



Technical Reference

020-103593-01

# APS Series

Serial Commands

**CHRISTIE**

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# Communicating with Christie APS Series

Understand the information and procedures for communicating with Christie APS Series from a remote location. You can communicate with the projector through the RS232 IN port.

## Model name

- LWU560-APS
- LWU660-APS

## Connecting to the projector RS232 IN port

Communicate with the projector through the RS232 IN port.

1. Connect one end of a null standard nine-pin female to female modem cable to the projector RS232 IN port.
2. Connect the other end of the null standard nine-pin female to female modem cable to a computer.
3. Connect PIN 2 to PIN 3, PIN 3 to PIN 2 and PIN 5 to PIN 5.

## RS232 communication parameters

The RS232 IN port has several communication parameters.

Parameter	Value
Default baud rate	19200
Parity	None
Data bits	8
Stop bits	1
Flow control	None

## Correct command formatting

Add a space between the function code and the number when entering commands.

For example, (PWR1) can be entered as (PWR 1).

## Understanding the message format

Commands sent to and from Christie DPS Series are formatted as simple text messages consisting of a three letter function code, an optional four letter subcode, and optional data.

Source	Format	Function	Example
From controller	(Code Data)	Set(Set Input to VGA)	INP 0
	(Code+Subcode Data)	Set(Set Laser mode to Normal)	LCT+LSM 1
	(Code+/-)	Adjust(Brightness effect increased)	BRI+
	(Code+Subcode+/-)	Adjust(Laser light source power increase)	LCT+LAD+
	(Code+Subcode)(Get)	Get(Get input source information)	MIF+INP
	(Code)	(Complete independent function)	REST

## Message structure

Understand the components of an ASCII command.

Regardless of message type or origin, all messages use the same basic format and code.

Message element	Description
Function code	The primary projector function being queried or modified. Each function code is represented by a three-character, upper or lower case ASCII code (A-Z).
+subcode	Used in the superposition of characters in two-level menus to form a complete serial port command.
+/-	Used for range adjustment of some functions.
parameter	Some commands are followed by parameters, which represent the codes of the options which must be set. Upper or lower case ASCII code (A-Z) or the numbers( 0-9 )

## Error messages

If a command cannot be performed, NG is displayed. The following are reasons the command cannot be executed:

- Command execution conditions are not met.
- The current command is invalid.



# Serial API commands

The APS series commands can be used to modify product settings.

## PWR-Power

Changes the power state of the product.

### Commands

Command	Description	Value
PWR <value>	Turns the projector on or off.	0 = Turns off the projector 1 = Turns on the projector

### Examples

Turns off the projector: PWR 0
Turns on the projector: PWR 1

## MENU

Opens the projector menu.

### Commands

Command	Description	Value
MENU	Opens the projector menu.	—

## MENU+U/D/L/R/OK

Executes the menu key operation.

**Commands**

Command	Description	Value
MENU+U	Executes the menu key operation.	Runs the Up key
MENU+D		Runs the Down key
MENU+L		Runs the Left key
MENU+R		Runs the Right key
MENU+OK		Runs the OK key

## INP-INPUT

Switches the projector's input source.

**Commands**

Command	Description	Value
INP <value>	Switches the projector's input.	0 = Sets the input to VGA 1 = Sets the input to HDMI1 2 = Sets the input to HDMI2 3 = Sets the input to Memory View 4 = Sets the input to Network 5 = Sets the input to USB Display

**Examples**

```
Set the input to VGA:
INP 0
```

## APC-Auto PC Adj.

Selects Auto PC Adj.

**Commands**

Command	Description	Value
APC	Selects the Auto PC Adj.	—

## FSY+/- -Fine Sync

Switches the projector's Fine sync.

**Commands**

Command	Description	Value
FSY+/-	Adjusts the Fine sync.	—

**Examples**

Add one to the Fine sync data: FSY+
Subtract one from the Fine sync data: FSY-

## HPOS+/- –H Position

Adjusts the horizontal position of the image.

**Commands**

Command	Description	Value
HPOS+/-	Adjusts the horizontal position of the image.	—

## VPOS+/- –V Position

Adjusts the vertical position of the image.

