

Conference Auto Tracking Recorder

BR-CRS02 / 03 / 04-B

BRONX SYSTEMS INDIA PVT. LTD. • www.bronx.co.in



Safety Information & Important Notes

THE MEANING OF SYMBOLS

For safe and correct use of the equipment, symbols throughout this manual flag risks of injury or damage to property. Please understand these indications before proceeding.



General hazard warning: may cause radio interference in the living environment. If this occurs, take feasible measures to work around the interference.



Warns that dangerous, uninsulated voltage inside the equipment may cause electric shock.



Caution: to avoid electric shock, do not open the equipment cover and do not place foreign objects inside the enclosure. Contact qualified service personnel.

IMPORTANT NOTES

INSTALLATION

- Do not install in locations with dust, soot, conductive dust, corrosive or combustible gas, high temperature, condensation, wind, rain, vibration or impact.
- Keep metal scraps and wire off-cuts out of the chassis when drilling or wiring — they can cause fire or malfunction.
- Keep the ventilation face clear of packaging or debris after installation to maintain cooling airflow.
- Never wire or insert cable plugs while the unit is powered — disconnect all external power first.
- Use shielded cable for high-frequency signal input/output where interference is a concern.

WIRING, OPERATION & MAINTENANCE

- This product is grounded via its grounding wire — confirm correct grounding before connecting inputs or outputs.
- Cover all terminals before powering on; do not touch terminals while the unit is live.
- Perform cleaning, terminal tightening, and communication/expansion/control cable connection or removal only with the power supply switched off.
- Do not disassemble the equipment or attempt to service internal components yourself.
- Read this manual fully and confirm safety before making program changes, commissioning, or starting/stopping operation.

DISPOSAL

- Electrolytic capacitors on the circuit board may explode if burned — do not incinerate.
- Dispose of as industrial waste, or in accordance with local environmental protection regulations; do not discard with household waste.

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PREFACE

This manual describes the use, performance parameters and troubleshooting of the BR-CRS02/03/04-B Conference Auto Tracking Recorder. If the technical parameters or system usage described in this manual change, Bronx Systems will issue an updated version — please refer to the latest edition.

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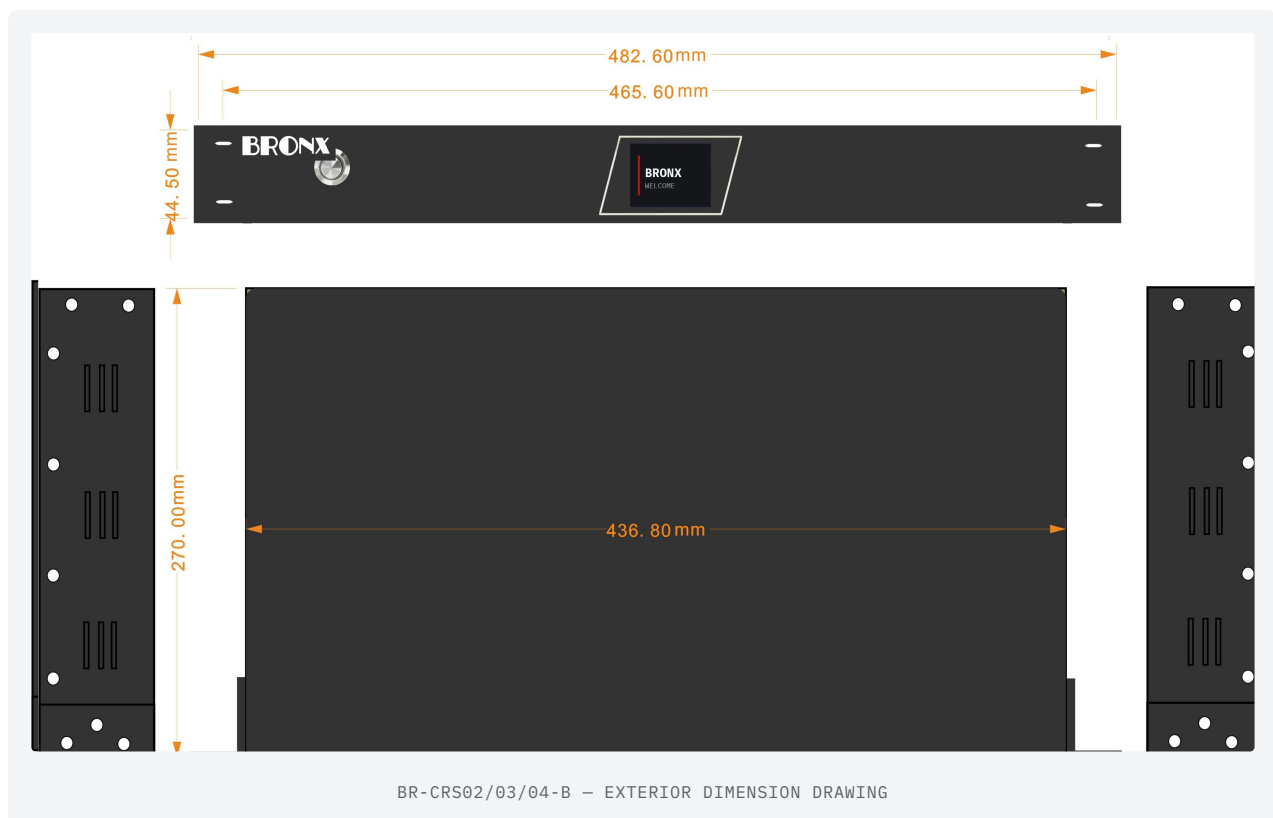
Version	1.0
Date	2023.10.21

1 Product Description

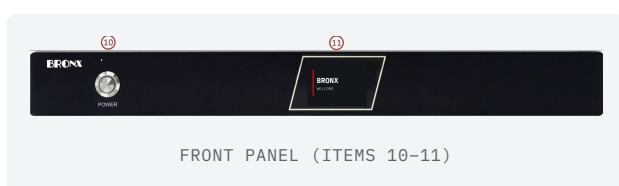
The BR-CRS02/03/04-B is a conference recording and broadcasting appliance that integrates conference recording, live streaming, on-demand playback, intelligent guide switching and storage in a single embedded hardware platform. The device adopts H.264/H.265 encoding, with 2, 3 or 4 HDMI video input interfaces depending on model, supporting 1080P@60fps image input. A total of 2 video output interfaces (HDMI and VGA) provide multi-channel screen output for playback systems and can serve as an image source for other systems, such as video conferencing. The system supports simultaneous recording and live broadcast in both movie mode and resource mode, with picture-in-picture and 1/2/3/4-way split-screen display and recording. Users can connect a mouse, monitor and guide desk locally for guide, recording and broadcasting operations, or log in remotely over the network for remote guide operation.

PRODUCT FEATURES

- Pure embedded hardware and software architecture — stable and reliable.
- Video capture, recording and output all support 1920×1080 resolution.
- H.264 advanced video compression technology.
- Supports up to 4-channel 1080P synchronous video capture and recording, with 2-channel 1080P synchronous video output.



Front and rear panel interface definitions:



NO.	INTERFACE	DESCRIPTION
1	DC-12V	Power connector
2	RS-232 / RS-485	Control serial port; connects an external central-control unit or console
3	USB 2.0	Connect a USB mouse, USB flash drive, removable hard drive, etc.
4	NET	1000M network port for device networking
5	HDMI OUT	1080P60 signal output; carries the guide interface or PGM feed (software-selectable)
6	VGA OUT	1080P60 signal output; carries the guide interface or PGM feed (software-selectable)
7	HDMI IN 1-4	1080P60 signal input; supports up to 4-way simultaneous video input (2/3/4 channels by model)
8	Line In / Mic In / Line Out 1 / Line Out 2	Line In: unbalanced audio input · Mic In: balanced audio input · Line Out 1 / Line Out 2: unbalanced audio outputs
9	Monitor	3.5mm headphone monitor jack for PGM channel sound
10	Power	Equipment power switch
11	LCD Screen	Displays recording status, channel status, network information, storage space and logo

2 Commissioning of the Recorder

PREPARATION BEFORE COMMISSIONING

Before installing and commissioning the recording host, please prepare the following:

- A network cable and switch (a hub can also be used, but a switch is recommended to keep network traffic flowing smoothly).
- 1× power cord, 5× HDMI cables, 1× VGA cable, and audio input/output cables (Line-In, Mic-In, Line-Out, monitor headphones) for the recording host.
- An external HD monitor with an HDMI interface, at 1920×1080 resolution.
- A laptop and a number of HDMI-connected cameras to use as input sources.

WIRE CONNECTIONS FOR COMMISSIONING

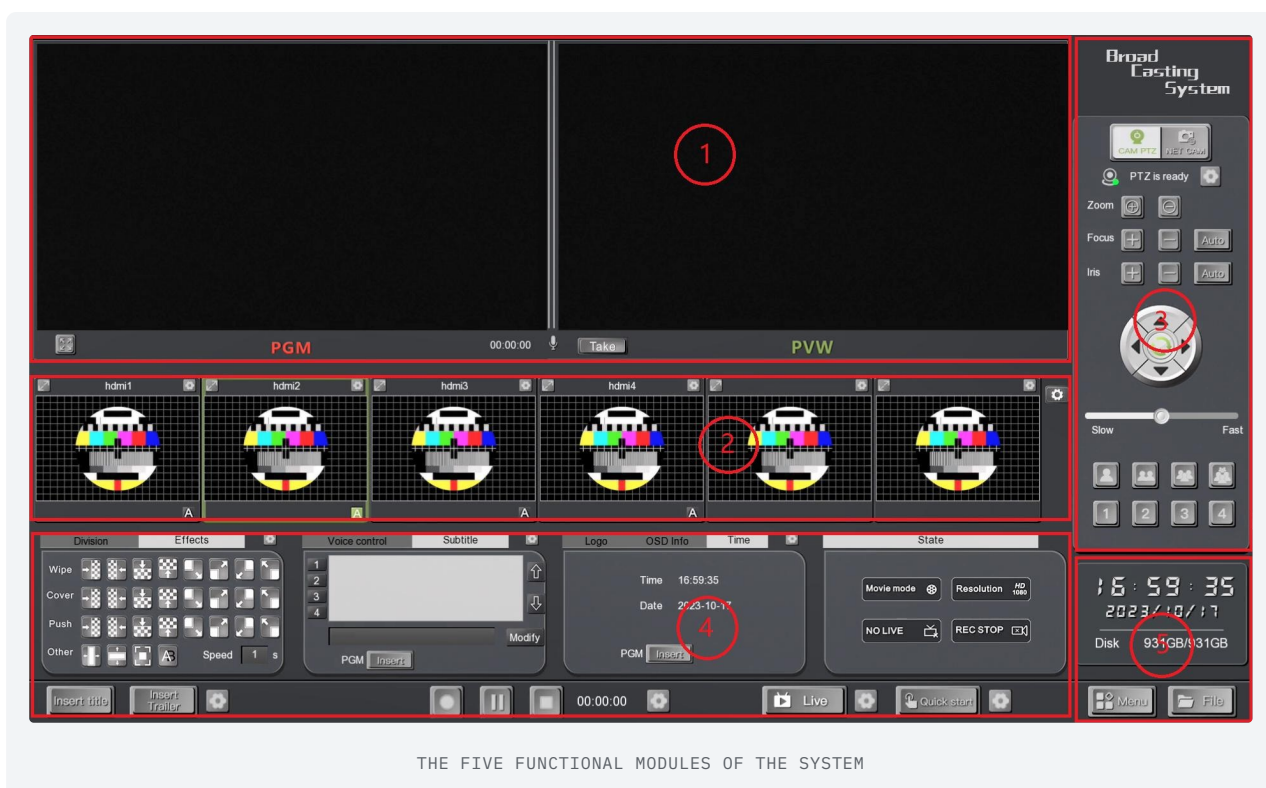
- Connect the HDMI video signal cable(s), VGA video signal cable, audio signal cables, network cable, RS-232/RS-485 control cable, power cord and USB mouse to their corresponding interfaces, making the correct audio/video input and output connections.
- Once the recording host is correctly connected to power, press the power switch on the front panel to start it. After power-on, allow about 30 seconds for the host to reach the guide interface.

TIP The HDMI-OUT and VGA-OUT interfaces carry the recording host's own system (guide) interface. A USB mouse and keyboard can be connected to the host's USB interface for direct operation. The recording host ships with a static IP address of 192.168.100.53.

3 Functions of the Controller and Operating Instructions

The system is organized into five functional modules: the monitoring interface, video channel panel, PTZ control panel, guide (navigator) function panel, and system function settings.

- Live/Pre-monitoring Panel — Movie-mode final recording, pre-monitoring and live-effects interface (PGM, PVW).
- Resource Channel Panel — Displays the input video channels.
- PTZ Control Panel — Manual control interface for PTZ cameras.
- Navigator Function Panel — Toggles effects, subtitles, corner markers, OSD information, guide-mode switching, recording and other functions.
- System Menu Panel — Accesses secondary menus such as System Settings and File Management, and shows time and hard-disk capacity.



3.1 Main Interface

3.1.1 USER INTERFACE

After the power cable is connected, press the power button on the host's front panel. The HD monitor connected to HDMI-OUT or VGA-OUT will display the recording and broadcasting boot logo interface.

TIP The boot logo can be customized under System Settings → System Information → Project Settings. The logo image must be JPG format, 1024×768 resolution, 72dpi, 24-bit depth, and no larger than 128KB. The on-screen interface logo must be GIF format, 200×100 resolution, 72dpi, 24-bit depth. The logo file name must use Latin characters only — no non-Latin script or special symbols.

4 Specification Parameter

Model Number	BR-CRS02/03/04-B
System Architecture	Embedded Linux system
Video Input	2 / 3 / 4 HDMI inputs (by model)
Video Output	1× HDMI, 1× VGA
Max. Input Resolution	1080P @ 60fps
Audio Input	2× Line In, 3-pin Phoenix terminal connector
Audio Output	2× Line Out, 3-pin Phoenix terminal connector · 1× monitor jack, 3.5mm headphone jack
Video Encoding	H.264 / H.265
Audio Encoding	AAC
Video Output Format	MP4
Video Frame Rate	1–30 fps
Video Bitrate	500Kbps – 40Mbps, adjustable
Audio Bitrate	8–128Kbps, adjustable
Data Storage	Built-in 1TB hard drive; supports expansion
RS-485	3 sets, 3-pin Phoenix terminal connector
RS-232	1 set, 3-pin Phoenix terminal connector
Network	1× 1000M network port, RJ-45
USB Port	2× USB 2.0
Software Upgrade	Supports network upgrade
Storage Mode	Built-in hard drive, external USB storage (USB export), FTP download
Protocol Support	RTMP, RTSP, UDP, TCP, FTP, DHCP, HTTP
Operating Power	DC 12V / 3A
Equipment Size	1U rackmount

4.1.1 MAIN INTERFACE

After the logo screen displays for about 20 seconds, the system enters the recorder's main interface. A welcome message, "Welcome to Embedded Recording, the system is loading," is shown while loading; once loading completes, the main interface becomes operable.

