

LW502/LWU502

User's Manual (detailed) Operating Guide - Technical

020-001099-01

LW502/LWU502

User's Manual (detailed)

Operating Guide – Technical

Supported signals for COMPUTER IN

Resolution (H x V)	Signal mode	H. frequency (kHz)	V. frequency (Hz)	Rating
720 x 400	TEXT	37.9	85	VESA
640 x 480	VGA (60Hz)	31.5	59.9	VESA
	VGA (72Hz)	37.9	72.8	VESA
	VGA (75Hz)	37.5	75	VESA
	VGA (85Hz)	43.3	85	VESA
800 x 600	SVGA (56Hz)	35.2	56.3	VESA
	SVGA (60Hz)	37.9	60.3	VESA
	SVGA (72Hz)	48.1	72.2	VESA
	SVGA (75Hz)	46.9	75	VESA
	SVGA (85Hz)	53.7	85.1	VESA
832 x 624	Mac 16" mode	49.7	74.5	
1024 x 768	XGA (60Hz)	48.4	60	VESA
	XGA (70Hz)	56.5	70.1	VESA
	XGA (75Hz)	60	75	VESA
	XGA (85Hz)	68.7	85	VESA
1152 x 864	1152 x 864 (75Hz)	67.5	75	VESA
1280 x 768	W-XGA (60Hz)	47.7	60	VESA
1280 x 800	1280 x 800 (60Hz)	49.7	60	VESA
1280 x 1024	SXGA (60Hz)	64	60	VESA
	SXGA (75Hz)	80	75	VESA
	SXGA (85Hz)	91.1	85	VESA
*1) 1366 x 768	WXGA (60Hz)	47.7	59.8	VESA
1440 x 900	WXGA+ (60Hz)	55.9	59.9	VESA
1600 x 900	WXGA++ (60Hz)	60	60	VESA
1680 x 1050	WSXGA+ (60Hz)	65.3	60	VESA
1600 x 1200	UXGA (60Hz)	75	60	VESA
1920 x 1080	Full HD (60Hz)	67.5	60	VESA
*2) 1920 x 1200	W-UXGA (60Hz) Reduced Blanking	74	60	VESA

*1) Only for [WXGA Model]

*2) Only for [WUXGA Model]

(continued on next page)

Supported signals for HDMI / HDBaseT

Resolution (H x V)	Signal mode	H. frequency (kHz)	V. frequency (Hz)	Rating
720 x 400	TEXT	37.9	85	VESA
640 x 480	VGA (60Hz)	31.5	59.9	VESA
	VGA (72Hz)	37.9	72.8	VESA
	VGA (75Hz)	37.5	75	VESA
	VGA (85Hz)	43.3	85	VESA
800 x 600	SVGA (56Hz)	35.2	56.3	VESA
	SVGA (60Hz)	37.9	60.3	VESA
	SVGA (72Hz)	48.1	72.2	VESA
	SVGA (75Hz)	46.9	75	VESA
	SVGA (85Hz)	53.7	85.1	VESA
832 x 624	Mac 16" mode	49.7	74.5	
1024 x 768	XGA (60Hz)	48.4	60	VESA
	XGA (70Hz)	56.5	70.1	VESA
	XGA (75Hz)	60	75	VESA
	XGA (85Hz)	68.7	85	VESA
1152 x 864	1152 x 864 (75Hz)	67.5	75	VESA
1280 x 768	W-XGA (60Hz)	47.7	60	VESA
1280 x 800	1280 x 800 (60Hz)	49.7	60	VESA
1280 x 1024	SXGA (60Hz)	64	60	VESA
	SXGA (75Hz)	80	75	VESA
	SXGA (85Hz)	91.1	85	VESA
1366 x 768	WXGA (60Hz)	47.7	59.8	VESA
1440 x 900	WXGA+ (60Hz)	55.9	59.9	VESA
1600 x 900	WXGA++ (60Hz)	60	60	VESA
1400 x 1050	SXGA+ (60Hz)	65.2	60	VESA
1680 x 1050	WSXGA+ (60Hz)	65.3	60	VESA
1600 x 1200	UXGA (60Hz)	75	60	VESA
*1) 1920 x 1200	W-UXGA (60Hz) Reduced Blanking	74	60	VESA

*1) Only for [WUXGA Model]

(continued on next page)

Resolution (H x V)	Signal mode	H. frequency (kHz)	V. frequency (Hz)	Rating
720(1440) x 480i	480i	15.7	60	CEA
720 x 480p	480p	31.5	60	CEA
1280 x 720p	720p (60Hz)	45	60	CEA
1920 x 1080i	1080i (60Hz)	33.8	60	CEA
1920 x 1080p	1080p (60Hz)	67.5	60	CEA

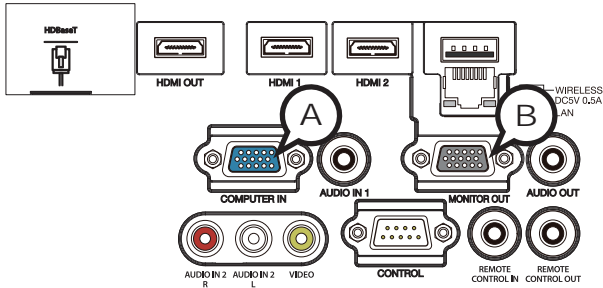
NOTE • Check jack type, signal level, timing and resolution before connecting this projector to a PC.

- Some PCs may have multiple display screen modes. Use of some of these modes is not possible with this projector.
- Depending on the input signal, full-size display may not be possible in some cases. Refer to the number of display pixels above.
- LW502 and LWU502 are not recommended for use with 50Hz signal inputs.
- The signal is converted to the projector's panel resolution before being displayed. The best display performance is achieved if the resolutions of the input signal and projector panel are identical.
- Automatic adjustment may not function correctly with some input signals.
- The image may not be displayed correctly when the input sync signal is a composite sync or a sync on G.
- The illustrations in this manual are for illustrative purposes. They may differ slightly from your projector.

Connection to the ports

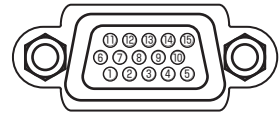
NOTICE ► Use the cables with straight plugs, not L-shaped ones, as the input ports of the projector are recessed.

► Only the signal that is input from the **COMPUTER IN** can be output from the **MONITOR OUT** port.



ⒶCOMPUTER IN, ⒷMONITOR OUT

D-sub 15pin mini shrink jack



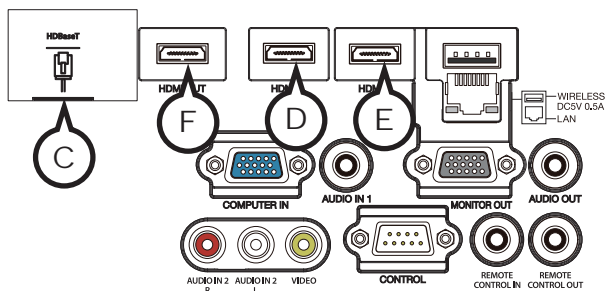
<Computer signal>

- Video signal: RGB separate, Analog, 0.7Vp-p, 75Ω terminated (positive)
- H/V. sync. signal: TTL level (positive/negative)
- Composite sync. signal: TTL level

<Component video signal>

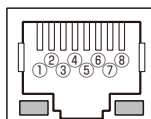
- Video signal: Y with composite sync, Analog, 1.0±0.1Vp-p, 75Ω terminated
Cb/Pb, Analog, 0.7±0.1Vp-p, 75Ω terminated
Cr/Pr, Analog, 0.7±0.1Vp-p 75Ω terminated
- System: 480i@60, 480p@60, 720p@60, 1080i@60, 1080p@60

Pin	Signal	Pin	Signal
1	Video Red, Cr/Pr	9	(No connection)
2	Video Green, Y	10	Ground
3	Video Blue, Cb/Pb	11	(No connection)
4	(No connection)	12	Ⓐ: SDA (DDC data) Ⓑ: (No connection)
5	Ground	13	H. sync / Composite sync.
6	Ground Red, Ground Cr/Pr	14	V. sync.
7	Ground Green, Ground Y	15	Ⓐ: SCL (DDC clock) Ⓑ: (No connection)
8	Ground Blue, Ground Cb/Pb		



©HDBaseT

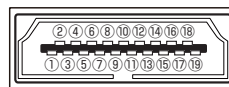
RJ-45 jack



Pin	Signal	Pin	Signal	Pin	Signal
1	HDBaseT0+	4	HDBaseT2+	7	HDBaseT3+
2	HDBaseT0-	5	HDBaseT2-	8	HDBaseT3-
3	HDBaseT1+	6	HDBaseT1-		

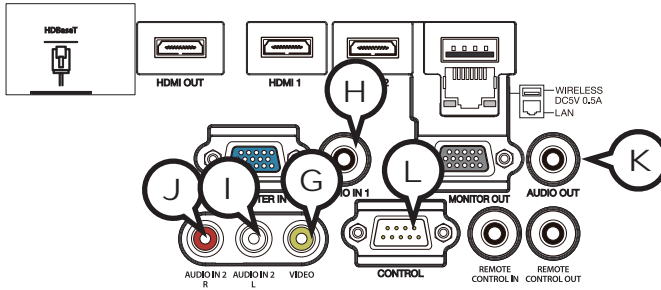
④HDMI 1, ⑤HDMI 2, ⑥HDMI OUT

- Type :Digital audio/video connector
- Audio signal: Linear PCM (Sampling rate; 32/44.1/48 kHz)



Pin	Signal	Pin	Signal	Pin	Signal
1	T.M.D.S. Data2 + N.C.	8	T.M.D.S. Data0 Shield	15	SCL CD_PULLUP
2	T.M.D.S. Data2 Shield CD_SENSE	9	T.M.D.S. Data0 -	16	SDA N.C.
3	T.M.D.S. Data2 - N.C.	10	T.M.D.S. Clock + N.C.	17	DDC/CEC Ground VBUS_CBUS_GND
4	T.M.D.S. Data1 + N.C.	11	T.M.D.S. Clock Shield TMDS_GND	18	+5V Power VBUS
5	T.M.D.S. Data1 Shield TMDS_GND	12	T.M.D.S. Clock - N.C.	19	Hot Plug Detect CBUS
6	T.M.D.S. Data1 - N.C.	13	CEC N.C.		
7	T.M.D.S. Data0 +	14	Reserved (N.C. on device) N.C.		

Connection to the ports (continued)



ⓐVIDEO

RCA jack

- Composite video signal, Analog, $1.0 \pm 0.1V_{p-p}$, 75Ω terminator
- System: NTSC, PAL, SECAM, PAL-M, PAL-N, NTSC4.43, PAL(60Hz)

ⓑAUDIO IN1

Ø3.5 stereo mini jack

- Analog, $47k\Omega$ input impedance

AUDIO IN2 ⓐL, ⓑR

RCA jack x2

- Analog, $47k\Omega$ input impedance

AUDIO OUT ⓐ

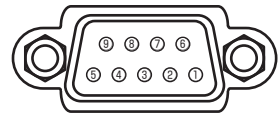
Ø3.5 stereo mini jack

- Analog, $1k\Omega$ output impedance

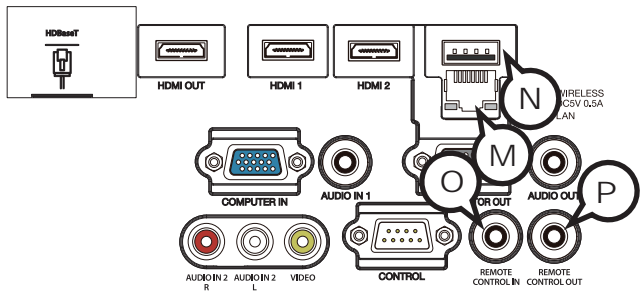
ⓓCONTROL

D-sub 9pin plug

* About the details of RS-232C communication, refer to the next section.



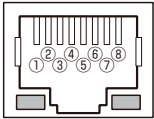
Pin	Signal	Pin	Signal	Pin	Signal
1	(No connection)	4	(No connection)	7	RTS
2	RD	5	Ground	8	CTS
3	TD	6	(No connection)	9	(No connection)



M LAN

RJ-45 jack

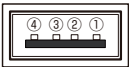
* About the details of network communication, refer to the **Network Guide**.



Pin	Signal	Pin	Signal	Pin	Signal
1	TX+	4	-	7	-
2	TX-	5	-	8	-
3	RX+	6	RX-		

N WIRELESS

Only for USB wireless adapter.



Pin	Signal
1	+5V
2	- Data
3	+ Data
4	Ground

REMOTE CONTROL **O IN, P OUT**

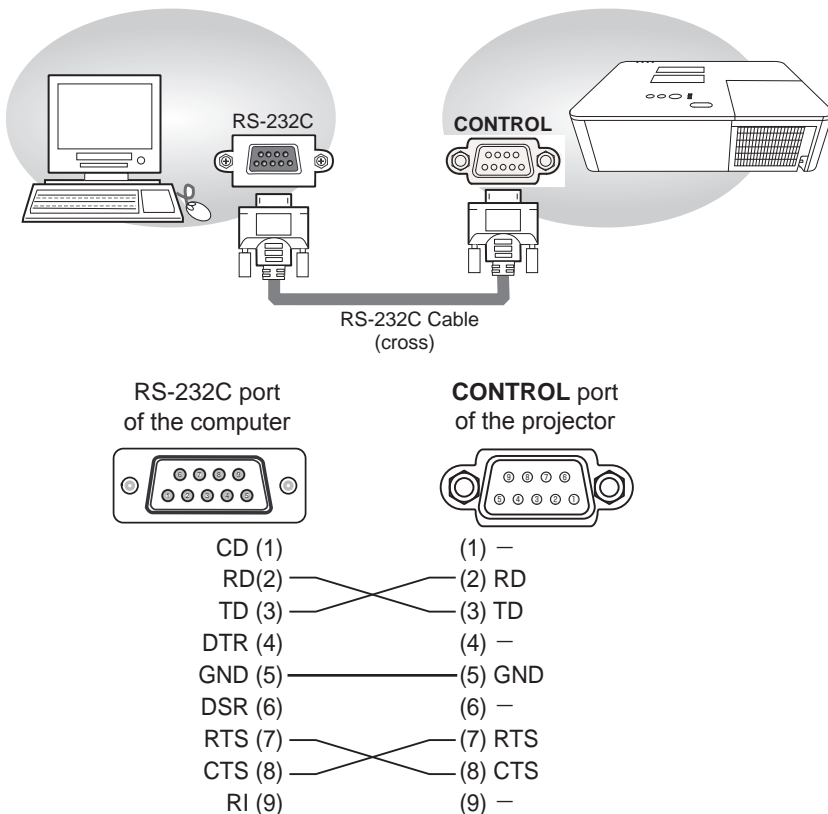
Ø3.5 stereo mini jack

RS-232C Communication

When the projector connects to the computer by RS-232C communication, the projector can be controlled with RS-232C commands from the computer.
For details of RS-232C commands, refer to RS-232C Communication / Network command table (17).

Connection

1. Turn off the projector and the computer.
2. Connect the projector's **CONTROL** port and the computer's RS-232C port with a RS-232C cable (cross). Use the cable that fulfills the specification shown in figure.
3. Turn the computer on, and after the computer has started up turn the projector on.
4. Set the COMMUNICATION TYPE to OFF in the COMMUNICATION menu of the OPTION - SERVICE menu.



Communication settings

1. Protocol

19200bps, 8N1

2. Command format ("h" shows hexadecimal)

Byte Number	0	1	2	3	4	5	6	7	8	9	10	11	12
Command Action	Header							Data					
	Header code		Packet	Data size		CRC flag		Action		Type		Setting code	
	L	H		L	H	L	H	L	H	L	H	L	H
<SET>Change setting to desired value [(cL)(cH)] by [(bL)(bH)].	BEh	EFh	03h	06h	00h	(aL)	(aH)	01h	00h	(bL)	(bH)	(cL)	(cH)
<GET>Read projector internal setup value [(bL)(bH)] .						(aL)	(aH)	02h	00h	(bL)	(bH)	00h	00h
<INCREMENT> Increment setup value [(bL)(bH)] by 1.						(aL)	(aH)	04h	00h	(bL)	(bH)	00h	00h
<DECREMENT> Decrement setup value [(bL)(bH)] by 1.						(aL)	(aH)	05h	00h	(bL)	(bH)	00h	00h
<EXECUTE> Run a command [(bL)(bH)].						(aL)	(aH)	06h	00h	(bL)	(bH)	00h	00h

[Header code] [Packet] [Data size]

Set [BEh, EFh, 03h, 06h, 00h] to byte number 0 to 4.

[CRC flag]

For byte number 5, 6, refer to RS-232C Communication / Network command table (17).

[Action]

Set functional code to byte number 7, 8.

<SET> = [01h, 00h], <GET> = [02h, 00h], <INCREMENT> = [04h, 00h]

<DECREMENT> = [05h, 00h], <EXECUTE> = [06h, 00h]

Refer to the Communication command table (above).

[Type] [Setting code]

For byte number 9 to 12, refer to RS-232C Communication / Network command table (17).

3. Response code / Error code ("h" shows hexadecimal)

(1) ACK reply: 06h

When the projector receives the Set, Increment, Decrement or Execute command correctly, the projector changes the setting data for the specified item by [Type], and it returns the code.

(2) NAK reply: 15h

When the projector cannot understand the received command, the projector returns the error code.

In such a case, check the sending code and send the same command again.

(3) Error reply: 1Ch + 0000h

When the projector cannot execute the received command for any reasons, the projector returns the error code.

In such a case, check the sending code and the setting status of the projector.

(4) Data reply: 1Dh + xxxxh

When the projector receives the GET command correctly, the projector returns the response code and 2 bytes of data.

NOTE • For connecting the projector to your devices, read the manual for each device, and connect them correctly with suitable cables.

- Operation cannot be guaranteed when the projector receives an undefined command or data.
- Provide an interval of at least 40ms between the response code and any other code.
- The projector outputs test data when the power supply is switched ON, and when the lamp is lit. Ignore this data.
- Commands are not accepted during warm-up.
- When the data length is greater than indicated by the data length code, the projector ignores the excess data code. Conversely when the data length is shorter than indicated by the data length code, the projector returns the error code to the computer.