**Commands**

Command	Description	Value
VPOS+/-	Adjusts the vertical position of the image.	—

## HSZ+/- –H Size

Adjusts horizontal size level.

**Commands**

Command	Description	Value
HSZ+/-	Adjusts the horizontal size level.	—

## ASP–ASPECT

Switches the projector's aspect.

### Commands

Command	Description	Value
ASP <value>	Switches the projector's aspect.	0 = Normal 1 = 4:3 2 = Full 3 = 16:9

### Examples

Set the aspect to Normal:  
ASP 0

## PWY–Projector Way

Switches the projector's Projector way .

### Commands

Command	Description	Value
PWY <value>	Switches the projector's Projector way.	0 = Front 1 = Rear 2 = Ceiling/Front 3 = Ceiling/Rear 4 = Auto Ceiling/Front 5 = Auto Ceiling/Rear

### Examples

Set the Projector way to Front:  
PWY 0

## MPOS–Menu Position

Switches the projector's Menu position.

**Commands**

Command	Description	Value
MPOS <value>	Switches the projector's Menu position.	0 = Uper left 1 = Uper right 2 = Center 3 = Lower left 4 = Lower right

**Examples**

Set the Menu position to Upper left:  
MPOS 0

## BGD–Background Display

Switches the projector's background display.

**Commands**

Command	Description	Value
BGD <value>	Switches the projector's Background display.	0 = Blue 1 = Black

**Examples**

Set the Background display to blue:  
BGD 0

## SYS–System

Adjusts similar signals for VGA.

**Commands**

Command	Description	Value
SYS <value>	Adjusts similar signals for VGA.	0 = Selects the signal format in position 1 1 = Selects the signal format in position 2 2 = Selects the signal format in position 3 3 = Selects the signal format in position 4 4 = Selects the signal format in position 5 5 = Selects the signal format in position 6

**Examples**

Select the signal format in position 6:  
SYS 5

## IMD–Image Mode

Switches the projector's Image mode.

**Commands**

Command	Description	Value
IMD <value>	Switches the projector's Image Mode.	0 = Dynamic 1 = Standard 2 = Cinema 3 = Colorboard 4 = DICOM

**Examples**

Select the Image Mode to Dynamic:  
IMD 0

## IMDC–Colorboard

Switches the projector's Image mode to colorboard and set corresponding options .

**Commands**

Command	Description	Value
IMDC <value>	Switches the projector's Image Mode to colorboard and sets the corresponding options.	0 = Red 1 = Blue 2 = Green 3 = Yellow

**Examples**

Sets the Colorboard to Red:  
IMDC 0

## COT+/- –Contrast

Adjusts the projector's contrast.

**Commands**

Command	Description	Value
COT+/-	Adjusts the contrast.	—

**Examples**

Add one to the contrast data: COT+
Subtract one from the contrast data: COT-

## BRI+/- –Brightness

Adjusts the projector's brightness.

**Commands**

Command	Description	Value
BRI +/-	Adjusts the brightness.	—

**Examples**

Add one to the brightness data: BRI+
Subtract one from the brightness data: BRI-

## COTP–Color Temp.

Switches the projector's color temperature.

**Commands**

Command	Description	Value
COTP <value>	Switches the projector's color temperature.	0 = High 1 = Middle 2 = Low

**Examples**

Sets the Color temp to high: COTP 0
--

## CLR+/- –Color Temp Red

Switches the projector's the color temperature to red.

### Commands

Command	Description	Value
CLR+/-	Adjusts the color temperature to red.	—

### Examples

Red data add 1: CLR+
Red data sub 1: CLR-

## CLG+/- –Color Temp Green

Switches the projector's color temperature to green.

### Commands

Command	Description	Value
CLG+/-	Adjusts color temperature to green.	—

## CLB+/- –Color Temp Blue

Switches the projector's color temperature to blue.

### Commands

Command	Description	Value
CLB+/-	Adjusts color temperature to blue.	—

## SHP+/- –Sharpness

Switches the projector's sharpness.



