

HDV-3232

HD/SD SDI ROUTING SWITCHER 32x32

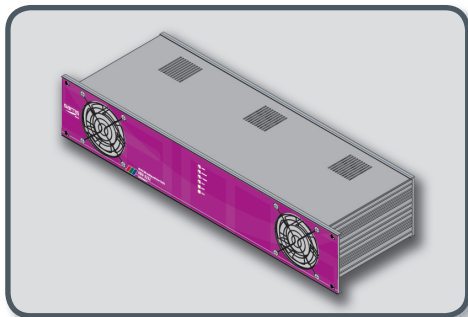


sams

Professional and broadcast video/audio equipment

48 Zivka Davidovića St. • 11050 Belgrade • Serbia • +381 11 3806 253; +381 11 2402 212 • sams@sams.rs • www.sams.rs

- HD/SD SDI routing switcher 32x32 with monitoring output
- Master remote CP-3232 with programmable slave control panels
- Compact routing switcher in 2RU frame
- Switching HD/SD signals
- Auto EQ and reclocking
- Vertical interval switching per SMPTE RP 168-1993
- Can function independently or be linked with other 32x32 routing switchers
- Power down memory recovery
- Automatic recognition of reference standard signal
- Control via TCP-IP
- PC control via RS-232
- HD/SD SDI video monitoring
- Built-in fans provide optimum cooling
- LED warning due to overheating
- External power supply 15V via "PSU-1"



HDV-3232 is a compact 32x32 HD / SD SDI matrix which allows up to 1.5Gb/sec. HDV series is based on the latest technology that supports HD. Device has LED detection of type of reference signal. It also has automatic reclocking and equalization offset length up to 100m of 1694A cable. Uses the standard CP-3232 Remote Control, but can also be controlled from web browser over TCP / IP or over PC software. HD / SD SDI output monitoring simplifies the view of inputs / outputs to monitor and control is done via the remote control. Integrated fans provide optimal cooling, and the LED on the front panel warns if device goes into overheating. The device can be combined with analog or digital audio matrix 32x32.

TECHNICAL SPECIFICATIONS

Specifications and designs are subject to change without notice

■ INPUT

- Number: 32
- Signal type: HD/SDI to SMPTE 292M
- EQ: Automatic to 100m with 1694A cable
- Impedance: 75Ω
- Connectors: BNC

■ OUTPUT

- Number: 32 + 1 monitoring
- Connectors: BNC
- Impedance: 75Ω
- Output level: 800mV ± 10%
- Jitter: < 0.2UI at 100KHz

■ REFERENCE

- Number: 1, BNC (Black Burst / 3-level sync)

■ TCP-IP

- Number: 1, RJ-45

■ POWER

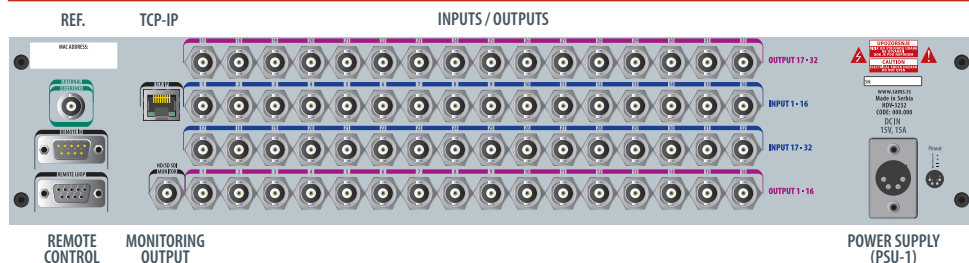
External DC 15V/15A

■ TEMPERATURE

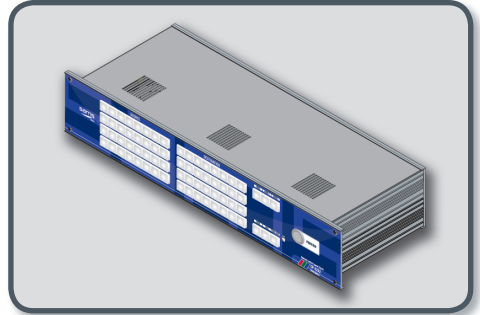
- Performance: 5-40°C
- Operating: 0-50°C

■ FRAME

Dimensions: 2RU x 19" x 150mm
Weight: ~3Kg



- Standard RS-485 port
- Easy to use
- Easy configuration
- Separate routing of audio and video
- Separate routing of audio channels
- Undo function by destination and level
- Locking of individual connections
- Power down memory recovery
- IP 67 keys with a minimum of 5 million switching
- Key for input / output monitoring

