



Technical Reference

020-002180-01

APS/DPS Series

Serial Commands

CHKISTIE®

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
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Notice. If not avoided, the following could result in property damage.



Information messages provide additional information, emphasize or provide a useful tip.

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Communicating with Christie APS/DPS Series

Understand the information and procedures for communicating with Christie APS/DPS Series from a remote location.

You can communicate with the projector through the RS232 IN port.

Model name

- LWU600-APS
- LWU600ST-APS
- LWU600ST-4K-APS
- LWU700ST-APS
- LWU700-APS
- LWU700-4K-APS
- LWU800-APS
- LWU890-APS
- LWU800-4K-APS
- LWU1160-DPS
- LWU1460-DPS
- LWU1900-DPS
- LWU2400-DPS

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 carriage return CR after the function code when entering commands.

For example, (C00) can be entered as (C00[CR]).

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, a question mark (?) 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/DPS series commands can be used to modify product settings.

POWER

Turns on or off the projector.

Commands

Command	Description
C00[CR]	Turns on the projector.
C01[CR]	Turns off the projector.

Examples

Turn on the projector:

C00 [CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

Turn off the projector:

C01 [CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

MENU

Controls the projector's menu.

Commands

Command	Description
C1C[CR]	Opens the projector menu.
C1D[CR]	Closes the projector menu.
C3C[CR]	Runs the Up key.
C3D[CR]	Runs the Down key.
C3B[CR]	Runs the Left key.

Command	Description
C3A[CR]	Runs the Right key.
C3F[CR]	Runs the Enter key.

Examples

Open the projector menu:

C1C[CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

Close the projector menu:

C1D[CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

Run the Up key:

C3C[CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

Run the Enter key:

C3F[CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

INPUT

Sets the input to VGA, HDMI 1, HDMI 2, HDBaseT, Network, Memory Viewer, USB Display, DVI, or SDI.

Commands

Command	Description
C05[CR]	Sets the input to VGA. Only applies to: LWU600-APS, LWU600ST-APS, LWU700ST-APS, LWU700-APS, LWU800-APS, LWU890-APS, LWU1160-DPS, LWU1460-DPS, LWU1900-DPS, and LWU2400-DPS
C36[CR]	Sets the input to HDMI 1.
C37[CR]	Sets the input to HDMI 2.
C38[CR]	Sets the input to HDBaseT. Only applies to: LWU1160-DPS, LWU1460-DPS, LWU1900-DPS, and LWU2400-DPS
C15[CR]	Sets the input to Network.

Command	Description
	Only applies to: LWU600-APS, LWU600ST-APS, LWU700ST-APS, LWU700-APS, LWU800-APS, LWU890-APS, LWU1160-DPS, LWU1460-DPS, LWU1900-DPS, and LWU2400-DPS
C16[CR]	Sets the input to Memory Viewer.
C17[CR]	Sets the input to USB Display. Only applies to: LWU600-APS, LWU600ST-APS, LWU700ST-APS, LWU700-APS, LWU800-APS, LWU890-APS, LWU1160-DPS, LWU1460-DPS, LWU1900-DPS, and LWU2400-DPS
C51[CR]	Sets the input to DVI. Only applies to: LWU1160-DPS, LWU1460-DPS, LWU1900-DPS, and LWU2400-DPS

Examples

Set the input to VGA:

C05 [CR]

Result:

[ACK] [CR]

Set the input to HDMI 1:

C36 [CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

Set the input to HDMI 2:

C37 [CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

Set the input to HDBaseT:

C38 [CR]

Result:

[ACK] [CR]

Set the input to Memory Viewer:

C16 [CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

CR

Gets information about the projector.

Commands

Command	Description
CR PJNAME	Gets the projector model name.
CR PJSN	Gets the serial number (SN) of the projector.
CR WVERSION	Gets the firmware version on the projector.

Examples

Get the projector model name:

CR PJNAME

Result:

1260

Get the serial number of the projector:

CR PJSN

Result:

000 1234567890

Get the firmware version on the projector:

CR WVERSION

Result:

1.10_XXXX

KEYSTONE

Adjusts the vertical trapezoidal correction upwards and downwards and adjusts the horizontal trapezoidal correction to the left or right.

Only applies to: LWU600-APS, LWU600ST-APS, LWU700ST-APS, LWU700-APS, LWU800-APS, LWU890-APS, LWU1160-DPS, LWU1460-DPS, LWU1900-DPS, and LWU2400-DPS

Commands

Command	Description
C8E[CR]	Adjusts the vertical trapezoidal correction upwards.
C8F[CR]	Adjusts the vertical trapezoidal correction downwards.
C90[CR]	Adjusts the horizontal trapezoidal correction to the right.
C91[CR]	Adjusts the horizontal trapezoidal correction to the left.

