



## DATA PROJECTOR

### MODEL

**PG-LW3500**

**PG-LW3000**

**PG-LX3500**

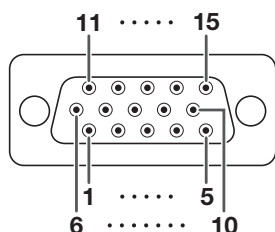
**PG-LX3000**

# SETUP MANUAL

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# Connecting Pin Assignments

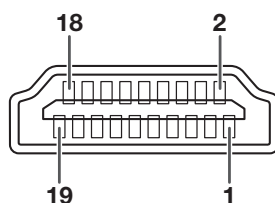
**COMPUTER/COMPONENT 1, 2 input and COMPUTER/COMPONENT output Terminals:**  
mini D-sub 15 pin female connector



Pin No.	Signal
1.	Video input (red)
2.	Video input (green/sync on green)
3.	Video input (blue)
4.	Not connected
5.	Not connected
6.	Earth (red)
7.	Earth (green/sync on green)
8.	Earth (blue)
9.	Not connected
10.	GND
11.	Not connected
12.	Bi-directional data
13.	Horizontal sync signal: TTL level
14.	Vertical sync signal: TTL level
15.	Data clock

Pin No.	Signal
1.	PR (CR)
2.	Y
3.	PB (CB)
4.	Not connected
5.	Not connected
6.	Earth (PR)
7.	Earth (Y)
8.	Earth (PB)
9.	Not connected
10.	Not connected
11.	Not connected
12.	Not connected
13.	Not connected
14.	Not connected
15.	Not connected

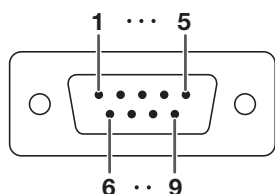
## HDMI Terminal



Pin No.	Name
1.	T.M.D.S. Data 2+
2.	T.M.D.S. Data 2 Shield
3.	T.M.D.S. Data 2-
4.	T.M.D.S. Data 1+
5.	T.M.D.S. Data 1 Shield
6.	T.M.D.S. Data 1-
7.	T.M.D.S. Data 0+
8.	T.M.D.S. Data 0 Shield
9.	T.M.D.S. Data 0-
10.	T.M.D.S. Clock+

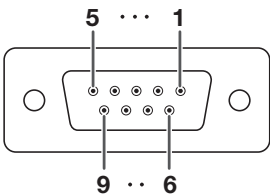
Pin No.	Name
11.	T.M.D.S. Clock Shield
12.	T.M.D.S. Clock-
13.	CEC
14.	Utility
15.	SCL
16.	SDA
17.	DDC/CEC ground
18.	+5V power
19.	Hot plug detection

**RS-232C Terminal:** D-sub 9 pin male connector of the DIN-D-sub RS-232C adaptor



Pin No.	Signal	Name	I/O	Reference
1.				Not connected
2.	RD	Receive Data	Input	Connected to internal circuit
3.	SD	Send Data	Output	Connected to internal circuit
4.				Not connected
5.	SG	Signal Ground		Connected to internal circuit
6.				Not connected
7.	RS	Request to Send		Connected to CS in internal circuit
8.	CS	Clear to Send		Connected to RS in internal circuit
9.				Not connected

**RS-232C Cable recommended connection: D-sub 9 pin female connector**



Pin No.	Signal	Pin No.	Signal
1.	CD	1.	CD
2.	RD	2.	RD
3.	SD	3.	SD
4.	ER	4.	ER
5.	SG	5.	SG
6.	DR	6.	DR
7.	RS	7.	RS
8.	CS	8.	CS
9.	CI	9.	CI



**Note**

- Depending on the controlling device used, it may be necessary to connect Pin 4 and Pin 6 on the controlling device (e.g. computer).

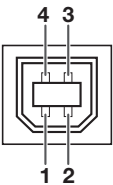
**Projector  
Pin No.**

4  
5  
6

**Computer  
Pin No.**

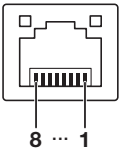
4  
5  
6

**USB Terminal: Type B USB connector**



Pin No.	Signal	Name
1.	VCC	USB power
2.	USB-	USB data-
3.	USB+	USB data+
4.	SG	Signal Ground

**LAN Terminal: LAN (RJ-45)**



Pin No.	Signal	Pin No.	Signal
1.	TX+	5.	
2.	TX-	6.	RX-
3.	RX+	7.	
4.		8.	

# RS-232C Specifications and Commands

## Computer control

A computer can be used to control the projector by connecting an RS-232C serial control cable (cross type, commercially available) to the projector. (See page 24 of the projectors operation manual for connection.)

## Communication conditions

Set the serial port settings of the computer to match that of the table.

Signal format: Conforms to RS-232C standard.

Parity bit: None

Baud rate\*: 9,600 bps

Stop bit: 1 bit

Data length: 8 bits

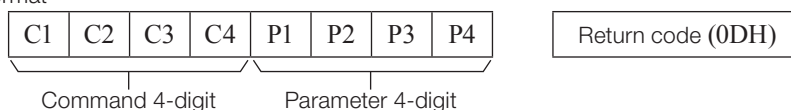
Flow control: None

\*Set the projector's baud rate to the same rate as used by the computer.

## Basic format

Commands from the computer are sent in the following order: command, parameter, and return code. After the projector processes the command from the computer, it sends a response code to the computer.

