AT-HDR-SW-51

HDR 5 x 1 Switcher

API Command Reference

October 2026



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Version Information

This document lists the commands for controlling the AT-HDR-SW-51 over RS-232 and Telnet. Its version history follows the original command reference.

Version	Date	Notes
1	Jul 2023	Initial release
HR 1.0	October 2026	Converted to the Hall Research document format. No command changes.

Sales & Customer Support

Item	Details
Main Office (US)	Hall Research, 1234 Lakeshore Dr Suite #150, Coppell, TX 75019
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Product Page (AT-HDR-SW-51)	https://www.hallresearch.com/product/AT-HDR-SW-51

IMPORTANT: Visit hallresearch.com/product/AT-HDR-SW-51 for the latest firmware updates and documentation.

Introduction

General

This document provides an alphabetical list of commands available for the AT-HDR-SW-51. Commands are not case-sensitive. If the command fails or is entered incorrectly, then Command FAILED:(CommandName) is returned. Commands can be sent using RS-232 or Telnet. There should be a 500 millisecond delay between each command sent to the unit. The default port for Telnet is 23.

IMPORTANT: Each command is terminated with a carriage-return (0x0d) and the feedback is terminated with a carriage-return and line-feed (0x0a).

Command Quick Reference

Select a command name to go to its full description.

Command	Description
AutoSW	Enables or disables auto switching between input ports
Blink	Enables or disables blinking of the POWER LED indicator on the front panel
Broadcast	Enables or disables broadcast mode
Cspara	Sets the baud rate, data bits, parity bit, and stop bits for the (console) RS-232 port
EDIDCopy	Copies the downstream EDID from the HDMI OUT port and stores the result in the specified memory location
HDCPSet	Set the HDCP reporting mode of the specified HDMI input port
help	Displays the list of available commands
help X	Displays help for the specified command
InputBroadcast	Sets the broadcast mode of the device
InputStatus	Event-driven API command
IPCFG	Displays the current network settings for the unit
IPDHCP	Enables or disables DHCP mode on the unit
IPLogin	Enables or disables the use of login credentials when starting a Telnet session on the unit
IPPort	Sets the Telnet listening port for the unit
IPQuit	Closes the current Telnet session
IPStatic	Sets the static IP address, subnet mask, and gateway (router) address of the AT-HDR-SW-51
IPTimeout	Specifies the time interval of inactivity before the Telnet session is automatically closed
IROff	Disables the IR receiver (window) on the unit
IROn	Enables the IR receiver (window) on the unit
Lock	Locks all the buttons on the front panel
Mreset	Resets the unit to factory-default settings
OutputStatus	Event-driven API command
PWOFF	Executing this command will power off the AT-HDR-SW-51
PWON	Executing this command will power on the AT-HDR-SW-51
PWSTA	Displays the current power state of the AT-HDR-SW-51
Reboot	Performs a soft reboot of the AT-HDR-SW-51

Command	Description
RHostName	Displays the hostname of the unit
ScalerMode	Enables or disables the scaler on the AT-HDR-SW-51
SHostName	Sets the hostname of the unit
Status	Displays which input is routed to which output
System sta	Displays the status of the unit
Type	Displays the model information of the unit
Unlock	Unlocks the buttons on the front panel
Version	Displays the current firmware version of the unit
VOUTMute	Mutes / unmutes the output volume for the specified output
x1$	Enables or disables the HDMI OUT port
x1AVx1	Routes the specified input to the HDMI OUT port

Commands

AutoSW

Enables or disables auto switching between input ports. Specify the sta argument to display the current setting.

Syntax

```
AutoSW X
```

Parameter	Description	Range
X	Value	on, off, sta

Example

```
AutoSW on
```

Feedback

```
(no feedback)
```

Blink

Enables or disables blinking of the POWER LED indicator on the front panel. When set to on, the POWER LED indicator button will flash, alternating between blue and red, and can be used to physically identify the unit on a network. The POWER LED indicator will flash until the Blink off command is executed. on = enables blinking; off = disables blinking. Specify the sta argument to display the current setting. The default setting is off.