4.2 Monitoring Interface

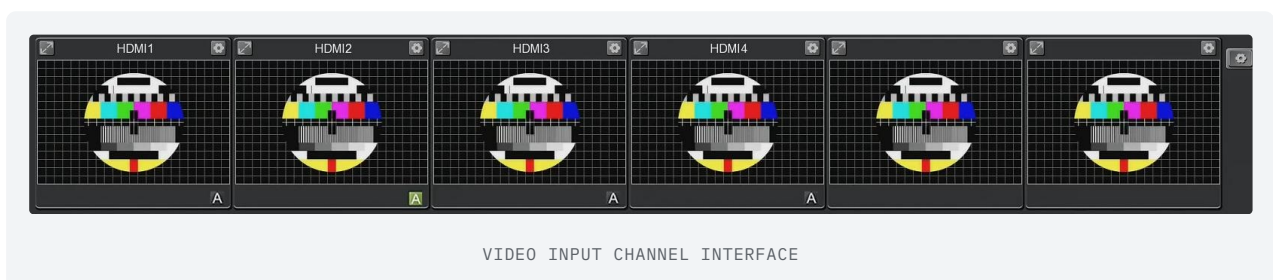
The monitoring interface mainly contains PGM and PVW channels in single-guide mode, plus an audio display bar.



- Single-guide mode is movie mode. It supports mainstream screen overlays and combinations: picture-in-picture, dialogue mode, and 2/3/4/6-way split screen, and contains a live screen (PGM) and a preview screen (PVW).
- Single-guide mode only supports automatic PGM-channel switching during auto-guide.
- The audio display bar sits between the PGM and PVW channels and shows two thin level meters that track input sound level; tapping the speaker icon resizes, mutes or unmutes the PGM channel's output to external speakers.
- Double-clicking a PVW preview image jumps it to PGM, overwriting the previous PGM content. For example, if PVW is a 2-way split and PGM a 4-way split, double-clicking PVW cuts the 2-way split into PGM, replacing the 4-way split. Both PVW and PGM support multi-screen combination: select the channel, choose a split type, then assign each input's position.
- In single-guide mode, the PVW window has a Take button (a hard cut): double-click a resource channel to send it to PVW, then press Take to cut that PVW image to PGM. Double-clicking a resource channel sends it directly to PGM instead.

4.3 Video Input Channel

Video input channels are organized into three groups: local video display channels, the local playback channel, and remote video display channels. Each host's resource channel strip shows its local input channels first — “HDMI1” corresponds to the rear-panel HDMI-IN1 interface, “HDMI2” to HDMI-IN2, “HDMI3” to HDMI-IN3, and “HDMI4” to HDMI-IN4.

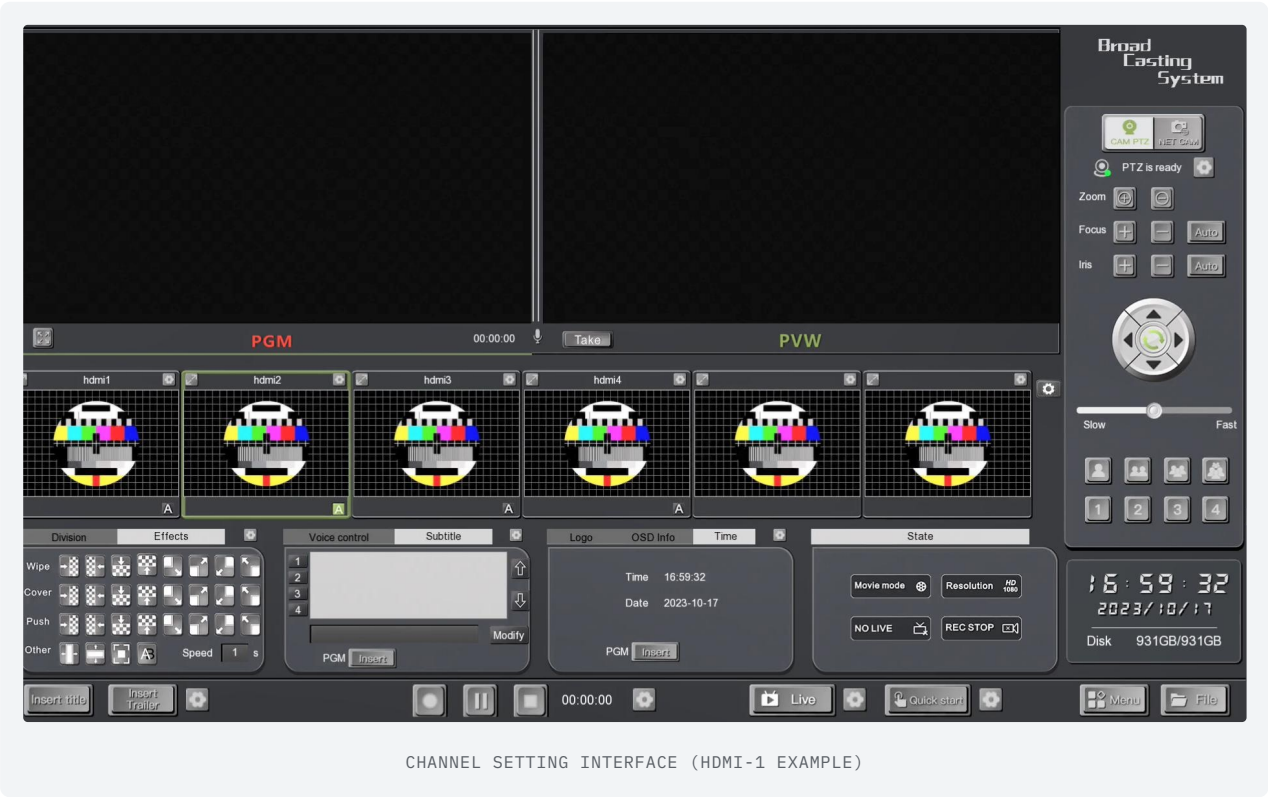


4.3.1 CHANNEL INTERFACE

- Channel Full Screen — each channel has a maximise button in its top-left corner; clicking it enlarges that video to fill the main interface.
- Channel Name — factory defaults are HDMI-IN1 through HDMI-IN4 for channels 1–4. Names can be changed in channel settings, though this is not generally recommended.
- PTZ-Enabled Channels — if a channel is connected to a PTZ-capable camera, tick Enable PTZ in that channel's settings, then click the channel's green border to select it before operating PTZ from the guide interface. By default, “Teacher Close-up” and “Student Close-up” have PTZ enabled.

4.3.2 CHANNEL SETTINGS

Each video channel has a settings dialog covering five areas: channel settings, PTZ settings, image settings, encoding settings, and keying.



4.3.2.1 CHANNEL SETTINGS

Channel Name	Supports Latin and non-Latin script; up to 6 characters are shown on the main interface.
Video Source	The hardware input interface, e.g. HDMI for a feed entering via HDMI-IN1.
Video Format	Input display format and frame rate, e.g. 1080P25 = 1080p HD at 25fps.
Display Mode	Aspect ratio or full-screen display; adjust if the channel's PGM image isn't shown full screen.
Input Source	For HDMI-IN channels this is fixed to HDMI.

4.3.2.2 HEAD SETUP (PTZ)

← HDMI-1

Monitor

C1

PTZ

Video Format

1920x1080p25

Picture

Channel

hdmi1

Codec

Auto Switch

A-1

Matting

Disp Mode

Ratio

OK

Source

HDMI-1

Rtsp Main Stream addr

rtsp://192.168.100.53/live/ch04_0

Rtsp Sub Stream addr

rtsp://192.168.100.53/live/ch04_1

CHANNEL – HEAD (PTZ) SETTING

Enable Cloud Platform	Turns on PTZ function for the channel.
Camera Type	Electronic gimbal camera, gimbal camera, or optical zoom camera.
PTZ Protocol	VISCA, PELCO-P or PELCO-D.
Gimbal Address Code	Must match the camera's configured PTZ address. Default is 1 for Teacher Close-up and 2 for Student Close-up.
Speed	PTZ rotation speed (fast/slow).
Control Method	Network control (camera IP + port, default 192.168.100.088 : 1259) or serial-port control (RS-485/RS-232, mapped to the matching RJ45 port).
Baud Rate	2400 / 4800 / 9600, matched to the camera; 9600 is the common default and usually needs no change.
Preset Position	8 selectable presets, plus dedicated big close-up (11), close-up (12), near (13), medium (14) and far (15) positions. Save the camera position to a preset, then recall it during operation.

TIP The PTZ protocol and address code set in the channel must match the camera's own configuration before PTZ will respond. The host must be in manual guide mode to control PTZ from the setup menu or main interface, and the target channel must be selected on the resource strip before the PTZ control buttons will respond.

4.3.2.3 IMAGE SETTINGS



← Picture

Brightness 32

Contrast 8

Chroma. 4

Satura. 50

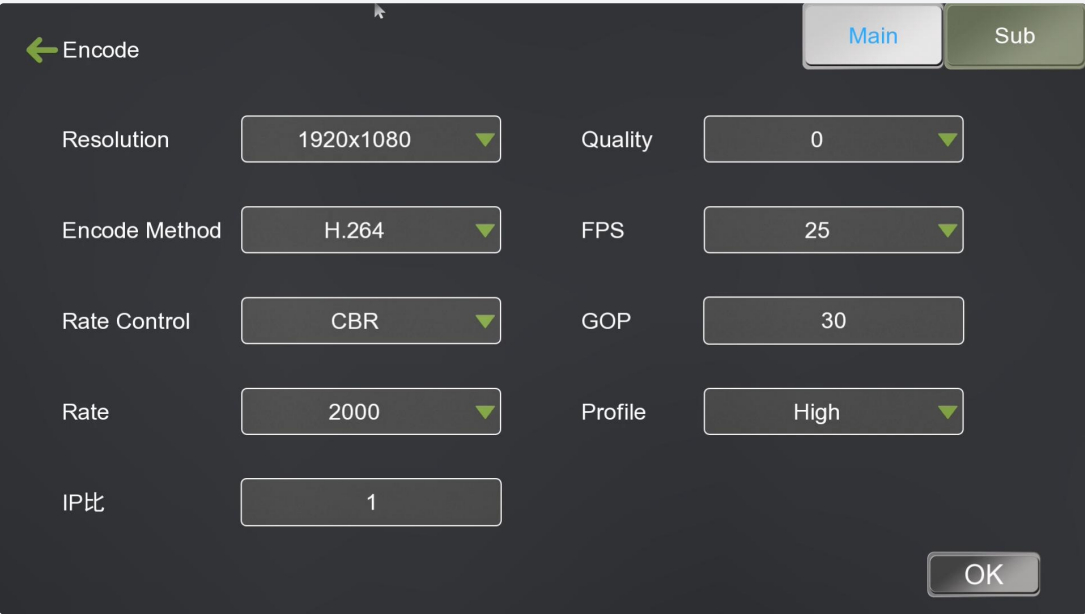
Sharpness 0

Noise Red. 8

IMAGE (PICTURE) SETTINGS

Sets brightness, contrast, chroma and saturation for the channel's video image. Image quality depends mainly on the camera itself, so these settings normally need no adjustment.

4.3.2.4 CODE SETTING



← Encode

Main Sub

Resolution 1920x1080

Encode Method H.264

Rate Control CBR

Rate 2000

IP比 1

Quality 0

FPS 25

GOP 30

Profile High

OK

CODE (ENCODING) SETTING

Resolution	Main stream: 1920×1080, 1600×900, 1280×720 or 960×540. Sub stream: 1280×720, 960×540, 640×360, 480×270, 720×576 or 352×288.
Encoding Method	H.264 compression for recording and broadcasting.
Code Rate	Adjustable 50Kbps–40Mbps; default main stream 4000Kbps, sub stream 400Kbps.
Image Quality	0–5, with 0 the best image quality.
Frame Rate	4–30fps adjustable; default 25fps.
I-Frame Interval	Default 30 seconds.

4.4 PTZ Control

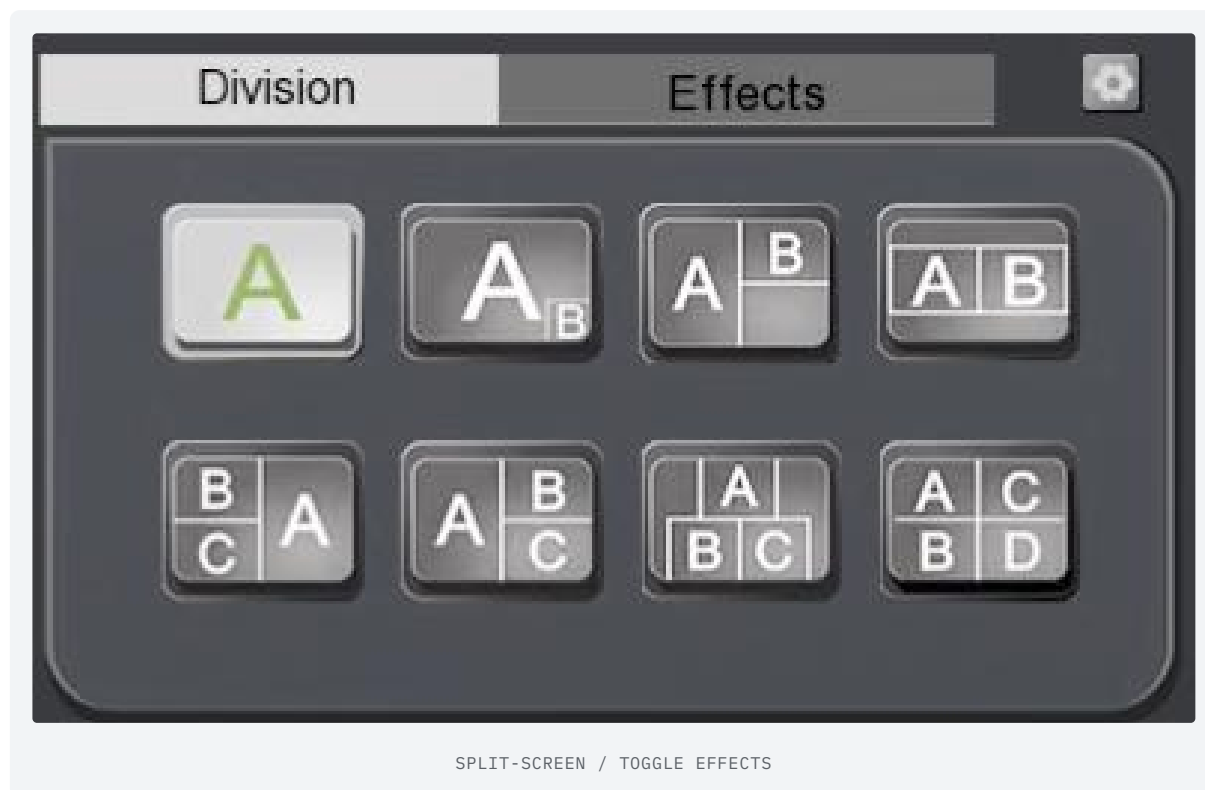


The gimbal controls here work the same as those in channel settings: the directional buttons pan/tilt the camera; Zoom +/- zoom out/in; Focus +/- focus far/near; Iris +/- open/close the aperture. Switch between preset points 11 (big close-up), 13 (near), 14 (medium) and 15 (far) that were configured in channel head setup.