Command Control via the Network

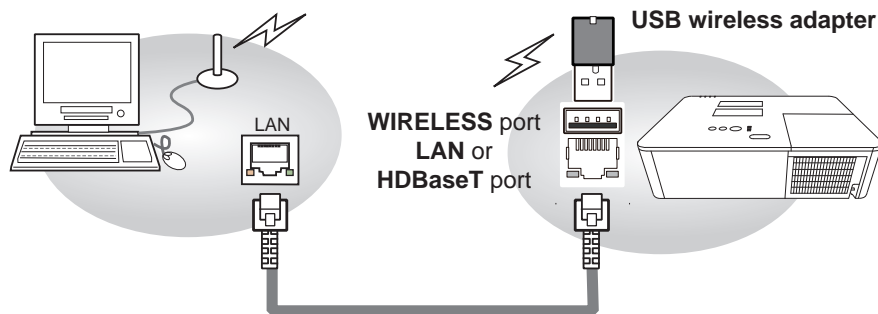
When the projector connects network, the projector can be controlled with RS-232C commands from the computer with web browser.

For details of RS-232C commands, refer to RS-232C Communication / Network command table (17).

NOTE • If data is transferred using wireless and wired LAN at the same time, the projector may not be able to process the data correctly.

Connection

1. Turn off the projector and the computer.
2. If you use wired LAN, connect the projector's **LAN** or **HDBaseT™** port to the computer's LAN or **HDBaseT™** port with a LAN cable. Use the cable that fulfills the specification shown in figure. If you use wireless LAN, insert the USB wireless adapter into the **WIRELESS** port of the projector.
3. Turn the computer on, and after the computer has started up turn the projector on.



- LAN cable (CAT-5e or greater)
or
- For HDBaseT connection
 - CAT-5e or greater
 - shielded type (connectors included)
 - straight cable
 - single cable

Communication Port

The following two ports are assigned for the command control.

TCP #23

TCP #9715

Configure the following items from a web browser when command control is used.

Port Settings			
Network Control Port1 (Port: 23)	Port open	Click the [Enable] checkbox to open [Network Control Port1 (Port: 23)] to use TCP #23. Default setting is Enable.	
	Authentication	Click the [Enable] checkbox for the [Authentication] setting when authentication is required. Default setting is Disable.	
Network Control Port2 (Port: 9715)	Port open	Click the [Enable] checkbox to open [Network Control Port2 (Port: 9715)] to use TCP #9715. Default setting is Enable.	
	Authentication	Click the [Enable] checkbox for the [Authentication] setting when authentication is required. Default setting is Enable.	

When the authentication setting is enabled, the following settings are required.

Security Settings			
Network Control	Authentication Password	Enter the required authentication password. Confirm this setting is the same for [Network Control Port1 (Port: 23)] and [Network Control Port2 (Port: 9715)] . Default setting is blank.	
	Re-enter Authentication Password		

Command control settings

[TCP #23]

1. Command format

Same as RS-232C communication, refer to RS-232C Communication command format.

2. Response code / Error code ("h" shows hexadecimal)

Four of the response / error code used for TCP#23 are the same as RS-232C Communication (1)~(4). One authentication error reply (5) is added.

(1) ACK reply : 06h

Refer to RS-232C communication (📖 8).

(2) NAK reply : 15h

Refer to RS-232C communication (📖 8).

(3) Error reply : 1Ch + 0000h

Refer to RS-232C communication (📖 8).

(4) Data reply : 1Dh + xxxxh

Refer to RS-232C communication (📖 8).

(5) Authentication error reply : 1Fh + 0400h

When authentication error occurred, the projector returns the error code.

[TCP #9715]

1. Command format

The commands some datum are added to the head and the end of the ones of TCP#9715 are used.

Header	Data length	RS-232C command	Check sum	Connection ID
0x02	0x0D	13 bytes	1 byte	1 byte

[Header]

02, Fixed

[Data Length]

RS-232C commands byte length (0x0D, Fixed)

[RS-232C commands]

Refer to RS-232C Communication command format (📖 9).

[Check Sum]

This is the value to make zero on the addition of the lower 8 bits from the header to the checksum.

[Connection ID]

Random value from 0 to 255 (This value is attached to the reply data).

NOTE • Operation cannot be guaranteed when the projector receives an undefined command or data.

- Provide an interval of at least 40ms between the response code and any other code.

- Commands are not accepted during warm-up.

<http://www.pureglare.com.au>

2. Response code / Error code ("h" shows hexadecimal)

The connection ID is attached for the TCP#23's response / error codes are used. The connection ID is same as the sending command format.

- (1) **ACK reply:** 06h + xxh (xxh : connection ID)
- (2) **NAK reply:** 15h + xxh
- (3) **Error reply:** 1Ch + 0000h + xxh
- (4) **Data reply:** 1Dh + xxxxh + xxh
- (5) **Authentication error reply:** 1Fh + 0400h + xxh
- (6) **Projector busy reply:** 1Fh + xxxxxh + xxh

When the projector is too busy to receive the command, the projector returns the error code.

In such a case, check the sending code and send the same command again.

Automatic Connection Break

The TCP connection is automatically disconnected after there is no communication for 30 seconds after being established.

Authentication

The projector does not accept commands without authentication success when authentication is enabled. The projector uses a challenge response type authentication with an MD5 (Message Digest 5) algorithm.

When the projector is connected to a LAN, a random 8 bytes is returned if authentication is enabled. Bind this received 8 bytes and the authentication password, and digest the data with the MD5 algorithm, and add it in front of the commands to send.

The following is a sample of authentication process.

Authentication password: **password** (example)

Random 8 bytes: **a572f60c** (example)

- 1) Select a projector and receive the random 8 bytes from the projector.
→ "a572f60c"
- 2) Bind the random 8 bytes and the authentication password.
→ "a572f60cpassword"
- 3) Digest this bound with MD5 algorithm.
→ "e3d97429adffa11bce1f7275813d4bde"
- 4) Add this code in front of the commands and send the data.
→ "e3d97429adffa11bce1f7275813d4bde" + [command].
- 5) When the sent data is correct, the command is performed and the reply data is returned. Otherwise, an authentication error is returned.

NOTE • As for the transmission of the second or subsequent commands, the authentication data can be omitted for the same connection.

Network Bridge Communication

This projector is equipped with NETWORK BRIDGE function.

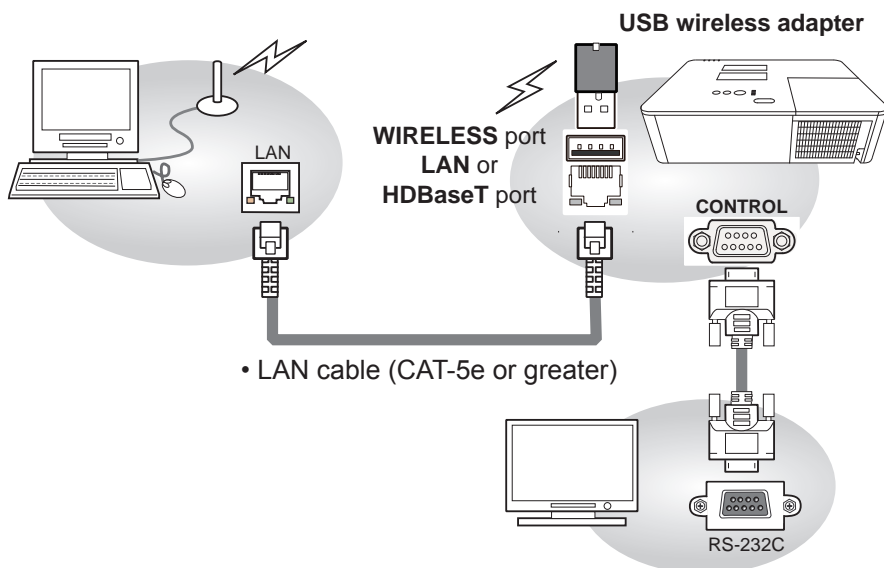
When the projector connects to the computer by wired or wireless LAN communication, an external device connected with this projector by RS-232C communication can be controlled from the computer as a network terminal.

For details, see the **7. Network Bridge** function in the **Network Guide**.

NOTE • If data is transferred using wireless and wired LAN at the same time, the projector may not be able to process the data correctly.

Connection

1. If you use wired LAN, connect the computer's LAN port and the projector's **LAN** port with a LAN cable. Use the cable that fulfills the specification shown in figure. If you use wireless LAN, insert the USB wireless adapter into the projector's **LAN** port.
2. Connect the projector's **CONTROL** port and the RS-232C port of the devices that you want to control with a RS-232C cable.
3. Turn the computer on, and after the computer has started up turn the projector on.
4. Set the COMMUNICATION TYPE to NETWORK BRIDGE in the COMMUNICATION menu of the OPTION - SERVICE menu.



Communication settings

For communication setting, use the COMMUNICATION menu in the OPTION - SERVICE menu.

Item	Condition
BAUD RATE	4800bps / 9600bps / 19200bps / 38400bps
Data length	8 bit (fixed)
PARITY	NONE/ODD/EVEN
Start bit	1 bit (fixed)
Stop bit	1 bit (fixed)
Transmission method	HALF-DUPLEX/FULL-DUPLEX

NOTE • For connecting the projector to your devices, read the manual for each devices, and connect them correctly with suitable cables.

- Turn off the power and unplug both the projector and other devices before connecting them.

- For details of Transmission method, refer to **7.4 Transmission method** in the **Network Guide**.

RS-232C Communication / Network command table

Names	Operation Type		Header			CRC	Command Data		
							Action	Type	Setting code
Power	Set	Turn off	BE EF	03	06 00	2A D3	01 00	00 60	00 00
		Turn on	BE EF	03	06 00	BA D2	01 00	00 60	01 00
	Get		BE EF	03	06 00	19 D3	02 00	00 60	00 00
		[Example return] 00 00 01 00 02 00 [Off] [On] [Cool down]							
Input Source	Set	COMPUTER IN	BE EF	03	06 00	FE D2	01 00	00 20	00 00
		LAN	BE EF	03	06 00	CE D5	01 00	00 20	0B 00
		HDMI 1	BE EF	03	06 00	0E D2	01 00	00 20	03 00
		HDMI 2	BE EF	03	06 00	6E D6	01 00	00 20	0D 00
		HDBaseT	BE EF	03	06 00	AE DE	01 00	00 20	11 00
	VIDEO	BE EF	03	06 00	6E D3	01 00	00 20	01 00	
	Get		BE EF	03	06 00	CD D2	02 00	00 20	00 00
Error Status	Get		BE EF	03	06 00	D9 D8	02 00	20 60	00 00
		[Example return] 00 00 01 00 02 00 03 00 [Normal] [Cover error] [Fan error] [Lamp error] 04 00 05 00 07 00 08 00 [Temp error] [Air flow error] [Cold error] [Filter error] 0F 00 60 00 [Shutter error] [AC blackout error]							
MAGNIFY	Get		BE EF	03	06 00	7C D2	02 00	07 30	00 00
	Increment		BE EF	03	06 00	1A D2	04 00	07 30	00 00
	Decrement		BE EF	03	06 00	CB D3	05 00	07 30	00 00
MAGNIFY Position H	Get		BE EF	03	06 00	C8 D7	02 00	10 30	00 00
	Increment		BE EF	03	06 00	AE D7	04 00	10 30	00 00
	Decrement		BE EF	03	06 00	7F D6	05 00	10 30	00 00
MAGNIFY Position V	Get		BE EF	03	06 00	34 D6	02 00	11 30	00 00
	Increment		BE EF	03	06 00	52 D6	04 00	11 30	00 00
	Decrement		BE EF	03	06 00	83 D7	05 00	11 30	00 00
FREEZE	Set	NORMAL	BE EF	03	06 00	83 D2	01 00	02 30	00 00
		FREEZE	BE EF	03	06 00	13 D3	01 00	02 30	01 00
	Get		BE EF	03	06 00	B0 D2	02 00	02 30	00 00
SHUTTER	Set	OFF	BE EF	03	06 00	F3 93	01 00	05 24	00 00
		ON	BE EF	03	06 00	63 92	01 00	05 24	01 00
	Get		BE EF	03	06 00	C0 93	02 00	05 24	00 00
PbyP/PIP	Set	OFF	BE EF	03	06 00	3E 26	01 00	10 23	00 00
		PbyP	BE EF	03	06 00	AE 27	01 00	10 23	01 00
		PIP	BE EF	03	06 00	5E 27	01 00	10 23	02 00
	Get		BE EF	03	06 00	0D 26	02 00	10 23	00 00
PbyP MAIN SIZE	Set	SMALL	BE EF	03	06 00	F2 07	01 00	11 23	7F 00
		MIDDLE	BE EF	03	06 00	02 46	01 00	11 23	80 00
		LARGE	BE EF	03	06 00	92 47	01 00	11 23	81 00
	Get		BE EF	03	06 00	F1 27	02 00	11 23	00 00

RS-232C Communication / Network command table (continued)

Names	Operation Type	Header	CRC	Command Data		
				Action	Type	Setting code
PbyP RIGHT SOURCE	Set	COMPUTER IN	BE EF 03 06 00	86 27	01 00	12 23 00 00
		HDMI 1	BE EF 03 06 00	76 27	01 00	12 23 03 00
		HDMI 2	BE EF 03 06 00	16 23	01 00	12 23 0D 00
		HDBaseT	BE EF 03 06 00	D6 2B	01 00	12 23 11 00
		VIDEO	BE EF 03 06 00	16 26	01 00	12 23 01 00
	Get		BE EF 03 06 00	B5 27	02 00	12 23 00 00
PbyP MAIN AREA	Set	LEFT	BE EF 03 06 00	7A 26	01 00	13 23 00 00
		RIGHT	BE EF 03 06 00	EA 27	01 00	13 23 01 00
	Get		BE EF 03 06 00	49 26	02 00	13 23 00 00
PbyP LEFT SOURCE	Set	COMPUTER IN	BE EF 03 06 00	F2 26	01 00	15 23 00 00
		HDMI 1	BE EF 03 06 00	02 26	01 00	15 23 03 00
		HDMI 2	BE EF 03 06 00	62 22	01 00	15 23 0D 00
		HDBaseT	BE EF 03 06 00	A2 2A	01 00	15 23 11 00
		VIDEO	BE EF 03 06 00	62 27	01 00	15 23 01 00
	Get		BE EF 03 06 00	C1 26	02 00	15 23 00 00
PIP POSITION	Set	TOP LEFT	BE EF 03 06 00	02 23	01 00	01 23 00 00
		TOP RIGHT	BE EF 03 06 00	92 22	01 00	01 23 01 00
		BOTTOM LEFT	BE EF 03 06 00	62 22	01 00	01 23 02 00
		BOTTOM RIGHT	BE EF 03 06 00	F2 23	01 00	01 23 03 00
	Get		BE EF 03 06 00	31 23	02 00	01 23 00 00
PIP MAIN AREA	Set	PRIMARY	BE EF 03 06 00	32 22	01 00	05 23 00 00
		SECONDARY	BE EF 03 06 00	A2 23	01 00	05 23 01 00
	Get		BE EF 03 06 00	01 22	02 00	05 23 00 00
PIP PRIMARY SOURCE	Set	COMPUTER IN	BE EF 03 06 00	CE 23	01 00	04 23 00 00
		HDMI 1	BE EF 03 06 00	3E 23	01 00	04 23 03 00
		HDMI 2	BE EF 03 06 00	5E 27	01 00	04 23 0D 00
		HDBaseT	BE EF 03 06 00	9E 2F	01 00	04 23 11 00
		VIDEO	BE EF 03 06 00	5E 22	01 00	04 23 01 00
	Get		BE EF 03 06 00	FD 23	02 00	04 23 00 00
PIP SECONDARY SOURCE	Set	COMPUTER IN	BE EF 03 06 00	46 23	01 00	02 23 00 00
		HDMI 1	BE EF 03 06 00	B6 23	01 00	02 23 03 00
		HDMI 2	BE EF 03 06 00	D6 27	01 00	02 23 0D 00
		HDBaseT	BE EF 03 06 00	16 2F	01 00	02 23 11 00
		VIDEO	BE EF 03 06 00	D6 22	01 00	02 23 01 00
	Get		BE EF 03 06 00	75 23	02 00	02 23 00 00
PbyP SWAP	Execute		BE EF 03 06 00	01 27	06 00	16 23 00 00
PbyP / PIP FRAME LOCK	Set	LEFT / PRIMARY	BE EF 03 06 00	4A 27	01 00	17 23 00 00
		RIGHT / SECONDARY	BE EF 03 06 00	DA 26	01 00	17 23 01 00
	Get		BE EF 03 06 00	79 27	02 00	17 23 00 00