Examples

Adjust the vertical trapezoidal correction upwards:

C8E [CR]

Result:

[ACK] [CR]

Adjust the vertical trapezoidal correction downwards:

C8F [CR]

Result:

[ACK] [CR]

Adjust the horizontal trapezoidal correction to the right:

C90 [CR]

Result:

[ACK] [CR]

Adjust the horizontal trapezoidal correction to the left:

C91 [CR]

Result:

[ACK] [CR]

FREEZE ON/OFF

Enables or disables freezing the screen.

Commands

Command	Description
C43[CR]	Freezes the screen.
C44[CR]	Unfreezes the screen.

Examples

Freeze the screen:

C43 [CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

Unfreeze the screen:

C44 [CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

BLANK ON/ OFF

Enables or disables blanking the screen.

Commands

Command	Description
C0D[CR]	Blanks the screen.
C0E[CR]	Disables blanking the screen.

Examples

Blank the screen:

C0D[CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

Disable blanking the screen:

C0E[CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

TIMER

Turns on or off the timer.

Only applies to: LWU600-APS, LWU600ST-APS, LWU700ST-APS, LWU700-APS, LWU800-APS, LWU890-APS, LWU1160-DPS, LWU1460-DPS, LWU1900-DPS, and LWU2400-DPS

Commands

Command	Description
C8A[CR]	Turns on the timer.
C8B[CR]	Turns off the timer.

Examples

Turn on the timer:

C8A[CR]

Result:

[ACK] [CR]

Turn off the timer:

C8B[CR]

Result:
[ACK] [CR]

MUTE ON/OFF

Enables or disables the mute function.

Only applies to: LWU600-APS, LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS, LWU600ST-APS, LWU700ST-APS, LWU700-APS, LWU800-APS, and LWU890-APS

Commands

Command	Description
C0B[CR]	Mutes the projector.
C0C[CR]	Disables the mute function.

Examples

Mute the projector:

C0B[CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

Disable the mute function:

C0C[CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

D.ZOOM +/-

Increases or reduces the digital zoom function.

Commands

Command	Description
C30[CR]	Increase the digital zoom.
C31[CR]	Reduce the digital zoom.

Examples

Increase the digital zoom:

C30 [CR]

Result:

```
LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]
Others: [ACK] [CR]
```

Reduce the digital zoom:

```
C31 [CR]
```

Result:

```
LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]
```

```
Others: [ACK] [CR]
```

VOLUME +/-

Turns up or down the volume.

Only applies to: LWU600-APS, LWU600ST-APS, LWU600ST-4K-APS, LWU700ST-APS, LWU700-APS, LWU700-4K-APS, LWU800-APS, LWU800-4K-APS, and LWU890- APS

Commands

Command	Description
C09[CR]	Turns up the volume.
C0A[CR]	Turns down the volume.

Examples

Turn up the volume:

```
C09 [CR]
```

Result:

```
LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]
```

```
Others: [ACK] [CR]
```

Turn down the volume:

```
C0A [CR]
```

Result:

```
LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]
```

```
Others: [ACK] [CR]
```

DYNAMIC/STANDARD

Sets the picture mode to Dynamic or Standard.

Only applies to: LWU600-APS, LWU600ST-APS, LWU700ST-APS, LWU700-APS, LWU800-APS, LWU890-APS, LWU1160-DPS, LWU1460-DPS, LWU1900-DPS, and LWU2400-DPS

Commands

Command	Description
C19[CR]	Sets the picture mode to Dynamic.
C11[CR]	Sets the picture mode to Standard.

Examples

Set the picture mode to Dynamic:

C19 [CR]

Result:

[ACK] [CR]

Set the picture mode to Standard:

C11 [CR]

Result:

[ACK] [CR]

PICTURE MODE

Sets the picture mode to Colorboard, Cinema, or User.

Only applies to: LWU600-APS, LWU600ST-APS, LWU700ST-APS, LWU700-APS, LWU800-APS, LWU890-APS, LWU1160-DPS, LWU1460-DPS, LWU1900-DPS, and LWU2400-DPS

Commands

Command	Description
C39[CR]	Sets the picture mode to Colorboard.
C13[CR]	Sets the picture mode to Cinema.
C14[CR]	Sets the picture mode to User.

Examples

Set the picture mode to Colorboard:

C39 [CR]

Result:

[ACK] [CR]

Set the picture mode to Cinema:

C13 [CR]

Result:

[ACK] [CR]

ADJUST IMAGE MODE

Sets the picture mode.

Commands

Command	Description
C27[CR]	Sets the picture mode.

Examples

Set the picture mode:

C27 [CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

BRIGHTNESS+/-

Increases or decreases the brightness of the image.