4.5 Guide Function

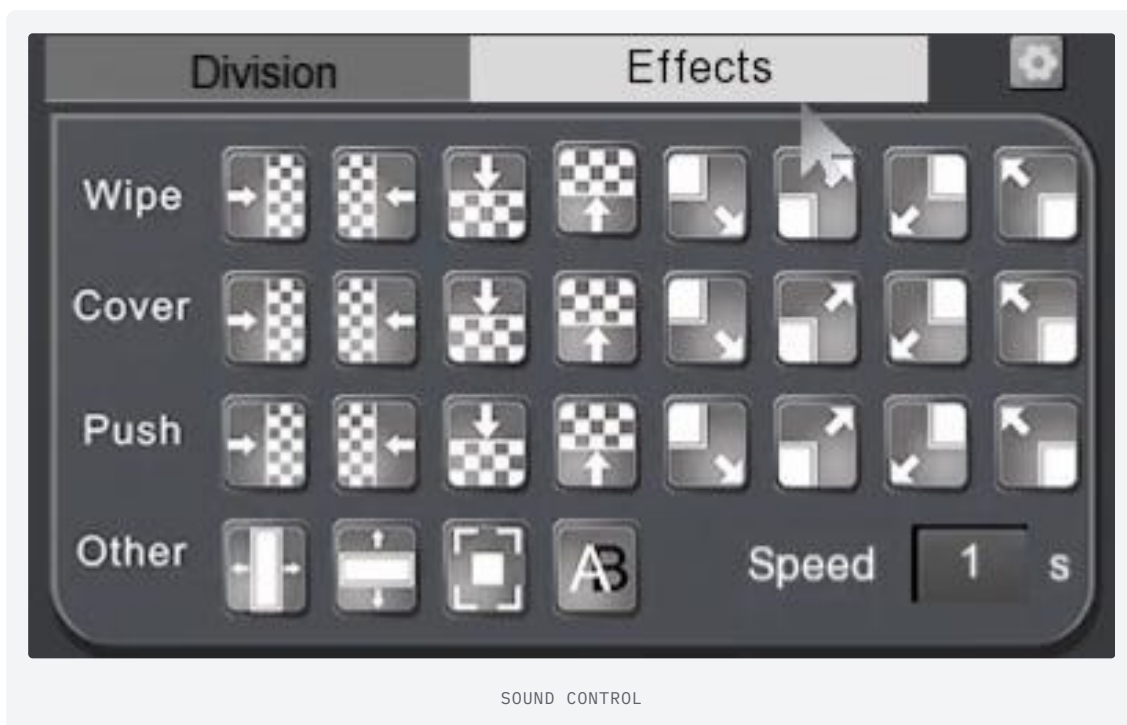
The guide function interface covers: 1) screen split/switching effects, 2) sound control/subtitles, 3) station label/OSD information/time, 4) host working status, 5) opening/closing video credits, 6) recording settings, 7) push-stream settings, and 8) one-touch start.

4.5.1 SCREEN SPLIT / SWITCHING EFFECTS



- Split Screen — choose a split type for PGM and PVW independently. Eight types are available: single screen, two-way picture-in-picture, two-way diagonal combination, two-way dialogue mode, three-way split, four-way split, and more.
- Toggle Effects — switching transitions grouped as Wipe, Cover, Push, and Other (shutters, dissolve, fade in/out). Each supports 8 directions (up/down, left/right, 4 diagonals). Speed sets transition speed — higher values are slower.

4.5.2 SOUND CONTROL / SUBTITLES



Input Volume / Output Volume sliders adjust input and output sound level. Sound control also mutes/unmutes audio during PGM push-stream or PGM recording via the speaker icon.



Edit subtitle text in the list, with presets for font case, background colour, font colour, and soft/hard subtitle style. Select a subtitle and click PVW Insert to preview it, then PGM Insert to publish to the live PGM feed. The button changes to Cancel once inserted. Only one subtitle line shows at a time; a newly published subtitle replaces the previous one.

4.5.3 STATION LABEL / OSD INFORMATION / TIME



Up to 4 corner logos can be inserted into PGM/PVW (single-guide mode) at the four corners, selected via buttons 1–4. Position and the logo image itself are both customizable from the settings icon; the logo format is PNG, with 200×100 recommended for best results.



OSD information is mainly course metadata — course name, teacher name, and class time — displayed at the lower right of the screen once inserted. Font case, colour and background colour are adjustable the same way as the corner-logo settings.



Real-time clock can be inserted directly into the single-guide-mode PGM channel.

4.5.4 MAINFRAME WORKING STATUS



Shown in movie mode: once a push-stream starts successfully and PGM is recording, red "Live" and "Recording" status labels are displayed.

4.5.5 BEGINNING AND ENDING OF VIDEO

← Prologue&Epilogue

Prologue Duration Sec

Epilogue Duration Sec

OPENING / CLOSING VIDEO SELECTION

Select the opening and closing video files (MP4 format) from the local hard drive or an external USB drive. After saving, tap Insert Title File to play the opening clip on the live PGM screen, and Insert Credits File to play the closing clip as the broadcast wraps up.

TIP External MP4 files must be H.264 video with AAC two-channel stereo audio, a 44.1KB sample rate, and a resolution no greater than 1920×1080 to play correctly.

4.5.6 VIDEO SETTINGS

← Video Strategy

Auto Rec ☐ PGM ☐ RES

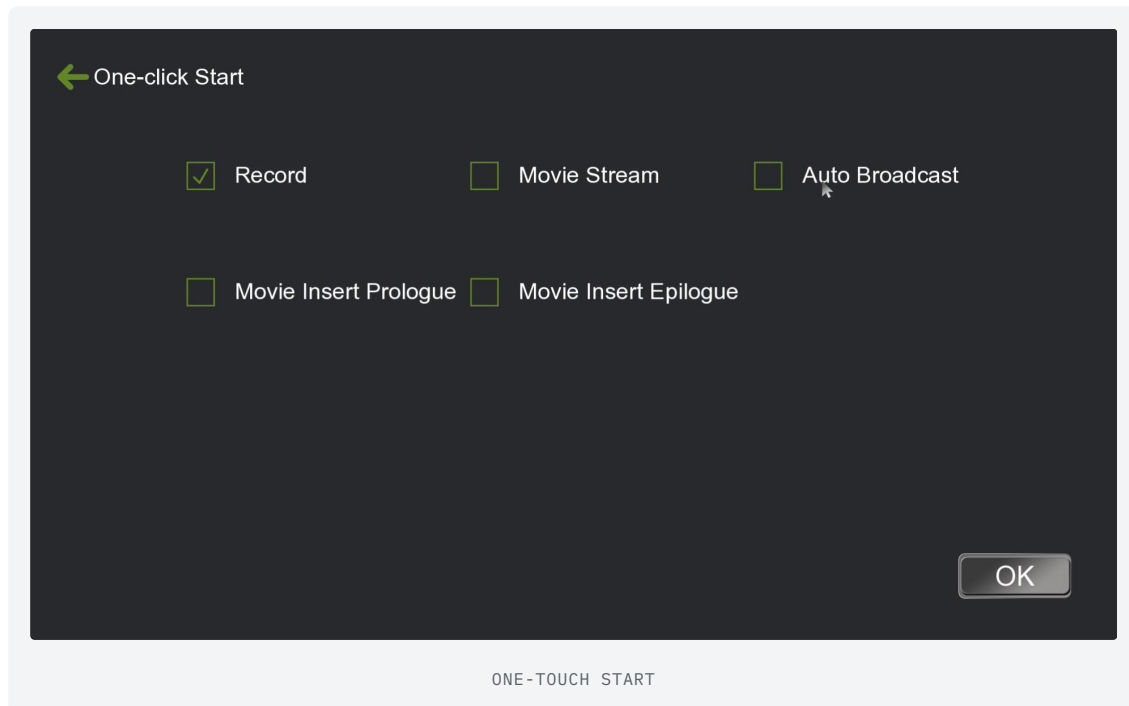
Files Split ☒ (5-240)Minute

Video Format

VIDEO SETTINGS / STRATEGY

Select the resource and live channels to record, set the recording file split length, and start, pause or stop recording from here.

4.5.7 ONE-TOUCH START

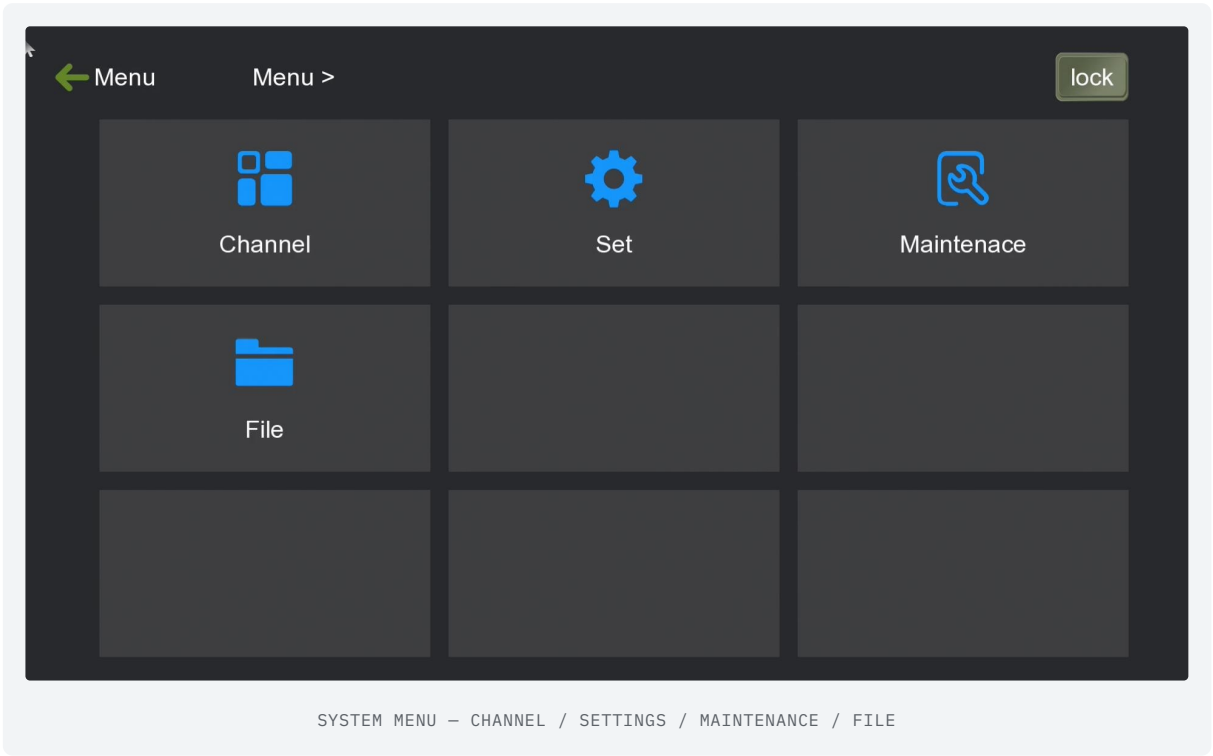


A quick-access button that triggers a pre-configured combination of actions — e.g. starting movie-mode recording, push-streaming, and auto-guide together — set up under Recording and Broadcasting Settings → One-Click Start.

4.6 System Function

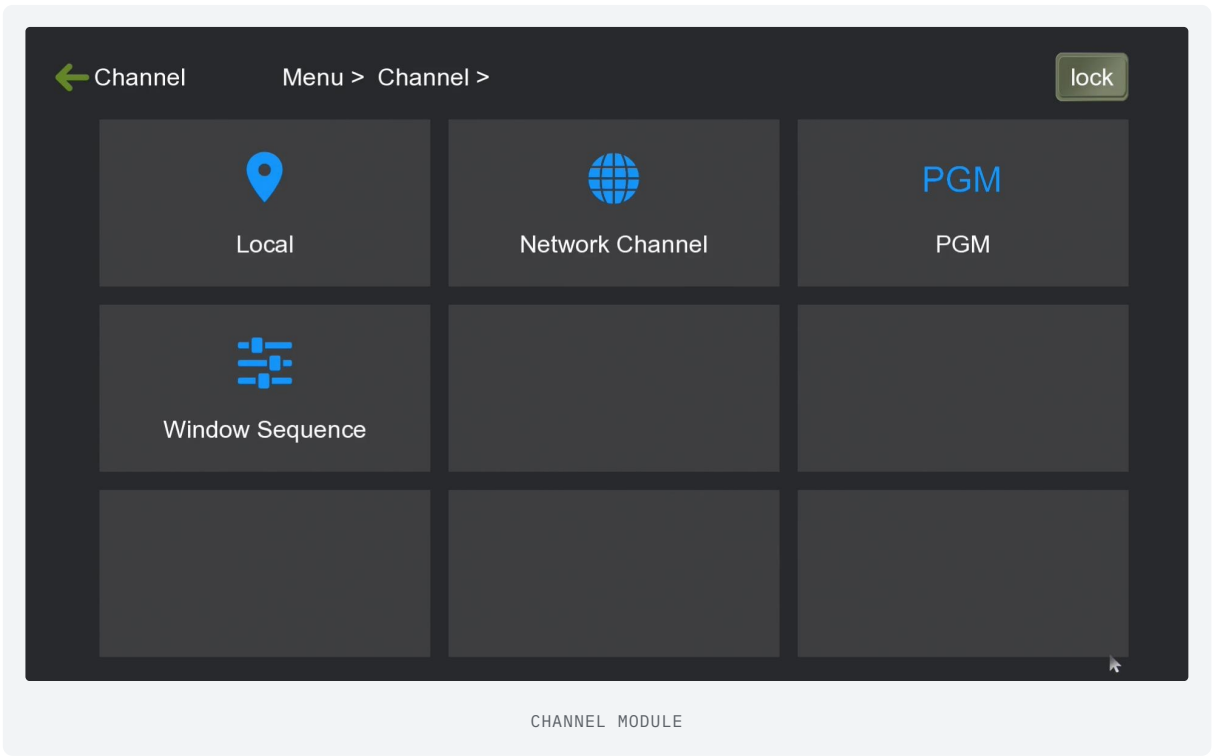
System function settings are organized into two major blocks: the system menu, and document (file) management.

4.6.1 SYSTEM MENU



The system menu is divided into six main modules: Channel, Settings, Maintenance and File Manager, among others.