Names	Operation Type	Header			CRC	Command Data			
						Action	Type	Setting code	
PICTURE MODE	Set	STANDARD	BE EF	03	06 00	83 F5	01 00	BA 30	06 00
		NATURAL	BE EF	03	06 00	23 F6	01 00	BA 30	00 00
		CINEMA	BE EF	03	06 00	B3 F7	01 00	BA 30	01 00
		DYNAMIC	BE EF	03	06 00	E3 F4	01 00	BA 30	04 00
		BOARD(BLACK)	BE EF	03	06 00	E3 EF	01 00	BA 30	20 00
		BOARD(GREEN)	BE EF	03	06 00	73 EE	01 00	BA 30	21 00
		WHITEBOARD	BE EF	03	06 00	83 EE	01 00	BA 30	22 00
		DAYTIME	BE EF	03	06 00	E3 C7	01 00	BA 30	40 00
		DICOM SIM.	BE EF	03	06 00	73 C6	01 00	BA 30	41 00
		USER-1	BE EF	03	06 00	E3 FB	01 00	BA 30	10 00
BRIGHTNESS	USER-2	BE EF	03	06 00	73 FA	01 00	BA 30	11 00	
	USER-3	BE EF	03	06 00	83 FA	01 00	BA 30	12 00	
	Get	BE EF	03	06 00	10 F6	02 00	BA 30	00 00	
BRIGHTNESS Reset	Get	BE EF	03	06 00	89 D2	02 00	03 20	00 00	
	Increment	BE EF	03	06 00	EF D2	04 00	03 20	00 00	
	Decrement	BE EF	03	06 00	3E D3	05 00	03 20	00 00	
CONTRAST	Execute	BE EF	03	06 00	58 D3	06 00	00 70	00 00	
CONTRAST Reset	Get	BE EF	03	06 00	FD D3	02 00	04 20	00 00	
	Increment	BE EF	03	06 00	9B D3	04 00	04 20	00 00	
	Decrement	BE EF	03	06 00	4A D2	05 00	04 20	00 00	
CONTRAST Reset	Execute	BE EF	03	06 00	A4 D2	06 00	01 70	00 00	
GAMMA	Set	1 DEFAULT	BE EF	03	06 00	07 E9	01 00	A1 30	20 00
		1 CUSTOM	BE EF	03	06 00	07 FD	01 00	A1 30	10 00
		2 DEFAULT	BE EF	03	06 00	97 E8	01 00	A1 30	21 00
		2 CUSTOM	BE EF	03	06 00	97 FC	01 00	A1 30	11 00
		3 DEFAULT	BE EF	03	06 00	67 E8	01 00	A1 30	22 00
		3 CUSTOM	BE EF	03	06 00	67 FC	01 00	A1 30	12 00
		4 DEFAULT	BE EF	03	06 00	F7 E9	01 00	A1 30	23 00
		4 CUSTOM	BE EF	03	06 00	F7 FD	01 00	A1 30	13 00
		5 DEFAULT	BE EF	03	06 00	C7 EB	01 00	A1 30	24 00
		5 CUSTOM	BE EF	03	06 00	C7 FF	01 00	A1 30	14 00
		6 DEFAULT	BE EF	03	06 00	57 EA	01 00	A1 30	25 00
		6 CUSTOM	BE EF	03	06 00	57 FE	01 00	A1 30	15 00
		7 DEFAULT	BE EF	03	06 00	A7 EA	01 00	A1 30	26 00
		7 CUSTOM	BE EF	03	06 00	A7 FE	01 00	A1 30	16 00
		8 DEFAULT	BE EF	03	06 00	37 EB	01 00	A1 30	27 00
		8 CUSTOM	BE EF	03	06 00	37 FF	01 00	A1 30	17 00
	Get	BE EF	03	06 00	F4 F0	02 00	A1 30	00 00	

RS-232C Communication / Network command table (continued)

Names	Operation Type	Header			CRC	Command Data		
						Action	Type	Setting code
User GAMMA Point 1	Get	BE EF	03	06 00	08 FE	02 00	90 30	00 00
	Increment	BE EF	03	06 00	6E FE	04 00	90 30	00 00
	Decrement	BE EF	03	06 00	BF FF	05 00	90 30	00 00
User GAMMA Point 1 Reset	Execute	BE EF	03	06 00	58 C2	06 00	50 70	00 00
User GAMMA Point 2	Get	BE EF	03	06 00	F4 FF	02 00	91 30	00 00
	Increment	BE EF	03	06 00	92 FF	04 00	91 30	00 00
	Decrement	BE EF	03	06 00	43 FE	05 00	91 30	00 00
User GAMMA Point 2 Reset	Execute	BE EF	03	06 00	A4 C3	06 00	51 70	00 00
User GAMMA Point 3	Get	BE EF	03	06 00	B0 FF	02 00	92 30	00 00
	Increment	BE EF	03	06 00	D6 FF	04 00	92 30	00 00
	Decrement	BE EF	03	06 00	07 FE	05 00	92 30	00 00
User GAMMA Point 3 Reset	Execute	BE EF	03	06 00	E0 C3	06 00	52 70	00 00
User GAMMA Point 4	Get	BE EF	03	06 00	4C FE	02 00	93 30	00 00
	Increment	BE EF	03	06 00	2A FE	04 00	93 30	00 00
	Decrement	BE EF	03	06 00	FB FF	05 00	93 30	00 00
User GAMMA Point 4 Reset	Execute	BE EF	03	06 00	1C C2	06 00	53 70	00 00
User GAMMA Point 5	Get	BE EF	03	06 00	38 FF	02 00	94 30	00 00
	Increment	BE EF	03	06 00	5E FF	04 00	94 30	00 00
	Decrement	BE EF	03	06 00	8F FE	05 00	94 30	00 00
User GAMMA Point 5 Reset	Execute	BE EF	03	06 00	68 C3	06 00	54 70	00 00
User GAMMA Point 6	Get	BE EF	03	06 00	C4 FE	02 00	95 30	00 00
	Increment	BE EF	03	06 00	A2 FE	04 00	95 30	00 00
	Decrement	BE EF	03	06 00	73 FF	05 00	95 30	00 00
User GAMMA Point 6 Reset	Execute	BE EF	03	06 00	94 C2	06 00	55 70	00 00
User GAMMA Point 7	Get	BE EF	03	06 00	80 FE	02 00	96 30	00 00
	Increment	BE EF	03	06 00	E6 FE	04 00	96 30	00 00
	Decrement	BE EF	03	06 00	37 FF	05 00	96 30	00 00
User GAMMA Point 7 Reset	Execute	BE EF	03	06 00	D0 C2	06 00	56 70	00 00
User GAMMA Point 8	Get	BE EF	03	06 00	7C FF	02 00	97 30	00 00
	Increment	BE EF	03	06 00	1A FF	04 00	97 30	00 00
	Decrement	BE EF	03	06 00	CB FE	05 00	97 30	00 00
User GAMMA Point 8 Reset	Execute	BE EF	03	06 00	2C C3	06 00	57 70	00 00

Names	Operation Type	Header	CRC	Command Data		
				Action	Type	Setting code
COLOR TEMP	Set	1 HIGH	BE EF 03 06 00 0B F5	01 00	B0 30	03 00
		1 CUSTOM (HIGH)	BE EF 03 06 00 CB F8	01 00	B0 30	13 00
		2 MID-1	BE EF 03 06 00 9B F4	01 00	B0 30	02 00
		2 CUSTOM (MID-1)	BE EF 03 06 00 5B F9	01 00	B0 30	12 00
		3 MID-2	BE EF 03 06 00 3B F7	01 00	B0 30	04 00
		3 CUSTOM (MID-2)	BE EF 03 06 00 FB FA	01 00	B0 30	14 00
		3 LOW	BE EF 03 06 00 6B F4	01 00	B0 30	01 00
		4 CUSTOM (LOW)	BE EF 03 06 00 AB F9	01 00	B0 30	11 00
		4 HI-BRIGHT-1	BE EF 03 06 00 3B F2	01 00	B0 30	08 00
		5 CUSTOM	BE EF 03 06 00 FB FF	01 00	B0 30	18 00
		5 HI-BRIGHT-2	BE EF 03 06 00 AB F3	01 00	B0 30	09 00
		6 CUSTOM	BE EF 03 06 00 6B FE	01 00	B0 30	19 00
		6 HI-BRIGHT-3	BE EF 03 06 00 5B F3	01 00	B0 30	0A 00
		7 CUSTOM	BE EF 03 06 00 9B FE	01 00	B0 30	1A 00
	Get	BE EF 03 06 00 C8 F5	02 00	B0 30	00 00	
COLOR TEMP GAIN R	Get	BE EF 03 06 00 34 F4	02 00	B1 30	00 00	
	Increment	BE EF 03 06 00 52 F4	04 00	B1 30	00 00	
	Decrement	BE EF 03 06 00 83 F5	05 00	B1 30	00 00	
COLOR TEMP GAIN R Reset	Execute	BE EF 03 06 00 10 C6	06 00	46 70	00 00	
COLOR TEMP GAIN G	Get	BE EF 03 06 00 70 F4	02 00	B2 30	00 00	
	Increment	BE EF 03 06 00 16 F4	04 00	B2 30	00 00	
	Decrement	BE EF 03 06 00 C7 F5	05 00	B2 30	00 00	
COLOR TEMP GAIN G Reset	Execute	BE EF 03 06 00 EC C7	06 00	47 70	00 00	
COLOR TEMP GAIN B	Get	BE EF 03 06 00 8C F5	02 00	B3 30	00 00	
	Increment	BE EF 03 06 00 EA F5	04 00	B3 30	00 00	
	Decrement	BE EF 03 06 00 3B F4	05 00	B3 30	00 00	
COLOR TEMP GAIN B Reset	Execute	BE EF 03 06 00 F8 C4	06 00	48 70	00 00	
COLOR TEMP OFFSET R	Get	BE EF 03 06 00 04 F5	02 00	B5 30	00 00	
	Increment	BE EF 03 06 00 62 F5	04 00	B5 30	00 00	
	Decrement	BE EF 03 06 00 B3 F4	05 00	B5 30	00 00	
COLOR TEMP OFFSET R Reset	Execute	BE EF 03 06 00 40 C5	06 00	4A 70	00 00	
COLOR TEMP OFFSET G	Get	BE EF 03 06 00 40 F5	02 00	B6 30	00 00	
	Increment	BE EF 03 06 00 26 F5	04 00	B6 30	00 00	
	Decrement	BE EF 03 06 00 F7 F4	05 00	B6 30	00 00	
COLOR TEMP OFFSET G Reset	Execute	BE EF 03 06 00 BC C4	06 00	4B 70	00 00	
COLOR TEMP OFFSET B	Get	BE EF 03 06 00 BC F4	02 00	B7 30	00 00	
	Increment	BE EF 03 06 00 DA F4	04 00	B7 30	00 00	
	Decrement	BE EF 03 06 00 0B F5	05 00	B7 30	00 00	
COLOR TEMP OFFSET B Reset	Execute	BE EF 03 06 00 C8 C5	06 00	4C 70	00 00	

RS-232C Communication / Network command table (continued)

Names	Operation Type	Header				CRC	Command Data		
							Action	Type	Setting code
COLOR	Get	BE EF	03	06 00	B5 72		02 00	02 22	00 00
	Increment	BE EF	03	06 00	D3 72		04 00	02 22	00 00
	Decrement	BE EF	03	06 00	02 73		05 00	02 22	00 00
COLOR Reset	Execute	BE EF	03	06 00	80 D0		06 00	0A 70	00 00
TINT	Get	BE EF	03	06 00	49 73		02 00	03 22	00 00
	Increment	BE EF	03	06 00	2F 73		04 00	03 22	00 00
	Decrement	BE EF	03	06 00	FE 72		05 00	03 22	00 00
TINT Reset	Execute	BE EF	03	06 00	7C D1		06 00	0B 70	00 00
SHARPNESS	Get	BE EF	03	06 00	F1 72		02 00	01 22	00 00
	Increment	BE EF	03	06 00	97 72		04 00	01 22	00 00
	Decrement	BE EF	03	06 00	46 73		05 00	01 22	00 00
SHARPNESS Reset	Execute	BE EF	03	06 00	C4 D0		06 00	09 70	00 00
eClarity	Get	BE EF	03	06 00	5D 70		02 00	0C 22	00 00
	Increment	BE EF	03	06 00	3B 70		04 00	0C 22	00 00
	Decrement	BE EF	03	06 00	EA 71		05 00	0C 22	00 00
eClarity Reset	Execute	BE EF	03	06 00	E8 DB		06 00	2C 70	00 00
HDCR	Get	BE EF	03	06 00	A1 71		02 00	0D 22	00 00
	Increment	BE EF	03	06 00	C7 71		04 00	0D 22	00 00
	Decrement	BE EF	03	06 00	16 70		05 00	0D 22	00 00
HDCR Reset	Execute	BE EF	03	06 00	34 DA		06 00	2D 70	00 00
DYNAMIC IRIS	Set	OFF	BE EF	03	06 00	0B 22	01 00	04 33	00 00
		THEATER	BE EF	03	06 00	CB 2F	01 00	04 33	10 00
		PRESENTATION	BE EF	03	06 00	5B 2E	01 00	04 33	11 00
	Get	BE EF	03	06 00	38 22		02 00	04 33	00 00
MY MEMORY Load	Set	1	BE EF	03	06 00	0E D7	01 00	14 20	00 00
		2	BE EF	03	06 00	9E D6	01 00	14 20	01 00
		3	BE EF	03	06 00	6E D6	01 00	14 20	02 00
		4	BE EF	03	06 00	FE D7	01 00	14 20	03 00
MY MEMORY Save	Set	1	BE EF	03	06 00	F2 D6	01 00	15 20	00 00
		2	BE EF	03	06 00	62 D7	01 00	15 20	01 00
		3	BE EF	03	06 00	92 D7	01 00	15 20	02 00
		4	BE EF	03	06 00	02 D6	01 00	15 20	03 00
ASPECT	Set	NORMAL	BE EF	03	06 00	5E DD	01 00	08 20	10 00
		4:3	BE EF	03	06 00	9E D0	01 00	08 20	00 00
		16:9	BE EF	03	06 00	0E D1	01 00	08 20	01 00
		16:10	BE EF	03	06 00	3E D6	01 00	08 20	0A 00
		14:9	BE EF	03	06 00	CE D6	01 00	08 20	09 00
		NATIVE	BE EF	03	06 00	5E D7	01 00	08 20	08 00
	Get	BE EF	03	06 00	9E C4		01 00	08 20	30 00
OVER SCAN	Get	BE EF	03	06 00	AD D0		02 00	08 20	00 00
	Increment	BE EF	03	06 00	F7 70		04 00	09 22	00 00
	Decrement	BE EF	03	06 00	26 71		05 00	09 22	00 00
OVER SCAN Reset	Execute	BE EF	03	06 00	EC D9		06 00	27 70	00 00

Names	Operation Type	Header			CRC	Command Data		
						Action	Type	Setting code
V POSITION	Get	BE EF	03	06 00	0D 83	02 00	00 21	00 00
	Increment	BE EF	03	06 00	6B 83	04 00	00 21	00 00
	Decrement	BE EF	03	06 00	BA 82	05 00	00 21	00 00
V POSITION Reset	Execute	BE EF	03	06 00	E0 D2	06 00	02 70	00 00
H POSITION	Get	BE EF	03	06 00	F1 82	02 00	01 21	00 00
	Increment	BE EF	03	06 00	97 82	04 00	01 21	00 00
	Decrement	BE EF	03	06 00	46 83	05 00	01 21	00 00
H POSITION Reset	Execute	BE EF	03	06 00	1C D3	06 00	03 70	00 00
H PHASE	Get	BE EF	03	06 00	49 83	02 00	03 21	00 00
	Increment	BE EF	03	06 00	2F 83	04 00	03 21	00 00
	Decrement	BE EF	03	06 00	FE 82	05 00	03 21	00 00
H SIZE	Get	BE EF	03	06 00	B5 82	02 00	02 21	00 00
	Increment	BE EF	03	06 00	D3 82	04 00	02 21	00 00
	Decrement	BE EF	03	06 00	02 83	05 00	02 21	00 00
H SIZE Reset	Execute	BE EF	03	06 00	68 D2	06 00	04 70	00 00
AUTO IMAGE	Execute	BE EF	03	06 00	91 D0	06 00	0A 20	00 00
PROGRESSIVE	Set	OFF	BE EF	03	06 00	4A 72	01 00	07 22
		TV	BE EF	03	06 00	DA 73	01 00	07 22
		FILM	BE EF	03	06 00	2A 73	01 00	07 22
	Get	BE EF	03	06 00	79 72	02 00	07 22	00 00
VIDEO NR	Set	LOW	BE EF	03	06 00	26 72	01 00	06 22
		MID	BE EF	03	06 00	D6 72	01 00	06 22
		HIGH	BE EF	03	06 00	46 73	01 00	06 22
	Get	BE EF	03	06 00	85 73	02 00	06 22	00 00
COLOR SPACE	Set	AUTO	BE EF	03	06 00	0E 72	01 00	04 22
		RGB	BE EF	03	06 00	9E 73	01 00	04 22
		SMPTE240	BE EF	03	06 00	6E 73	01 00	04 22
		REC709	BE EF	03	06 00	FE 72	01 00	04 22
		REC601	BE EF	03	06 00	CE 70	01 00	04 22
		Get	BE EF	03	06 00	3D 72	02 00	04 22
	Get	BE EF	03	06 00	3D 72	02 00	04 22	00 00
C-VIDEO FORMAT	Set	AUTO	BE EF	03	06 00	A2 70	01 00	11 22
		NTSC	BE EF	03	06 00	C2 74	01 00	11 22
		PAL	BE EF	03	06 00	52 75	01 00	11 22
		SECAM	BE EF	03	06 00	52 70	01 00	11 22
		NTSC4.43	BE EF	03	06 00	62 77	01 00	11 22
		M-PAL	BE EF	03	06 00	C2 71	01 00	11 22
		N-PAL	BE EF	03	06 00	32 74	01 00	11 22
	Get	BE EF	03	06 00	31 76	02 00	11 22	00 00
HDMI 1 FORMAT	Set	AUTO	BE EF	03	06 00	BA 77	01 00	13 22
		VIDEO	BE EF	03	06 00	2A 76	01 00	13 22
		COMPUTER	BE EF	03	06 00	DA 76	01 00	13 22
	Get	BE EF	03	06 00	89 77	02 00	13 22	00 00
HDMI 2 FORMAT	Set	AUTO	BE EF	03	06 00	52 75	01 00	1D 22
		VIDEO	BE EF	03	06 00	C2 74	01 00	1D 22
		COMPUTER	BE EF	03	06 00	32 74	01 00	1D 22
		Get	BE EF	03	06 00	61 75	02 00	1D 22
	Get	BE EF	03	06 00	61 75	02 00	1D 22	00 00

RS-232C Communication / Network command table (continued)