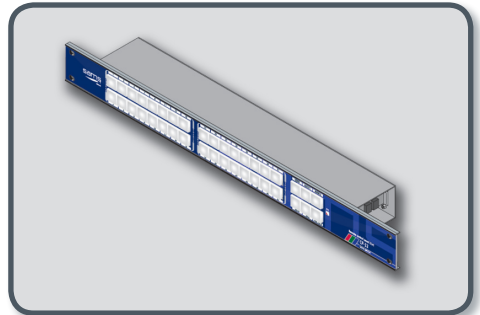


Remote control remote control allows easy operation on routing switchers. Remote allow independent control of three-level switching (Video - Audio 1 - Audio 2). It also have a “undo” button to return to the previous state for all three levels independently. Remote control allow individual locking the desired destination, as well as locking the entire panel. PC software written for this type of command allows to re configure inputs and output on slave control. CP-3232 can control smart data routers in configuration video-2ch audio-data. CP-3232 have a input / output monitoring key. The master control communicate with the matrix via RS-485 serial port and with PC via RS-232.



CP-3232, front panel

- Link to the master control via RS-485 port
- Easy setup
- Separate routing of audio and video
- Separate routing of audio channels
- Undo function by destination and level
- Locking of individual connections
- Return to the previous state due to power failure
- IP 67 keys with a minimum of 5 million switching

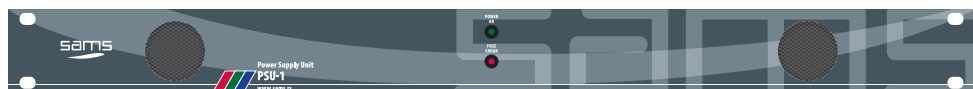
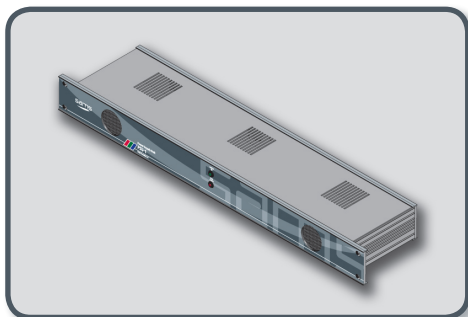


Slave control panel is used in separate studies, where control of multiple destinations is not needed. CP-32 is slave remote which control one output, on which can be connected one input of 32. As well as master remote, slave remote can control three-level switching, with “undo” button to return to the previous state and can be locked. Routers output can be assigned as well as 32 inputs via PC software. Slave control is connected to the master via RS-485 serial port.



CP-32, front panel
3

PSU-1 converts alternating current (AC) to regulated low voltage direct current (DC) +15V, 15A. It is intended primarily for Sams routers and remote controls, but is also used in other devices that is provided in the product specification.

