or client software.

Step 1 Enter the admin password twice.

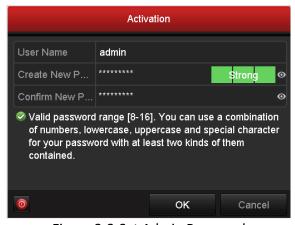


Figure 3-3 Set Admin Password



STRONG PASSWORD RECOMMENDED—We highly recommend you create a strong password of your own choosing (Using a minimum of 8 characters, including at least three of the following categories: upper case letters, lower case letters, numbers, and special characters.) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

Step 2 Enter the password to activate the IP camera(s) connected to the device.

Step 3 Optionally, check **Reserved E-mail Settings** for password resetting in the future.

Step 4 Click **OK** to save the password and activate the device.



• For the old version device, if you upgrade it to the new version, it requires to set a stronger password when the device starts up. Click **YES** and follow the wizard to set a strong password.



Figure 3-4 Warning of Weak Password

What to do next:

- When you have enabled Reserved E-mail Settings, continue to set the reserved email for the future password resetting.
- Export the GUID file to USB flash driver for the future password resetting.

3.4 Use the Unlock Pattern for Login

For the Admin user, you can configure the unlock pattern for device login.

After the device is activated, you can enter the following interface to configure the device unlock pattern.

Step 1 Use the mouse to draw a pattern among the 9 dots on the screen. Release the mouse when the pattern is done.



Figure 3-5 Draw the Pattern



- Connect at least 4 dots to draw the pattern.
- Each dot can be connected for once only.

Step 2 Draw the same pattern again to confirm it. When the two patterns match, the pattern is configured successfully.

Step 3 You can use the configured unlock pattern for future login.



Figure 3-6 Draw the Unlock Pattern

3.5 Login and Logout

3.5.1 User Login

Purpose:

If DVR has logged out, you must log in to the device before operating the menu and other functions.

Step 1 Select the User Name in the dropdown list.

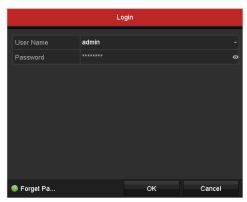


Figure 3-7 Login

Step 2 Input Password.

Step 3 Click **OK** to log in.



- Clear-text password is supported. Click the icon and you can see the clear text of the password. Click the icon again and the content of the password restores invisible.
- In the Login interface, for the admin, if you have entered the wrong password for 7 times, the account will be locked for 60 seconds. For the operator, if you have entered the wrong password for 5 times, the account will be locked for 60 seconds.



Figure 3-8 User Account Protection for the Admin



Figure 3-9 User Account Protection for the Operator

Step 4 (Optional) If you forget the password, click **Forget Password** to pop up the Import GUID interface.

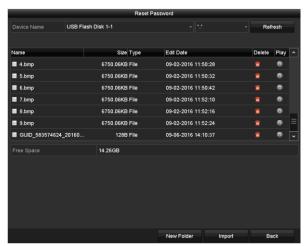


Figure 3-10 Import GUID

1) Select the GUID file from the USB flash disk and click **Import** button to pop up the Reset Password interface



Figure 3-11 Reset Password

- 2) Input the new password and confirm the password.
- 3) Click **OK** to save the new password. Then the Attention box pops up as shown below.



Figure 3-12 GUID File Imported

4) Click **OK** and the Attention box as below pops up to remind you to duplicate the password of the device to IP cameras that are connected with default protocol. Click **Yes** to duplicate the password or **No** to cancel it.



Figure 3-13 Duplicate the Password



- If you want to retrieve the password when you forget it, you must export the GUID file first.
- Once the password is reset, the GUID file becomes ineffective. You can export a new GUID file.

3.5.2 User Logout

Purpose:

After logging out, the monitor turns to the live view mode and if you want to perform any operations, you need to enter user name and password log in again.

Step 1 Enter the Shutdown menu.

Menu > Shutdown



Figure 3-14 Logout

Step 2 Click Logout.



After you have logged out the system, menu operation on the screen is invalid. It is required to input a user name and password to unlock the system.

3.6 Use the Setup Wizard

The Setup Wizard can walk you through some important settings of the device. By default, the Setup Wizard starts once the device has loaded.

Check the checkbox to enable Setup Wizard when device starts. Click **Next** to continue the setup wizard. Follow the guide of the Setup Wizard to configure the system resolution, system date/time, network settings, HDD management, record settings, etc.



Figure 3-15 Wizard

3.7 View Signal Input Status

Purpose

You can view or manage the signal input channel, type, and the connectable IP camera number. Disabling analog channel(s) would increase the connectable IP camera number. For certain models, you can configure 5MP long distance transmission.

Step 1 Go to Menu > Camera > Camera > Signal Input Status.

Step 2 View the analog signal input channels and types, and the connectable maximum IP camera number.