Names	Operation Type	Header	CRC	Command Data		
				Action	Type	Setting code
HDBaseT FORMAT	Set	AUTO	BE EF 03 06 00	7A EA	01 00	D3 20 00 00
		VIDEO	BE EF 03 06 00	EA EB	01 00	D3 20 01 00
		COMPUTER	BE EF 03 06 00	1A EB	01 00	D3 20 02 00
	Get		BE EF 03 06 00	49 EA	02 00	D3 20 00 00
HDMI 1 RANGE	Set	AUTO	BE EF 03 06 00	86 D8	01 00	22 20 00 00
		NORMAL	BE EF 03 06 00	16 D9	01 00	22 20 01 00
		ENHANCED	BE EF 03 06 00	E6 D9	01 00	22 20 02 00
	Get		BE EF 03 06 00	B5 D8	02 00	22 20 00 00
HDMI 2 RANGE	Set	AUTO	BE EF 03 06 00	7A D9	01 00	23 20 00 00
		NORMAL	BE EF 03 06 00	EA D8	01 00	23 20 01 00
		ENHANCED	BE EF 03 06 00	1A D8	01 00	23 20 02 00
	Get		BE EF 03 06 00	49 D9	02 00	23 20 00 00
HDBaseT RANGE	Set	AUTO	BE EF 03 06 00	86 EB	01 00	D2 20 00 00
		NORMAL	BE EF 03 06 00	16 EA	01 00	D2 20 01 00
		ENHANCED	BE EF 03 06 00	E6 EA	01 00	D2 20 02 00
	Get		BE EF 03 06 00	B5 EB	02 00	D2 20 00 00
COMPUTER IN	Set	AUTO	BE EF 03 06 00	CE D6	01 00	10 20 03 00
		SYNC ON G OFF	BE EF 03 06 00	5E D7	01 00	10 20 02 00
	Get		BE EF 03 06 00	0D D6	02 00	10 20 00 00
FRAME LOCK - COMPUTER IN	Set	OFF	BE EF 03 06 00	3B C2	01 00	50 30 00 00
		ON	BE EF 03 06 00	AB C3	01 00	50 30 01 00
	Get		BE EF 03 06 00	08 C2	02 00	50 30 00 00
FRAME LOCK - HDMI 1	Set	OFF	BE EF 03 06 00	7F C2	01 00	53 30 00 00
		ON	BE EF 03 06 00	EF C3	01 00	53 30 01 00
	Get		BE EF 03 06 00	4C C2	02 00	53 30 00 00
FRAME LOCK - HDMI 2	Set	OFF	BE EF 03 06 00	97 C0	01 00	5D 30 00 00
		ON	BE EF 03 06 00	07 C1	01 00	5D 30 01 00
	Get		BE EF 03 06 00	A4 C0	02 00	5D 30 00 00
FRAME LOCK - HDBaseT	Set	OFF	BE EF 03 06 00	C2 EB	01 00	D1 20 00 00
		ON	BE EF 03 06 00	52 EA	01 00	D1 20 01 00
	Get		BE EF 03 06 00	F1 EB	02 00	D1 20 00 00

Names	Operation Type	Header	CRC	Command Data		
				Action	Type	Setting code
PICTURE POSITION V	Set	TOP	BE EF 03 06 00	02 D0	01 00 09 20	02 00
		MIDDLE	BE EF 03 06 00	62 D1	01 00 09 20	00 00
		BOTTOM	BE EF 03 06 00	F2 D0	01 00 09 20	01 00
	Get		BE EF 03 06 00	51 D1	02 00 09 20	00 00
PICTURE POSITION H	Set	RIGHT	BE EF 03 06 00	46 D5	01 00 1E 20	01 00
		MIDDLE	BE EF 03 06 00	D6 D4	01 00 1E 20	00 00
		LEFT	BE EF 03 06 00	B6 D5	01 00 1E 20	02 00
	Get		BE EF 03 06 00	E5 D4	02 00 1E 20	00 00
GEOMETRIC MODE	Set	KEYSTONE	BE EF 03 06 00	6B 8C	01 00 30 31	01 00
		3D KEYSTONE	BE EF 03 06 00	9B 8C	01 00 30 31	02 00
		WARPING	BE EF 03 06 00	3B 8F	01 00 30 31	04 00
	Get		BE EF 03 06 00	C8 8D	02 00 30 31	00 00
KEYSTONE V	Get		BE EF 03 06 00	B9 D3	02 00 07 20	00 00
	Increment		BE EF 03 06 00	DF D3	04 00 07 20	00 00
	Decrement		BE EF 03 06 00	0E D2	05 00 07 20	00 00
KEYSTONE V Reset	Execute		BE EF 03 06 00	08 D0	06 00 0C 70	00 00
KEYSTONE H	Get		BE EF 03 06 00	E9 D0	02 00 0B 20	00 00
	Increment		BE EF 03 06 00	8F D0	04 00 0B 20	00 00
	Decrement		BE EF 03 06 00	5E D1	05 00 0B 20	00 00
KEYSTONE H Reset	Execute		BE EF 03 06 00	98 D8	06 00 20 70	00 00
3D KEYSTONE Left Top - H	Get		BE EF 03 06 00	31 89	02 00 21 21	00 00
	Increment		BE EF 03 06 00	57 89	04 00 21 21	00 00
	Decrement		BE EF 03 06 00	86 88	05 00 21 21	00 00
3D KEYSTONE Left Top - V	Get		BE EF 03 06 00	75 89	02 00 22 21	00 00
	Increment		BE EF 03 06 00	13 89	04 00 22 21	00 00
	Decrement		BE EF 03 06 00	C2 88	05 00 22 21	00 00
3D KEYSTONE Right Top - H	Get		BE EF 03 06 00	89 88	02 00 23 21	00 00
	Increment		BE EF 03 06 00	EF 88	04 00 23 21	00 00
	Decrement		BE EF 03 06 00	3E 89	05 00 23 21	00 00
3D KEYSTONE Right Top - V	Get		BE EF 03 06 00	FD 89	02 00 24 21	00 00
	Increment		BE EF 03 06 00	9B 89	04 00 24 21	00 00
	Decrement		BE EF 03 06 00	4A 88	05 00 24 21	00 00

RS-232C Communication / Network command table (continued)

Names	Operation Type	Header			CRC	Command Data		
						Action	Type	Setting code
3D KEYSTONE Left Bottom - H	Get	BE EF	03	06 00	01 88	02 00	25 21	00 00
	Increment	BE EF	03	06 00	67 88	04 00	25 21	00 00
	Decrement	BE EF	03	06 00	B6 89	05 00	25 21	00 00
3D KEYSTONE Left Bottom - V	Get	BE EF	03	06 00	45 88	02 00	26 21	00 00
	Increment	BE EF	03	06 00	23 88	04 00	26 21	00 00
	Decrement	BE EF	03	06 00	F2 89	05 00	26 21	00 00
3D KEYSTONE Right Bottom - H	Get	BE EF	03	06 00	B9 89	02 00	27 21	00 00
	Increment	BE EF	03	06 00	DF 89	04 00	27 21	00 00
	Decrement	BE EF	03	06 00	0E 88	05 00	27 21	00 00
3D KEYSTONE Right Bottom - V	Get	BE EF	03	06 00	AD 8A	02 00	28 21	00 00
	Increment	BE EF	03	06 00	CB 8A	04 00	28 21	00 00
	Decrement	BE EF	03	06 00	1A 8B	05 00	28 21	00 00
3D KEYSTONE All Corners Reset	Execute	BE EF	03	06 00	D5 8A	06 00	29 21	00 00
3D KEYSTONE Left Side Distortion	Get	BE EF	03	06 00	31 97	02 00	41 21	00 00
	Increment	BE EF	03	06 00	57 97	04 00	41 21	00 00
	Decrement	BE EF	03	06 00	86 96	05 00	41 21	00 00
3D KEYSTONE Right Side Distortion	Get	BE EF	03	06 00	75 97	02 00	42 21	00 00
	Increment	BE EF	03	06 00	13 97	04 00	42 21	00 00
	Decrement	BE EF	03	06 00	C2 96	05 00	42 21	00 00
3D KEYSTONE Top Side Distortion	Get	BE EF	03	06 00	FD 97	02 00	44 21	00 00
	Increment	BE EF	03	06 00	9B 97	04 00	44 21	00 00
	Decrement	BE EF	03	06 00	4A 96	05 00	44 21	00 00
3D KEYSTONE Bottom Side Distortion	Get	BE EF	03	06 00	01 96	02 00	45 21	00 00
	Increment	BE EF	03	06 00	67 96	04 00	45 21	00 00
	Decrement	BE EF	03	06 00	B6 97	05 00	45 21	00 00
3D KEYSTONE All Sides Reset	Execute	BE EF	03	06 00	3D 96	06 00	47 21	00 00
3D KEYSTONE Memory Save-1	Execute	BE EF	03	06 00	29 95	06 00	48 21	00 00
3D KEYSTONE Memory Save-2	Execute	BE EF	03	06 00	D5 94	06 00	49 21	00 00
3D KEYSTONE Memory Save-3	Execute	BE EF	03	06 00	91 94	06 00	4A 21	00 00
3D KEYSTONE Memory Load-1	Execute	BE EF	03	06 00	6D 95	06 00	4B 21	00 00
3D KEYSTONE Memory Load-2	Execute	BE EF	03	06 00	19 94	06 00	4C 21	00 00
3D KEYSTONE Memory Load-3	Execute	BE EF	03	06 00	E5 95	06 00	4D 21	00 00

Names	Operation Type		Header			CRC	Command Data		
							Action	Type	Setting code
EDGE BLENDING MODE	Set	OFF	BE EF	03	06 00	6B 94	01 00	4C 31	00 00
		MANUAL	BE EF	03	06 00	FB 95	01 00	4C 31	01 00
	Get		BE EF	03	06 00	58 94	02 00	4C 31	00 00
EDGE BLENDING REGION Reset	Execute		BE EF	03	06 00	8C 96	06 00	40 31	00 00
EDGE BLENDING LEVEL	Increment		BE EF	03	06 00	92 96	04 00	41 31	00 00
	Decrement		BE EF	03	06 00	43 97	05 00	41 31	00 00
	Get		BE EF	03	06 00	F4 96	02 00	41 31	00 00
EDGE BLENDING LEFT	Get		BE EF	03	06 00	68 95	02 00	48 31	00 00
	Increment		BE EF	03	06 00	0E 95	04 00	48 31	00 00
	Decrement		BE EF	03	06 00	DF 94	05 00	48 31	00 00
EDGE BLENDING RIGHT	Get		BE EF	03	06 00	94 94	02 00	49 31	00 00
	Increment		BE EF	03	06 00	F2 94	04 00	49 31	00 00
	Decrement		BE EF	03	06 00	23 95	05 00	49 31	00 00
EDGE BLENDING TOP	Get		BE EF	03	06 00	D0 94	02 00	4A 31	00 00
	Increment		BE EF	03	06 00	B6 94	04 00	4A 31	00 00
	Decrement		BE EF	03	06 00	67 95	05 00	4A 31	00 00
EDGE BLENDING BOTTOM	Get		BE EF	03	06 00	2C 95	02 00	4B 31	00 00
	Increment		BE EF	03	06 00	4A 95	04 00	4B 31	00 00
	Decrement		BE EF	03	06 00	9B 94	05 00	4B 31	00 00
CROPPING MODE	Set	OFF	BE EF	03	06 00	FB 93	01 00	50 31	00 00
		ON	BE EF	03	06 00	6B 92	01 00	50 31	01 00
	Get		BE EF	03	06 00	C8 93	02 00	50 31	00 00
CROPPING SETUP X	Get		BE EF	03	06 00	A8 91	02 00	58 31	00 00
	Increment		BE EF	03	06 00	CE 91	04 00	58 31	00 00
	Decrement		BE EF	03	06 00	1F 90	05 00	58 31	00 00
CROPPING SETUP Y	Get		BE EF	03	06 00	54 90	02 00	59 31	00 00
	Increment		BE EF	03	06 00	32 90	04 00	59 31	00 00
	Decrement		BE EF	03	06 00	E3 91	05 00	59 31	00 00
CROPPING SETUP W	Get		BE EF	03	06 00	10 90	02 00	5A 31	00 00
	Increment		BE EF	03	06 00	76 90	04 00	5A 31	00 00
	Decrement		BE EF	03	06 00	A7 91	05 00	5A 31	00 00
CROPPING SETUP H	Get		BE EF	03	06 00	EC 91	02 00	5B 31	00 00
	Increment		BE EF	03	06 00	8A 91	04 00	5B 31	00 00
	Decrement		BE EF	03	06 00	5B 90	05 00	5B 31	00 00
CROPPING Apply	Execute		BE EF	03	06 00	B0 93	06 00	51 31	00 00
CROPPING Reset	Execute		BE EF	03	06 00	F4 93	06 00	52 31	00 00
WARPING MODE	Set	OFF	BE EF	03	06 00	FB 9C	01 00	60 31	00 00
		MODE-1	BE EF	03	06 00	6B 9D	01 00	60 31	01 00
		MODE-2	BE EF	03	06 00	9B 9D	01 00	60 31	02 00
		MODE-3	BE EF	03	06 00	0B 9C	01 00	60 31	03 00
	Get		BE EF	03	06 00	C8 9C	02 00	60 31	00 00
Dimming Level	Get		BE EF	03	06 00	7C 22	02 00	07 33	00 00
	Increment		BE EF	03	06 00	1A 22	04 00	07 33	00 00
	Decrement		BE EF	03	06 00	CB 23	05 00	07 33	00 00

RS-232C Communication / Network command table (continued)

Names	Operation Type	Header			CRC	Command Data		
						Action	Type	Setting code
WHITE BALANCE OFFSET R	Get	BE EF	03	06 00	0C 72	02 00	50 27	00 00
	Increment	BE EF	03	06 00	6A 72	04 00	50 27	00 00
	Decrement	BE EF	03	06 00	BB 73	05 00	50 27	00 00
WHITE BALANCE OFFSET R Reset	Execute	BE EF	03	06 00	38 E2	06 00	F8 70	00 00
WHITE BALANCE OFFSET G	Get	BE EF	03	06 00	F0 73	02 00	51 27	00 00
	Increment	BE EF	03	06 00	96 73	04 00	51 27	00 00
	Decrement	BE EF	03	06 00	47 72	05 00	51 27	00 00
WHITE BALANCE OFFSET G RReset	Execute	BE EF	03	06 00	C4 E3	06 00	F9 70	00 00
WHITE BALANCE OFFSET B	Get	BE EF	03	06 00	B4 73	02 00	52 27	00 00
	Increment	BE EF	03	06 00	D2 73	04 00	52 27	00 00
	Decrement	BE EF	03	06 00	03 72	05 00	52 27	00 00
WHITE BALANCE OFFSET B Reset	Execute	BE EF	03	06 00	80 E3	06 00	FA 70	00 00
WHITE BALANCE GAIN R	Get	BE EF	03	06 00	3C 73	02 00	54 27	00 00
	Increment	BE EF	03	06 00	5A 73	04 00	54 27	00 00
	Decrement	BE EF	03	06 00	8B 72	05 00	54 27	00 00
WHITE BALANCE GAIN R Reset	Execute	BE EF	03	06 00	08 E3	06 00	FC 70	00 00
WHITE BALANCE GAIN G	Get	BE EF	03	06 00	C0 72	02 00	55 27	00 00
	Increment	BE EF	03	06 00	A6 72	04 00	55 27	00 00
	Decrement	BE EF	03	06 00	77 73	05 00	55 27	00 00
WHITE BALANCE GAIN G Reset	Execute	BE EF	03	06 00	F4 E2	06 00	FD 70	00 00
WHITE BALANCE GAIN B	Get	BE EF	03	06 00	84 72	02 00	56 27	00 00
	Increment	BE EF	03	06 00	E2 72	04 00	56 27	00 00
	Decrement	BE EF	03	06 00	33 73	05 00	56 27	00 00
WHITE BALANCE GAIN B Reset	Execute	BE EF	03	06 00	B0 E2	06 00	FE 70	00 00

Names	Operation Type	Header	CRC	Command Data		
				Action	Type	Setting code
HDCR LiteLoc	Set	OFF	BE EF 03 06 00	D6 71	01 00	0E 22 00 00
		ON	BE EF 03 06 00	46 70	01 00	0E 22 01 00
	Get		BE EF 03 06 00	E5 71	02 00	0E 22 00 00
ECO MODE	Set	NORMAL	BE EF 03 06 00	3B 23	01 00	00 33 00 00
		ECO	BE EF 03 06 00	AB 22	01 00	00 33 01 00
	Get		BE EF 03 06 00	08 23	02 00	00 33 00 00
INSTALLATION	Set	FRONT / DESKTOP	BE EF 03 06 00	C7 D2	01 00	01 30 00 00
		REAR / DESKTOP	BE EF 03 06 00	57 D3	01 00	01 30 01 00
		REAR / CEILING	BE EF 03 06 00	A7 D3	01 00	01 30 02 00
		FRONT / CEILING	BE EF 03 06 00	37 D2	01 00	01 30 03 00
	Get		BE EF 03 06 00	F4 D2	02 00	01 30 00 00
STANDBY MODE	Set	NORMAL	BE EF 03 06 00	D6 D2	01 00	01 60 00 00
		POWER SAVE	BE EF 03 06 00	46 D3	01 00	01 60 01 00
	Get		BE EF 03 06 00	E5 D2	02 00	01 60 00 00
COLOR UNIFORMITY LEVEL	Set	1	BE EF 03 06 00	AF 6D	01 00	30 27 01 00
		2	BE EF 03 06 00	5F 6D	01 00	30 27 02 00
		3	BE EF 03 06 00	CF 6C	01 00	30 27 03 00
		4	BE EF 03 06 00	FF 6E	01 00	30 27 04 00
	Get		BE EF 03 06 00	0C 6C	02 00	30 27 00 00
COLOR UNIFORMITY AREA	Set	Top Left	BE EF 03 06 00	C3 6D	01 00	31 27 00 00
		Top	BE EF 03 06 00	53 6C	01 00	31 27 01 00
		Top Right	BE EF 03 06 00	A3 6C	01 00	31 27 02 00
		Left	BE EF 03 06 00	03 AC	01 00	31 27 00 01
		All	BE EF 03 06 00	93 AD	01 00	31 27 01 01
		Right	BE EF 03 06 00	63 AD	01 00	31 27 02 01
		Bottom Left	BE EF 03 06 00	02 EC	01 00	31 27 00 02
		Bottom	BE EF 03 06 00	92 ED	01 00	31 27 01 02
		Bottom Right	BE EF 03 06 00	62 ED	01 00	31 27 02 02
	Get		BE EF 03 06 00	F0 6D	02 00	31 27 00 00
COLOR UNIFORMITY R	Get		BE EF 03 06 00	B4 6D	02 00	32 27 00 00
	Increment		BE EF 03 06 00	D2 6D	04 00	32 27 00 00
	Decrement		BE EF 03 06 00	03 6C	05 00	32 27 00 00
COLOR UNIFORMITY R Reset	Execute		BE EF 03 06 00	58 E0	06 00	F0 70 00 00
COLOR UNIFORMITY G	Get		BE EF 03 06 00	48 6C	02 00	33 27 00 00
	Increment		BE EF 03 06 00	2E 6C	04 00	33 27 00 00
	Decrement		BE EF 03 06 00	FF 6D	05 00	33 27 00 00
COLOR UNIFORMITY G Reset	Execute		BE EF 03 06 00	A4 E1	06 00	F1 70 00 00
COLOR UNIFORMITY B	Get		BE EF 03 06 00	3C 6D	02 00	34 27 00 00
	Increment		BE EF 03 06 00	5A 6D	04 00	34 27 00 00
	Decrement		BE EF 03 06 00	8B 6C	05 00	34 27 00 00
COLOR UNIFORMITY B Reset	Execute		BE EF 03 06 00	E0 E1	06 00	F2 70 00 00

