



EXP-SW-0401-8K Essentials HDMI Switcher

Application Programming Interface

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Supported Firmware	Refer to Supported Product Firmware/Software for details.

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1. Overview

This API (Application Programming Interface) document provides the necessary connections, configurations and commands needed in order to control the **EXP-SW-0401-8K**.

1.1 Supported Product Firmware/Software

The following products and firmware versions are supported by this version of the API. The firmware versions listed are the minimum supported at time of publication, firmware may be higher except where otherwise noted.

Product	Status Since Last Doc Rev	Supported Product Versions
EXP-SW-0401-8K	New	v1 or higher

1.2 Before You Begin

Verify that the following items are on hand and that all documentation is reviewed before continuing.

- Operational **EXP-SW-0401-8K** Switcher
- Control System and Control System Documentation.....
- PC or Mac for Configuring Product and Telnet Communications

2. Wiring and Communication Configuration

WyreStorm recommends that all wiring for the installation is run and terminated prior to making connections to the switcher. Read through this section in its entirety before running or terminating the wires to ensure proper operation and to avoid damaging equipment.

2.1 RS-232 Connections

The following wiring diagrams show the pinouts for the WyreStorm device. While not shown, connect the TX (transmit) to RX (receive) pins at the control system or PC side of the cable. Most control systems and computers are configured for Digital Terminal Equipment (DTE) where pin 2 is RX and pin 3 is TX. This can vary from device to device, refer to the documentation for the connected device for pin functionality to ensure that the correct connections can be made.

WyreStorm Connector		3rd Party Device
Pin 1	TX (Transmit)	→ To → RX (Receive)
Pin 2	RX (Receive)	→ To → TX (Transmit)
Pin 3	G (Ground)	→ To → G (Ground)



Note: EXP-SW-0401-8K shown above. Port may be in different location for the various models.

RS-232 Port Settings

Baud rate:	115200 bps
Data Bits:	8bits
Parity:	None
Stop Bits:	1bit
Flow Control:	None

2.2 Command Delimiter for Sent Commands

When sending commands using the IPv4 / Telnet API channel, or when using the RS-232 API channel, all command lines sent from the 3rd-party controller to the matrix should end with a specific character. This signifies when the command is processed by the matrix. This is usually specified in 3rd-party control software as the “command delimiter,” “stop character,” or “line terminator.”

Accepted delimiter characters are:

Character	Shorthand	Hex Notation	Escape Notation	Decimal Notation
Line Feed	LF	0A	\n	10
Carriage Return + Line Feed	CR LF	0D 0A	\r\n	13 10

Please note, most 3rd-party control software will either append these characters automatically or an option to specify them will be present.

It is important that the last delimiter character is LF and not CR

3. Controlling Matrix Switching

3.1 Controlling Video

Switching Video Outputs

Command structure:
SET SW <IN> <OUT>

Response Syntax:
SW <IN> <OUT>

Example Command:
SET SW in4 out

Example Response:
SW in4 out

<IN> = in1~in4
<OUT> = out

Query Video Output Mapping

Command structure:
GET MP <OUT>

Response Syntax:
MP GET <IN> <OUT>

Example Command:
GET MP out

Example Response:
MP in4 out

<IN> = in1~in4
<OUT> = out

4. Controlling Display Power via CEC

IMPORTANT! Command Requirements

- Display must be compatible with CEC and enabled in order to use function.

CEC Display Power

Command structure:

SET CEC_PWR <OUT> <PRM>

Response Syntax:

CEC_PWR <OUT> <PRM>

Example Command:

SET CEC_PWR out on

Example Response:

CEC_PWR out on

<OUT> = out
<PRM> = on | off

5. Troubleshooting

Set Auto Switching

Command structure:
SET AUTOSW_M <PRM>

Response Syntax:
AUTOSW_M <PRM>

Example Command:
SET AUTOSW_M on

Example Response:
AUTOSW_M on

<PRM> =on~off

Save a Scene

Command structure:
GET AUTOSW_FN

Response Syntax:
AUTOSW_FN <PRM>

Example Command:
GET AUTOSW_FN

Example Response:
AUTOSW_FN on

<PRM> =on~off

Query Firmware Version

Command:
GET VER

Response Syntax:
VER <PRM>

<PRM> = current installed firmware version

Reboot Matrix

Command:
REBOOT

Response:
REBOOT

No Parameters

Restore Factory Defaults

Command:
RESET

Response:
RESET

No Parameters

6. Contacting Technical Support

Should further clarification of the content in this document or assistance on troubleshooting be required, please contact WyreStorm technical support.

Phone: UK: +44 (0) 1793 230 343 | ROW: 844.280.WYRE (9973)

Contact Request: <http://wyrestorm.com/contact-tech-support>

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