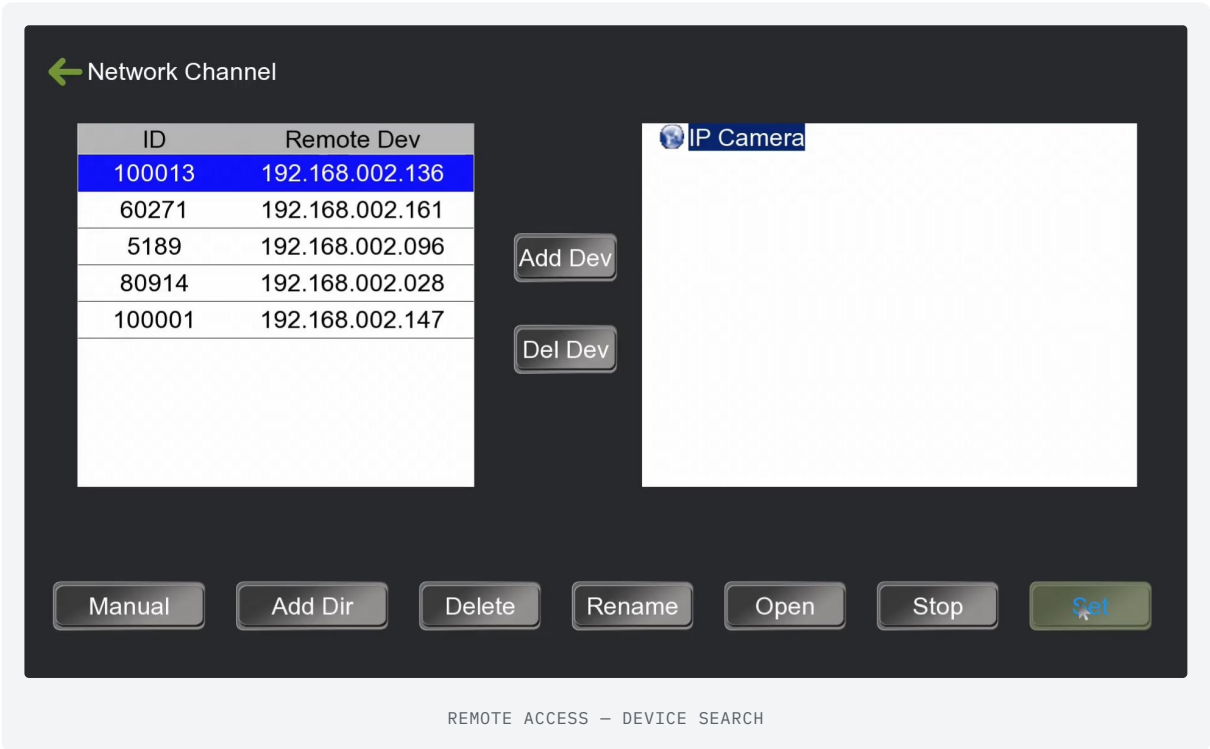
4.6.2 CHANNEL



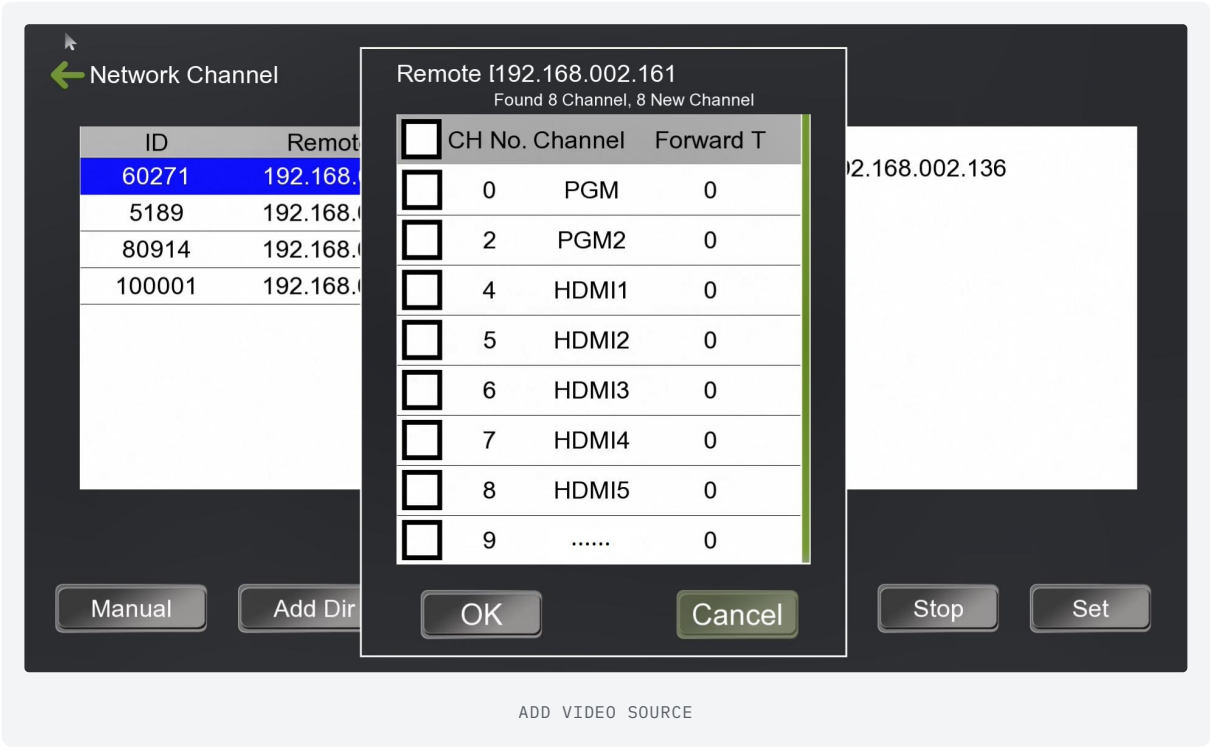
Local Channel sets the image parameters, PTZ parameters and encoding parameters of each input channel.

4.6.2.1 REMOTE ACCESS

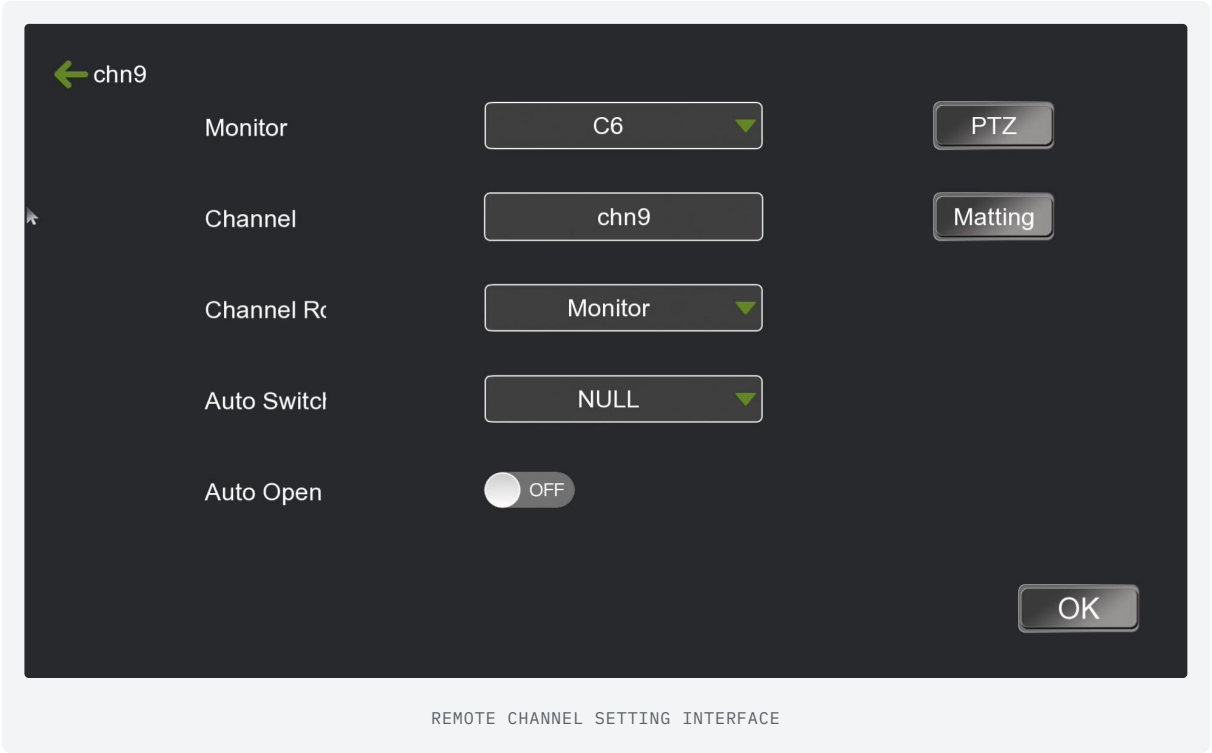
Automatically searches for other recording hosts on the LAN and lets you add their channels as remote video sources.



When multiple recording hosts share a LAN, the left panel lists them automatically. Select a host and tap Move In; a pop-up lists all of that host's channels — tick the ones you need and tap OK.

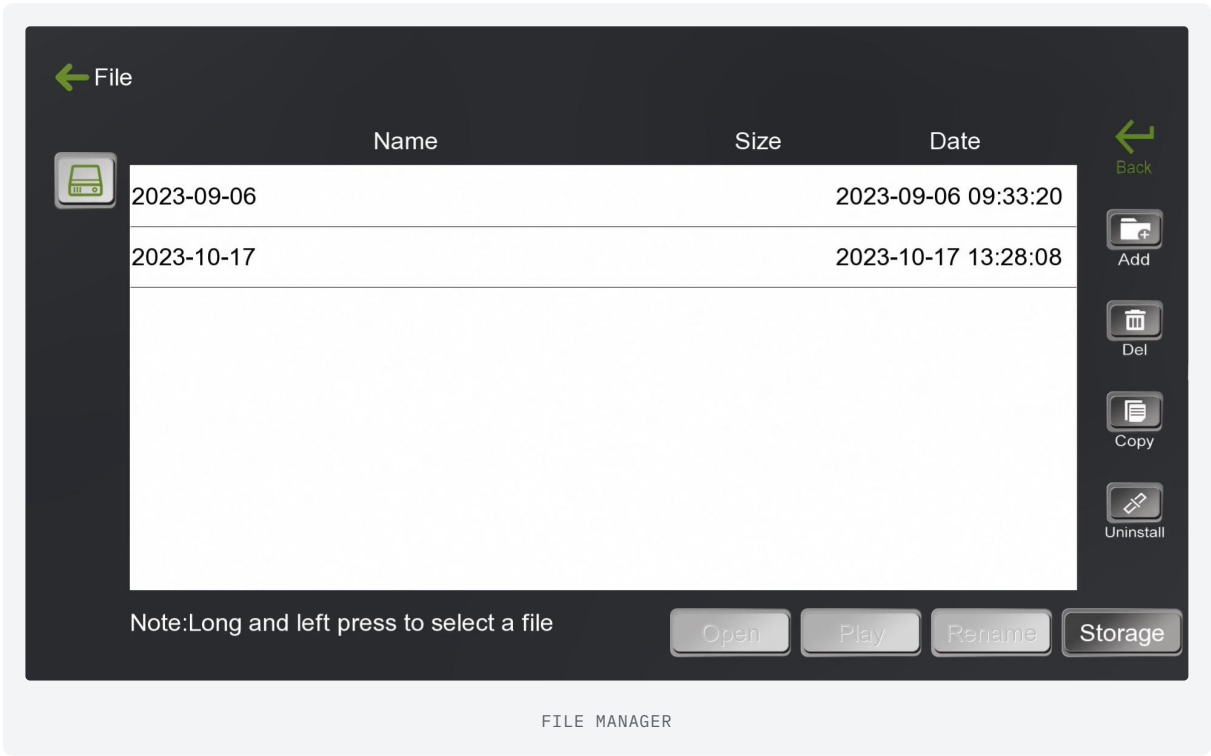


Added channels appear under the remote device tree on the right, where they can be opened, renamed or removed. To add a camera or encoder that supports RTSP directly, use the manual add option and enter the stream address — normally only the main stream needs to be filled in. After adding, select the stream and tap Open; a green triangle beside the device icon confirms it opened successfully.



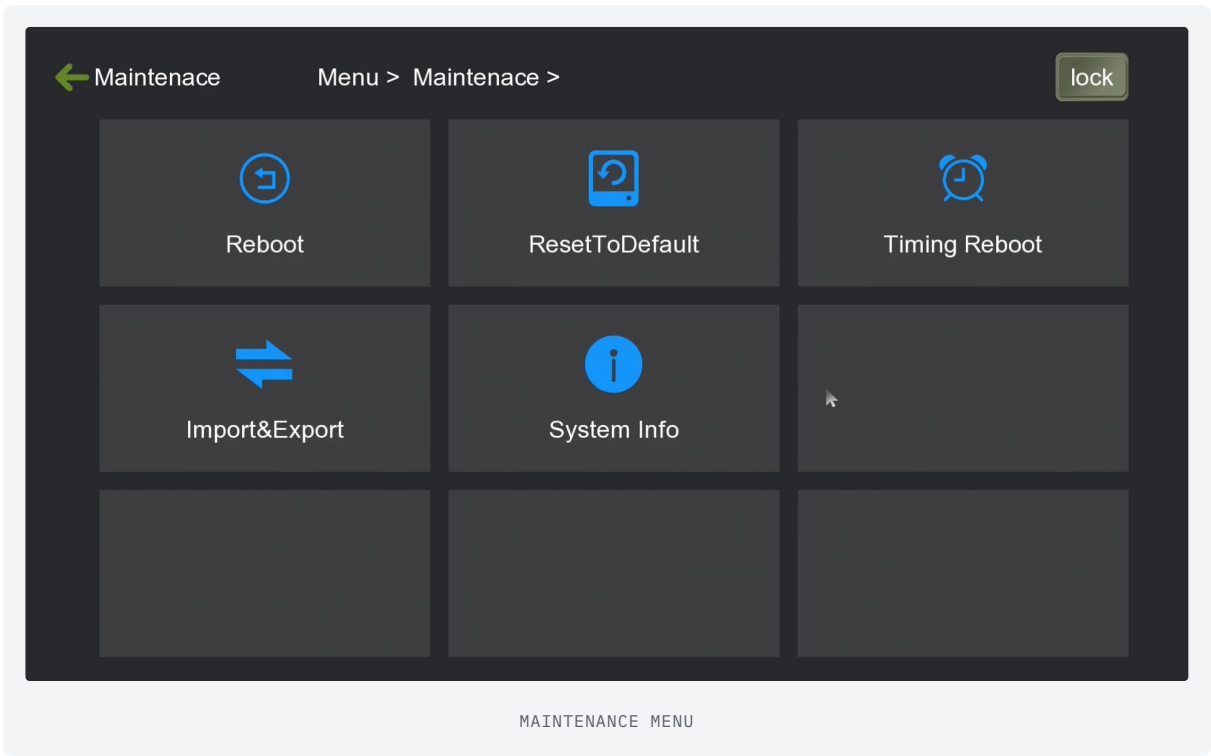
Monitor Window	Sets the preview order for this channel on the main guide interface — C1 is the first window, C2 the second, and so on.
Channel Name	Supports Latin and non-Latin script; up to 6 characters shown on the main interface.
Channel Role	Relates to the 4 quick-split buttons inside the split function.
Auto Switching ID	Corresponds to the camera's auto-tracking code, used for full-automatic switching.
Auto Open	Sets the channel to open automatically.
RTSP Main/Sub Stream Address	The live RTSP stream address for this channel.
PTZ	See 4.3.2.2 Head Setup for details.
PGM	Sets the PGM channel's image and encoding parameters.
Window Order	Changes the display order of the current resource channels.

4.6.3 FILE MANAGER



Supports copying, pasting and deleting recorded files.

4.6.4 SAFEGUARD (MAINTENANCE)



Covers software security shutdown, reboot, restore factory settings, timed restart, configuration import/export, and viewing current system information.

4.6.4.1 TIMED REBOOT

← Timing Reboot

Timing Reboot ☐ OFF

Fix Time Min *(≥5)

Reboot Time ~

OK

TIMED REBOOT SETTINGS

Enables scheduled automatic restarts, with a configurable interval and restart time window.