Command format



Response code format

Normal response



Problem response (communication error or incorrect command)



### Info

- When controlling the projector using RS-232C commands from a computer, wait for at least 30 seconds after the power has been turned on, and then transmit the commands.
- After sending an input selection or picture adjustment command and then receiving an "OK" response code, the projector may take some time to process the command. If a second command is sent while the projector is still processing the first command, you may receive an "ERR" response code. If this happens, try resending the second command.
- When more than one code is being sent, send each command only after the response code for the previous command from the projector is verified.
- "POWR????", "TABN \_\_\_ 1", "TLPS \_\_\_ 1", "TPOW \_\_\_ 1", "TLPN \_\_\_ 1", "TLTT \_\_\_ 1", "TLTM \_\_\_ 1", "TLTL \_\_\_ 1", "TNAM \_\_\_ 1", "MNRD \_\_\_ 1", "PJNO \_\_\_ 1"
  - When the projector receives the special commands shown above:
    - \* The on-screen display will not disappear.
    - \* The "Auto Power Off" timer will not be reset.
  - The special commands are available for applications that require continuous polling.

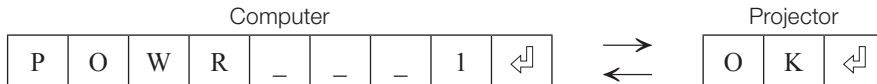


### Note

- If an underbar ( \_ ) appears in the parameter column, enter a space.
- If an asterisk ( \* ) appears in the parameter column, enter a value in the range indicated in brackets under Control Contents.

## Commands

**Example: When turning on the projector, make the following setting.**



CONTROL CONTENTS		COMMAND	PARAMETER	RETURN	
				Power ON	Standby mode (or 30-second startup time)
Power	On	P O W R _ _ _ 1		OK or ERR	OK
	Off	P O W R _ _ _ 0		OK	OK or ERR
	Status	P O W R ? ? ? ?		1	0
Projector Condition		T A B N _ _ _ 1		0: Normal 1: Temp High 8: Lamp Life 5% or less 16: Lamp Burn-out 32: Lamp Ignition Failure	0: Normal 1: Temp High 2: Fan Error 4: Cover Open 8: Lamp Life 5% or less 16: Lamp Burn-out 32: Lamp Ignition Failure 64: Temp Abnormally High
Lamp	Status	T L P S _ _ _ 1		0: Off, 1: On, 2: Retry 3: Waiting, 4: Lamp Error	0: Off, 4: Lamp Error
	Power Status	T P O W _ _ _ 1		1: On, 2: Cooling	0: Standby
	Quantity	T L P N _ _ _ 1		1	
	Usage Time(Hour)	T L T T _ _ _ 1		0 ~ 9999(Integer)	
	Usage Time(Minute)	T L T M _ _ _ 1		0, 15, 30, 45	
	Life(Percentage)	T L T L _ _ _ 1		0% ~ 100%(Integer)	
Name	Model Name Check	T N A M _ _ _ 1		PGLX3000/PGLX3500/PGLW3000/PGLW3500	
	Model Name Check	M N R D _ _ _ 1		PG-LX3000/PG-LX3500/PG-LW3000/PG-LW3500	
	Projector Name Setting 1 (First 4 characters) *1	P J N 1 * * * *		OK or ERR	
	Projector Name Setting 2 (Middle 4 characters) *1	P J N 2 * * * *		OK or ERR	
	Projector Name Setting 3 (Last 4 characters) *1	P J N 3 * * * *		OK or ERR	
	Projector Name Check	P J N 0 _ _ _ 1		Projector Name	
Input Change	COMPUTER1	I R G B _ _ _ 1		OK or ERR	ERR
	COMPUTER2 *2	I R G B _ _ _ 2		OK or ERR	ERR
	HDMI	I R G B _ _ _ 3		OK or ERR	ERR
	VIDEO	I V E D _ _ _ 1		OK or ERR	ERR
	Input RGB Check	I R G B ? ? ? ?		1: COMPUTER1, 2: COMPUTER2, 3: HDMI, ERR	ERR
	Input Video Check	I V E D ? ? ? ?		1: VIDEO or ERR	ERR
	Input Mode Check	I M O D ? ? ? ?		1: RGB, 2: VIDEO	ERR
	Input Check	I C H K ? ? ? ?		1: COMPUTER1, 2: COMPUTER2, 3: HDMI, 4: VIDEO	ERR
Volume	Volume(0 ~ 60)	V O L A _ _ * *		OK or ERR	ERR
	Volume up/down(-10 ~ +10)	V O U D _ _ * *		OK or ERR	ERR
Keystone	-80 ~ +80	K E Y S * * * *		OK or ERR	ERR
AV Mute	On	I M B K _ _ _ 1		OK or ERR	ERR
	Off	I M B K _ _ _ 0		OK or ERR	ERR
Freeze	On	F R E Z _ _ _ 1		OK or ERR	ERR
	Off	F R E Z _ _ _ 0		OK or ERR	ERR
Auto Sync	Start	A D J S _ _ _ 1		OK or ERR	ERR
Resize	COMPUTER1	Normal	R A S R _ _ _ 1	OK or ERR	ERR
		16:9	R A S R _ _ _ 2	OK or ERR	ERR
		Native	R A S R _ _ _ 3	OK or ERR	ERR
		Full	R A S R _ _ _ 5	OK or ERR	ERR
		Border (PG-LX3000/LX3500)	R A S R _ _ _ 6	OK or ERR	ERR
		Area Zoom	R A S R _ _ _ 1	0 OK or ERR	ERR
	COMPUTER2	V-Stretch	R A S R _ _ _ 1	1 OK or ERR	ERR
		Normal	R B S R _ _ _ 1	OK or ERR	ERR
		16:9	R B S R _ _ _ 2	OK or ERR	ERR
		Native	R B S R _ _ _ 3	OK or ERR	ERR
		Full	R B S R _ _ _ 5	OK or ERR	ERR
		Border (PG-LX3000/LX3500)	R B S R _ _ _ 6	OK or ERR	ERR
	HDMI	Area Zoom	R B S R _ _ _ 1	0 OK or ERR	ERR
		V-Stretch	R B S R _ _ _ 1	1 OK or ERR	ERR
		Normal	R C S R _ _ _ 1	OK or ERR	ERR
		16:9	R C S R _ _ _ 2	OK or ERR	ERR
		Native	R C S R _ _ _ 3	OK or ERR	ERR
		Full	R C S R _ _ _ 5	OK or ERR	ERR
		Border (PG-LX3000/LX3500)	R C S R _ _ _ 6	OK or ERR	ERR
		Area Zoom	R C S R _ _ _ 1	0 OK or ERR	ERR
		V-Stretch	R C S R _ _ _ 1	1 OK or ERR	ERR