RS-232C Communication / Network command table (continued)

Names	Operation Type	Header	CRC	Command Data		
				Action	Type	Setting code
COLOR UNIFORMITY ALL Reset	Execute	BE EF 03 06 00	1C E0	06 00	F3 70	00 00
COLOR UNIFORMITY PATTERN	Set	OFF	BE EF 03 06 00	B7 6C	01 00	36 27
		ON	BE EF 03 06 00	27 6D	01 00	36 27
	Get	BE EF 03 06 00	84 6C	02 00	36 27	00 00
VOLUME - COMPUTER IN	Get	BE EF 03 06 00	CD CC	02 00	60 20	00 00
	Increment	BE EF 03 06 00	AB CC	04 00	60 20	00 00
	Decrement	BE EF 03 06 00	7A CD	05 00	60 20	00 00
VOLUME - LAN	Get	BE EF 03 06 00	E9 CE	02 00	6B 20	00 00
	Increment	BE EF 03 06 00	8F CE	04 00	6B 20	00 00
	Decrement	BE EF 03 06 00	5E CF	05 00	6B 20	00 00
VOLUME - HDMI 1	Get	BE EF 03 06 00	89 CC	02 00	63 20	00 00
	Increment	BE EF 03 06 00	EF CC	04 00	63 20	00 00
	Decrement	BE EF 03 06 00	3E CD	05 00	63 20	00 00
VOLUME - HDMI 2	Get	BE EF 03 06 00	61 CE	02 00	6D 20	00 00
	Increment	BE EF 03 06 00	07 CE	04 00	6D 20	00 00
	Decrement	BE EF 03 06 00	D6 CF	05 00	6D 20	00 00
VOLUME - HDBaseT	Get	BE EF 03 06 00	C1 EA	02 00	D5 20	00 00
	Increment	BE EF 03 06 00	A7 EA	04 00	D5 20	00 00
	Decrement	BE EF 03 06 00	76 EB	05 00	D5 20	00 00
VOLUME - VIDEO	Get	BE EF 03 06 00	31 CD	02 00	61 20	00 00
	Increment	BE EF 03 06 00	57 CD	04 00	61 20	00 00
	Decrement	BE EF 03 06 00	86 CC	05 00	61 20	00 00
VOLUME - STANDBY	Get	BE EF 03 06 00	D9 CF	02 00	6F 20	00 00
	Increment	BE EF 03 06 00	BF CF	04 00	6F 20	00 00
	Decrement	BE EF 03 06 00	6E CE	05 00	6F 20	00 00
VOLUME - ALL	Get	BE EF 03 06 00	CD C3	02 00	50 20	00 00
	Increment	BE EF 03 06 00	AB C3	04 00	50 20	00 00
	Decrement	BE EF 03 06 00	7A C2	05 00	50 20	00 00
MUTE	Set	OFF	BE EF 03 06 00	46 D3	01 00	02 20
		ON	BE EF 03 06 00	D6 D2	01 00	02 20
	Get	BE EF 03 06 00	75 D3	02 00	02 20	00 00
AV MUTE	Set	OFF	BE EF 03 06 00	FE F0	01 00	A0 20
		ON	BE EF 03 06 00	6E F1	01 00	A0 20
	Get	BE EF 03 06 00	CD F0	02 00	A0 20	00 00
SPEAKER	Set	OFF	BE EF 03 06 00	6E D5	01 00	1C 20
		ON	BE EF 03 06 00	FE D4	01 00	1C 20
	Get	BE EF 03 06 00	5D D5	02 00	1C 20	00 00

Names	Operation Type	Header	CRC	Command Data		
				Action	Type	Setting code
AUDIO SOURCE - COMPUTER IN	Set	AUDIO IN1	BE EF 03 06 00	6E DC	01 00	30 20 01 00
		AUDIO IN2	BE EF 03 06 00	9E DC	01 00	30 20 02 00
		OFF	BE EF 03 06 00	FE DD	01 00	30 20 00 00
	Get		BE EF 03 06 00	CD DD	02 00	30 20 00 00
AUDIO SOURCE - LAN	Set	AUDIO IN1	BE EF 03 06 00	4A DE	01 00	3B 20 01 00
		AUDIO IN2	BE EF 03 06 00	BA DE	01 00	3B 20 02 00
		AUDIO LAN	BE EF 03 06 00	8A D3	01 00	3B 20 11 00
	Get	OFF	BE EF 03 06 00	DA DF	01 00	3B 20 00 00
AUDIO SOURCE - HDMI 1	Set	AUDIO IN1	BE EF 03 06 00	2A DC	01 00	33 20 01 00
		AUDIO IN2	BE EF 03 06 00	DA DC	01 00	33 20 02 00
		AUDIO HDMI 1	BE EF 03 06 00	7A C4	01 00	33 20 20 00
	Get	OFF	BE EF 03 06 00	BA DD	01 00	33 20 00 00
AUDIO SOURCE - HDMI 2	Set	AUDIO IN1	BE EF 03 06 00	89 DD	02 00	33 20 00 00
		AUDIO IN2	BE EF 03 06 00	C2 DE	01 00	3D 20 01 00
		AUDIO HDMI 2	BE EF 03 06 00	32 DE	01 00	3D 20 02 00
	Get	OFF	BE EF 03 06 00	02 C7	01 00	3D 20 21 00
AUDIO SOURCE - HDBaseT	Set	AUDIO IN1	BE EF 03 06 00	52 DF	01 00	3D 20 00 00
		AUDIO IN2	BE EF 03 06 00	61 DF	02 00	3D 20 00 00
		AUDIO HDBaseT	BE EF 03 06 00	9E EA	01 00	D4 20 01 00
	Get	OFF	BE EF 03 06 00	6E EA	01 00	D4 20 02 00
AUDIO SOURCE - VIDEO	Set	AUDIO IN1	BE EF 03 06 00	0E F0	01 00	D4 20 24 00
		AUDIO IN2	BE EF 03 06 00	0E EB	01 00	D4 20 00 00
		OFF	BE EF 03 06 00	3D EB	02 00	D4 20 00 00
	Get		BE EF 03 06 00	92 DD	01 00	31 20 01 00
LAN SOUND ENABLE	Set	AUDIO IN1	BE EF 03 06 00	62 DD	01 00	31 20 02 00
		AUDIO IN2	BE EF 03 06 00	02 DC	01 00	31 20 00 00
		OFF	BE EF 03 06 00	31 DC	02 00	31 20 00 00
	Get	Disable	BE EF 03 06 00	BA F0	01 00	A3 20 00 00
LAN SOUND ENABLE	Set	Enable	BE EF 03 06 00	2A F1	01 00	A3 20 01 00
		Get	BE EF 03 06 00	89 F0	02 00	A3 20 00 00

RS-232C Communication / Network command table (continued)

Names	Operation Type	Header	CRC	Command Data		
				Action	Type	Setting code
LANGUAGE	Set	ENGLISH	BE EF 03 06 00 F7 D3	01 00	05 30	00 00
		FRANÇAIS	BE EF 03 06 00 67 D2	01 00	05 30	01 00
		DEUTSCH	BE EF 03 06 00 97 D2	01 00	05 30	02 00
		ESPAÑOL	BE EF 03 06 00 07 D3	01 00	05 30	03 00
		ITALIANO	BE EF 03 06 00 37 D1	01 00	05 30	04 00
		NORSK	BE EF 03 06 00 A7 D0	01 00	05 30	05 00
		NEDERLANDS	BE EF 03 06 00 57 D0	01 00	05 30	06 00
		PORTUGUÊS	BE EF 03 06 00 C7 D1	01 00	05 30	07 00
		日本語	BE EF 03 06 00 37 D4	01 00	05 30	08 00
		简体中文	BE EF 03 06 00 A7 D5	01 00	05 30	09 00
		繁體中文	BE EF 03 06 00 37 DE	01 00	05 30	10 00
		한글	BE EF 03 06 00 57 D5	01 00	05 30	0A 00
		SVENSKA	BE EF 03 06 00 C7 D4	01 00	05 30	0B 00
		РУССКИЙ	BE EF 03 06 00 F7 D6	01 00	05 30	0C 00
		SUOMI	BE EF 03 06 00 67 D7	01 00	05 30	0D 00
		POLSKI	BE EF 03 06 00 97 D7	01 00	05 30	0E 00
		TÜRKÇE	BE EF 03 06 00 07 D6	01 00	05 30	0F 00
	Get	BE EF 03 06 00 C4 D3	02 00	05 30	00 00	

Names	Operation Type	Header			CRC	Command Data		
						Action	Type	Setting code
MENU POSITION V	Get	BE EF	03	06 00	40 D7	02 00	16 30	00 00
	Increment	BE EF	03	06 00	26 D7	04 00	16 30	00 00
	Decrement	BE EF	03	06 00	F7 D6	05 00	16 30	00 00
MENU POSITION V Reset	Execute	BE EF	03	06 00	A8 C7	06 00	44 70	00 00
MENU POSITION H	Get	BE EF	03	06 00	04 D7	02 00	15 30	00 00
	Increment	BE EF	03	06 00	62 D7	04 00	15 30	00 00
	Decrement	BE EF	03	06 00	B3 D6	05 00	15 30	00 00
MENU POSITION H Reset	Execute	BE EF	03	06 00	DC C6	06 00	43 70	00 00
BLANK	Set	My Screen	BE EF	03	06 00	FB CA	01 00	00 30
		ORIGINAL	BE EF	03	06 00	FB E2	01 00	00 30
		BLUE	BE EF	03	06 00	CB D3	01 00	00 30
		WHITE	BE EF	03	06 00	6B D0	01 00	00 30
		BLACK	BE EF	03	06 00	9B D0	01 00	00 30
BLANK On/Off	Set	Get	BE EF	03	06 00	08 D3	02 00	00 30
		OFF	BE EF	03	06 00	FB D8	01 00	20 30
	Set	ON	BE EF	03	06 00	6B D9	01 00	20 30
		Get	BE EF	03	06 00	C8 D8	02 00	20 30
AUTO BLANK	Set	BLUE	BE EF	03	06 00	67 D1	01 00	0D 30
		WHITE	BE EF	03	06 00	C7 D2	01 00	0D 30
		BLACK	BE EF	03	06 00	37 D2	01 00	0D 30
	Get	BE EF	03	06 00	A4 D1	02 00	0D 30	00 00
START UP	Set	My Screen	BE EF	03	06 00	AC CB	01 00	04 30
		ORIGINAL	BE EF	03	06 00	0B D2	01 00	04 30
		OFF	BE EF	03	06 00	9B D3	01 00	04 30
	Get	BE EF	03	06 00	38 D2	02 00	04 30	00 00
My Screen Lock	Set	OFF	BE EF	03	06 00	3B EF	01 00	C0 30
		ON	BE EF	03	06 00	AB EE	01 00	C0 30
	Get	BE EF	03	06 00	08 EF	02 00	C0 30	00 00
OSD MESSAGE	Set	OFF	BE EF	03	06 00	8F D6	01 00	17 30
		ON	BE EF	03	06 00	1F D7	01 00	17 30
		HIDE	BE EF	03	06 00	EF D7	01 00	17 30
	Get	BE EF	03	06 00	BC D6	02 00	17 30	00 00
TEMPLATE	Set	TEST PATTERN	BE EF	03	06 00	43 D9	01 00	22 30
		DOT-LINE 1	BE EF	03	06 00	D3 D8	01 00	22 30
		DOT-LINE 2	BE EF	03	06 00	23 D8	01 00	22 30
		DOT-LINE 3	BE EF	03	06 00	B3 D9	01 00	22 30
		DOT-LINE 4	BE EF	03	06 00	83 DB	01 00	22 30
		CIRCLE 1	BE EF	03	06 00	13 DA	01 00	22 30
		CIRCLE 2	BE EF	03	06 00	E3 DA	01 00	22 30
		MAP 1	BE EF	03	06 00	83 D4	01 00	22 30
		MAP 2	BE EF	03	06 00	13 D5	01 00	22 30
	Get	STACK	BE EF	03	06 00	83 C0	01 00	22 30
	Get	BE EF	03	06 00	70 D9	02 00	22 30	00 00

RS-232C Communication / Network command table (continued)

Names	Operation Type	Header	CRC	Command Data		
				Action	Type	Setting code
TEMPLATE On/Off	Set	OFF	BE EF 03 06 00	BF D8	01 00 23 30	00 00
		ON	BE EF 03 06 00	2F D9	01 00 23 30	01 00
	Get		BE EF 03 06 00	8C D8	02 00 23 30	00 00
Closed Caption C.C. - DISPLAY	Set	OFF	BE EF 03 06 00	FA 62	01 00 00 37	00 00
		ON	BE EF 03 06 00	6A 63	01 00 00 37	01 00
		AUTO	BE EF 03 06 00	9A 63	01 00 00 37	02 00
	Get		BE EF 03 06 00	C9 62	02 00 00 37	00 00
Closed Caption C.C. - MODE	Set	CAPTIONS	BE EF 03 06 00	06 63	01 00 01 37	00 00
		TEXT	BE EF 03 06 00	96 62	01 00 01 37	01 00
	Get		BE EF 03 06 00	35 63	02 00 01 37	00 00
Closed Caption C.C. - CHANNEL	Set	1	BE EF 03 06 00	D2 62	01 00 02 37	01 00
		2	BE EF 03 06 00	22 62	01 00 02 37	02 00
		3	BE EF 03 06 00	B2 63	01 00 02 37	03 00
		4	BE EF 03 06 00	82 61	01 00 02 37	04 00
	Get		BE EF 03 06 00	71 63	02 00 02 37	00 00
SOURCE SKIP - COMPUTER IN	Set	NORMAL	BE EF 03 06 00	FE 78	01 00 20 22	00 00
		SKIP	BE EF 03 06 00	6E 79	01 00 20 22	01 00
	Get		BE EF 03 06 00	CD 78	02 00 20 22	00 00
SOURCE SKIP - LAN	Set	NORMAL	BE EF 03 06 00	DA 7A	01 00 2B 22	00 00
		SKIP	BE EF 03 06 00	4A 7B	01 00 2B 22	01 00
	Get		BE EF 03 06 00	E9 7A	02 00 2B 22	00 00
SOURCE SKIP - HDMI 1	Set	NORMAL	BE EF 03 06 00	BA 78	01 00 23 22	00 00
		SKIP	BE EF 03 06 00	2A 79	01 00 23 22	01 00
	Get		BE EF 03 06 00	89 78	02 00 23 22	00 00
SOURCE SKIP - HDMI 2	Set	NORMAL	BE EF 03 06 00	52 7A	01 00 2D 22	00 00
		SKIP	BE EF 03 06 00	C2 7B	01 00 2D 22	01 00
	Get		BE EF 03 06 00	61 7A	02 00 2D 22	00 00
SOURCE SKIP - HDBaseT	Set	NORMAL	BE EF 03 06 00	B6 EA	01 00 D6 20	00 00
		SKIP	BE EF 03 06 00	26 EB	01 00 D6 20	01 00
	Get		BE EF 03 06 00	85 EA	02 00 D6 20	00 00
SOURCE SKIP - VIDEO	Set	NORMAL	BE EF 03 06 00	02 79	01 00 21 22	00 00
		SKIP	BE EF 03 06 00	92 78	01 00 21 22	01 00
	Get		BE EF 03 06 00	31 79	02 00 21 22	00 00
AUTO SEARCH	Set	OFF	BE EF 03 06 00	B6 D6	01 00 16 20	00 00
		ON	BE EF 03 06 00	26 D7	01 00 16 20	01 00
	Get		BE EF 03 06 00	85 D6	02 00 16 20	00 00
DIRECT POWER ON	Set	OFF	BE EF 03 06 00	3B 89	01 00 20 31	00 00
		ON	BE EF 03 06 00	AB 88	01 00 20 31	01 00
	Get		BE EF 03 06 00	08 89	02 00 20 31	00 00
AUTO POWER OFF	Get		BE EF 03 06 00	08 86	02 00 10 31	00 00
	Increment		BE EF 03 06 00	6E 86	04 00 10 31	00 00
	Decrement		BE EF 03 06 00	BF 87	05 00 10 31	00 00
SHUTTER TIMER	Set	1h	BE EF 03 06 00	27 92	01 00 06 24	01 00
		3h	BE EF 03 06 00	47 93	01 00 06 24	03 00
		6h	BE EF 03 06 00	17 90	01 00 06 24	06 00
	Get		BE EF 03 06 00	84 93	02 00 06 24	00 00