4.6.4.2 CONFIGURATION IMPORT AND EXPORT

← Import&Export

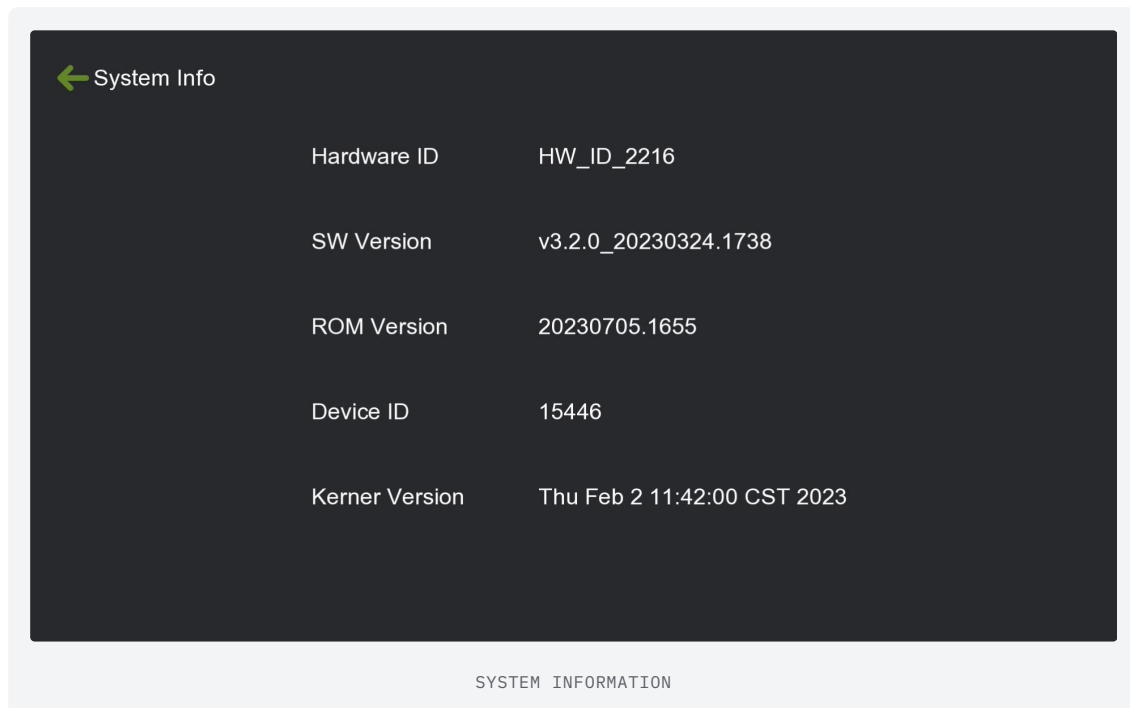
Import

Export

CONFIGURATION IMPORT AND EXPORT

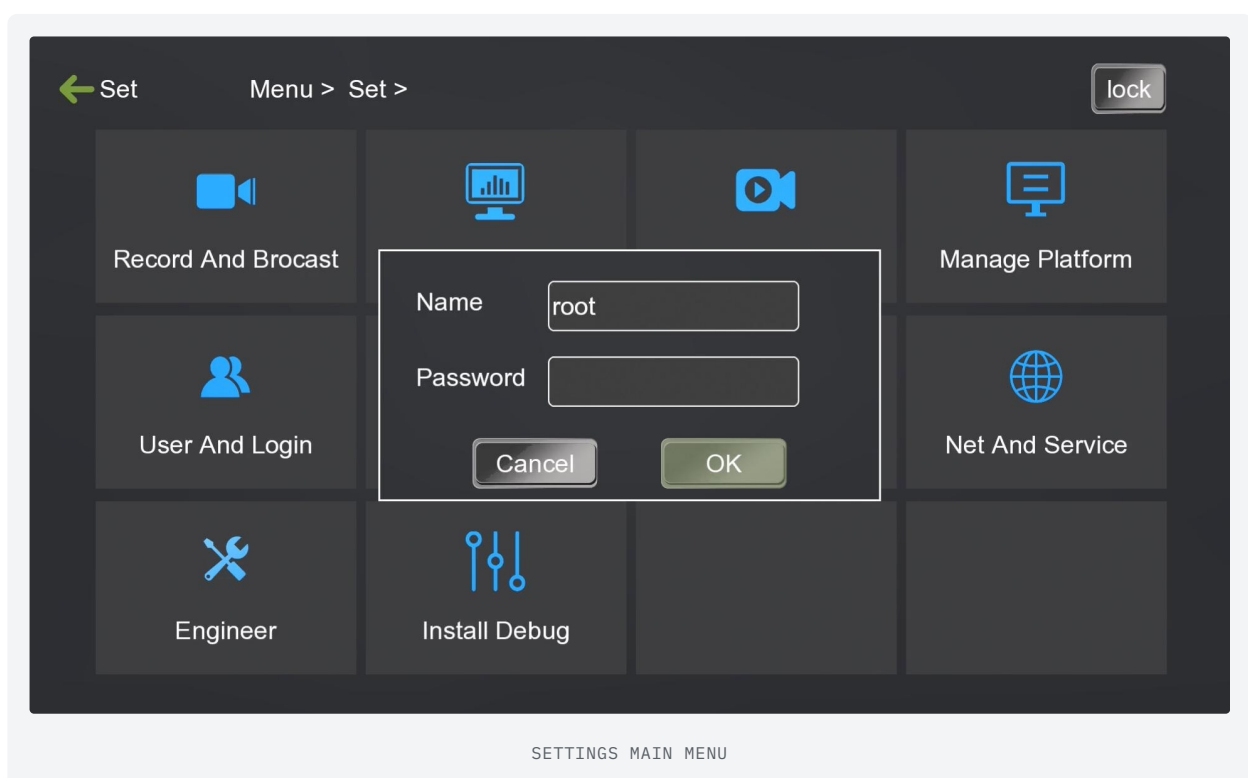
Exports the current parameter configuration, or imports a previously saved one, avoiding the need to repeat setup on multiple units. Imported configurations take effect after a restart.

4.6.4.3 SYSTEM INFORMATION

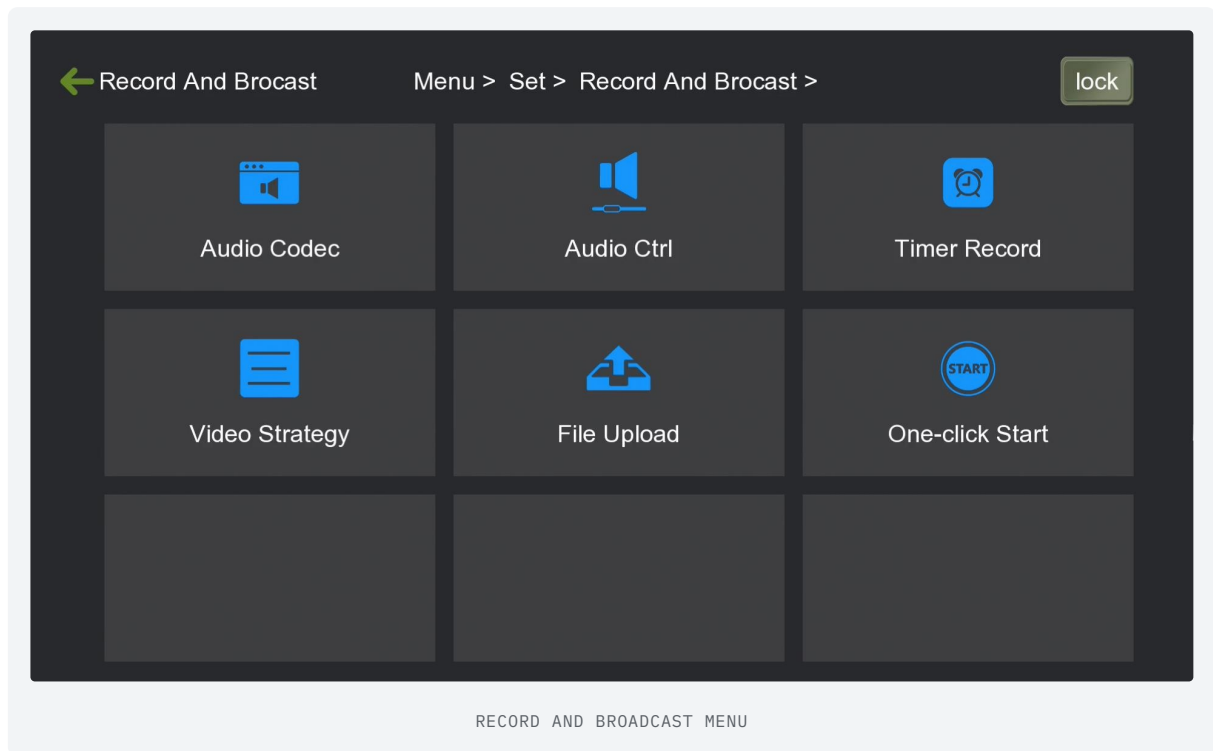


Displays the hardware ID, software/ROM version and release date.

4.7 Set Up

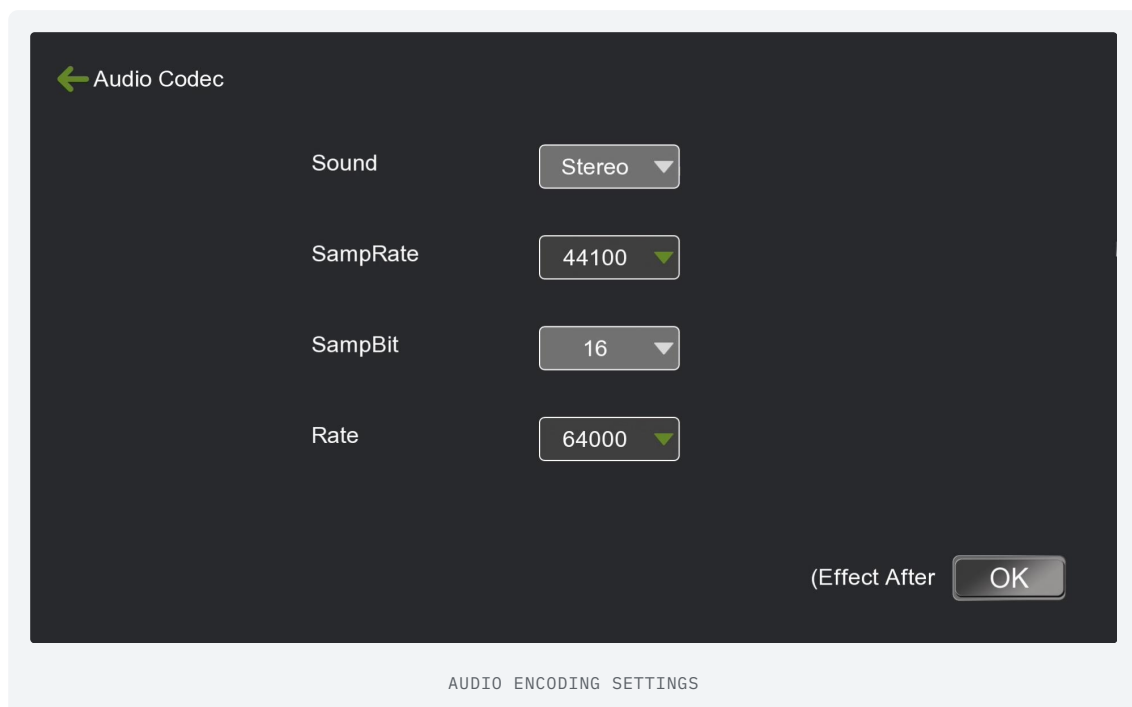


4.7.1 VIDEO SETTINGS



Six settings live under Record and Broadcast: audio encoding, audio control, timed recording, recording policy (video strategy), file upload, and one-click start configuration.

4.7.1.1 AUDIO ENCODING



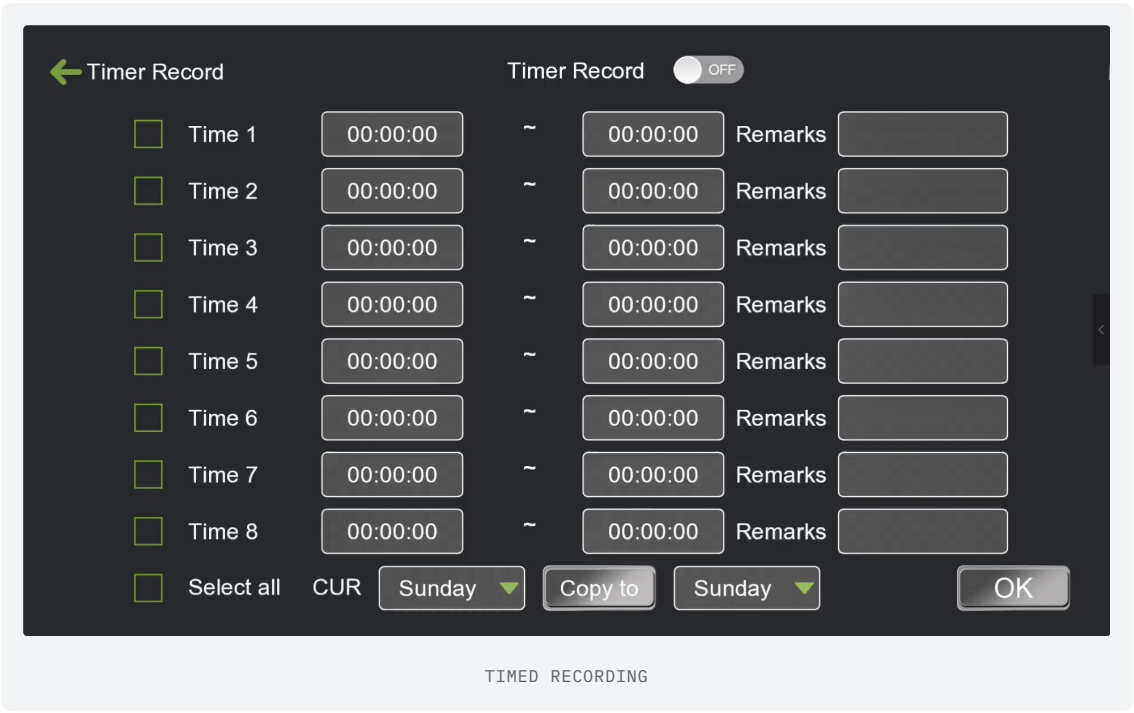
Configure the audio channel, sampling frequency, sample bit depth and code rate. Channel supports stereo or left/right mono; sampling frequency ranges 44100K–48000K; sample depth is 16-bit; code rate is selectable from 8000–128000Kbps.

4.7.1.2 AUDIO CONTROL



Input Volume / Output Volume sliders adjust input and output sound level. Sound Control mutes or unmutes audio for PGM Push Stream, PGM Record and other states via the speaker icon.

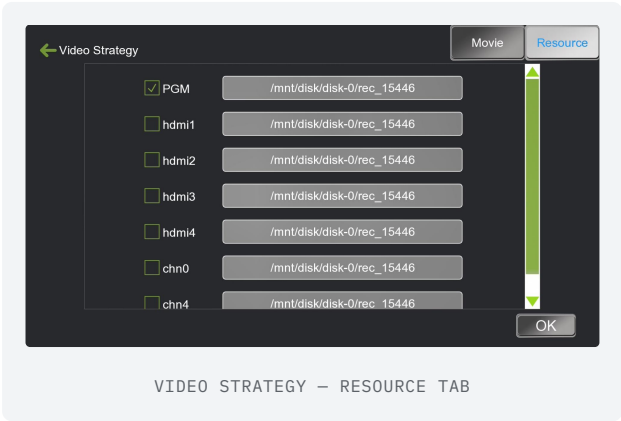
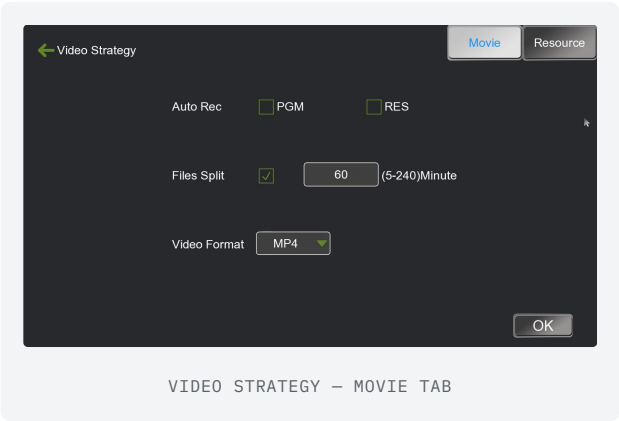
4.7.1.3 TIME-LAPSE VIDEO RECORDING



Supports scheduled recording: configure up to 4 time windows per day and copy a day's settings to any other day of the week. Timed recording only captures the PGM channel.