# RS-232C Specifications and Commands

CONTROL CONTENTS			COMMAND		PARAMETER		RETURN					
							Power ON	Standby mode (or 30-second startup time)				
Resize	VIDEO	Normal	R	A	S	V	-	-	1	OK or ERR	ERR	
		16:9	R	A	S	V	-	-	2	OK or ERR	ERR	
		Border (PG-LX3000/LX3500)	R	A	S	V	-	-	3	OK or ERR	ERR	
		Area Zoom	R	A	S	V	-	1	0	OK or ERR	ERR	
		V-Stretch	R	A	S	V	-	1	1	OK or ERR	ERR	
All Reset			A	L	R	E	-	-	1	OK or ERR	ERR	
COMPUTER1 Input	Picture Mode	Standard	R	A	P	S	-	-	1	0	OK or ERR	ERR
		Presentation	R	A	P	S	-	-	1	1	OK or ERR	ERR
		Movie	R	A	P	S	-	-	1	2	OK or ERR	ERR
		Game	R	A	P	S	-	-	1	3	OK or ERR	ERR
		sRGB	R	A	P	S	-	-	1	4	OK or ERR	ERR
	Contrast	-30 ~ +30	R	A	P	I	-	*	*	*	OK or ERR	ERR
	Bright	-30 ~ +30	R	A	B	R	-	*	*	*	OK or ERR	ERR
	Red	-30 ~ +30	R	A	R	D	-	*	*	*	OK or ERR	ERR
	Blue	-30 ~ +30	R	A	B	E	-	*	*	*	OK or ERR	ERR
	Color	-30 ~ +30	R	A	C	O	-	*	*	*	OK or ERR	ERR
	Tint	-30 ~ +30	R	A	T	I	-	*	*	*	OK or ERR	ERR
	Sharp	-30 ~ +30	R	A	S	H	-	*	*	*	OK or ERR	ERR
	CLR Temp	-1 ~ +1	R	A	C	T	-	-	*	*	OK or ERR	ERR
	BrilliantColor™	0 ~ +2	R	A	W	E	-	-	*	*	OK or ERR	ERR
	Film Mode	Auto	R	A	F	M	-	-	-	0	OK or ERR	ERR
		Off	R	A	F	M	-	-	-	1	OK or ERR	ERR
	DNR	Level 1	R	A	N	R	-	-	-	1	OK or ERR	ERR
		Level 2	R	A	N	R	-	-	-	2	OK or ERR	ERR
		Level 3	R	A	N	R	-	-	-	3	OK or ERR	ERR
	Picture Reset		R	A	R	E	-	-	-	1	OK or ERR	ERR
	Signal Type	Auto	I	A	S	I	-	-	-	0	OK or ERR	ERR
		RGB	I	A	S	I	-	-	-	1	OK or ERR	ERR
		YPbPr	I	A	S	I	-	-	-	2	OK or ERR	ERR
	Audio Input	AUDIO 1	R	A	A	I	-	-	-	1	OK or ERR	ERR
		AUDIO 2	R	A	A	I	-	-	-	2	OK or ERR	ERR
COMPUTER2 Input	Picture Mode	Standard	R	B	P	S	-	-	1	0	OK or ERR	ERR
		Presentation	R	B	P	S	-	-	1	1	OK or ERR	ERR
		Movie	R	B	P	S	-	-	1	2	OK or ERR	ERR
		Game	R	B	P	S	-	-	1	3	OK or ERR	ERR
		sRGB	R	B	P	S	-	-	1	4	OK or ERR	ERR
	Contrast	-30 ~ +30	R	B	P	I	-	*	*	*	OK or ERR	ERR
	Bright	-30 ~ +30	R	B	B	R	-	*	*	*	OK or ERR	ERR
	Red	-30 ~ +30	R	B	R	D	-	*	*	*	OK or ERR	ERR
	Blue	-30 ~ +30	R	B	B	E	-	*	*	*	OK or ERR	ERR
	Color	-30 ~ +30	R	B	C	O	-	*	*	*	OK or ERR	ERR
	Tint	-30 ~ +30	R	B	T	I	-	*	*	*	OK or ERR	ERR
	Sharp	-30 ~ +30	R	B	S	H	-	*	*	*	OK or ERR	ERR
	CLR Temp	-1 ~ +1	R	B	C	T	-	-	*	*	OK or ERR	ERR
	BrilliantColor™	0 ~ +2	R	B	W	E	-	-	*	*	OK or ERR	ERR
	Film Mode	Auto	R	B	F	M	-	-	-	0	OK or ERR	ERR
		Off	R	B	F	M	-	-	-	1	OK or ERR	ERR
	DNR	Level 1	R	B	N	R	-	-	-	1	OK or ERR	ERR
		Level 2	R	B	N	R	-	-	-	2	OK or ERR	ERR
		Level 3	R	B	N	R	-	-	-	3	OK or ERR	ERR
	Picture Reset		R	B	R	E	-	-	-	1	OK or ERR	ERR
	Signal Type	Auto	I	B	S	I	-	-	-	0	OK or ERR	ERR
		RGB	I	B	S	I	-	-	-	1	OK or ERR	ERR
		YPbPr	I	B	S	I	-	-	-	2	OK or ERR	ERR
	Audio Input	AUDIO 1	R	B	A	I	-	-	-	1	OK or ERR	ERR
		AUDIO 2	R	B	A	I	-	-	-	2	OK or ERR	ERR