Names	Operation Type	Header			CRC	Command Data		
						Action	Type	Setting code
LAMP HOURS Lower Bytes	Get	BE EF	03	06 00	C2 FF	02 00	90 10	00 00
LAMP HOURS Higher Bytes	Get	BE EF	03	06 00	2A FD	02 00	9E 10	00 00
LAMP HOURS Reset	Execute	BE EF	03	06 00	58 DC	06 00	30 70	00 00
FILTER HOURS Lower Bytes	Get	BE EF	03	06 00	C2 F0	02 00	A0 10	00 00
FILTER HOURS Higher Bytes	Get	BE EF	03	06 00	D6 FC	02 00	9F 10	00 00
FILTER HOURS Reset	Execute	BE EF	03	06 00	98 C6	06 00	40 70	00 00
MY BUTTON-1	Set	MY IMAGE	BE EF	03	06 00	5A 3D	01 00	00 36
		MESSENGER	BE EF	03	06 00	AA 29	01 00	00 36
		SHUTTER	BE EF	03	06 00	5A 26	01 00	00 36
		INFORMATION	BE EF	03	06 00	FA 3E	01 00	00 36
		MY MEMORY	BE EF	03	06 00	9A 3F	01 00	00 36
		DYNAMIC IRIS	BE EF	03	06 00	AA 3D	01 00	00 36
		PICTURE MODE	BE EF	03	06 00	0A 3E	01 00	00 36
		FILTER RESET	BE EF	03	06 00	3A 3C	01 00	00 36
		TEMPLATE	BE EF	03	06 00	CA 39	01 00	00 36
		MUTE	BE EF	03	06 00	FA 20	01 00	00 36
		PbyP/PIP SWAP	BE EF	03	06 00	5A 38	01 00	00 36
		PIP POSITION	BE EF	03	06 00	3A 22	01 00	00 36
		BLANK	BE EF	03	06 00	FA 02	01 00	00 36
		RESOLUTION	BE EF	03	06 00	9A 3A	01 00	00 36
		ECO MODE	BE EF	03	06 00	0A 25	01 00	00 36
		eClarity	BE EF	03	06 00	9A 21	01 00	00 36
		HDCR	BE EF	03	06 00	5A 23	01 00	00 36
	Get		BE EF	03	06 00	09 33	02 00	00 36
MY BUTTON-2	Set	MY IMAGE	BE EF	03	06 00	A6 3C	01 00	01 36
		MESSENGER	BE EF	03	06 00	56 28	01 00	01 36
		SHUTTER	BE EF	03	06 00	A6 27	01 00	01 36
		INFORMATION	BE EF	03	06 00	06 3F	01 00	01 36
		MY MEMORY	BE EF	03	06 00	66 3E	01 00	01 36
		DYNAMIC IRIS	BE EF	03	06 00	56 3C	01 00	01 36
		PICTURE MODE	BE EF	03	06 00	F6 3F	01 00	01 36
		FILTER RESET	BE EF	03	06 00	C6 3D	01 00	01 36
		TEMPLATE	BE EF	03	06 00	36 38	01 00	01 36
		MUTE	BE EF	03	06 00	06 21	01 00	01 36
		PbyP/PIP SWAP	BE EF	03	06 00	A6 39	01 00	01 36
		PIP POSITION	BE EF	03	06 00	C6 23	01 00	01 36
		BLANK	BE EF	03	06 00	06 03	01 00	01 36
		RESOLUTION	BE EF	03	06 00	66 3B	01 00	01 36
		ECO MODE	BE EF	03	06 00	F6 24	01 00	01 36
		eClarity	BE EF	03	06 00	66 20	01 00	01 36
		HDCR	BE EF	03	06 00	A6 22	01 00	01 36
	Get		BE EF	03	06 00	F5 32	02 00	01 36

RS-232C Communication / Network command table (continued)

Names	Operation Type	Header	CRC	Command Data		
				Action	Type	Setting code
MY BUTTON-3	Set	MY IMAGE	BE EF 03 06 00	E2 3C	01 00	02 36 16 00
		MESSENGER	BE EF 03 06 00	12 28	01 00	02 36 25 00
		SHUTTER	BE EF 03 06 00	E2 27	01 00	02 36 32 00
		INFORMATION	BE EF 03 06 00	42 3F	01 00	02 36 10 00
		MY MEMORY	BE EF 03 06 00	22 3E	01 00	02 36 12 00
		DYNAMIC IRIS	BE EF 03 06 00	12 3C	01 00	02 36 15 00
		PICTURE MODE	BE EF 03 06 00	B2 3F	01 00	02 36 13 00
		FILTER RESET	BE EF 03 06 00	82 3D	01 00	02 36 14 00
		TEMPLATE	BE EF 03 06 00	72 38	01 00	02 36 1B 00
		MUTE	BE EF 03 06 00	42 21	01 00	02 36 38 00
		PbyP/PIP SWAP	BE EF 03 06 00	E2 39	01 00	02 36 1A 00
		PIP POSITION	BE EF 03 06 00	82 23	01 00	02 36 3C 00
		BLANK	BE EF 03 06 00	42 03	01 00	02 36 40 00
		RESOLUTION	BE EF 03 06 00	22 3B	01 00	02 36 1E 00
		ECO MODE	BE EF 03 06 00	B2 24	01 00	02 36 37 00
		eClarity	BE EF 03 06 00	22 20	01 00	02 36 3A 00
		HDCR	BE EF 03 06 00	E2 22	01 00	02 36 3E 00
MY BUTTON-4	Get		BE EF 03 06 00	B1 32	02 00	02 36 00 00
	Set	MY IMAGE	BE EF 03 06 00	1E 3D	01 00	03 36 16 00
		MESSENGER	BE EF 03 06 00	EE 29	01 00	03 36 25 00
		SHUTTER	BE EF 03 06 00	1E 26	01 00	03 36 32 00
		INFORMATION	BE EF 03 06 00	BE 3E	01 00	03 36 10 00
		MY MEMORY	BE EF 03 06 00	DE 3F	01 00	03 36 12 00
		DYNAMIC IRIS	BE EF 03 06 00	EE 3D	01 00	03 36 15 00
		PICTURE MODE	BE EF 03 06 00	4E 3E	01 00	03 36 13 00
		FILTER RESET	BE EF 03 06 00	7E 3C	01 00	03 36 14 00
		TEMPLATE	BE EF 03 06 00	8E 39	01 00	03 36 1B 00
		MUTE	BE EF 03 06 00	BE 20	01 00	03 36 38 00
		PbyP/PIP SWAP	BE EF 03 06 00	1E 38	01 00	03 36 1A 00
		PIP POSITION	BE EF 03 06 00	7E 22	01 00	03 36 3C 00
		BLANK	BE EF 03 06 00	BE 02	01 00	03 36 40 00
		RESOLUTION	BE EF 03 06 00	DE 3A	01 00	03 36 1E 00
		ECO MODE	BE EF 03 06 00	4E 25	01 00	03 36 37 00
		eClarity	BE EF 03 06 00	DE 21	01 00	03 36 3A 00
		HDCR	BE EF 03 06 00	1E 23	01 00	03 36 3E 00
	Get		BE EF 03 06 00	4D 33	02 00	03 36 00 00

Names	Operation Type	Header	CRC	Command Data		
				Action	Type	Setting code
REMOTE RECEIV. HDBaseT	Set	OFF	BE EF 03 06 00	BB 32	01 00	03 26 00 00
		ON	BE EF 03 06 00	2B 33	01 00	03 26 01 00
	Get		BE EF 03 06 00	88 32	02 00	03 26 00 00
REMOTE FREQ. NORMAL	Set	OFF	BE EF 03 06 00	FF 3D	01 00	30 26 00 00
		ON	BE EF 03 06 00	6F 3C	01 00	30 26 01 00
	Get		BE EF 03 06 00	CC 3D	02 00	30 26 00 00
REMOTE FREQ. HIGH	Set	OFF	BE EF 03 06 00	03 3C	01 00	31 26 00 00
		ON	BE EF 03 06 00	93 3D	01 00	31 26 01 00
	Get		BE EF 03 06 00	30 3C	02 00	31 26 00 00
REMOTE ID	Set	ALL	BE EF 03 06 00	9F 30	01 00	08 26 00 00
		1	BE EF 03 06 00	0F 31	01 00	08 26 01 00
		2	BE EF 03 06 00	FF 31	01 00	08 26 02 00
		3	BE EF 03 06 00	6F 30	01 00	08 26 03 00
		4	BE EF 03 06 00	5F 32	01 00	08 26 04 00
	Get		BE EF 03 06 00	AC 30	02 00	08 26 00 00
MY IMAGE	Set	OFF	BE EF 03 06 00	3A C3	01 00	00 35 00 00
		IMAGE-1	BE EF 03 06 00	AA C2	01 00	00 35 01 00
		IMAGE-2	BE EF 03 06 00	5A C2	01 00	00 35 02 00
		IMAGE-3	BE EF 03 06 00	CA C3	01 00	00 35 03 00
		IMAGE-4	BE EF 03 06 00	FA C1	01 00	00 35 04 00
	Get		BE EF 03 06 00	09 C3	02 00	00 35 00 00
MY IMAGE IMAGE-1 Delete	Execute		BE EF 03 06 00	71 C3	06 00	01 35 00 00
MY IMAGE IMAGE-2 Delete	Execute		BE EF 03 06 00	35 C3	06 00	02 35 00 00
MY IMAGE IMAGE-3 Delete	Execute		BE EF 03 06 00	C9 C2	06 00	03 35 00 00
MY IMAGE IMAGE-4 Delete	Execute		BE EF 03 06 00	BD C3	06 00	04 35 00 00
AMX for LAN	Set	OFF	BE EF 03 06 00	33 AC	01 00	30 1B 00 00
		ON	BE EF 03 06 00	A3 AD	01 00	30 1B 01 00
	Get		BE EF 03 06 00	00 AC	02 00	30 1B 00 00
CRESTRON	Set	OFF	BE EF 03 06 00	33 B2	01 00	50 1B 00 00
		ON	BE EF 03 06 00	A3 B3	01 00	50 1B 01 00
	Get		BE EF 03 06 00	00 B2	02 00	50 1B 00 00
EXTRON for HDBaseT	Set	OFF	BE EF 03 06 00	33 BD	01 00	60 1B 00 00
		ON	BE EF 03 06 00	A3 BC	01 00	60 1B 01 00
	Get		BE EF 03 06 00	00 BD	02 00	60 1B 00 00

RS-232C Communication / Network command table (continued)

Names	Operation Type	Header	CRC	Command Data		
				Action	Type	Setting code
HDMI OUT RESOLUTION	Set	EXTERNAL DEVICE	BE EF 03 06 00 46 EF	01 00	C2 20	00 00
		PROJECTOR	BE EF 03 06 00 D6 EE	01 00	C2 20	01 00
	Get		BE EF 03 06 00 75 EF	02 00	C2 20	00 00
STANDBY OUTPUT - AUDIO OUT	Set	OFF	BE EF 03 06 00 EA DE	01 00	3F 20	00 00
		AUDIO IN1	BE EF 03 06 00 7A DF	01 00	3F 20	01 00
		AUDIO IN2	BE EF 03 06 00 8A DF	01 00	3F 20	02 00
		HDMI 1	BE EF 03 06 00 2A C7	01 00	3F 20	20 00
		HDMI 2	BE EF 03 06 00 BA C6	01 00	3F 20	21 00
		HDBaseT	BE EF 03 06 00 EA C5	01 00	3F 20	24 00
	Get		BE EF 03 06 00 D9 DE	02 00	3F 20	00 00
STANDBY OUTPUT - MONITOR OUT	Set	COMPUTER IN	BE EF 03 06 00 2A F7	01 00	BF 20	00 00
		OFF	BE EF 03 06 00 DA B6	01 00	BF 20	FF 00
	Get		BE EF 03 06 00 19 F7	02 00	BF 20	00 00
STANDBY OUTPUT - HDMI OUT	Set	HDMI 1	BE EF 03 06 00 F2 EF	01 00	C1 20	03 00
		HDBaseT	BE EF 03 06 00 52 E3	01 00	C1 20	11 00
		OFF	BE EF 03 06 00 F2 AE	01 00	C1 20	FF 00
	Get		BE EF 03 06 00 31 EF	02 00	C1 20	00 00
HDMI OUTPUT Enable	Set	OFF	BE EF 03 06 00 02 2C	01 00	31 23	00 00
		ON	BE EF 03 06 00 92 2D	01 00	31 23	01 00
	Get		BE EF 03 06 00 31 2C	02 00	31 23	00 00
HDMI OUTPUT - COMPUTER IN	Set	HDMI 1	BE EF 03 06 00 CE 37	01 00	40 23	03 00
		HDBaseT	BE EF 03 06 00 6E 3B	01 00	40 23	11 00
	Get		BE EF 03 06 00 0D 37	02 00	40 23	00 00
HDMI OUTPUT - VIDEO	Set	HDMI 1	BE EF 03 06 00 32 36	01 00	41 23	03 00
		HDBaseT	BE EF 03 06 00 92 3A	01 00	41 23	11 00
	Get		BE EF 03 06 00 F1 36	02 00	41 23	00 00
HDMI OUTPUT - HDMI 1	Get		BE EF 03 06 00 49 37	02 00	43 23	00 00
HDMI OUTPUT - LAN	Set	HDMI 1	BE EF 03 06 00 EA 35	01 00	4B 23	03 00
		HDBaseT	BE EF 03 06 00 4A 39	01 00	4B 23	11 00
	Get		BE EF 03 06 00 29 35	02 00	4B 23	00 00
HDMI OUTPUT - HDMI 2	Set	HDMI 1	BE EF 03 06 00 62 35	01 00	4D 23	03 00
		HDBaseT	BE EF 03 06 00 C2 39	01 00	4D 23	11 00
	Get		BE EF 03 06 00 A1 35	02 00	4D 23	00 00
HDMI OUTPUT - HDBaseT	Get		BE EF 03 06 00 31 32	02 00	51 23	00 00

PJLink command

Commands	Control Description	Parameter or Response
POWR	Power Control	0 = Standby 1 = Power On
POWR ?	Power Status inquiry	0 = Standby 1 = Power On 2 = Cool Down
INPT	Input Source selection	11 = COMPUTER IN 23 = VIDEO 31 = HDMI 1 33 = HDMI 2 36 = HDBaseT 51 = LAN
INPT ?	Input Source inquiry	11 = COMPUTER IN 23 = VIDEO 31 = HDMI 1 33 = HDMI 2 36 = HDBaseT 51 = LAN
AVMT	AV Mute	10 = BLANK off 11 = BLANK on 20 = Mute off 21 = Mute on 30 = AV Mute off 31 = AV Mute on
AVMT ?	AV Mute inquiry	10 = BLANK off 11 = BLANK on 20 = Mute off 21 = Mute on 30 = AV Mute off 31 = AV Mute on

(continued on next page)

Commands	Control Description	Parameter or Response
ERST ?	Error Status inquiry	1st byte: Refers to Fan error; one of 0 to 2 2nd byte: Refers to Lamp error; one of 0 to 2 3rd byte: Refers to Temperature error; one of 0 to 2 4th byte: Refers to Cover error; one of 0 to 2 5th byte: Refers to Filter error; one of 0 to 2 6th byte: Refers to Other error; one of 0 to 2 The meaning of 0 to 2 is as given below 0 = Error is not detected 1 = Warning 2 = Error
LAMP ?	Lamp Status inquiry	1st number (digits 1 to 5): Lamp Time 2nd number : 0 = Lamp off, 1 = Lamp on
INST ?	Input Source List inquiry	11 23 31 33 36 51
NAME ?	Projector Name inquiry	Responds with the name set in the item PROJECTOR NAME of the NETWORK - NETWORK SETUP menu
INF1 ?	Manufacturer's Name inquiry	CHRISTIE
INF2 ?	Model Name inquiry	LWU502 LW502
INFO ?	Other Information inquiry	Responds with the factory information and so on
CLSS ?	Class Information inquiry	1

NOTE • The password used in PJLink™ is the same as the password set in the Web Control. To use PJLink™ without authentication, do not set any password in Web Browser Control.

• For specifications of PJLink™, see the web site of the Japan Business Machine and Information System Industries Association.

URL: <http://pjlink.jbmia.or.jp/>

• Trademark PJLink is a trademark applied for trademark rights in Japan, the United States of America and other countries and areas.



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CHRISTIE®

LW502/LWU502

Setup Guide (User's Manual (concise))

Thank you for purchasing this projector.



Read through this manual before using this projector, and safely use this projector.

ENGLISH

⚠ WARNING ▶ Before using this projector, read all manuals for this projector. After reading them, store them in a safe place for future reference.
▶ Heed all the warnings and cautions in the manuals or on the projector.
▶ Follow all the instructions in the manuals or on the projector.

NOTE • In this manual, unless any comments are accompanied, “the manuals” means all the documents provided with this projector, and “the product” means this projector and all the accessories came with the projector.

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First of all

Entries and graphical symbols explanation

The following entries and graphical symbols are used for the manuals and the projector as follows, for safety purpose. Know their meanings beforehand and heed them.

⚠WARNING This entry warns of a risk of serious personal injury or even death.

⚠CAUTION This entry warns of a risk of personal injury or physical damage.

NOTICE This entry notices of fear of causing trouble.

Important safety instruction

The followings are important instructions for safely using the projector. Follow them when handling the projector. The manufacturer assumes no responsibility for any damage caused by mishandling that is beyond normal usage defined in these manuals of this projector.

⚠WARNING ► Never use the projector in or after an abnormality (for example, giving off smoke, smelling strange, took a liquid or an object inside, broken, and so on.) If an abnormality should occur, unplug the projector urgently.

► Situate the projector away from children and pets.

► Keep small parts away from children and pets. If swallowed, consult a physician immediately for emergency treatment.

► Do not use the projector during electrical storms.

► Unplug the projector from the power outlet if the projector is not being used.

► Do not open or remove any portion of the projector, unless the manuals direct it. For internal maintenance, leave it to your dealer or their service personnel.

► Use only the accessories specified or recommended by the manufacturer.

► Do not modify the projector or accessories.

► Do not let any things or any liquids enter to the inside of the projector.

► Do not get the projector wet.

► Do not place the projector where any oils, such as cooking or machine oil, are used. Oil may harm the projector, resulting in malfunction, or falling from the mounted position.

► Do not apply a shock or pressure to this projector.

- Do not place the projector on an unstable place such as the uneven surface or the leaned table.

- Ensure the projector is stable. Place the projector so that it does not protrude from the surface where the projector is placed on.

- Place your hands on the grip on the bottom of the projector when carrying the projector.

- Remove all the attachments including the power cord and cables, from the projector when carrying the projector.

► Do not look into the lens and the openings on the projector, while the lamp is on, as the projection ray may cause a trouble on your eyes.

► Do not approach the lamp cover and the exhaust vents, while the projection lamp is on. Allow the lamps to cool before touching them.

Regulatory notices

About Electro-Magnetic Interference

This is a Class A product. In a domestic environment this projector may cause radio interference in which case the user may be required to take adequate measures.

This projector may cause interference if used in residential areas. Such use must be avoided unless the user takes special measures to reduce electromagnetic emissions to prevent interference to the reception of radio and television broadcasts.

In Canada

CAN ICES-3(A) / NMB-3(A).

In the US and places where the FCC regulations are applicable

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user is required to correct the interference at his own expense.

INSTRUCTIONS TO USERS: Some cables have to be used with the core set. Use the accessory cable or a designated type cable for the connection. For cables that have a core only at one end, connect the core to the projector.

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



RG2

As with any bright source, do not stare into the direct beam, RG2
IEC 62471-5:2015.

Regulatory notices (continued)

About Waste Electrical and Electronic Equipment



The mark is in compliance with the Waste Electrical and Electronic Equipment Directive 2002/96/EC (WEEE).