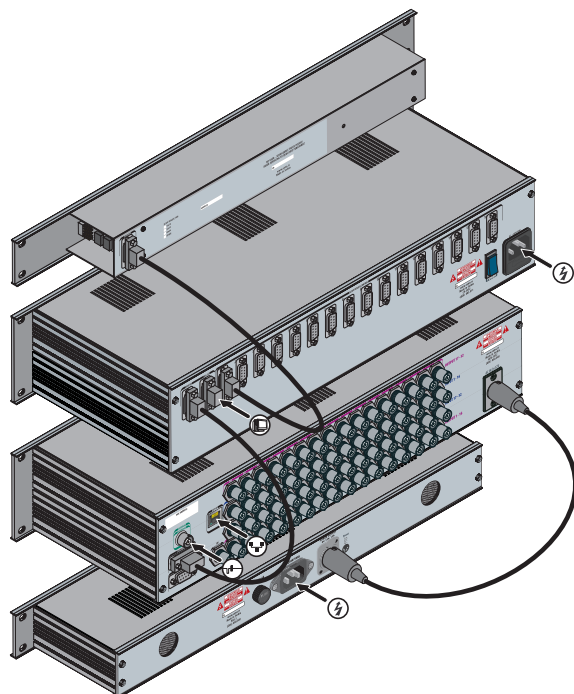


PSU-1, front side



PSU-1, rear side

CONNECTING OF DEVICES



TCP-IP, Ethernet



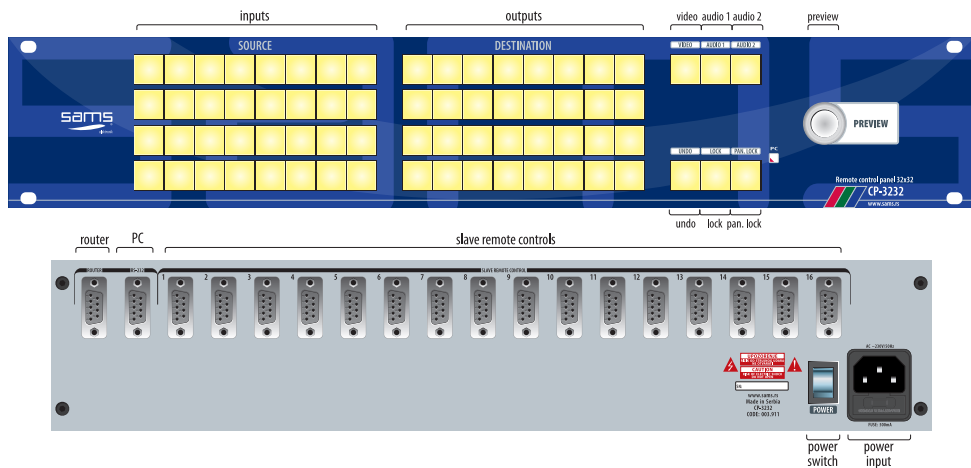
External reference, BB or Tri-level sync



RS-232, control via PC



Power AC230V/50Hz



INPUTS - Input selection
OUTPUTS - Output selection

VIDEO - Control of video router

AUDIO 1 - Control of audio router 1ch

AUDIO 2 - Control of audio router 2ch

UNDO - One step back

LOCK - Output lock

PANEL LOCK - Panel lock

PREVIEW - Input / output monitoring key

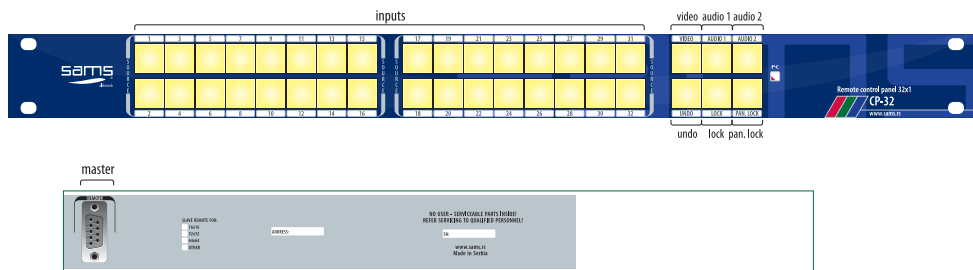
SLAVE REMOTE CONTROLS - Connections to slave remote controls

PC - Connection to PC

ROUTER - Connection to routing switcher

CP-3232 is master remote control for video and audio routing switchers 32x32.

On the front panel are keys to select the type of signal (audio, video, data). The remote switches in three levels, so if necessary, press VIDEO-AUDIO1-AUDIO2 key. If the key is lit, you can use the audio, video or data source. When the VIDEO and AUDIO keys are on, the matrix operates in the audio-follow-video. To connect the input and output, first press and hold the desired destination key, and then press the desired source. Linking can be done in the reverse order.