**Commands**

Command	Description	Value
SHP+/-	Adjusts the sharpness.	—

**Examples**

Add one to the sharpness data: SHP+
Subtract one from the sharpness data: SHP-

## DPO ON/OFF—Direct Power On

Automatically turns on the projector when electrical power is connected.

**Commands**

Command	Description	Value
DPO <value>	Automatically turns on the projector when electrical power is connected.	OFF = Disables auto power up (Default) ON = Enables auto power up

**Examples**

Switch Direct power on to On: DPO ON
Switch Direct power on to Off: DPO OFF

## STD—Standby Mode

Sets the projector's Standby mode.

**Commands**

Command	Description	Value
STD <value>	Sets <b>the projector's</b> Standby mode.	0 = ECO 1 = Network 2 = Normal

**Examples**

Set the Standby mode to Normal:
---------------------------------

STD 2

## HLD ON/OFF–High Land

Increases the fan speeds to improve cooling when the projector is installed in a high altitude location.

### Commands

Command	Description	Value
HLD <value>	Enables or disables high altitude functionality.	ON = Turns on high altitude functionality OFF = Turns off high altitude functionality

### Examples

Turn on high land functionality:

HLD ON

Turn off high land functionality:

HLD OFF

## KYL–Key Lock

Sets the Key Lock status of the projector.

### Commands

Command	Description	Value
KYL <value>	Locks the remote or keyboard.	0 = Cancels the key lock function 1 = Locks the keyboard 2 = Locks the remote

### Examples

Lock the remote:

KYL 2

## LCT+LSM–Light Source Mode

Sets the Light source mode of the projector.

**Commands**

Command	Description	Value
LCT+LSM <value>	Sets the Light source mode	0 = Full normal 1 = Normal (Default) 2 = ECO1 3 = ECO2

**Examples**

Set the Light source mode to Full normal:  
LCT+LSM 2

## LCT+LAD–Light Adjust

Sets the laser source brightness level.

**Commands**

Command	Description	Value
LCT+LAD+/-	Adjusts the light source brightness level.	—

**Examples**

Add one to the laser source brightness level:  
LCT+LAD+

Subtract one from the laser source brightness level:  
LCT+LAD-

## SOD+MUT-Mute

Changes the projector mute function.

**Commands**

Command	Description	Value
SOD+MUT <value>	Changes the projector mute function.	ON = Turns on the mute function OFF = Turns off the mute function

**Examples**

Turn on mute:  
SOD+MUT ON

Turn off mute:  
SOD+MUT OFF

## HDS+IMG–HDMI Image

Adjusts the color range of HDMI.

### Commands

Command	Description	Value
HDS+IMG <value>	Adjust the color range of the HDMI.	0 = Limit range (64 to 940) 1 = Full range (0 to 1023) 2 = Auto range (Default)

### Examples

Adjust the color range of HDMI to full range:  
HDS+IMG 1

## HDS+SOD-Sound

Selects audio signal transmission equipment.

### Commands

Command	Description	Value
HDS+SOD <value>	Selects the audio signal transmission equipment.	0 = HDMI (Default) 1 = computer

### Examples

Select the computer as the audio signal transmission device:  
HDS+IMG 1

## LAN–Language

Sets the display language of the Projector.

**Commands**

Command	Description	Value
LAN <value>	Sets the language	0 = English 1 = Chinese

**Examples**

Sets the language to English:  
LAN 0

## AST+IPS–Input Search

Sets the auto input search function.

**Commands**

Command	Description	Value
AST+IPS <value>	Enables or disables the auto input search.	ON = Sets Input search to on OFF = Sets Input search to off

**Examples**

Set the input search to on:  
AST+IPS ON

## AST+APC–Auto PC ADJ.

Sets the auto PC Adj. function of the projector.

**Commands**

Command	Description	Value
AST+APC <value>	Enables or disables the auto PC Adj.	ON = Sets Auto PC Adj. to On OFF = Sets Auto PC Adj. to Off

**Examples**

Set the auto PC Adj. to on:  
AST+APC ON

## KST+KST–Keystone

Selects the keystone effect to save or not.