The mark indicates the requirement NOT to dispose the equipment including any spent or discarded batteries or accumulators as unsorted municipal waste, but use the return and collection systems available. If the batteries or accumulators included with this equipment, display the chemical symbol Hg, Cd, or Pb, then it means that the battery has a heavy metal content of more than 0.0005% Mercury or more than, 0.002% Cadmium, or more than 0.004% Lead.

Contents of package

Your projector should come with the items shown below. Check that all the items are included. Contact your dealer immediately if any items are missing.

Refer to figure **F-7** at the back of this manual.

- (1) Remote control (Batteries not included)
- (2) Power cord
- (3) Computer cable
- (4) Lens cover (LWU502)
- (5) Lens cover (LW502)
- (6) User's manuals (Book x1, CD x1)
- (7) Security label
- (8) Application CD
- (9) Adapter cover
- (10) Terminal cover
- (11) HDMI cable holder (x3)
- (12) Cable tie (x3)
- (13) Cable tie (x1)
- (14) Hook metal
- (15) Screw

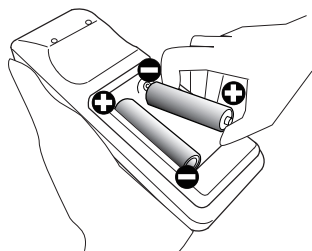
⚠ WARNING ► Keep small parts away from children and pets. Take care not to put in the mouth. If swallowed, consult a physician immediately for emergency treatment.

NOTE • Keep the original packing materials for future reshipment. Use the original packing materials when moving the projector.

Preparing for the remote control

Insert the batteries into the remote control before using it. If the remote control starts to malfunction, try to replace the batteries. If you do not plan to use the remote control for long period, remove the batteries from the remote control and store them in a safe place.

1. Remove the battery cover.
2. Align and insert the two AA batteries according to their plus and minus terminals as indicated in the remote control. (Use the appropriate AA carbon-zinc or alkaline batteries (non-rechargeable) in accordance with laws and regulations. Batteries are not included.)
3. Put the battery cover back to the former state.

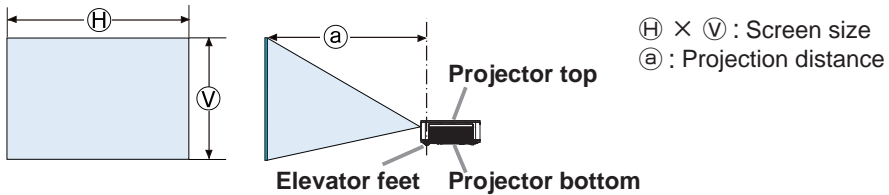


ENGLISH

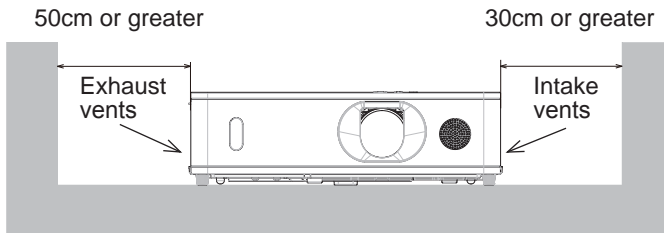
- ⚠WARNING ▶** Always handle the batteries with care and use them only as directed. Improper use may result in battery explosion, cracking or leakage, which could result in fire, injury and/or pollution of the surrounding environment.
- When replacing the batteries, replace both of the batteries with new batteries of the same type. Do not use a new battery with a used battery.
 - Use only the batteries specified. Do not use batteries of different types at the same time. Do not mix a new battery with used one.
 - Make sure the plus and minus terminals are correctly aligned when loading a battery.
 - Keep a battery away from children and pets.
 - Do not recharge, short circuit, solder or disassemble a battery.
 - Do not place a battery in fire or water. Keep batteries in a dark, cool and dry place.
 - If you observe battery leakage, wipe out the leakage and then replace a battery. If the leakage adheres to your body or clothes, rinse well with water immediately.
 - Obey the local laws on disposing the battery.

Arrangement

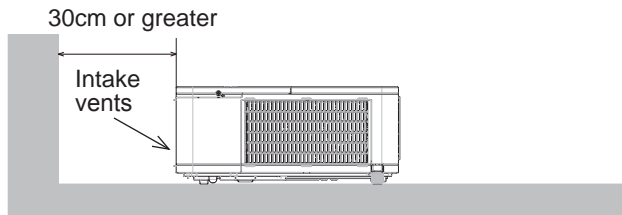
Refer to tables **T-1** and **T-2** at the back of this manual as well as the following to determine the screen size and projection distance. The values shown in the table are calculated for a full size screen.



Secure a clearance of 50cm or greater between the exhaust vents and walls, and a clearance of 30cm or greater between the intake vents and walls. Assume that there is enough clearance in the front, back, and top of the projector in the figure below.



Secure a clearance of 30cm or greater between the intake vents and walls. Assume that there is enough clearance in the front, sides, and top of the projector in the figure below.



(continued on next page)

⚠ **WARNING** ► Install the projector where you can access the power outlet easily.

► Install the projector in a stable horizontal position.

- Do not use any mounting accessories except the accessories specified by the manufacturer. Read and keep the manuals of the accessories used.

- For special installation such as ceiling mounting, consult your dealer beforehand. Specific mounting accessories and services may be required.

- Do not put the projector on its side, front or rear position.

- Do not attach nor place anything on the projector unless otherwise specified in the manual.

► Do not install the projector near thermally conductive or flammable things.

► Do not place the projector where any oils, such as cooking or machine oil, are used.

► Do not place the projector in a place where it may get wet.

► Do not block the intake vents and exhaust vents of the projector. If the intake vents and exhaust vents of the projector are blocked, the accumulated inside heat may cause fire.

⚠ **CAUTION** ► Place the projector in a cool place with sufficient ventilation.

- Do not stop up, block nor cover the projector's vent holes.

- Do not place the projector at places that are exposed to magnetic fields, doing so can cause the cooling fans inside the projector to malfunction.

► Avoid placing the projector in smoky, humid or dusty place.

- Do not place the projector near humidifiers.

NOTICE ► Position the projector to prevent light from directly hitting the projector's remote sensor.

► Do not place the projector in a place where radio interference may be caused.

► Set the **ALTITUDE MODE** of the **SERVICE** item in the **OPTION** menu correctly. If the projector is used with a wrong setting, it may cause damage to the projector itself or the parts inside. For details, see **User's Manual - Operating Guide**.

NOTE • When the temperature inside the projector rises high, it may cause the high rotation of the fan for cooling temporarily.

Connecting with your devices

Before connecting the projector to a device, consult the manual of the device to confirm that the device is suitable for connecting with this projector and prepare the required accessories, such as a cable in accord with the signal of the device. Consult your dealer when the required accessory did not come with the projector or the accessory is damaged.

After making sure that the projector and the devices are turned off, perform the connection, according to the following instructions. Refer to figures **F-1** to **F-4** at the back of this manual.

For details, see **User's Manual - Operating Guide**. Before connecting the projector to a network system, read **User's Manual - Network Guide** too.

⚠ **WARNING** ► Use only the appropriate accessories. Otherwise it could cause a fire or damage the projector and devices.

- Use only the accessories specified or recommended by the projector's manufacturer. It may be regulated under some standard.
- Neither disassemble nor modify the projector and the accessories.
- Do not use the damaged accessory. Be careful not to damage the accessories. Route a cable so that it is neither stepped on nor pinched.
- Heat may build up in the USB wireless adapter, to avoid possible burns disconnect the projector power cord for 10 minutes before touching the adapter.
- When using the USB wireless adapter, use the supplied adapter cover.

⚠ **CAUTION** ► For a cable with a core at only one end, connect the end with the core to the projector. That may be required by EMI regulations.

- Before connecting the projector to a network system, obtain the consent of the administrator of the network.
- Do not connect the **LAN** port to any network that might have the excessive voltage.
- The designated USB wireless adapter that is sold as an option is required to use the wireless network function of this projector. Before connecting the USB wireless adapter, turn off the power of the projector and disconnect the power cord.

NOTE • Do not turn on or off the projector while connected to a device in operation, unless that is directed in the manual of the device.

- Some input ports are selectable in the use. For details, see **User's Manual - Operating Guide**.
- Be careful not to mistakenly connect a connector to a wrong port.

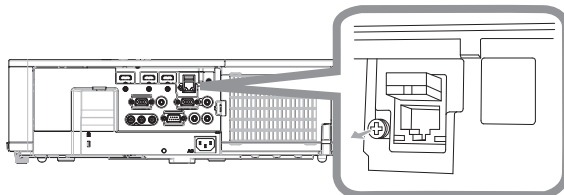
Fastening the adapter cover

When using the USB wireless adapter, use the supplied adapter cover for theft prevention.

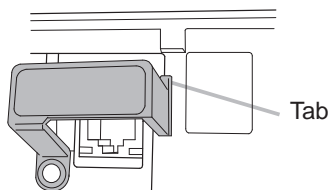
USB wireless adapter: USB-WL-11N-NS

Temperature range: 0 ~ 40°C (operating)

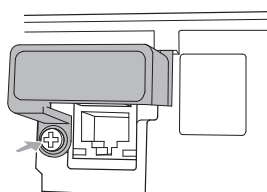
1. Loosen the screw on the bottom left of the **WIRELESS** port.



2. Insert the tab of the cover into the hole at the upper right of the **WIRELESS** port in the direction of the arrow.



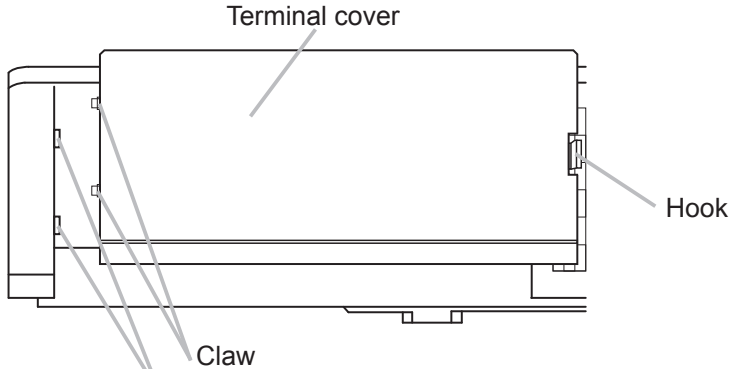
3. Align the screw holes on the projector and the cover. Then insert the screw removed from the projector into the hole and tighten the screw.



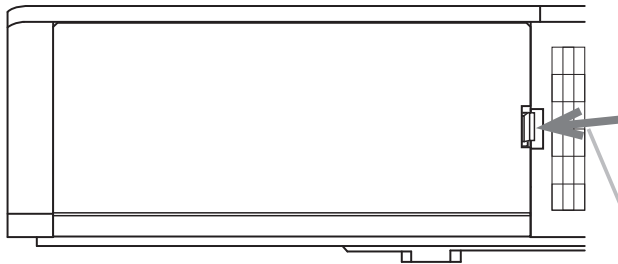
⚠ **WARNING** ► Keep small parts away from children and pets. Take care not to put in the mouth.

► Heat may build up in the USB wireless adapter, to avoid possible burns disconnect the projector power cord for 10 minutes before touching the adapter.

Attaching the terminal cover



Insert the two claws of the terminal cover into the hole of the case and confirm hook is fitting into the case.

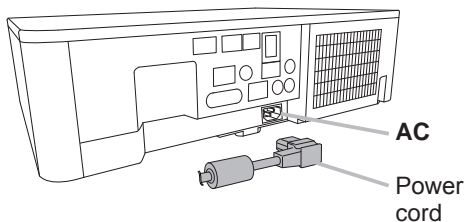


When detaching the terminal cover, push the hook in the direction of the arrow and pull it forward.

NOTE • This is a Class A product. When wiring a signal cable or a communication cable (for example, a LAN cable) close to this product, it may cause radio interference in which case the user may be required to take adequate measures.

Connecting power supply

1. Put the connector of the power cord into the **AC** (AC inlet) of the projector.
2. Firmly plug the power cord's plug into the outlet. In a couple of seconds after the power supply connection, the **POWER** indicator lights up in steady orange.



ENGLISH

When the DIRECT POWER ON function activated, the connection of the power supply make the projector turn on.

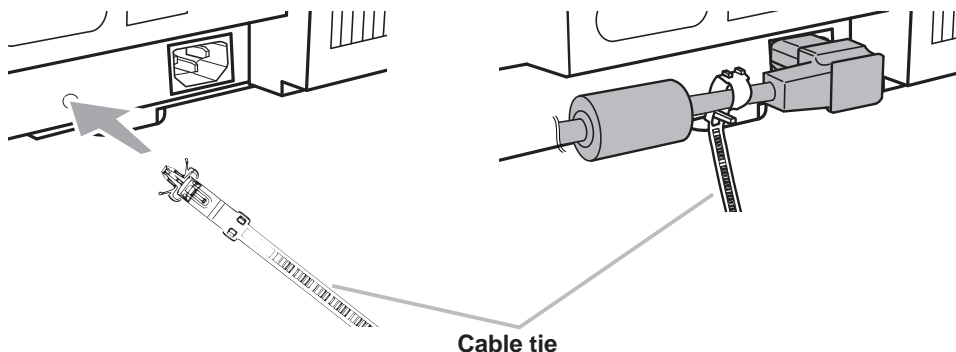
△WARNING ► Use extra caution when connecting the power cord, as incorrect or faulty connections may result in fire and/or electrical shock.

- Do not touch the power cord with a wet hand.
- Only use the power cord that came with the projector. If it is damaged, consult your dealer to get a new one. Never modify the power cord.
- Only plug the power cord into an outlet whose voltage is matched to the power cord. The power outlet should be close to the projector and easily accessible. Remove the power cord for complete separation.
- Do not distribute the power supply to multiple devices. Doing so may overload the outlet and connectors, loosen the connection, or result in fire, electric shock or other accidents.
- Connect the ground terminal for the AC inlet of this unit to the ground terminal of the building using an appropriate power cord (bundled).

NOTICE ► This projector is also designed for IT power systems with a phase-to-phase voltage of 220 to 240 V.

Fastening the cable

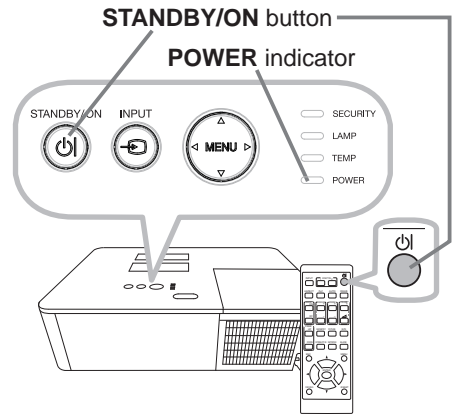
Use the supplied cable tie to fasten the cable.



Turning on the power

1. Make sure that the power cord is firmly and correctly connected to the projector and the outlet.
2. Make sure that the **POWER** indicator is lighted in steady orange. Then remove the lens cover.
3. Press the **STANDBY/ON** button on the projector or the remote control.

The projection lamp lights up and the **POWER** indicator begins blinking in green. When the power is completely on, the indicator stops blinking and light in steady green.



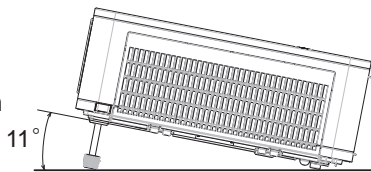
⚠ WARNING ► A strong light is emitted when the projector's power is on. Do not look into the lens of the projector or look inside of the projector through any of the projector's openings, as the projection ray may cause a trouble on your eyes.

► Blocking the beam can cause high temperatures to occur and may result in smoke or fire.

NOTE • Power on the projector prior to any connected devices.
 • The projector has the DIRECT POWER ON function, which makes the projector automatically turn on. For more information, see **User's Manual - Operating Guide**.

Adjusting the projector's elevator

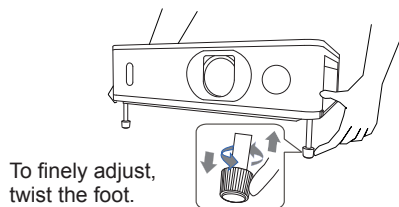
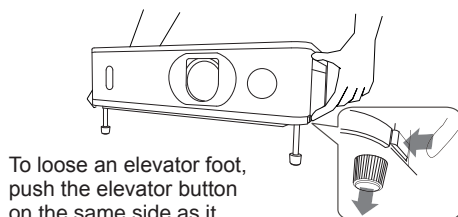
When the place to put the projector is slightly uneven to the left or right, use the elevator feet to place the projector horizontally. Using the feet can also tilt the projector in order to project at a suitable angle to the screen, elevating the front side of the projector within 11 degrees.



ENGLISH

This projector has 2 elevator feet and 2 elevator buttons. An elevator foot is adjustable while pushing the elevator button on the same side as it.

1. Holding the projector, push the elevator buttons to loose the elevator feet.
2. Position the front side of the projector to the desired height.
3. Release the elevator buttons in order to lock the elevator feet.
4. After making sure that the elevator feet are locked, put the projector down gently.
5. If necessary, the elevator feet can be manually twisted to make more precise adjustments. Hold the projector when twisting the feet.



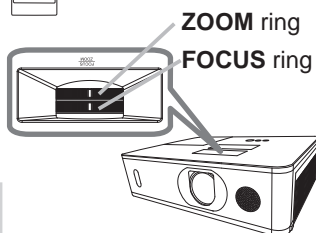
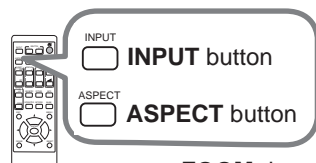
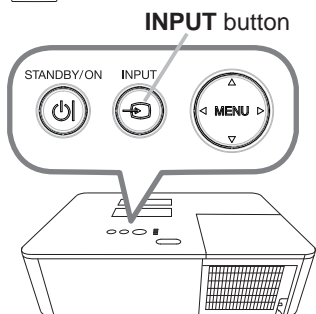
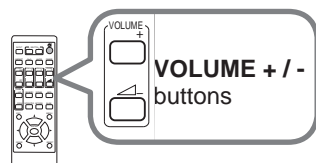
⚠CAUTION ▶ Do not handle the elevator buttons without holding the projector, as the projector may drop down.
▶ Do not tilt the projector other than elevating its front within 11 degrees using the adjuster feet. A tilt of the projector exceeding the restriction could cause malfunction or shortening the lifetime of consumables, or the projector itself.