For DS-7300/8100/9000HUHI-F/N, DS-7300/8100HQHI-F/N, DS-7100/7200HGHI- F, and DS-7100/7200HGHI- F/N series DVR, you can manage the signal input type. If you disable analog channel(s), it would increase the connectable IP camera number.

- Step 3 (Optional) You can enable **5 MP Long Distance Transmission** for the Turbo HD and AHD signal input. Follow the steps below to enable the function.
 - 1) Click 🛎.



Figure 3-16 5 MP Long Distance Transmission Settings

- 2) Enable **5 MP Long Distance Transmission** for the selected channel(s).
- 3) Click **Apply** to save the settings.

NOTE

- 5MP long distance transmission is available for DS-7200HUHI-F/S series DVR.
- For -E series DVR, each two video channels are grouped in sequence, e.g., CH01 and CH02, CH03 and CH04...; and each two channels in the same group must be connected with the same type of video source (Turbo HD or CVBS).
- For -F series DVR, you do not need to configure the signal inputs. The analog signal inputs (Turbo HD, AHD, HDCVI, CVBS) and IP signal input can be recognized and connected automatically.
- For HQHI series DVR, the 3 MP signal can be accessed for the first channel of DVR with 4-ch video inputs, the first 2 channels of DVR with 8-ch video inputs and the first 4 channels of DVR with 16-ch video inputs.
- For all the -F series DVR, when Turbo HD, AHD, or HDCVI input is connected, the information including the resolution and frame rate (e.g., 720P25) will be overlaid on the bottom right corner of the live view for 5 seconds. When CVBS input is connected, the information such as NTSC or PAL will be overlaid on the bottom right corner of the live view for 5 seconds. When there is no video signal for the channel, the connectable video signal type message will not be displayed on the screen. When the unsupported signal input is connected, no video message is displayed on the screen. You can refer to the specifications for the supported resolution of the analog signal input types.

3.8 Network Settings

Purpose:

Network settings must be properly configured before you operate DVR over network.

Step 1 Enter the Network Settings interface.

Menu > Configuration > Network



Figure 3-17 Network Settings

Step 2 Select the **General** tab.

Step 3 In the General Settings interface, you can configure the following settings: Working Mode (applicable for DS-8100HQHI-F/N and DS-7300/8100/9000HUHI-F/N series), NIC Type, IPv4 Address, IPv4 Gateway, MTU and DNS Server.

Step 4 If the DHCP server is available, you can check the checkbox of **DHCP** to automatically obtain an IP address and other network settings from that server.

Step 5 After having configured the general settings, click the **Apply** button to save the settings.



- 2 self-adaptive 10M/100M/1000M network interfaces for DS-8100HQHI-F/N and DS-7300/8100/9000HUHI-F/N series. For DS-8100HQHI-F/N series, three working modes are configurable: multi-address, load balance, network fault tolerance. For DS-7300/8100/9000HUHI-F/N series, only multi-address and network fault tolerance are configurable. 1 self-adaptive 10M/100M/1000M network interface or 1 self-adaptive 10M/100Mbps network interface provided for other models.
- For -F series DVR, if DHCP is enabled, you can check the checkbox of Enable DNS DHCP or uncheck it and edit the Preferred DNS Server and Alternate DNS Server.

3.9 Add IP Cameras

Purpose

Before you can get live video or record the video files, you should add the network cameras to the connection list of the device.

Before you start

Ensure the network connection is valid and correct, and the IP camera to add has already been activated. Please refer to the *User Manual* for activating the inactive IP camera.

You can select one of the following three options to add the IP camera.

OPTION 1:

Step 1 Select the **Add IP Camera** option from the right-click menu in live view mode or click Menu> Camera> Camera to enter the IP camera management interface.

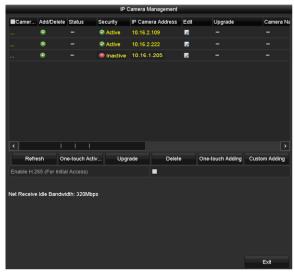


Figure 3-18 Add IP Camera

- Step 2 Select the IP camera from the list and click the button to add the camera (with the same admin password of the DVR's).
- Step 3 (Optional) Check the checkbox of **Enable H.265** (For Initial Access) for the connected IP camera supporting H.265. Then the IP camera will be encoded with H.265.



Enable H.265 option is only applicable to DS-7300/8100/9000HUHI-F/N series DVR.

OPTION 2:

Step 1 Click the **Custom Adding** button to pop up the Add IP Camera (Custom) interface.

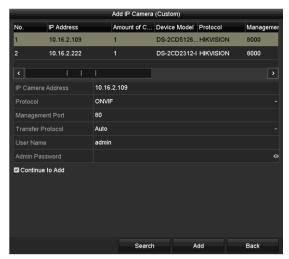


Figure 3-19 Add IP Camera

Step 2 Select the detected IP camera and click the Add button to add it directly, and you can click the **Search** button to refresh the online IP camera manually.