### Commands

Command	Description	Value
KST+KST <value>	Sets the keystone effect	0 = Reset 1 = Store

### Examples

Sets the keystone effect to reset:  
KST+KST 0

## KST+HK–Horizontal Keystone

Adjusts the keystone for horizontal direction,each step represents 0.5°.

### Commands

Command	Description	Value
KST+HK +/-	Sets the keystone step (horizontal direction).	—

### Examples

Add one to the keystone step (horizontal direction):  
KST+HK+

Subtract one from the keystone step (horizontal direction):  
KST+HK-

## KST+VK–Vertical Keystone

Adjust keystone for vertical direction,each step represents 0.5°.

### Commands

Command	Description	Value
KST+VK +/-	Sets the keystone step (vertical direction).	—

**Examples**

Add one to the keystone step (vertical direction):  
KST+VK+

Subtract one from the keystone step (vertical direction):  
KST+VK-

## CNR4+TLX-4-Corner Correction (Top-Left-X)

Adjusts keystone for 4-Corner Correction which is the horizontal orientation for top left corner.

**Commands**

Command	Description	Value
CNR4+TLX+/-	Sets the 4-Corner Correction step for top left corner (horizontal orientation).	—

**Examples**

Set the 4-Corner correction Top-Left-X:  
CNR4+TLX+

## CNR4+TLY-4-Corner Correction (Top-Left-Y)

Adjusts the keystone for 4-Corner Correction which is the vertical orientation for top left corner.

**Commands**

Command	Description	Value
CNR4+TLY+/-	Sets the 4-Corner Correction step for top left corner (vertical orientation).	—

**Examples**

Set the 4-Corner correction Top-Left-Y:  
CNR4+TLY+

## CNR4+TRX-4-Corner Correction (Top-Right-X)

Adjusts the keystone for 4-Corner Correction which is the horizontal orientation for top right corner.

**Commands**

Command	Description	Value
CNR4+TRX+/-	Sets the 4-Corner Correction step for top right corner (horizontal orientation).	—

**Examples**

Set the 4-Corner correction Top-Right-X:  
**CNR4+TRX+**

## CNR4+TRY–4-Corner Correction (Top-Right-Y)

Adjusts the keystone for 4-Corner Correction which is the vertical orientation for top right corner.

**Commands**

Command	Description	Value
CNR4+TRY+/-	Sets the 4-Corner Correction step for top right corner (vertical orientation).	—

**Examples**

Set the 4-Corner correction Top-Right-Y:  
**CNR4+TRY+**

## CNR4+BLX–4-Corner Correction (Bottom-Left-X)

Adjusts keystone for 4-Corner Correction which is the horizontal orientation for bottom left corner.

**Commands**

Command	Description	Value
CNR4+BLX+/-	Sets the 4-Corner Correction step for bottom left corner (horizontal orientation).	—

**Examples**

Set the 4-Corner correction Bottom-left-X:  
**CNR4+BLX+**

## CNR4+BLY–4-Corner Correction (Bottom-Left-Y)

Adjusts the keystone for 4-Corner Correction which is the vertical orientation for bottom left corner.



**Commands**

Command	Description	Value
CNR4+BLY+/-	Sets the 4-Corner Correction step for bottom left corner (vertical orientation).	—

**Examples**

Set the 4-Corner correction Bottom-left-Y:  
**CNR4+BLY+**

## CNR4+BRX–4-Corner Correction (Bottom-Right-X)

Adjusts the keystone for 4-Corner Correction which is the horizontal orientation for bottom right corner.

**Commands**

Command	Description	Value
CNR4+BRX+/-	Sets the 4-Corner Correction step for bottom left corner (horizontal orientation).	—

**Examples**

Set the 4-Corner correction Bottom-Right-X:  
**CNR4+BRX+**

## CNR4+BRY–4-Corner Correction (Bottom-Right-Y)

Adjusts the keystone for 4-Corner Correction which is the vertical orientation for bottom right corner.

**Commands**

Command	Description	Value
CNR4+BRY+/-	Sets the 4-Corner Correction step for bottom left corner (vertical orientation).	—

**Examples**

Set the 4-Corner correction Bottom-Right-Y:  
**CNR4+BRY+**

## 6-Corner Correction

Adjusts the keystone for 6-Corner correction.