Syntax

```
Blink X
```

Parameter	Description	Range
X	Value	on, off, sta

Example

```
Blink on
```

Feedback

```
Blink on
```

Broadcast

Enables or disables broadcast mode. By default, broadcast mode is set to on. When set to on, any system changes will be broadcast to the web server and on the control system (if connected), via TCP/IP and RS-232. To separate control between the web server and Telnet/RS-232, set this feature to Off. Command queries such as IPCFG and Type will only return information to the requester. Specify the sta argument to display the current setting.

Syntax

```
Broadcast X
```

Parameter	Description	Range
X	Value	on, off, sta

Example

```
Broadcast on
```

Feedback

```
Broadcast on
```

Cspara

Sets the baud rate, data bits, parity bit, and stop bits for the (console) RS-232 port. Each argument must be separated by a comma; no spaces are permitted. Brackets must be specified when executing this command. Specify the sta argument to display the current settings.

Syntax

```
Cspara[W,X,Y,Z]
```

Parameter	Description	Range
W	Baud rate	2400, 4800, 9600, 19200, 38400, 57600, 115200
X	Data bits	7, 8
Y	Parity bit	0, 1, 2 (0 = None, 1 = Odd, 2 = Even)
Z	Stop bits	1, 2

Example

```
Cspara[9600,8,0,1]
Cspara sta
```

Feedback

```
CSPARA[9600,8,0,1]
CSPARA[9600,8,0,1]
```

EDIDCopy

Copies the downstream EDID from the HDMI OUT port and stores the result in the specified memory location. If no device is detected on the output, then the message Error copying EDID, please check the specified output for connection will be returned.

Syntax

```
EDIDCopyX Y
```

Parameter	Description	Range
X	Output	1
Y	Memory location	1 ... 8

Example

```
EDIDCopy1 3
```

Feedback

```
EDIDCOPY1 3
```

HDCPSet

Set the HDCP reporting mode of the specified HDMI input port. Some computers will send HDCP content if an HDCP-compliant display is detected. Setting this value to off, will prevent the source from negotiating HDCP with any compliant sink devices. Setting this value to on will enable HDCP negotiation. Specify the sta argument to display the current setting.

Syntax

```
HDCPSetX Y
```

Parameter	Description	Range
X	HDMI input	1 ... 5
Y	Value	on, off, sta

Example

```
HDCPSet2 off
```

Feedback

```
HDCPSET2 OFF
```

help

Displays the list of available commands. To obtain help on a specific command, enter the help command followed by the name of the command.

Syntax

```
help
```

This command does not require any parameters.

Example

```
help
```

Feedback

```
User Command List
-----------------
AutoSW
Blink
Broadcast
...
...
```

help X

Displays help for the specified command.

Syntax

```
help X
```

Parameter	Description	Range
X	Command	Command

Example

```
help unlock
```

Feedback

```
Unlock. Unlocks all the buttons on the
front panel.
```

InputBroadcast

Sets the broadcast mode of the device. This option determines whether or not system changes are announced over TCP/IP and RS-232 connections to any listening devices.

Syntax

```
InputBroadcast X
```

Parameter	Description	Range
X	Value	on, off, sta

Example

```
InputBroadcast off
```

Feedback

```
INPUTBROADCAST OFF
```

InputStatus

Event-driven API command. Feedback indicates if a source device is present, based on both the HDMI 5V and TMDS lines. If a source is detected on the input, then a 1 will be returned. Inputs with no source connected will return a 0. If a PC is connected to an HDMI input, then the following is true: a. The control system, using either RS-232 or Telnet, will receive InputStatus 10000. b. Disconnection of the PC will return InputStatus 00000. User polling can be performed by using the following: InputStatus.

Syntax

```
InputStatus X
```

This command does not require any parameters.

Example

```
InputStatus
```

Feedback

```
INPUTSTATUS 10100 // inputs 1 and 3
```

IPCFG

Displays the current network settings for the unit.

Syntax

```
IPCFG
```

This command does not require any parameters.

Example

```
IPCFG
```

Feedback

```
IP ADDR: 10.20.20.38
NETMASK: 255.255.255.0
GATEWAY: 10.20.20.1
IP PORT: 23
```

IPDHCP

Enables or disables DHCP mode on the unit. Setting this value to off disables DHCP mode. The default setting is on. If this feature is disabled, then a static IP address must be specified for the unit. Refer to the IPStatic command for more information. Specify the sta argument to display the current setting.