## RS-232C Specifications and Commands

CONTROL CONTENTS			COMMAND		PARAMETER		RETURN		
							Power ON	Standby mode (or 30-second startup time)	
HDMI Input	Picture Mode	Standard	R	C	P	S	— — 1 0	OK or ERR	ERR
		Presentation	R	C	P	S	— — 1 1	OK or ERR	ERR
		Movie	R	C	P	S	— — 1 2	OK or ERR	ERR
		Game	R	C	P	S	— — 1 3	OK or ERR	ERR
		sRGB	R	C	P	S	— — 1 4	OK or ERR	ERR
	Contrast	-30 – +30	R	C	P	I	— * * *	OK or ERR	ERR
	Bright	-30 – +30	R	C	B	R	— * * *	OK or ERR	ERR
	Red	-30 – +30	R	C	R	D	— * * *	OK or ERR	ERR
	Blue	-30 – +30	R	C	B	E	— * * *	OK or ERR	ERR
	Color	-30 – +30	R	C	C	O	— * * *	OK or ERR	ERR
	Tint	-30 – +30	R	C	T	I	— * * *	OK or ERR	ERR
	Sharp	-30 – +30	R	C	S	H	— * * *	OK or ERR	ERR
	CLR Temp	-1 – +1	R	C	C	T	— — * *	OK or ERR	ERR
	BrilliantColor™	0 – +2	R	C	W	E	— — — *	OK or ERR	ERR
	Film Mode	Auto	R	C	F	M	— — — 0	OK or ERR	ERR
		Off	R	C	F	M	— — — 1	OK or ERR	ERR
	DNR	Level 1	R	C	N	R	— — — 1	OK or ERR	ERR
		Level 2	R	C	N	R	— — — 2	OK or ERR	ERR
		Level 3	R	C	N	R	— — — 3	OK or ERR	ERR
	Picture Reset		R	C	R	E	— — — 1	OK or ERR	ERR
	Signal Type	Auto	I	C	S	I	— — — 0	OK or ERR	ERR
		RGB	I	C	S	I	— — — 1	OK or ERR	ERR
		YPbPr	I	C	S	I	— — — 2	OK or ERR	ERR
	Audio Input	AUDIO 1	R	C	A	I	— — — 1	OK or ERR	ERR
		AUDIO 2	R	C	A	I	— — — 2	OK or ERR	ERR
		HDMI	R	C	A	I	— — — 3	OK or ERR	ERR
	Dynamic Range	Auto	H	M	C	D	— — — 0	OK or ERR	ERR
		Standard	H	M	C	D	— — — 1	OK or ERR	ERR
		Enhanced	H	M	C	D	— — — 2	OK or ERR	ERR
VIDEO Input	Picture Mode	Standard	V	A	P	S	— — 1 0	OK or ERR	ERR
		Presentation	V	A	P	S	— — 1 1	OK or ERR	ERR
		Movie	V	A	P	S	— — 1 2	OK or ERR	ERR
		Game	V	A	P	S	— — 1 3	OK or ERR	ERR
		Contrast	-30 – +30	V	A	P	I	— * * *	OK or ERR
	Bright	-30 – +30	V	A	B	R	— * * *	OK or ERR	ERR
	Red	-30 – +30	V	A	R	D	— * * *	OK or ERR	ERR
	Blue	-30 – +30	V	A	B	E	— * * *	OK or ERR	ERR
	Color	-30 – +30	V	A	C	O	— * * *	OK or ERR	ERR
	Tint	-30 – +30	V	A	T	I	— * * *	OK or ERR	ERR
	Sharp	-30 – +30	V	A	S	H	— * * *	OK or ERR	ERR
	CLR Temp	-1 – +1	V	A	C	T	— — * *	OK or ERR	ERR
	BrilliantColor™	0 – +2	V	A	W	E	— — — *	OK or ERR	ERR
	Film Mode	Auto	V	A	F	M	— — — 0	OK or ERR	ERR
		Off	V	A	F	M	— — — 1	OK or ERR	ERR
	DNR	Level 1	V	A	N	R	— — — 1	OK or ERR	ERR
		Level 2	V	A	N	R	— — — 2	OK or ERR	ERR
		Level 3	V	A	N	R	— — — 3	OK or ERR	ERR
	Picture Reset		V	A	R	E	— — — 1	OK or ERR	ERR
	Audio Input	AUDIO 1	V	A	A	I	— — — 1	OK or ERR	ERR
		AUDIO 2	V	A	A	I	— — — 2	OK or ERR	ERR