**Commands**

Command	Description	Value
CNR6+TLX+/-	Sets the 6-Corner Correction step for top left corner (horizontal orientation).	—
CNR6+TLY+/-	Sets the 6-Corner Correction step for top left corner (vertical orientation).	—
CNR6+TRX+/-	Sets the 6-Corner Correction step for top right corner (horizontal orientation).	—
CNR6+TRY+/-	Sets the 6-Corner Correction step for top right corner (vertical orientation).	—
CNR6+TCX+/-	Sets the 6-Corner Correction step for top middle corner (horizontal orientation).	—
CNR6+TCY+/-	Sets the 6-Corner Correction step for top middle corner (vertical orientation).	—
CNR6+BLX+/-	Sets the 6-Corner Correction step for bottom left corner (horizontal orientation).	—
CNR6+BLY+/-	Sets the 6-Corner Correction step for bottom left corner (vertical orientation).	—
CNR6+BRX+/-	Sets the 6-Corner Correction step for bottom right corner (horizontal orientation).	—
CNR6+BRX+/-	Sets the 6-Corner Correction step for bottom right corner (vertical orientation).	—
CNR6+BCX+/-	Sets the 6-Corner Correction step for bottom middle corner (horizontal orientation).	—
CNR6+BCX+/-	Sets the 6-Corner Correction step for bottom middle corner (vertical orientation).	—

**Examples**

Set the 6-Corner correction Bottom-Middle-Y:  
**CNR6+BCX+**

**Curved Correction**

Adjusts the keystone for the Curved Correction.

**Commands**

Command	Description	Value
CCR+CGX+/-	Adjusts the Curved correction X gain (horizontal orientation).	—
CCR+CGY+/-	Adjusts the Curved correction Y gain (vertical orientation).	—
CCR+CXOX+/-	Adjusts the Curved correction X offset (horizontal orientation).	—
CCR+CXOY+/-	Adjusts the Curved correction X offset (vertical orientation).	—
CCR+CYOX+/-	Adjusts the Curved correction Y offset (horizontal orientation).	—
CCR+CYOY+/-	Adjusts the Curved correction Y offset (vertical orientation).	—

**Examples**

Adjust the Curved correction X gain:  
CCR+CGX+

## KST+REST–Keystone Reset

Resets the keystone effect.

**Commands**

Command	Description	Value
KST+REST	Resets the keystone.	—

**Examples**

Reset the keystone:  
KST+REST

## LOG+SEL–Logo Select

Sets the logo display select.

**Commands**

Command	Description	Value
LOG+SEL <value>	Sets the splash screen to display.	0 = Off 1 = Default (Default) 2 = User

**Examples**

Set the logo to user logo:  
LOG+SEL 2

## PMG–Power Management

Sets power management.

**Commands**

Command	Description	Value
PMG <value>	Sets the power management.	0 = Ready (Default) 1 = Shutdown 2 = Off

**Examples**

Set the power management to off:  
PMG 2

## PMG+TMR–Power Management Standby Timer

Turns the projector off after a set period of time. Automatic power off only occurs when an image is not displayed.

**Commands**

Command	Description	Value
PMG+TMR <value>	Sets the power management standby timer.	0 to 30 5 (Default)

**Examples**

Set the power management standby timer to 20:  
(PMG+TMR 20)

## PMG+TDN–Power Management Shutdown Timer

Sets the timer for power management shutdown.

**Commands**

Command	Description	Value
PMG+TDN <value>	Sets the power management shutdown timer.	1 to 30 5 (Default)

**Examples**

Set the power management shutdown timer to 15:  
(PMG+TDN 15)

## LEN+FCX–FOCUS

Adjusts the focus of the image.

### Commands

Command	Description	Value
LEN+FCX +/-	Adjusts the lens focus (Horizontal).	—
LEN+FCY +/-	Adjusts the lens focus (Vertical).	—

### Examples

Set the lens focus to move left:

LEN+FCX+

Set the lens focus to move down:

LEN+FCY-

## LENS+ZOOM–ZOOM

Sets the lens zoom.