Syntax

```
IPDHCP X
```

Parameter	Description	Range
X	Value	on, off, sta

Example

```
IPDHCP off
```

Feedback

```
IPDHCP OFF
```

IPLogin

Enables or disables the use of login credentials when starting a Telnet session on the unit. Setting this value to on will prompt for both the username and password. Uses the same credentials as the web server. If no login credentials are required, set this value to off. Specify the sta argument to display the current setting.

Syntax

```
IPLogin X
```

Parameter	Description	Range
X	Value	on, off, sta

Example

```
IPLogin off
```

Feedback

```
IPLOGIN OFF
```

IPPort

Sets the Telnet listening port for the unit. It should be noted that port numbers range from 0 to 65536. However, port numbers 0 through 1024 are reserved for privileged services and are designated as well-known ports. Consult an IT administrator on port use, if necessary. Specify the sta argument to display the current setting.

Syntax

```
IPPort X
```

Parameter	Description	Range
X	Port	0 ... 65535, sta

Example

```
IPPort 23
```

Feedback

```
IPPORT 23
```

IPQuit

Closes the current Telnet session. This command will only function over a Telnet session. If this command is entered within an RS-232 session, then Command FAILED will be returned.

Syntax

```
IPQuit
```

This command does not require any parameters.

Example

```
IPQuit
```

Feedback

```
Connection to host lost.
```

IPStatic

Sets the static IP address, subnet mask, and gateway (router) address of the AT-HDR-SW-51. If the AT-HDR-SW-51 is in DHCP mode, executing this command will automatically switch the unit to use the specified static IP address information. Each argument must be expressed in dot-decimal notation and separated by a space. The default static IP address is 192.168.1.254.

Syntax

```
IPStatic X Y Z
```

Parameter	Description	Range
X	IP address	0 ... 255 (per octet)
Y	Subnet mask	0 ... 255 (per octet)
Z	Gateway (router)	0 ... 255 (per octet)

Example

```
IPStatic 192.168.1.112 255.255.255.0 192.168.1.1
```

Feedback

```
IPSTATIC 192.168.1.112 255.255.255.0 192.168.1.1
```

IPTimeout

Specifies the time interval of inactivity before the Telnet session is automatically closed. Set this value to 0 to specify no time out interval. Specify the sta argument to display the current setting.

Syntax

```
IPTimeout X
```

Parameter	Description	Range
X	Interval (in seconds)	0 ... 60000, sta

Example

```
IPTimeout 300
```

Feedback

```
IPTIMEOUT 300
```

IROff

Disables the IR receiver (window) on the unit. By default, the receiver is disabled.

Syntax

```
IROff
```

This command does not require any parameters.

Example

```
IROff
```

Feedback

```
IROFF
```

IROn

Enables the IR receiver (window) on the unit. By default, the receiver is disabled.

Syntax

```
IROn
```

This command does not require any parameters.

Example

```
IROn
```

Feedback

```
IRON
```

Lock

Locks all the buttons on the front panel. This feature is useful when the unit is installed in a rack environment or other remote location, to prevent unauthorized tampering or accidental pressing of the front-panel buttons. Also refer to the Unlock command.

Syntax

```
Lock
```

This command does not require any parameters.

Example

```
Lock
```

Feedback

```
LOCK
```

Mreset

Resets the unit to factory-default settings.

Syntax

```
Mreset
```

This command does not require any parameters.

Example

```
Mreset
```

Feedback

```
MRESET
```

OutputStatus

Event-driven API command. Feedback indicates if a sink device is present, based on the state of both the HDMI HPD and TMDS signals. If a sink is detected on the output, then a 1 will be returned. An output with no sink connected will return a 0.

Syntax

```
OutputStatus
```

This command does not require any parameters.

Example

```
If the local display is disconnected from the HDMI OUT port, then the following is true:
a. The control system, using either RS-232 or Telnet, will receive OutputStatus 0.
b. Reconnecting the display will return OutputStatus 1.
```

Feedback

```
(no feedback)
```

PWOFF

Executing this command will power off the AT-HDR-SW-51. Execute the PWON command to power on the unit.