# RS-232C Specifications and Commands

CONTROL CONTENTS			COMMAND		PARAMETER				RETURN			
									Power ON	Standby mode (or 30-second startup time)		
C.M.S. Setting	On		C	M	C	S	-	-	1	1	OK or ERR	ERR
	Off		C	M	C	S	-	-	0	0	OK or ERR	ERR
C.M.S.	Hue	Red	C	M	H	R	-	*	*	*	OK or ERR	ERR
		Yellow	C	M	H	Y	-	*	*	*	OK or ERR	ERR
		Green	C	M	H	G	-	*	*	*	OK or ERR	ERR
		Cyan	C	M	H	C	-	*	*	*	OK or ERR	ERR
		Blue	C	M	H	B	-	*	*	*	OK or ERR	ERR
		Magenta	C	M	H	M	-	*	*	*	OK or ERR	ERR
		Reset	C	M	R	E	-	-	-	2	OK or ERR	ERR
	Saturation	Red	C	M	S	R	-	*	*	*	OK or ERR	ERR
		Yellow	C	M	S	Y	-	*	*	*	OK or ERR	ERR
		Green	C	M	S	G	-	*	*	*	OK or ERR	ERR
		Cyan	C	M	S	C	-	*	*	*	OK or ERR	ERR
		Blue	C	M	S	B	-	*	*	*	OK or ERR	ERR
		Magenta	C	M	S	M	-	*	*	*	OK or ERR	ERR
		Reset	C	M	R	E	-	-	-	3	OK or ERR	ERR
	Value	Red	C	M	V	R	-	*	*	*	OK or ERR	ERR
		Yellow	C	M	V	Y	-	*	*	*	OK or ERR	ERR
		Green	C	M	V	G	-	*	*	*	OK or ERR	ERR
		Cyan	C	M	V	C	-	*	*	*	OK or ERR	ERR
		Blue	C	M	V	B	-	*	*	*	OK or ERR	ERR
		Magenta	C	M	V	M	-	*	*	*	OK or ERR	ERR
		Reset	C	M	R	E	-	-	-	4	OK or ERR	ERR
	C.M.S. All Reset		C	M	R	E	-	-	-	1	OK or ERR	ERR
Clock	-150 ~ +150		I	N	C	L	*	*	*	*	OK or ERR	ERR
Phase	-30 ~ +30		I	N	P	H	-	*	*	*	OK or ERR	ERR
H-position	-150 ~ +150		I	A	H	P	*	*	*	*	OK or ERR	ERR
V-position	-60 ~ +60		I	A	V	P	-	*	*	*	OK or ERR	ERR
Fine Sync Adjustment Reset			I	A	R	E	-	-	-	1	OK or ERR	ERR
Image Shift	-96 ~ +96 (PG-LX3000/LX3500) -40 ~ +40 (PG-LW3000/LW3500)		L	N	D	S	-	*	*	*	OK or ERR	ERR
Overscan	On		O	V	S	N	-	-	-	1	OK or ERR	ERR
	Off		O	V	S	N	-	-	-	0	OK or ERR	ERR
OSD Display	On		I	M	D	I	-	-	-	1	OK or ERR	ERR
	Off		I	M	D	I	-	-	-	0	OK or ERR	ERR
Video System	Auto		M	E	S	Y	-	-	-	1	OK or ERR	ERR
	PAL		M	E	S	Y	-	-	-	2	OK or ERR	ERR
	SECAM		M	E	S	Y	-	-	-	3	OK or ERR	ERR
	NTSC4.43		M	E	S	Y	-	-	-	4	OK or ERR	ERR
	NTSC3.58		M	E	S	Y	-	-	-	5	OK or ERR	ERR
	PAL-M		M	E	S	Y	-	-	-	6	OK or ERR	ERR
	PAL-N		M	E	S	Y	-	-	-	7	OK or ERR	ERR
	PAL-60		M	E	S	Y	-	-	-	8	OK or ERR	ERR
Background	Logo		I	M	B	G	-	-	-	1	OK or ERR	ERR
	Blue		I	M	B	G	-	-	-	3	OK or ERR	ERR
	None		I	M	B	G	-	-	-	4	OK or ERR	ERR
Eco+Quiet	On		T	H	M	D	-	-	-	1	OK or ERR	ERR
	Off		T	H	M	D	-	-	-	0	OK or ERR	ERR
Auto Sync	On		A	A	D	J	-	-	-	1	OK or ERR	ERR
	Off		A	A	D	J	-	-	-	0	OK or ERR	ERR
Auto Power Off	On		A	P	O	W	-	-	-	1	OK or ERR	ERR
	Off		A	P	O	W	-	-	-	0	OK or ERR	ERR
Auto Restart	On		A	R	E	S	-	-	-	1	OK or ERR	ERR
	Off		A	R	E	S	-	-	-	0	OK or ERR	ERR
STANDBY Mode	Quick Start		M	O	U	T	-	-	-	1	OK or ERR	ERR
	Eco		M	O	U	T	-	-	-	0	OK or ERR	ERR
STANDBY Audio Out	On		S	A	O	T	-	-	-	1	OK or ERR	ERR
	Off		S	A	O	T	-	-	-	0	OK or ERR	ERR
PRJ Mode	Reverse	On	I	M	R	E	-	-	-	1	OK or ERR	ERR
		Off	I	M	R	E	-	-	-	0	OK or ERR	ERR
	Invert	On	I	M	I	N	-	-	-	1	OK or ERR	ERR
		Off	I	M	I	N	-	-	-	0	OK or ERR	ERR