### Commands

Command	Description	Value
LENS+ZOOM +/-	Increases or decreases the zoom.	—

### Examples

Enlarge the lens zoom:

LENS+ZOOM+

## LENS+SFTX–LENS Shift Horizontal

Adjusts the horizontal lens offset.

### Commands

Command	Description	Value
LENS+SFTX +/-	Adjusts the horizontal location of the lens.	—

**Examples**

Set the lens shift to move right:  
**LENS+SFTX-**

## LENS+SFTY-LENS Shift Vertical

Adjusts the Vertical lens offset.

**Commands**

Command	Description	Value
LENS+SFTY+/-	Adjusts the vertical location of the lens.	—

**Examples**

Set the lens shift to move up:  
**LENS+SFTY+**

## LENS+CENTER-LENS Shift Center

Performs a lens center.

**Commands**

Command	Description	Value
LENS+CENTER	Performs lens center.	—

**Examples**

Apply the lens center:  
**LENS+CENTER**

## LENS+CALIBRATE-LENS Calibration

Performs a calibration of the lens.

**Commands**

Command	Description	Value
LENS+CALIBRATE	Performs a lens calibration.	—

**Examples**

Apply the lens calibration:  
( LENS+CALIBRATE )

## ITP–Test Pattern

Displays a test pattern.

**Commands**

Command	Description	Value
ITP <pattern>	Displays a test pattern on the display	0 = Off (Default) 1 = Greyscale 1 2 = Greyscale 2 3 = Greyscale 3 4 = Greyscale 4 5 = Color bar 6 = Red 7 = Green 8 = Blue 9 = Cross hatch 10 = White 11 = Black 12 = Raster grey

**Examples**

Disables test patterns and revert to the previous input signal:  
( ITP 0 )

Sets the test pattern to the grid pattern:  
( ITP 1 )

## REST–Factory Reset

Resets the projector to the default settings.

**Commands**

Command	Description	Value
REST	Resets the projector to the default settings.	—

**Examples**

```
Reset the projector:
REST
```

## MIF+INP–Input Source

Gets the information of the input source.

**Commands**

Command	Description	Value
MIF+INP	Gets the input source	—

**Examples**

```
Get the input source:
MIF+LPT
Result:
HDMI1
```

## MIF+HFQ–H-sync freq.

Gets the information of the H-sync freq.

**Commands**

Command	Description	Value
MIF+HFQ	Gets the V-sync freq.	—

**Examples**

```
Get the H-sync freq:
MIF+LPT
Result:
74.12KHz
```

## MIF+VFQ–V-sync freq.

Gets the information of the V-sync freq.



**Commands**

Command	Description	Value
MIF+VFO	Gets the V-sync freq	—

**Examples**

```
Get the V-sync freq:
MIF+LPT
Result:
59.99HZ
```

## MIF+LPT–Light Source Counter

Get the information of the light source counter.

**Commands**

Command	Description	Value
MIF+LPT	Gets the light source counter.	—

**Examples**

```
Get the light source counter:
MIF+LPT
Result:
00500
```

## MIF+PMG–Power Management

Gets the information of the Power management.

**Commands**

Command	Description	Value
MIF+PMG	Gets the power management information.	—

**Examples**

```
Get Power management:
MIF+PMG
Result:
Ready
```

## MIF+IMG–Image Mode

Gets the information of the image mode.

### Commands

Command	Description	Value
MIF+IMG	Gets the image mode.	—

### Examples

```
Gets image mode:
(MIF+IMG)
Result:
(Standard)
```

## MIF+MDN–Model Name

Gets the information of the model name.

### Commands

Command	Description	Value
MIF+MDN	Gets the model name.	—

### Examples

```
Gets model name:
MIF+MDN
Result:
1260
```

## MIF+SN–SN Number

Gets the serial number information.

### Commands

Command	Description	Value
MIF+SN	Gets serial number.	—

**Examples**

```
Get serial number:
MIF+SN
Result:
XXXXXXX
```

## MIF+FWV–Firmware Version

Gets the information of the firmware version.

**Commands**

Command	Description	Value
MIF+FWV	Gets the firmware version.	—

**Examples**

```
Get firmware version:
MIF+FWV
Result:
1.10_XXXX
```