Syntax

```
PWOFF
```

This command does not require any parameters.

Example

```
PWOFF
```

Feedback

```
PWOFF
```

PWON

Executing this command will power on the AT-HDR-SW-51. Execute the PWOFF command to power off the unit.

Syntax

```
PWON
```

This command does not require any parameters.

Example

```
PWON
```

Feedback

```
PWON
```

PWSTA

Displays the current power state of the AT-HDR-SW-51.

Syntax

```
PWSTA
```

This command does not require any parameters.

Example

```
PWSTA
```

Feedback

```
PWON
```

Reboot

Performs a soft reboot of the AT-HDR-SW-51.

Syntax

```
Reboot
```

This command does not require any parameters.

Example

```
Reboot
```

Feedback

```
REBOOT
```

RHostName

Displays the hostname of the unit. Execute the SHostName command to set the hostname.

Syntax

```
RHostName
```

This command does not require any parameters.

Example

```
RHostName
```

Feedback

```
RHostName SW51-07AD26
```

ScalerMode

Enables or disables the scaler on the AT-HDR-SW-51. Setting this value to on will downscale 4K content to 1080p when the output device detects a 1080p display on the output. When set to off, the output resolution / timing will be the same as the input source. The default setting is off. Specify the sta argument to display the current setting.

Syntax

```
ScalerModeX Y
```

Parameter	Description	Range
X	Output	1
Y	State	on, off, sta

Example

```
ScalerMode1 on
```

Feedback

```
SCALERMODE1 ON
```

SHostName

Sets the hostname of the unit. Names exceeding 15 characters in length will be truncated to characters 1 through 15. Execute the RHostName command to display the hostname.

Syntax

```
SHostName
```

Parameter	Description	Range
X	Hostname	15 characters (max.)

Example

```
SHostName
```

Feedback

```
SHOSTNAME SW-51-ConfRm
```

Status

Displays which input is routed to which output. Result is returned as xYavxZ, where Y is the input and Z is the output.

Syntax

```
Status
```

This command does not require any parameters.

Example

```
Status
```

Feedback

```
X1AVX1
```

System sta

Displays the status of the unit.

Syntax

```
System sta
```

This command does not require any parameters.

Example

```
System sta
```

Feedback

```
Model: AT-HDR-SW-51
MAC Addr: b8-98-b0-07-ad-26
Address Type: DHCP
IP Addr: 10.20.20.37
Netmask: 255.255.255.0
Gateway: 10.20.20.1
HTTP Port: 80
Telnet Port: 23
Firmware: 1.0.0
On/Up Time <dd HH:mm:ss>: 07 22:13:09
Hostname: SW51-07AD26
```

Type

Displays the model information of the unit.

Syntax

```
Type
```

This command does not require any parameters.

Example

```
Type
```

Feedback

```
AT-HDR-SW-51
```

Unlock

Unlocks the buttons on the front panel. Also refer to the Lock command.

Syntax

```
Unlock
```

This command does not require any parameters.

Example

```
Unlock
```

Feedback

```
Unlock
```

Version

Displays the current firmware version of the unit.

Syntax

```
Version
```

This command does not require any parameters.

Example

```
Version
```

Feedback

```
V1.0.0
```

VOUTMute

Mutes / unmutes the output volume for the specified output. Do not include a space between the command and the first argument. Specify the sta argument to display the current setting.

Syntax

```
VOUTMuteX Y
```

Parameter	Description	Range
X	Output	1, 2, 3 (1 = analog audio, 2 = S/PDIF, 3 = HDMI)
Y	Value	on, off, sta

Example

```
VOUTMute2 on
```

Feedback

```
VOUTMUTE2 ON
```

x1$

Enables or disables the HDMI OUT port. Set this value to on to mute the port. Specify the sta argument to display the current setting.

Syntax

```
x1$ X
```

Parameter	Description	Range
X	Value	on, off, sta

Example

```
x1$ on
```

Feedback

```
X1$ ON
```

x1AVx1

Routes the specified input to the HDMI OUT port.

Syntax

```
xYAVxZ
```

Parameter	Description	Range
Y	HDMI input	1 ... 5
Z	Output	1

Example

```
x3AVx1
```

Feedback

```
X3AVX1
```