## RS-232C Specifications and Commands

CONTROL CONTENTS		COMMAND	PARAMETER	RETURN	
				Power ON	Standby mode (or 30-second startup time)
Language	English	M E L A	— — — 1	OK or ERR	ERR
	Deutsch	M E L A	— — — 2	OK or ERR	ERR
	Español	M E L A	— — — 3	OK or ERR	ERR
	Nederlands	M E L A	— — — 4	OK or ERR	ERR
	Français	M E L A	— — — 5	OK or ERR	ERR
	Italiano	M E L A	— — — 6	OK or ERR	ERR
	Svenska	M E L A	— — — 7	OK or ERR	ERR
	日本語	M E L A	— — — 8	OK or ERR	ERR
	Português	M E L A	— — — 9	OK or ERR	ERR
	汉语	M E L A	— — 1 0	OK or ERR	ERR
	한국어	M E L A	— — 1 1	OK or ERR	ERR
	Русский	M E L A	— — 1 2	OK or ERR	ERR
	عربي	M E L A	— — 1 3	OK or ERR	ERR
	polski	M E L A	— — 1 4	OK or ERR	ERR
	Türkçe	M E L A	— — 1 5	OK or ERR	ERR
	فارسی	M E L A	— — 1 6	OK or ERR	ERR
	Magyar	M E L A	— — 1 7	OK or ERR	ERR
	Tiếng Việt	M E L A	— — 1 8	OK or ERR	ERR
Setup Guide	On	S E G U	— — — 1	OK or ERR	ERR
	Off	S E G U	— — — 0	OK or ERR	ERR
Internal Speaker	On	A S P K	— — — 1	OK or ERR	ERR
	Off	A S P K	— — — 0	OK or ERR	ERR
RGB Frequency Check	Horizontal	T F R Q	— — — 1	kHz(***. * or ERR)	ERR
	Vertical	T F R Q	— — — 2	Hz(***. * or ERR)	ERR
Fan Mode	Normal	H L M D	— — — 0	OK or ERR	ERR
	High	H L M D	— — — 1	OK or ERR	ERR
Input Search *3	Start	I S E S	— — — 1	OK or ERR	ERR
Video Setup	0 IRE	V I S U	— — — 0	OK or ERR	ERR
	7.5 IRE	V I S U	— — — 1	OK or ERR	ERR
Wall Color	Off	W L C O	— — — 0	OK or ERR	ERR
	Blackboard	W L C O	— — — 1	OK or ERR	ERR
	Whiteboard	W L C O	— — — 2	OK or ERR	ERR
	Green	W L C O	— — — 3	OK or ERR	ERR
	Yellow green	W L C O	— — — 4	OK or ERR	ERR
	Yellow	W L C O	— — — 5	OK or ERR	ERR
	Orange	W L C O	— — — 6	OK or ERR	ERR
	Pink	W L C O	— — — 7	OK or ERR	ERR
	Purple	W L C O	— — — 8	OK or ERR	ERR
	Blue	W L C O	— — — 9	OK or ERR	ERR
	Greenish blue	W L C O	— — 1 0	OK or ERR	ERR
Quick Start Menu	On	Q S M N	— — — 0	OK or ERR	ERR
	Off	Q S M N	— — — 1	OK or ERR	ERR
COMPUTER2 Select *4	Input	R B S E	— — — 0	OK or ERR	ERR
	Monitor Output	R B S E	— — — 1	OK or ERR	ERR
DLP® Link™	Off	3 D E N	— — — 0	OK or ERR	ERR
	On	3 D E N	— — — 1	OK or ERR	ERR
DLP® Link™ Invert		3 D I V	— — — 1	OK or ERR	ERR
	Closed Caption (For Americas only)	C L C A	— — — 0	OK or ERR	ERR
	CC1	C L C A	— — — 1	OK or ERR	ERR
	CC2	C L C A	— — — 2	OK or ERR	ERR
Reset Network Setting		L N R E	— — — 1	OK or ERR	OK or ERR
Restart Network		L R E S	— — — 1	OK or ERR	OK or ERR
Lamp Timer Reset *5		L P R E	0 0 0 1	ERR	OK or ERR

\*1 For setting the projector name, send the commands in the order of PJN1, PJN2 and PJN3.

\*2 When “COMPUTER2 Select” is set to “Monitor Output”, you may receive an “ERR” response code.

\*3 When the next command is sent during input search, you may receive an “ERR” response code, and the input search is canceled.

\*4 When “COMPUTER2” is selected in the INPUT list, “COMPUTER2 Select” cannot be set to “Monitor Output”.

\*5 The Lamp Timer Reset command is available only in standby mode.

# Operating the Projector Using the PJLink™ Protocol

The projector conforms with the PJLink™ standard Class 1.

The commands to be used in controlling the projector by the PJLink™ protocol are as shown below.

CONTROL CONTENTS		COMMAND						RETURN
Power Control	Off	P	O	W	R	_	0	OK or ERR3
	On	P	O	W	R	_	1	OK or ERR3
Power Status Query		P	O	W	R	_	?	0: Standby Mode 1: Power On 2: Standby (Cooling) 3: Power On (Warming up)
Input List Query		I	N	S	T	_	?	11 12 21 31
Input Change	COMPUTER1	I	N	P	T	_	1 1	OK or ERR3
	COMPUTER2	I	N	P	T	_	1 2	OK or ERR3
	HDMI	I	N	P	T	_	3 1	OK or ERR3
	VIDEO	I	N	P	T	_	2 1	OK or ERR3
Input Status Query		I	N	P	T	_	?	11: COMPUTER1 12: COMPUTER2 31: HDMI 21: VIDEO or ERR3
AV Mute	Off	A	V	M	T	_	3 0	OK or ERR3
	On	A	V	M	T	_	3 1	OK or ERR3
AV Mute Status Query		A	V	M	T	_	?	30: Off 31: On or ERR3
Lamp Query		L	A	M	P	_	?	1st Number: Lamp Usage Time (Hour) 2nd Number: 0: Lamp Off 1: Lamp on
Error Condition Query		E	R	S	T	_	?	1st Byte: Fan Error Status 2nd Byte: Lamp Error Status 3rd Byte: Temp. Error Status 4th Byte: Cover Open Status 5th Byte: Not Used, Return 0 6th Byte: Other Error Status 0: No Error Detected 1: Warning 2: Error Detected
Projector Name Query *		N	A	M	E	_	?	Projector Name
Manufacture Name Query		I	N	F	1	_	?	SHARP
Product Name Query		I	N	F	2	_	?	PG-LX3000/PG-LX3500/PG-LW3000/PG-LW3500
Other Information Query		I	N	F	O	_	?	Not used
Class Information Query		C	L	S	S	_	?	1

\* You can set "Projector Name" at "Making General Setting for the Network (Network-General)" on page 20.

## PJLink™ Authentication:

The password to be used for PJLink™ is the same as the one you have set in "Setting the Security (Network-Security)" (page 19). When operating without authentication, do not set a password.

## PJLink™ Compliant:

This product conforms with the PJLink standard Class 1 and all Class 1 commands are implemented.

This product conforms with the PJLink standard specification version 1.00.

For additional information, visit "<http://pjlink.jbmia.or.jp/english/>".

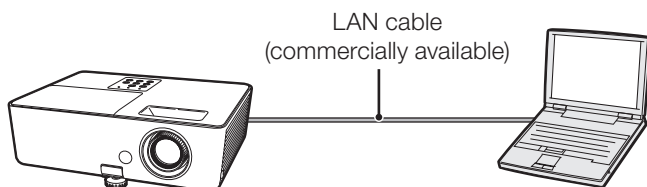
# Setting up the Projector Network Environment

This section describes the basic procedure for using the projector via the network. If the network is already constructed, the projector's network settings may need to be changed. Please consult your network administrator for assistance with these settings. You can make network settings both on the projector and on the computer. The following procedure is for making settings on the computer.