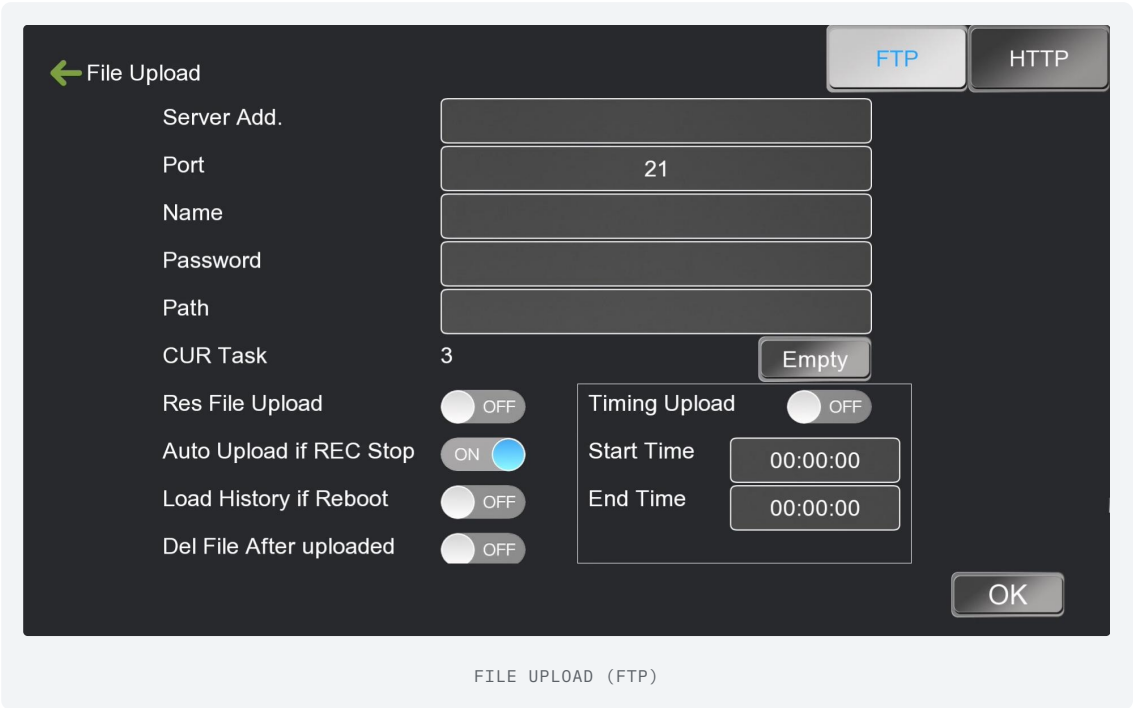
4.7.1.4 VIDEO STRATEGY

The host supports Movie mode + Resource mode recording simultaneously, up to 5 channels at once (1 movie channel (PGM) + up to 4 resource channels). Movie mode can be set to auto-record PGM and/or RES (resource), with a file-split interval of 5–240 minutes.



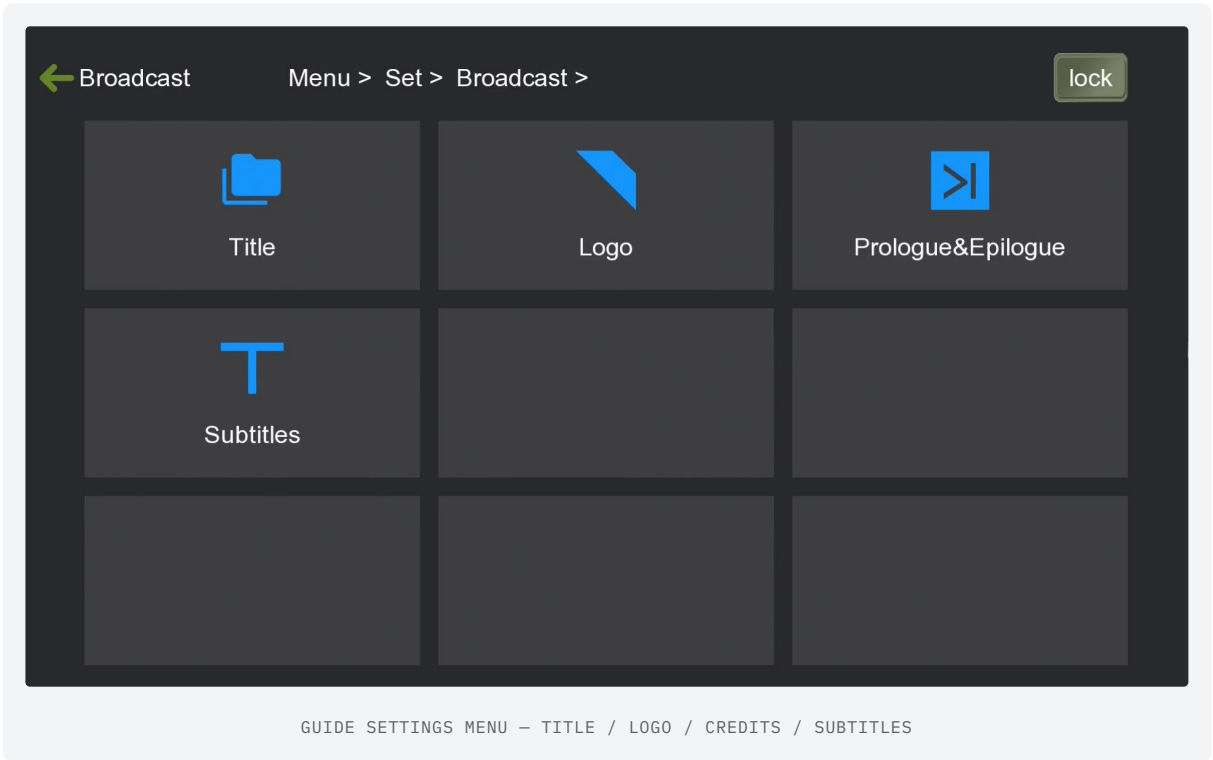
On the Resource tab, tick the channel(s) to record, then tick recording in the One-Click Start menu and use the One-Click Start button on the main interface to begin.

4.7.1.5 FILE UPLOAD



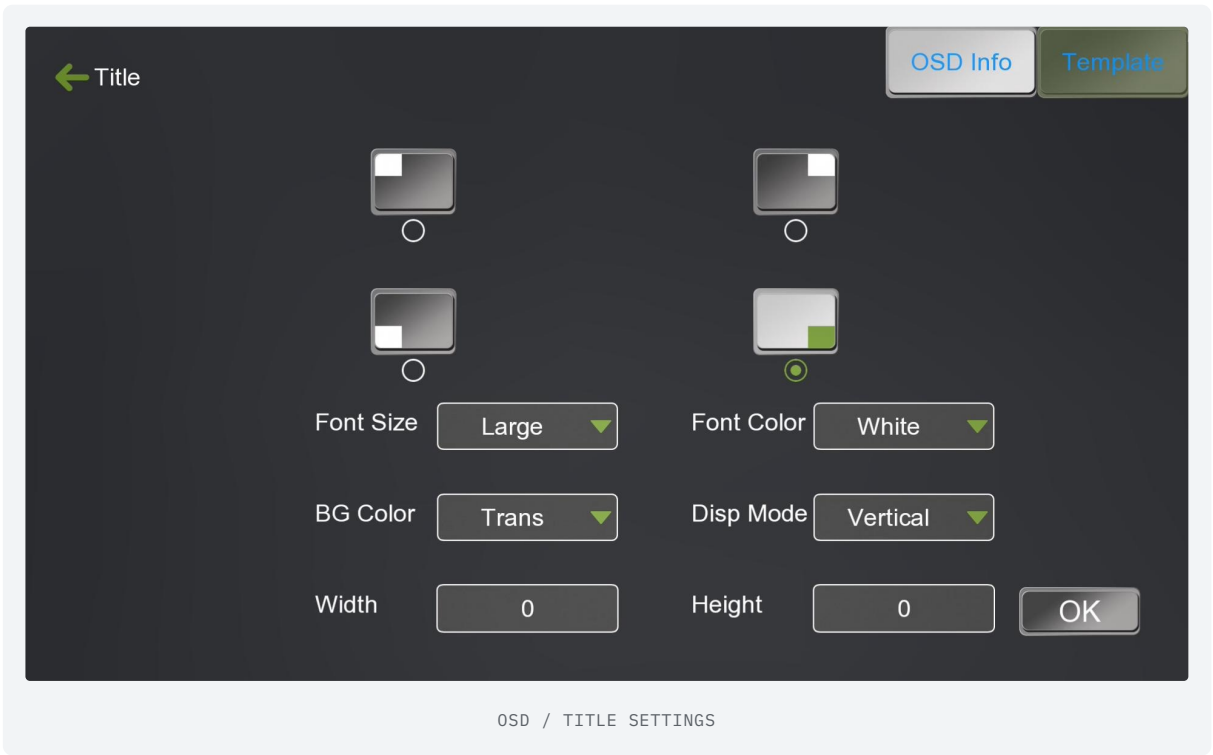
Automatically uploads recorded video to a configured FTP server once recording stops, and supports reloading upload history automatically after the host restarts.

4.7.2 GUIDE SETTINGS



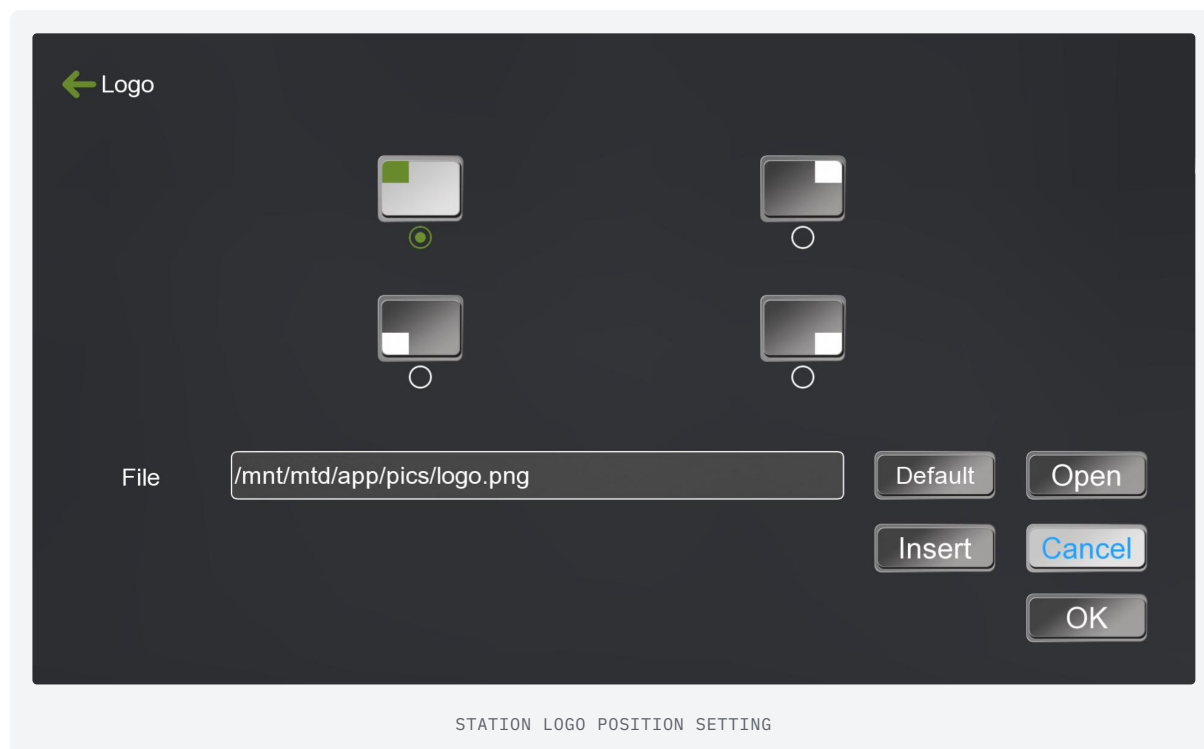
Four settings live here: Title, Logo, Prologue & Epilogue, and Subtitles. During manual guide, these let you insert courseware information, station title, credits and subtitles into the live PGM channel ahead of time, cutting down post-production work.

4.7.2.1 CAPTION (TITLE / OSD)



Courseware information can be inserted into the live PGM channel to improve the viewability of the broadcast.

4.7.2.2 STAGE MARKINGS (LOGO)



Insert up to 4 station logos into PGM at the four corners. The logo image format is PNG, with 200×100 the recommended resolution for best results.

4.7.2.3 OPENING AND CLOSING CREDITS

Insert opening/closing credits when recording a course — e.g. school or teacher introductions — eliminating the need for post-editing. Copy the files to a USB drive, set the file path here (default insertion length 10s), and tick Movie Mode 1 to trigger them from One-Click Start: the opening clip plays on start, the closing clip after the course recording finishes and One-Click Start is pressed again.

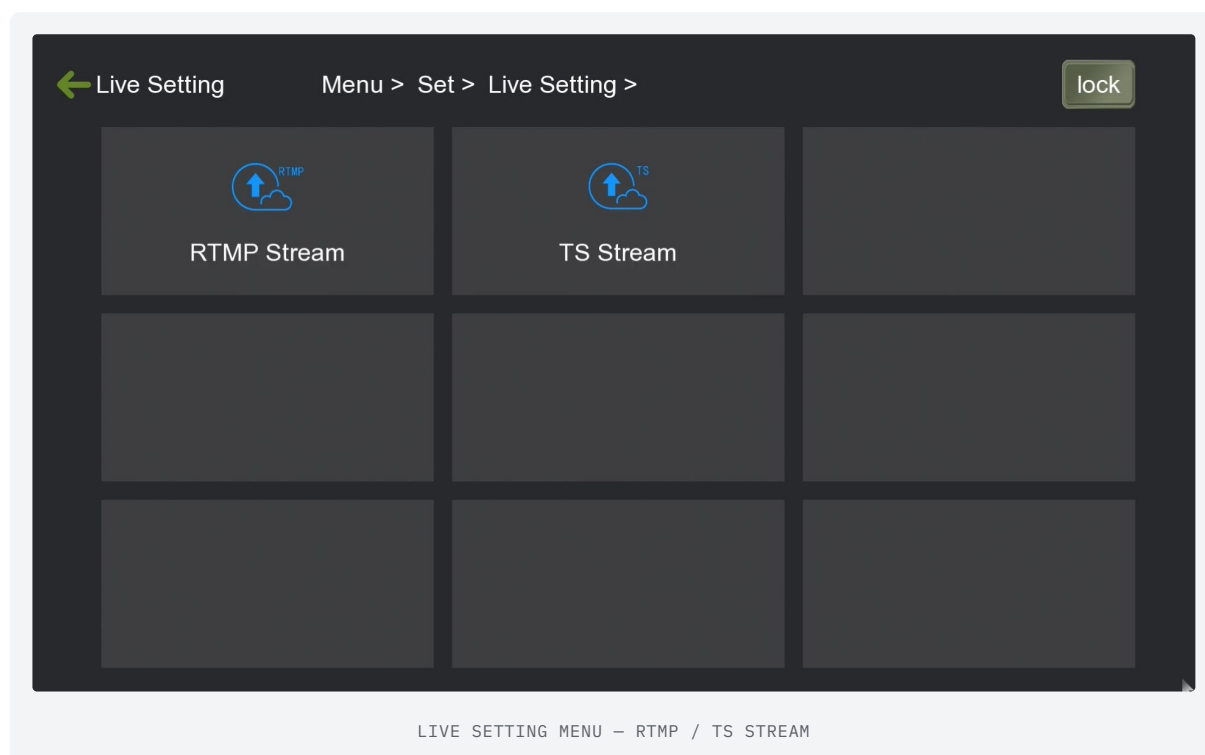
TIP Credit video files must be MP4, H.264 encoded, with AAC two-channel stereo audio at a 44.1KB sample rate, and a resolution no greater than 1920×1080.