Only applies to: LWU600-APS, LWU600ST-APS, LWU700ST-APS, LWU700-APS, LWU800-APS, LWU890-APS, LWU1160-DPS, LWU1460-DPS, LWU1900-DPS, and LWU2400-DPS

Commands

Command	Description
C20[CR]	Increases the brightness of the image.
C21[CR]	Reduces the brightness of the image.

Examples

Increase the brightness of the image:

C20 [CR]

Result:

[ACK] [CR]

Decrease the brightness of the image:

C21 [CR]

Result:

[ACK] [CR]

ASPECT RATIO

Sets the aspect ratio.

Commands

Command	Description
C1F[CR]	Sets the aspect ratio to 16:10. Only applies to: LWU600-APS, LWU600ST-APS, LWU700ST-APS, LWU700-APS, LWU800-APS, LWU890- APS, LWU1160-DPS, LWU1460-DPS, LWU1900-DPS, and LWU2400-DPS
C10[CR]	Sets the aspect ratio to 16:9. Only applies to: LWU600-APS, LWU600ST-APS, LWU700ST-APS, LWU700-APS, LWU800-APS, LWU890- APS, LWU1160-DPS, LWU1460-DPS, LWU1900-DPS, and LWU2400-DPS
C0F[CR]	Sets the aspect ratio to Auto.

Command	Description
	Applies to: LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS, LWU600-APS, LWU600ST-APS, LWU700ST-APS, LWU700-APS, LWU800-APS, LWU890- APS, LWU1160-DPS, LWU1460-DPS, LWU1900-DPS, and LWU2400-DPS
C10[CR]	Sets the aspect ratio to 16:9. Only applies to: LWU600ST-4K-APS, LWU700-4K-APS, and LWU800-4K-APS
C11[CR]	Sets the aspect ratio to 4:3. Only applies to: LWU600ST-4K-APS, LWU700-4K-APS, and LWU800-4K-APS
C12[CR]	Sets the aspect ratio to 16:10. Only applies to: LWU600ST-4K-APS, LWU700-4K-APS, and LWU800-4K-APS
C13[CR]	Sets the aspect ratio to Full. Only applies to: LWU600ST-4K-APS, LWU700-4K-APS, and LWU800-4K-APS

Examples

Set the aspect ratio to Normal/Auto:

C0F[CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

Set the aspect ratio to 16: 9:

C10[CR]

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

Set the aspect ratio to 16: 10:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: C12[CR]

Others: C1F[CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

Set the aspect ratio to 4: 3:

C11[CR]

Result:

[OK] [CR]

Set the aspect ratio to Full:

C13[CR]

Result:

[OK] [CR]

DIRECT ON ENABLE/DISABLE

Enables or disables power when starting up the projector.

Commands

Command	Description
C28[CR]	Enables power when starting up the projector.
C29[CR]	Disables power when starting up the projector.

Examples

Enable power when starting up the projector:

C28 [CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

Disable power when starting up the projector:

C29 [CR]

Result:

LWU600ST-4K-APS, LWU700-4K-APS, LWU800-4K-APS: [OK] [CR]

Others: [ACK] [CR]

POWER MANAGEMENT

Sets the power management to Ready, Shut down, or Off.

Only applies to: LWU600-APS, LWU600ST-APS, LWU700ST-APS, LWU700-APS, LWU800-APS, LWU890-APS, LWU1160-DPS, LWU1460-DPS, LWU1900-DPS, and LWU2400-DPS

Commands

Command	Description
C2A[CR]	Sets the power management to Ready.
C2E[CR]	Sets the power management to Shut Down.
C2B[CR]	Sets the power management to Off.

Examples

Set the power management to Ready:

C2A [CR]

Result:

[ACK] [CR]

Set the power management to Shut Down:

C2E [CR]

Result:

[ACK] [CR]

Set the power management to Off:

C2B [CR]

Result:

[ACK] [CR]

AUTO PC ADJUST

Automatically adjusts the computer.

Only applies to: LWU600-APS, LWU600ST-APS, LWU700ST-APS, LWU700-APS, LWU800-APS, LWU890-APS, LWU1160-DPS, LWU1460-DPS, LWU1900-DPS, and LWU2400-DPS

Commands

Command	Description
C89[CR]	Automatically adjusts the computer.

Examples

Automatic adjust the computer:

C89 [CR]

Result:

[ACK] [CR]

DISPLAY CLEAR

Closes all menus on the projector.

Only applies to: LWU600-APS, LWU600ST-APS, LWU700ST-APS, LWU700-APS, LWU800-APS, LWU890-APS, LWU1160-DPS, LWU1460-DPS, LWU1900-DPS, and LWU2400-DPS

Commands

Command	Description
C1E[CR]	Closes all menus on the projector.

Examples

Close all menus:

C1E [CR]

Result:

[ACK] [CR]