## Network settings on the computer

### 1. Connecting the projector to a computer

Connect a LAN cable (Category 5, cross-over type) between the computer and projector.



→ Page 12

### 2. Setting an IP address for the computer

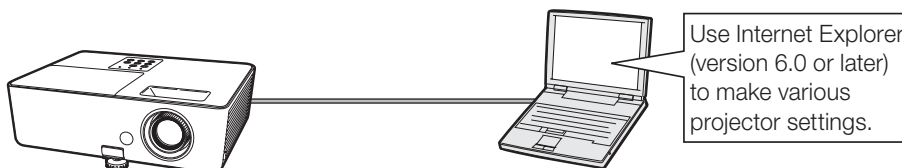
Adjust the IP settings of the computer to enable one-to-one communications with the projector.



→ Pages 13, 14

### 3. Setting up a network connection for the projector

Adjust the projector network settings to conform to your network.



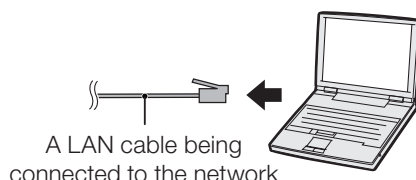
→ Pages 15, 16

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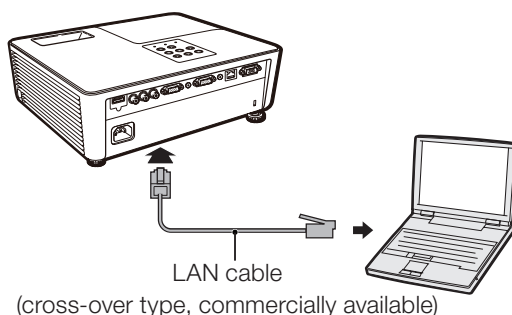
### 1. Connecting the Projector to a Computer

Establishing a one-to-one connection from the projector to a computer. Using a commercially available LAN cable (UTP cable, Category 5, cross-over type) you can configure the projector via the computer.

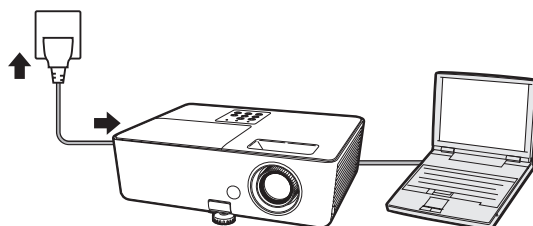
- 1 Disconnect the computer's LAN cable from the existing network.



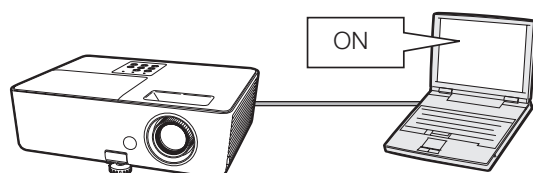
- 2 Connect a commercially available LAN cable (UTP cable, Category 5, cross-over type) to the projector's LAN terminal and connect the other end of the cable to the computer's LAN terminal.



- 3 Plug the power cord into the AC socket of the projector.



- 4 Turn on the computer.



#### Info

Confirm that the LINK LED on the rear of the projector illuminates. If the LINK LED does not illuminate, check the following:

- The LAN cable is properly connected.
- The power switches of both the projector and the computer are on.

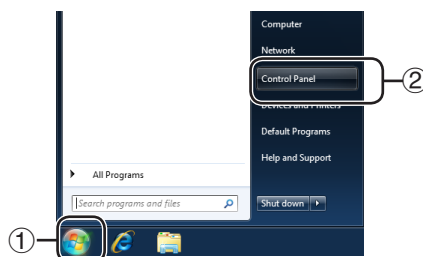
This completes the connection. Now proceed to “2. Setting an IP Address for the Computer”.

### 2. Setting an IP Address for the Computer

The following describes how to make settings in Windows Vista®.

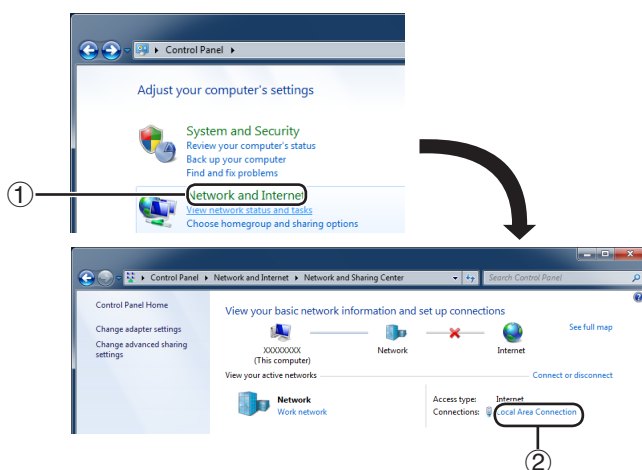
**1** Log on the network using the administrator's account for the computer.

**2** Click “start”, and click “Control Panel”.



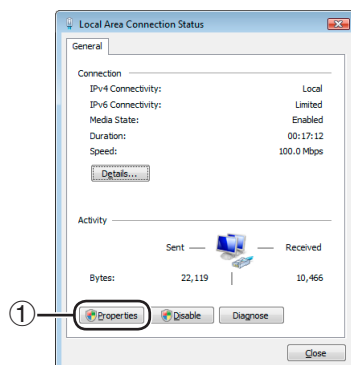
**3** Click “View network status and tasks” of “Network and Internet”, and click “Local Area Connection” in the new window.

- This manual uses examples to explain the operations in Category View. If you are using Classic View, double-click “Network and Sharing Center”.