INPUTS - Input selection

VIDEO - Control of video router

AUDIO 1 - Control of audio router 1ch

AUDIO 2 - Control of audio router 2ch

UNDO - One step back

LOCK - Output lock

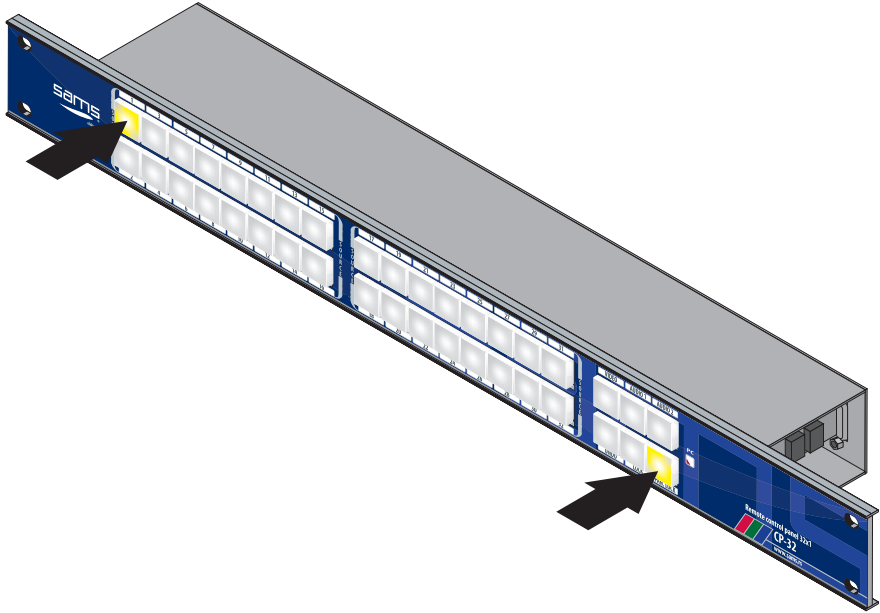
PANEL LOCK - Panel lock

MASTER - Connection to master remote

CP-32 is slave remote control for video, audio and data routing switchers 32x32 and it control only one destination.

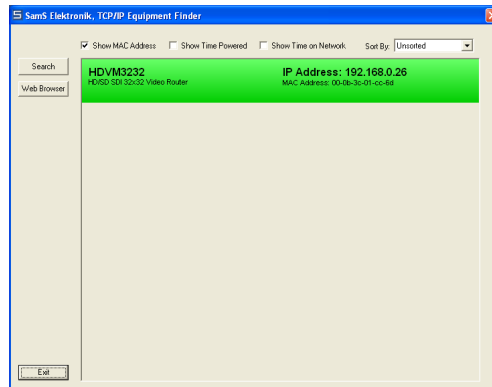
ADDRESSING OF SLAVE REMOTE CONTROLS

Connect slave remote to master. In order to assign inputs and output as well as their arrangement through the software, the remote must have its own identification (address). Press and hold **PANEL LOCK** key. While holding **PANEL LOCK** key, choose address by pressing one of source keys. Keys are numerically defined (see preview of remote), press one of first 16 keys (16 is max amount of slave remotes). Make sure that the selected address does not match the already selected on another previously addressed remote. Key that is pressed will start to flash. This way you are informed that the selected address will be used for this remote. After selection release **PANEL LOCK** key.

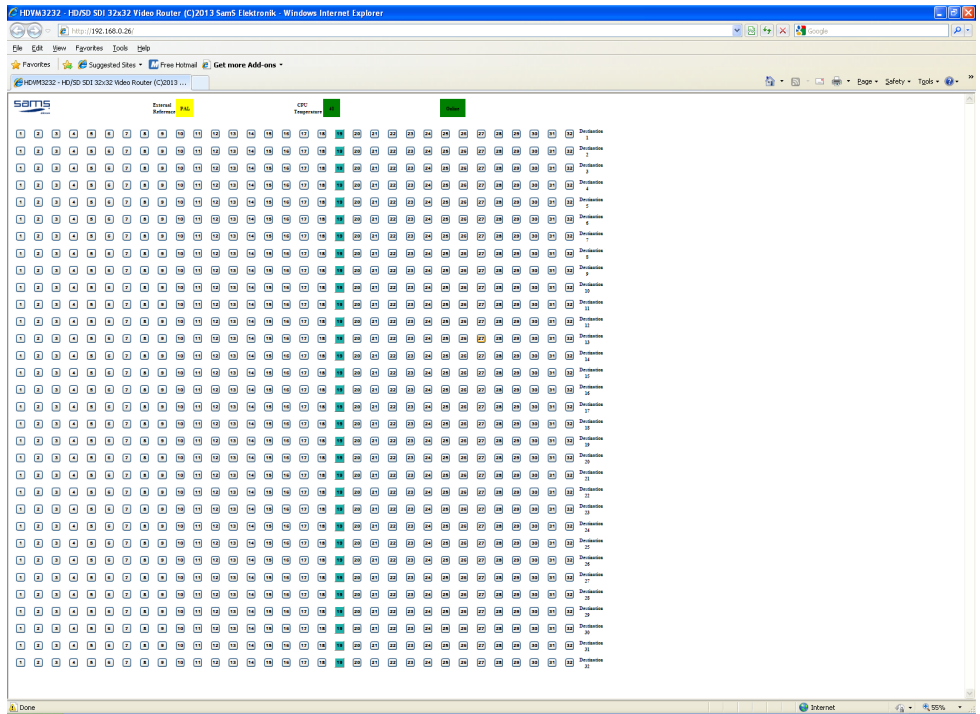


NETWORK ACCESS AND DEVICE CONTROL

The device can be configured through a web browser. First, the device must be found in the local network through a Sams Netfinder software.