Displaying the picture

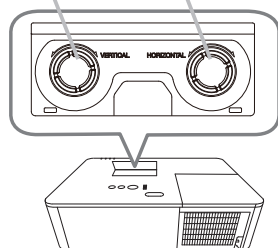
1. Activate your signal source. Turn the signal source on, and make it send the signal to the projector.
2. Use the **VOLUME + / -** buttons to adjust the volume.
3. Press **INPUT** button on the projector or the remote control. Select a desirable input referring to the displayed input list.
4. Press the **ASPECT** button on the remote control. Each time you press the button, the projector switches the mode for aspect ratio in turn.
5. Use the **ZOOM** ring to adjust the screen size.
6. Use the **FOCUS** ring to focus the picture.
7. Turn the **VERTICAL** adjuster fully counter clockwise. Then turn it clockwise and adjust the vertical lens position upward.
8. Turn the **HORIZONTAL** adjuster clockwise or counter clockwise to adjust the horizontal lens position.

⚠CAUTION ► If you want a blank screen while the projector's lamp is on, use the BLANK function. Taking any other action may cause the damage to the projector.

NOTE • The **ASPECT** button does not work when no proper signal is inputted.
 • There may be some noise and/or the screen may flicker for a moment when an operation is made. This is not a malfunction.
 • For the details of how to adjust the picture, see **User's Manual - Operating Guide**.

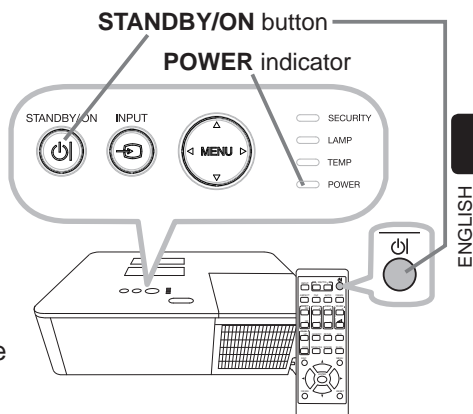


VERTICAL adjuster
HORIZONTAL adjuster



Turning off the power

1. Press the **STANDBY/ON** button on the projector or the remote control. The message “Power off?” appears on the screen for about five seconds.
2. Press the **STANDBY/ON** button again while the message appears. The projector lamp goes off, and the **POWER** indicator begins blinking in orange. Then the **POWER** indicator stops blinking and light in steady orange when the lamp cooling is complete.



3. Attach the lens cover, after the **POWER** indicator turns to steady orange.

Do not turn the projector on for 10 minutes or more after turning it off.
Do not turn the projector off shortly after turning it on. These operations might cause the lamp to malfunction or shorten the lifetime of some parts including the lamp.

⚠ WARNING ► Do not touch the lamp cover and the exhaust vents during use or just after use, as they are too hot.
► Remove the power cord for complete separation. The power outlet should be close to the projector and easily accessible.

NOTE • Power off the projector after any connected devices are powered off.
• This projector has the AUTO POWER OFF function that can make the projector turn off automatically. For more information, see **User's Manual - Operating Guide**.

Replacing the lamp

A lamp has a finite product life. Using the lamp for long periods of time could cause the pictures to darken or the color tone to turn poor. Each lamp has a different lifetime, and some may burst or burn out soon after you start using them.

New lamp preparation and early replacement are recommended. To prepare a new lamp, contact your dealer and indicate the lamp type number.

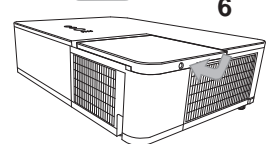
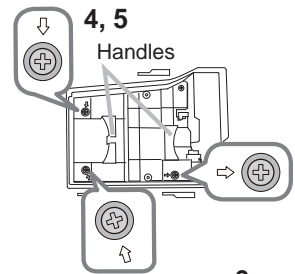
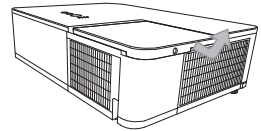
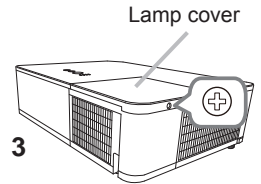
Type number : 003-005852-01 (DT01935)

1. Turn the projector off, and unplug the power cord. Allow the projector to cool for at least 45 minutes.
2. Prepare a new lamp. If the projector is mounted with specified mounting accessories, or if the lamp has broken, also ask the dealer to replace the lamp.

If replacing the lamp by yourself, complete the following procedure.

3. Loosen the screw (marked by arrow) of the lamp cover and then slide down and lift the lamp cover to remove it.
4. Loosen the three screws (marked by arrow) of the lamp, and slowly pull the lamp out by the handles. Never loosen any other screws.
5. Insert the new lamp, and firmly retighten the three screws of the lamp loosened in the previous step to lock it in place.
6. While putting the interlocking parts of the lamp cover and the projector together, slide the lamp cover back in place. Firmly fasten the screw of the lamp cover.
7. Turn the projector on and reset the lamp time using the LAMP HOURS item in the SETUP menu.

- (1) Press the **MENU** button to display a menu.
- (2) Point at the ADVANCED MENU in the menu using the ▼/▲ button, then press the ► button.
- (3) Point at the SETUP in the left column of the menu using the ▼/▲ button, then press the ► button.
- (4) Point at the LAMP & FILTER using the ▼/▲ button, then press the ► button.
- (5) Point at the LAMP HOURS using the ▼/▲ button, then press the ► button. A dialog appears.
- (6) Press the ► button to select "OK" on the dialog. The lamp time is reset.



⚠ CAUTION ► Do not touch the interior of the projector, while the lamp is removed.

NOTE • Reset the lamp time only when you have replaced the lamp, for a suitable indication about the lamp.

<http://www.pureglare.com.au>

Replacing the lamp (continued)

HIGH VOLTAGE **HIGH TEMPERATURE** **HIGH PRESSURE**

⚠ WARNING ► The projector uses a high-pressure mercury glass lamp. The lamp can break with a loud bang, or burn out, if jolted or scratched, handled while hot, or worn over time. Note that each lamp has a different lifetime, and some may burst or burn out soon after you start using them. In addition, if the bulb bursts, shards of glass can fly into the lamp housing, and gas containing mercury and dust containing fine particles of glass can escape from the projector's vent holes.

► **About disposal of a lamp:** This projector contains a mercury lamp; do not put it in a trash. Dispose of it in accordance with environmental laws.

- For lamp recycling, go to www.lamprecycle.org (in the US).
- For projector disposal, consult your local government agency or www.eiae.org (in the US) or www.epsc.ca (in Canada).

For more information, consult your dealer.

ENGLISH



Disconnect
the plug
from the
power
outlet

- If the lamp breaks (it makes a loud bang), unplug the power cord from the outlet, and request a replacement lamp from your local dealer. Note that shards of glass could damage the projector's internals, or cause injury during handling. Do not try to clean the projector or replace the lamp yourself.

- If the lamp should break (it makes a loud bang), ventilate the room well, and make sure not to inhale the gas or fine particles that come out from the projector's vent holes, and not to get them into your eyes or mouth.

- Before replacing the lamp, turn the projector off and unplug the power cord, then wait at least 45 minutes for the lamp to cool sufficiently. Handling the lamp while hot can cause burns, as well as damaging the lamp.



- Never unscrew except the appointed (marked by an arrow) screws.
- Do not open the lamp cover while the projector is suspended from a ceiling. This is dangerous because shards fall out when the cover is open after a lamp's bulb has broken. Working in high places is dangerous, so ask your local dealer to have the lamp replaced even if the bulb is not broken.

- Do not use the projector with the lamp cover removed. During lamp replacement, make sure that the screws are screwed in firmly. Loose screws could result in damage or injury.



- Use only the lamp of the specified type. Use of a lamp that does not meet the lamp specifications for this model could cause a fire, damage or shorten the life of this projector.

- If the lamp breaks soon after the first time it is used, there may be electrical problems elsewhere besides the lamp. If this happens, consult your local dealer or a service representative.

- Handle with care: jolting or scratching could cause the lamp bulb to burst during use.
- Using the lamp for long periods of time, could cause it to darken, not to light up or to burst. When the pictures appear dark, or when the color tone is poor, replace the lamp as soon as possible. Do not use old (used) lamps as this cause breakage.

<http://www.pureglare.com.au>

Cleaning and replacing the air filter

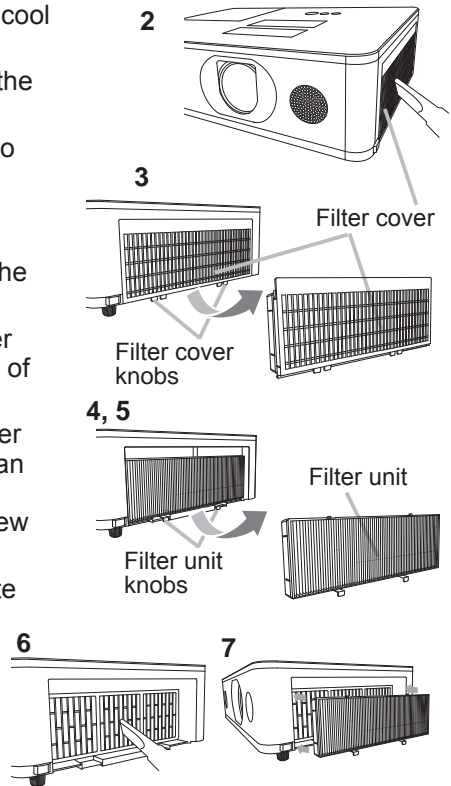
Check and clean the air filter periodically. When the indicators or a message prompts you to clean the air filter, replace the filter as soon as possible.

The extra air filter is attached to inner side of the filter cover. If one of the filters is damaged or heavily soiled, replace whole filter set with a new one.

Request a filter set with the following type number from your dealer when purchasing a new one.

Type number : 003-005853-01 (UX41161)

1. Turn the projector off, and unplug the power cord. Allow the projector to sufficiently cool down.
2. Use a vacuum cleaner on and around the filter cover.
3. Pick and pull up the filter cover knobs to take it off.
4. Press up slightly on the bottom side knobs to unlock the bottom side of the filter unit. Pull the center knob to take the filter unit off.
5. Use a vacuum cleaner to clean the filter vent of the projector and the outer side of the filter unit.
6. Use a vacuum cleaner to clean the inner side of each part of the filter unit to clean them up. If the filters are damaged or heavily soiled, replace them with the new ones.
7. Put the filter unit back in an upright state into the projector.
8. Put the filter cover back into the place.



(continued on next page)

Cleaning and replacing the air filter (continued)

9. Turn the projector on and reset the filter hours using the FILTER HOURS item in the EASY MENU.
- (1) Press the **MENU** button to display a menu.
 - (2) Point at the FILTER HOURS using the ▲/▼ cursor buttons, then press the ► cursor (or the **ENTER** / the **RESET**) button. A dialog appears.
 - (3) Press the ► cursor button to select the OK on the dialog. It performs resetting the filter hours.

⚠ **WARNING** ► Before taking care of the air filter, make sure the power cable is not plugged in, then allow the projector to cool sufficiently.

► Use only the air filter of the specified type. Do not use the projector without the air filter or the filter cover. It could result in a fire or malfunction to the projector.

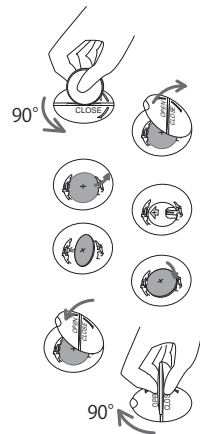
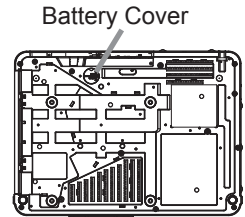
► Clean the air filter periodically. If the air filter becomes clogged by dust, internal temperatures rise and could cause a fire, a burn or malfunction to the projector.

NOTE • Reset the filter hours only when you have cleaned or replaced the air filter, for a suitable indication about the air filter.
• The projector may display the message such as the “CHECK THE AIR FLOW” or turn off the projector, to prevent the internal heat level rising.

Replacing the internal clock battery

Installing the battery may be required. (Event Scheduling in the User's Manual - Network Guide) A battery is not contained at the time of factory shipment. Replace a battery according to the following procedure.

1. Turn the projector off, and unplug the power cord. Allow the projector to cool sufficiently.
2. After making sure that the projector has cooled adequately, slowly turn over the projector, so that the bottom is facing up.
3. Turn the battery cover fully in the direction indicated **OPEN** using a coin, and pick the cover up to remove it.
4. Pry up the battery using a flathead screwdriver to take it out. Do not use any metal tools. While prying it up, put a finger lightly on the battery as it may pop out of the holder.
5. Replace the battery with a new **HITACHI MAXELL**, Part No.**CR2032** or **CR2032H**. Slide the battery in under the plastic claw, and push it into the holder until it clicks.
6. Replace the battery cover in place, then turn it in the direction indicated **CLOSE** using a coin.



- ⚠WARNING** ► Always handle the batteries with care and use them only as directed. The battery may explode if mistreated. Do not recharge, disassemble or dispose of using fire.
- Improper use may result in cracking or leakage, which could result in fire, injury and/or pollution of the surrounding environment.
- Use only the batteries specified.
 - Make sure the plus and minus terminals are correctly aligned when loading a battery.
 - Keep a battery away from children and pets. If swallowed consult a physician immediately for emergency treatment.
 - Do not short circuit or solder a battery.
 - Do not place a battery in a fire or water. Keep batteries in a dark, cool and dry place.
 - If you observe battery leakage, wipe out the leakage and then replace a battery. If the leakage adheres to your body or clothes, rinse well with water immediately.
 - Obey the local laws on disposing a battery.

Using the CD manual

The other manuals for this projector are written into the included CD-ROM titled "User's Manual (detailed)". Before using the CD-ROM, read the following to ensure the proper use.

■ System requirements

The system for using the CD-ROM requires the following.

Windows®: OS:Microsoft®
Windows Vista®, Windows® 7 or later

Macintosh®: OS:Mac OS® 10.2 or later

CD-ROM/DVD-ROM drive

Applications: Microsoft® Internet Explorer® 8.0 or later
Adobe® Acrobat® Reader® 8.0 or later

■ How to use the CD

1. Insert CD into computer's CD-ROM/DVD-ROM drive.

Windows®: Web browser and a start up window appear.

Macintosh®: (1) Double-click on the PROJECTORS icon on the desktop screen.
(2) When "main.html" file is clicked, the Web browser starts and Initial window appears.

2. Click the model name of your projector first, and then click language you want from the displayed list. The User's manual (detailed) opens.

⚠ CAUTION ► Only use the CD-ROM in a computer CD/DVD drive. The CD-ROM is designed for computer use only. Never insert the CD-ROM into a non-computer CD/DVD player! Inserting the CD-ROM into an incompatible CD/DVD drive may produce a loud noise, which in turn may result in ear and speaker damage!

- After using CD-ROM, put it into CD case and keep it. Do not keep the CD in direct sunlight or in a high temperature and high humidity environment.

NOTE • The information in the CD-ROM is subject to change without notice. Check our website where you may find the latest information for this projector.

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- No responsibility is taken for any defect to hardware and software of your computer as a result of the use of the CD-ROM.
- All or any part of the information in the CD-ROM must not be copied, reproduced or republished without notice to our company.

Specifications

Item	Specification
Product name	Liquid crystal projector
Liquid Crystal Panel	LW502: 1,024,000 pixels (1280 horizontal x 800 vertical) LWU502: 2,304,000 pixels (1920 horizontal x 1200 vertical)
Lamp	300W
Speaker	16W x1
Power supply/ Rated current	AC100V-120V: 4.4A, AC220V-240V: 2.2A
Power consumption	AC100V-120V: 440W, AC220V-240V: 420W
Temperature range	0 ~ 40 °C (Operating) • When the projector is used at high altitudes, the service life of the optical components may be reduced by peripheral temperatures of over about 35°C. It is recommended to reduce the temperature as far as possible. 35 ~ 40°C • The brightness of the lamp is reduced automatically.
Size	460 (W) x 138 (H) x 334 (D) mm • Not including protruding parts. Refer to figure F-5 and F-6 at the back of this manual.
Weight (mass)	LW502: approx. 6.8 kg LWU502: approx. 7.1 kg

(continued on next page)

Specifications (continued)

Item	Specification
Ports	COMPUTER IN D-sub 15 pin mini jack x1
	HDMI 1 HDMI connector x1
	HDMI 2 HDMI connector x1
	HDMI OUT HDMI connector x1
	HDBaseT RJ45 jack x1
	MONITOR OUT D-sub 15 pin mini jack x1
	VIDEO RCA jack x1
	AUDIO IN1 3.5 mm (stereo) mini jack x1
	AUDIO IN2 (L, R) RCA jack x2
	AUDIO OUT 3.5 mm (stereo) mini jack x1
	WIRELESS Wireless connector x1
	CONTROL D-sub 9 pin plug x1
	LAN RJ45 jack x1
	REMOTE CONTROL IN 3.5 mm (stereo) mini jack x1
	REMOTE CONTROL OUT 3.5 mm (stereo) mini jack x1
Optional parts	Lamp: 003-005852-01 (DT01935)
	Filter set: 003-005853-01 (UX41161) For more information, consult your dealer.

ENGLISH

Manufacturing year and month

The manufacturing year and month of this projector is indicated as follows in the serial number of the rating label on the projector.

Example:

F 6 F 3 0 W 0 0 0 0 1

- └ Manufacturing month: A = January, B = February, ... L = December.
- └ Manufacturing year: 6 = 2016, 7 = 2017, ... 0 = 2020, 1 = 2021.

Troubleshooting - Warranty and after-service

If an abnormal operation (such as smoke, strange odor or excessive sound) should occur, stop using the projector immediately.

Otherwise if a problem occurs with the projector, first refer to “Troubleshooting” of **User’s Manual - Operating Guide** and **Network Guide**, and follow the suggested checks.

If this does not resolve the problem, consult your dealer or service company. They tell you what warranty condition is applied.

Check the following web address where you may find the latest information for this projector.

<http://www.christiedigital.com>

NOTE • The information in this manual is subject to change without notice.

- The illustrations shown in this manual are example only. Your projector may differ from the illustrations.
- The manufacturer assumes no responsibility for any errors that may appear in this manual.
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