4.7.2.4 CAPTIONS (SUBTITLES)



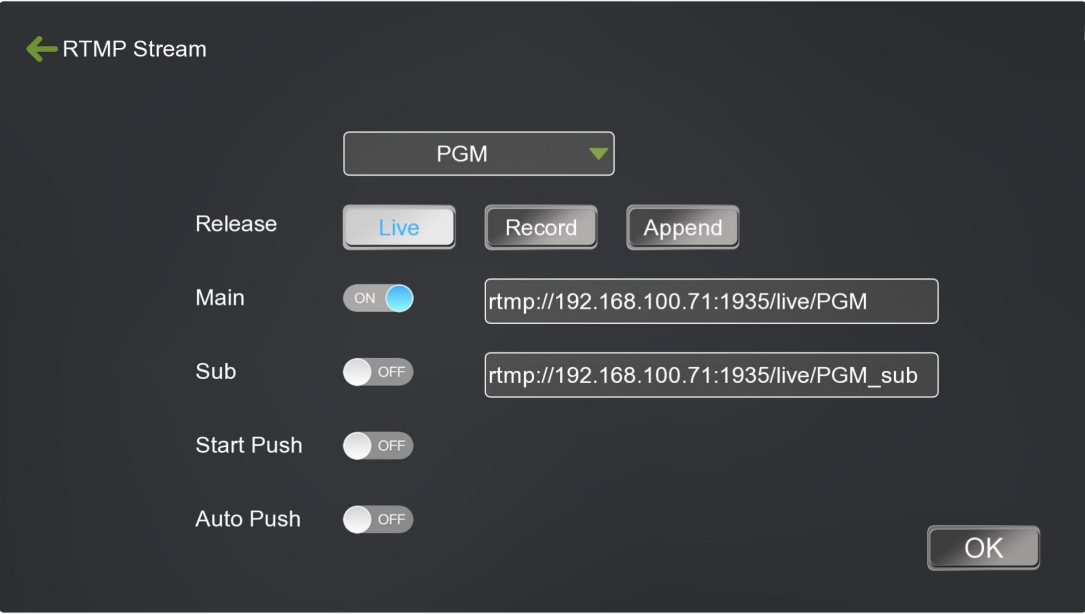
Supports real-time subtitle insertion into the live PGM channel, with up to 13 different subtitle presets. Only one line displays at a time on PGM; a newly released subtitle replaces the previous one.

4.7.3 LIVE STREAMING SETTINGS



RTMP Push Stream and TS Push Stream are both configured from the Live Setting menu.

4.7.3.1 RTMP PUSH-STREAM



RTMP Stream

PGM ▼

Release:

Main: ☒ ON ☐ OFF

Sub: ☐ ON ☒ OFF

Start Push: ☐ ON ☒ OFF

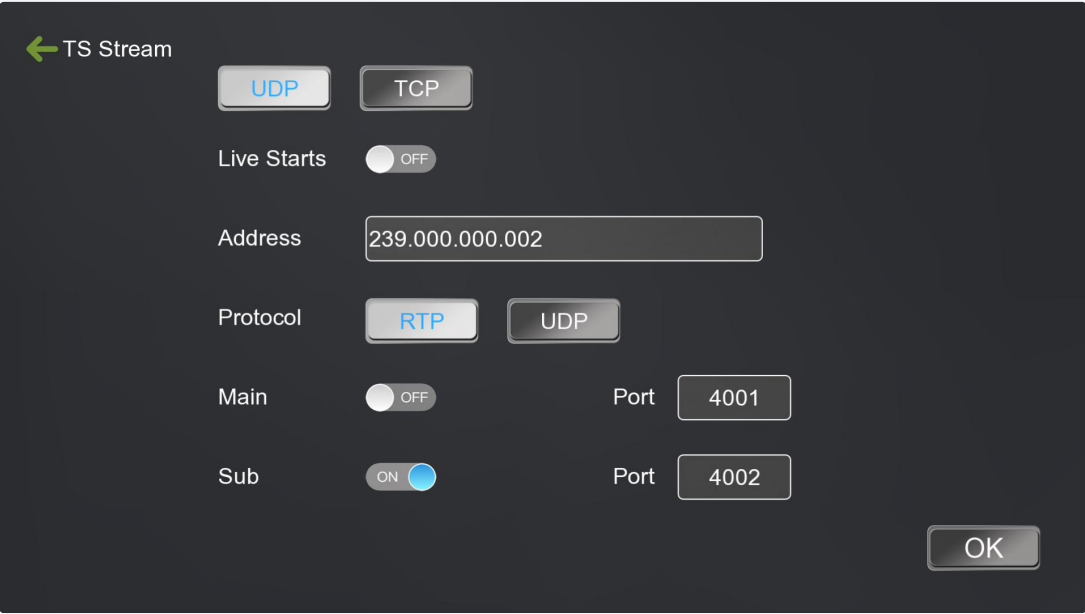
Auto Push: ☐ ON ☒ OFF

OK

RTMP STREAM SETTINGS

Set the main/sub stream push address and release mode for the PGM channel. Push mode is determined by the receiving RTMP platform; Live mode is the default. Bitrate is adjusted under Video Settings → Encoding Settings, between 50Kbps–40Mbps (default: main stream 4000Kbps, sub stream 400Kbps), and can be tuned to available network bandwidth.

4.7.3.2 TS PUSH STREAM



TS Stream

Live Starts: ☐ ON ☒ OFF

Address:

Protocol:

Main: ☐ ON ☒ OFF Port:

Sub: ☒ ON ☐ OFF Port:

OK

TS STREAM SETTINGS

Supports TS unicast and multicast push-streaming, viewable only within the LAN via VLC. Unicast uses TCP — open tcp://[host IP]:[push port] in VLC's network stream dialog. Multicast uses UDP — open rtp://239.0.0.2:[push port]. Unicast connects each viewer directly to the host (limited simultaneous viewers); multicast requires a router LAN environment (default multicast IP 239.0.0.2) and supports up to 253 simultaneous viewers.

4.7.4 MANAGEMENT PLATFORM

← Manage Platform

IP Address

0.0.0.0

Port

80

Name

Password

Callback dom:

Bind

Please Bind

MANAGEMENT PLATFORM

Docks the recorder to a resource-management platform; requires a compatible platform system.

4.7.5 USERS AND LOGIN

← User And Login

Menu > Set > User And Login >

lock

User Manage

Login Option

USERS AND LOGIN MENU

Add or delete users, change passwords, and configure login options for the system menu.

4.7.6 DATE AND TIME

← Date And Time

Network

OFF

Format

YYYY-MM-DD

Date

2023-10-17

Time

16:32:20

Server

s1a.time.edu.cn

Synch

OK

DATE AND TIME SETTINGS

Supports manual and automatic time updates. The factory default NTP server is a web domain; users can enter a different domain or IP. The system re-synchronises time on every power-on.

4.7.7 DISK AND STORAGE

← Storage

Disk 1

Status	Capacity	Partition Num	Model	Type	Allow Record
ON	931GB/931GB	1	WDC WD10PURX-64P	SATA	ON

Force mobile disk record

OFF

Default hard disk record

ON

Default mobile disk record

OFF

Full Record

Cover

Format

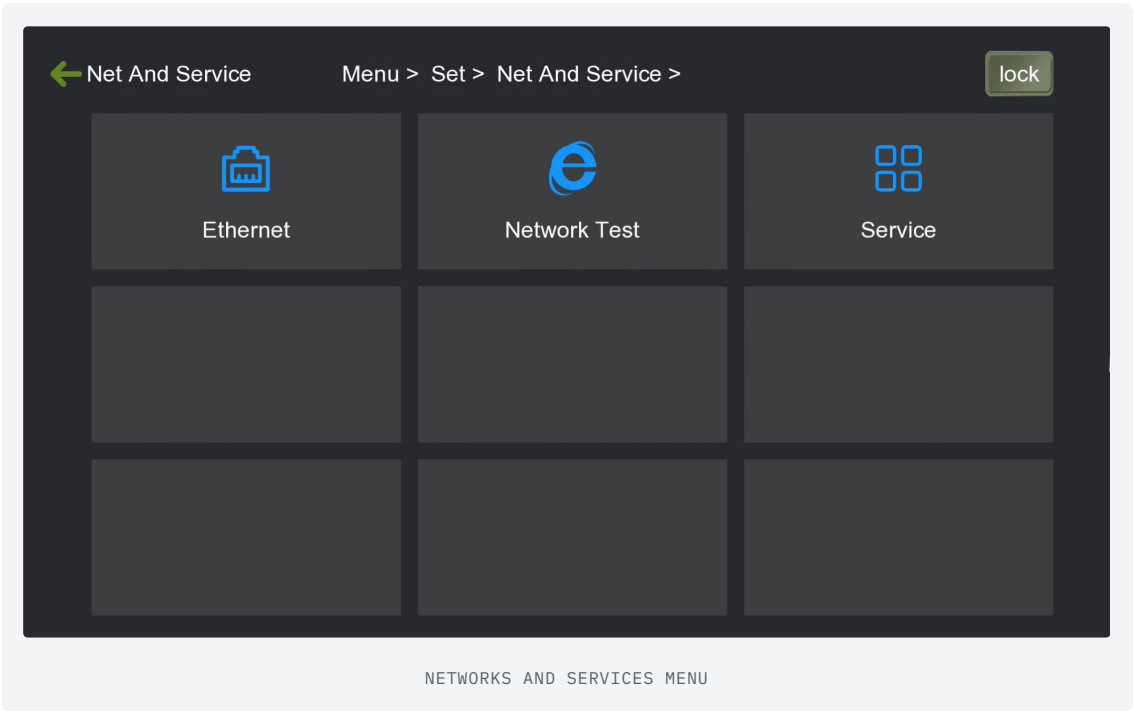
Uninstall

OK

DISK AND STORAGE

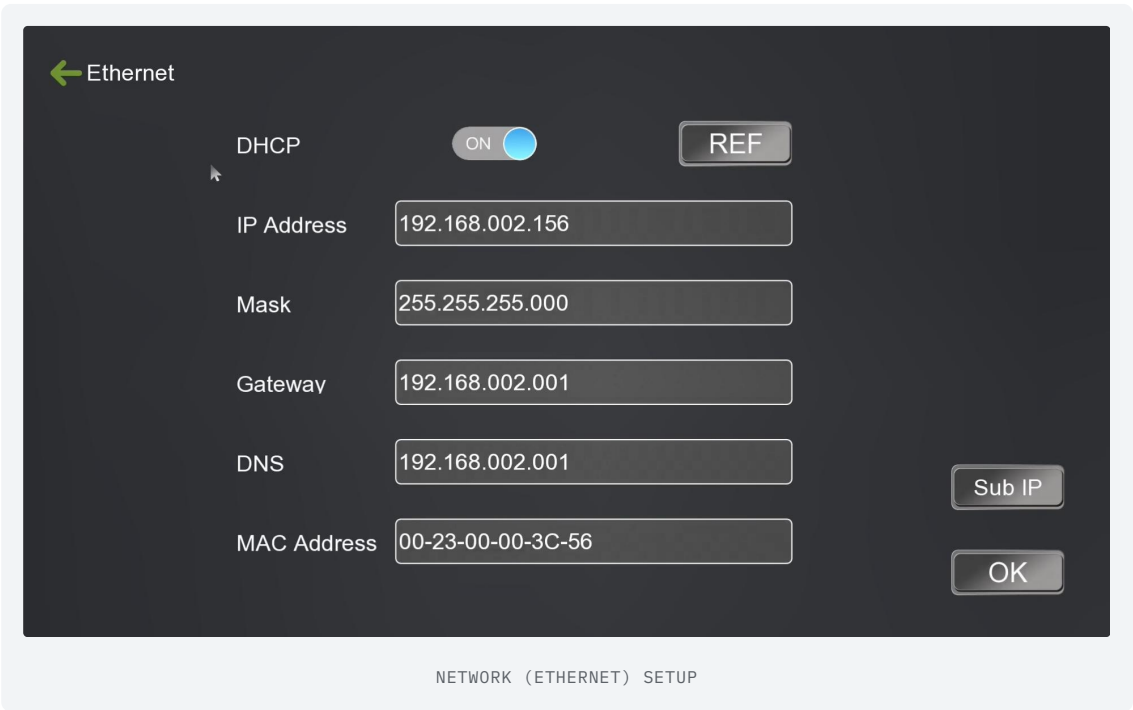
Supports formatting and safely uninstalling the internal hard drive or peripheral USB storage.

4.7.8 NETWORKS AND SERVICES



Three settings live here: Ethernet, Network Test, and Service.

4.7.8.1 ETHERNET



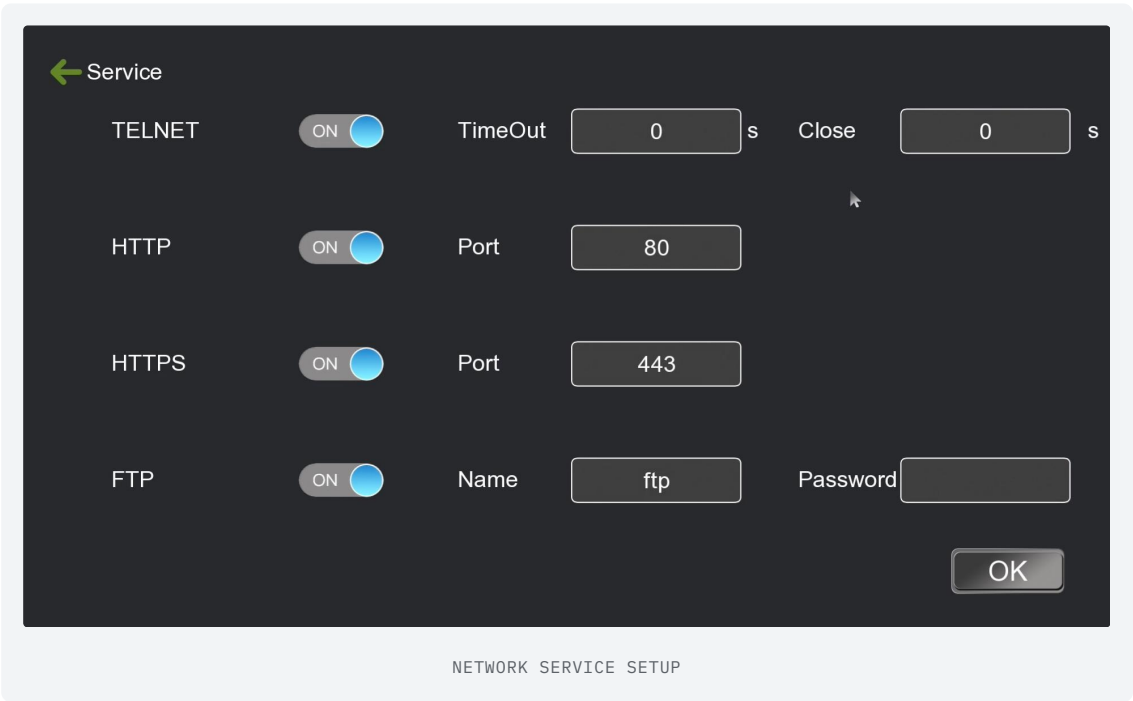
Factory default IP is 192.168.100.53. Supports manual IP configuration or DHCP (assigned by the router), plus an additional sub-IP.