OPTION 3:

You can choose to custom add the IP camera by editing the parameters in the corresponding text field and then click the Add button to add it.



For the -F series DVR, IP camera of 4K resolution can be added, such as 4K bullet camera and PanoVu series camera.

3.10 Live View

Icons are provided on screen in Live View mode to indicate camera status. These icons include:

Live View Icons

In the live view mode, there are icons at the upper-right corner of the screen for each channel, showing the status of the record and alarm in the channel for quick reference.



Alarm (video loss, tampering, motion detection, VCA or sensor alarm)



Record (manual record, continuous record, motion detection, VCA or alarm triggered record)



Event/Exception (event and exception information, appears at the lower-left corner of the screen.)

3.11 Recording Settings

Before you start

Make sure that the disk has already been installed. If not, please install a disk and initialize it. You may refer to the user manual for detailed information.

Purpose

Two kinds of record types are introduced in the following section, including Instant Record and All-day Record. And for other record types, you may refer to the user manual for detailed information.



After rebooting all the manual records enabled are canceled.

Step 1 On the live view window, right lick the window and move the cursor to the **Start Recording** option, and select **Continuous Record** or **Motion Detection Record** on your demand.

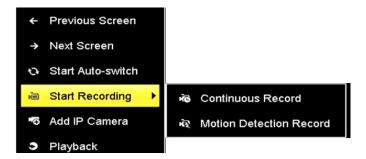


Figure 3-20 Start Recording from Right-click Menu

Step 2 Click the **Yes** button in the pop-up Attention message box to confirm the settings. All the channels will start to record in the selected mode.

3.12 Playback

The recorded video files and pictures on the hard disk can be played back in the following modes: instant playback, all-day playback for the specified channel, and playback by normal/event/smart/tag/system logs/sub-periods/external file search/picture.

Step 1 Enter playback interface.

Menu > Playback

Or select **Playback** from the right-click menu.

- Step 2 Check the checkbox of channel(s) in the channel list and then double-click to select a date on the calendar.
- Step 3 (Optional) Use the toolbar in the bottom part of Playback interface to control playing progress.



Figure 3-21 Playback Interface

INOTE

- The POS overlay function is only supported by DS-7300/8100HQHI-F/N and DS-7300/8100/9000HUHI-F/N series DVR. When the POS is enabled in playback, the POS information will be overlaid on the video.
- For DS-7200HUHI-F/S series DVR, you can click to show the VCA information in the smart playback. Then the configured line or quadrilateral in VCA configuration and target frame(s) will be shown on the playback interface. Click to hide the VCA information.

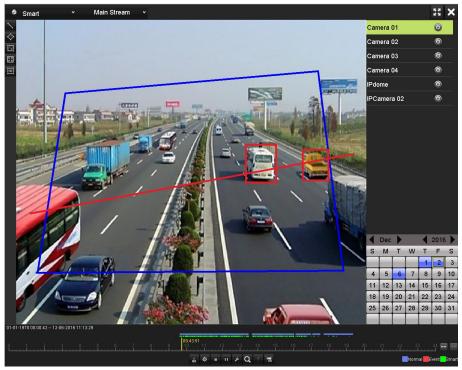


Figure 3-22 Show VCA Information in Smart Playback

Step 4 (Optional) Select the channel(s) to execute simultaneous playback of multiple channels.

Chapter 4 Access by Web Browser



You shall acknowledge that the use of the product with Internet access might be under network security risks. For avoidance of any network attacks and information leakage, please strengthen your own protection. If the product does not work properly, please contact with your dealer or the nearest service center.

Purpose

You can get access to the device via web browser. You may use one of the following listed web browsers: Internet Explorer 6.0, Internet Explorer 7.0, Internet Explorer 8.0, Internet Explorer 9.0, Internet Explorer 10.0, Apple Safari, Mozilla Firefox, and Google Chrome. The supported resolutions include 1024*768 and above.

Step 1 Open web browser, input the IP address of the device and then press Enter.

Step 2 Login to the device.

• If the device has not been activated, you need to activate the device first before login.

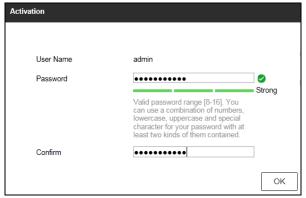


Figure 4-1 Set Admin Password

- 1) Set the password for the admin user account.
- 2) Click **OK** to login to the device.



STRONG PASSWORD RECOMMENDED—We highly recommend you create a strong password of your own choosing (Using a minimum of 8 characters, including at least three of the following categories: upper case letters, lower case letters, numbers, and special characters.) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

• If the device is already activated, enter the user name and password in the login interface, and click the **Login** button.



Figure 4-2 Login

Step 3 Install the plug-in before viewing the live video and managing the camera. Please follow the installation prompts to install the plug-in.



You may have to close the web browser to finish the installation of the plug-in.

After login, you can perform the operation and configuration of the device, including the live view, playback, log search, configuration, etc.

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