Click on device and press “Web Browser” key on left side of window. When browser is on, it will show configuration.



ONLINE - Device communicate with browser only if **ONLINE** letters changes from uppercase to lowercase. When they stop, communication is offline.

REF:

- Green background - 720p / 1080p
- Red background - Check cable or reference source
- Yellow background - Pal / NTSC

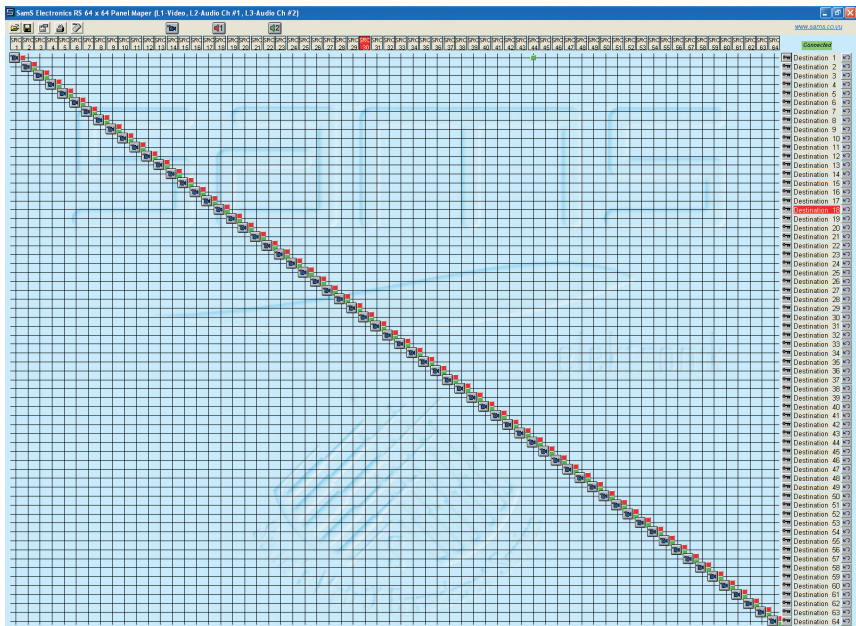
Each button represent input signal. Each row represent output and the are identified by name. By pressing button in a row, routing switcher connect selected input with output from that row.

NOTICE:

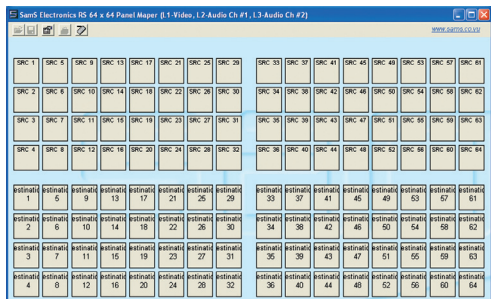
Switching trough browser are not recognizable on remote controls.

RS-3232 is designed as PC software for control of routing switchers, or supplement for master remote. It can be used as monitoring of connections or as main control of switching. Software is written for Windows® OS. Use software on newer generations of PC. PC must have RS-232 port which is directly connected to the master remote control. Usage is very simple: place mouse arrow on cross (X-Y) which selects input and output, and press the left mouse button. Parameters for connection will show: VIDEO-AUDIO 1-AUDIO2. Software can save current status of connections as a file and if necessary load it. Features for software: name changing of inputs and outputs, destination lock, undo for all outputs and software lock.

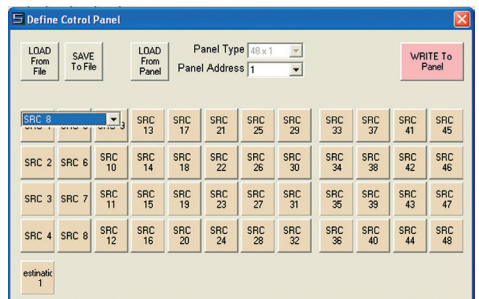
CS-3232dev is configuration software for slave remote controls. Inputs and output can be easily preconfigured. Software can recognize type of slave remote by selecting address which is dedicated to that remote. Preconfiguration can be done even online and while system is off. This allows very flexible working with the routing switcher.



RS-3232, Main software



CS-3232dev, software for configuration of slave remote controls



Configuration of slave remote