4.7.8.2 NETWORK TEST



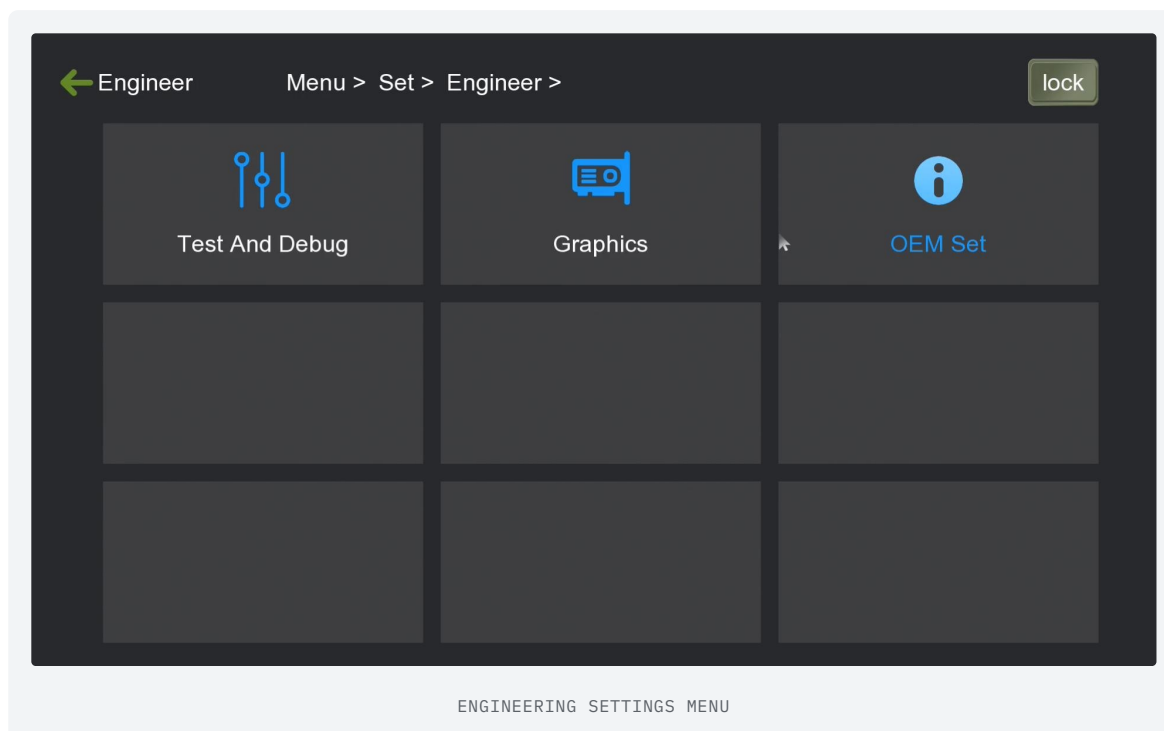
A built-in ping test verifies basic network connectivity.

4.7.8.3 SERVICE



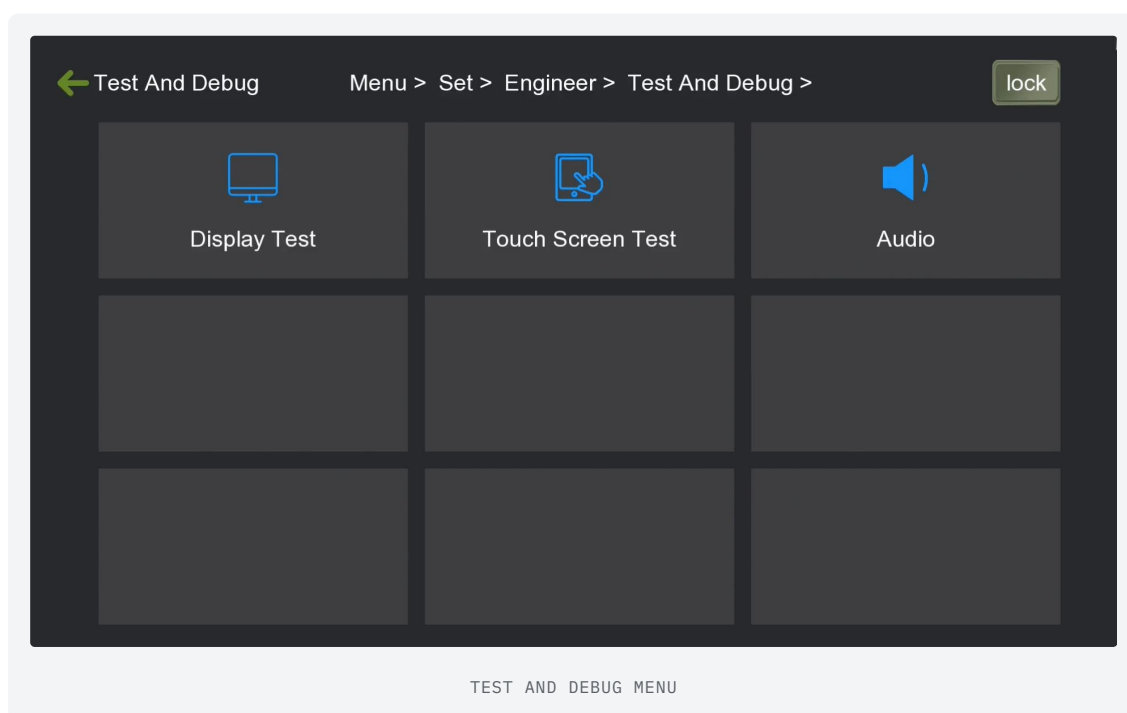
Telnet, HTTP, HTTPS and FTP services can each be switched off manually.

4.7.9 ENGINEERING SETTINGS



Engineering Setup is mainly for configuration and debugging by on-site engineering personnel, covering four categories: Test and Debug, Dual Graphics Card Setup, Power Supply Setup, and OEM Setup.

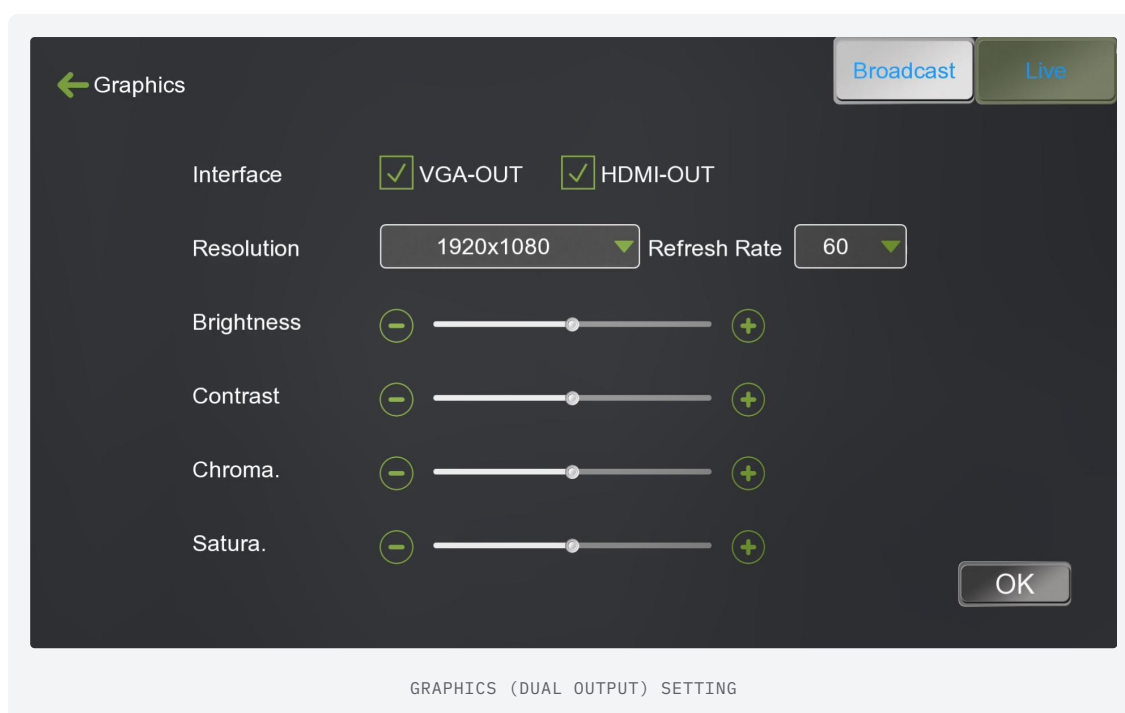
4.7.9.1 – 4.7.9.4 TEST AND DEBUG



- Display Test — tests the connected display for dead pixels and similar defects.
- Touch Screen Test — tests the touchscreen for dead zones or response issues.
- Sound Frequency — audio test and diagnostics.



4.7.9.5 DUAL GRAPHICS CARD SETUP



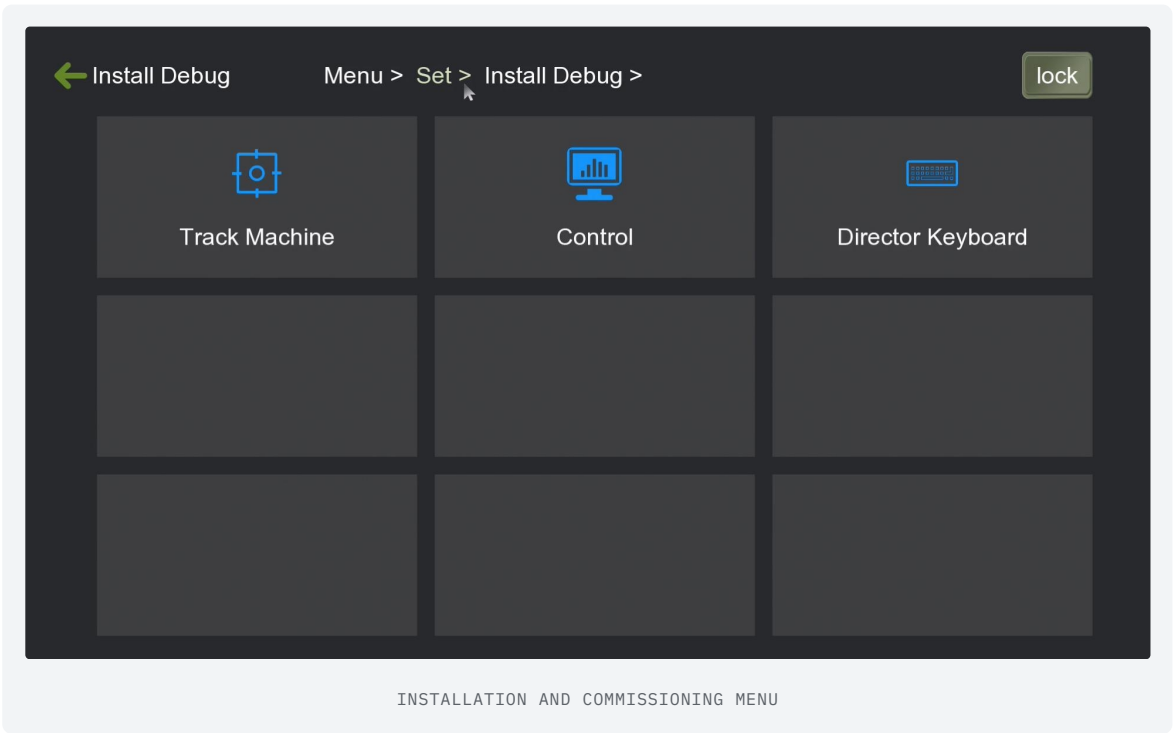
The host has built-in dual video-card outputs — one for the guide screen, one for the live screen. By default, both HDMI-OUT and VGA-OUT carry the guide screen.

4.7.9.6 OEM SETTINGS



Supports a user-defined boot logo (JPG, 1024×768, 72dpi, 24-bit depth, max 128KB). Import the logo file from a USB drive through this menu, tap OK, then reboot — the new logo takes effect after restart.

4.7.10 INSTALLATION AND COMMISSIONING



Covers four categories used during on-site engineering setup: Tracking Machine, Central Control, Director (Anchor) Keyboard, and Serial Port Settings.

4.7.10.1 TRACKING MACHINE

← Track Machine

Strategy Type

Action ▾

Auto	Network ▾	FF 00 00 00 00 01	
Manual	Network ▾	FF 00 00 00 00 02	
Half Auto	Network ▾	FF 00 00 00 00 01	
A-1	Network ▾	FF 11 11	Delay 0
A-2	Network ▾	FF 22 22	Delay 0
A-3	Network ▾	FF 33 33	Delay 0
A-4	Network ▾	FF 44 44	Delay 0

IP

192.168.100.82

Port

8791

COM

OK

TRACKING MACHINE SETTINGS

Tracking devices issue commands under one of two strategies:

Action Strategy	Each command the tracking system sends corresponds to a direct cut to a specific PGM channel, with no transition effect — the recording host does not call a separate switching strategy.
State Strategy	Commands carry a start code and an end code bracketing an action (e.g. a student-area alarm). The host looks up the matching entry in the Switching Strategy table, which can include a transition effect, switches accordingly, and automatically reverts once the end code arrives.

Action-strategy setup notes: Full-automatic/Manual/Semi-automatic modes are configured per HDMI input (the exact number of HDMI ports depends on model). Each needs the serial port used to reach the tracking device (e.g. COM1_RS232), and the command code the tracking host expects for that input. Clicking full-automatic/manual/semi-automatic on the main interface sends the matching start/stop/semi-automatic command to the tracking host. HDMI inputs can alternatively run from a network signal (e.g. a teacher's computer) using auto-detect, with a configurable delay (default 10s) before reverting to the previous channel.

State-strategy setup notes: HDMI interface numbering matches the action strategy. Each HDMI input needs a paired start code and end code corresponding to the tracking host's alarm signals. For example, the teacher-close-up alarm starts when the teacher reaches the podium and ends when they step down; the student-close-up alarm starts when a student stands and ends when they sit. On receiving a start/end code, the host automatically looks up and applies the configured switching effect from the Switching Strategy table.

4.7.10.2 CENTRAL CONTROL

← Control

Type

COM

Start Quick

AA 00 09 57 00 02 00 E8

Return Code

AA 00 09 57 00 02 00 E8

Stop Quick

AA 00 09 57 00 04 00 EE

Return Code

AA 00 09 57 00 04 00 EE

Safe Shut

Return Code

VGA Lock

Return Code

COM

COM2_RS485

COM

OK

CENTRAL CONTROL SETTINGS

Configures the link between the host and a central-control device over RS-485 or RS-232, supporting one-key start recording, pause recording, stop recording, safety shutdown and VGA lock. Command codes must match the central-control device exactly.

4.7.10.3 ANCHOR (DIRECTOR) KEYBOARD

← Director Keyboard

Type

COM

COM

COM2_RS485

COM

OK

DIRECTOR KEYBOARD SETTINGS

4.7.10.4 SERIAL PORT SETTINGS

← COM

COM	COM2_RS485 ▼
BaudRate	9600 ▼
Data Bits	8 ▼
Stop Bits	1 ▼
ParityBit	NULL ▼

OK

SERIAL PORT (COM) SETTINGS

Configures the guide desk's return-code serial port. Select the correct interface number so status return-codes are sent from the specified port — typically used with a guide desk or similar accessory that lights an indicator on receiving the return code.