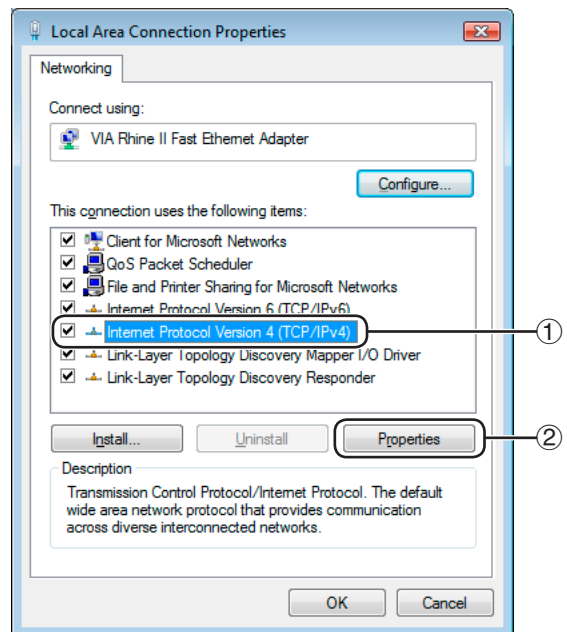
**4** Click “Properties”.

- When the user account control display is displayed, click “Continue”.



## Setting up the Projector Network Environment

- 5** Click “Internet Protocol Version 4 (TCP/IPv4)”, and click the “Properties” button.



- 6** Confirm or change an IP address for the setup computer.

- ① Confirm and note the current IP address, Subnet mask and Default gateway.

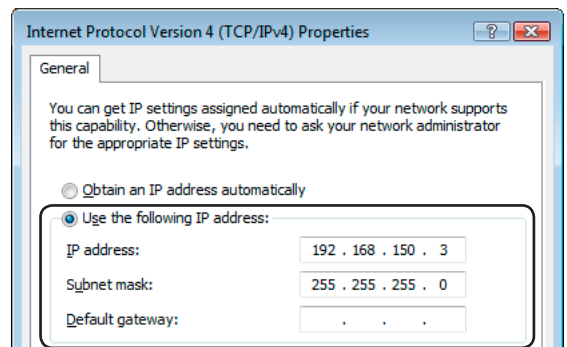
Make sure to note the current IP address, Subnet mask and Default gateway as you will be required to reset them later.

- ② Set temporarily as follows:

**IP address: 192.168.150.3**

**Subnet mask: 255.255.255.0**

**Default gateway: (Do not input any values.)**



### Note

- The factory default settings for the projector are as follows:  
DHCP Client: OFF  
IP address: 192.168.150.2  
Subnet mask: 255.255.255.0  
Default gateway: 0.0.0.0

- 7** After setting, click the “OK” button, and then restart the computer.

After confirming or setting, proceed to “3. Setting up Network Connection for the Projector”.

### 3. Setting up a Network Connection for the Projector

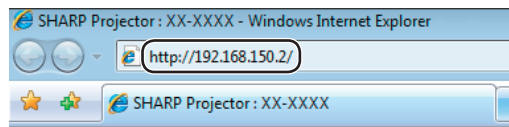
Settings for such items as the projector's IP address and subnet mask are compatible with the existing network. Set each item on the projector as follows. (See page 62 of the projector's operation manual for setting.)

DHCP Client: Off

IP Address: 192.168.150.002

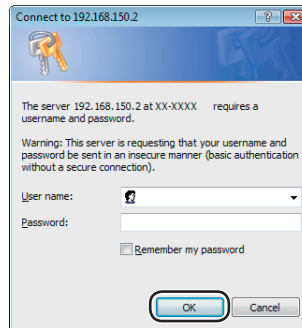
Subnet Mask: 255.255.255.000

- 1 Start Internet Explorer (version 6.0 or later) on the computer, and enter "http://192.168.150.2/" in "Address", and then press the "Enter" key.

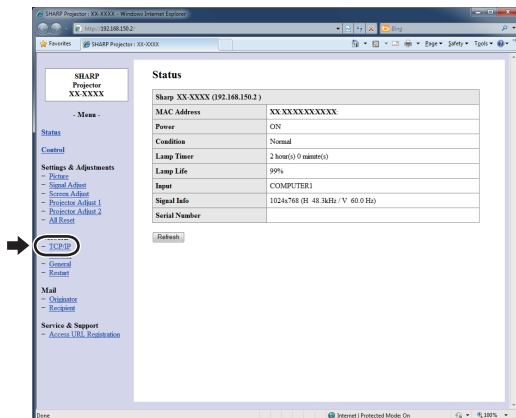


- 2 If a user name and a password have not yet been set, just click the "OK" button.

- If a user name and a password have been set, input the user name and the password, and click the "OK" button.
- If the user name or password is entered incorrectly three times, an error message will be displayed.
- When you are using Internet Explorer 7 or later, other setup screen may be displayed. In this case, make the proper adjustments for the setup screen.



- 3 When the screen as shown on the right appears, click "TCP/IP".



## Setting up the Projector Network Environment

### 4 The TCP/IP setting screen appears, ready for network settings for the projector.

Items	Setting example / Remarks
New Password	You can set the password to protect the TCP/IP setting.
DHCP Client	Select "ON" or "OFF" to determine whether to use DHCP Client.
IP Address	You can set this item when "DHCP Client" is set to "OFF". Factory default setting: 192.168.150.2 Enter an IP address appropriate for the network.
Subnet Mask	You can set this item when "DHCP Client" is set to "OFF". Factory default setting: 255.255.255.0 Set the subnet mask to the same as that of the computer and equipment on the network.
Default Gateway	You can set this item when "DHCP Client" is set to "OFF". Factory default setting: 0.0.0.0 * When not in use, set to "0.0.0.0".
DNS Server	Factory default setting: 0.0.0.0 * When not in use, set to "0.0.0.0".

#### Note

- Confirm the existing network's segment (IP address group) to avoid setting an IP address that duplicates the IP addresses of other network equipment or computers. If "192.168.150.2" is not used in the network having an IP address of "192.168.150.XXX", you don't have to change the projector IP address.
- For details about each setting, consult your network administrator.

### 5 Click the "Apply" button.

### 6 The set values appear. Confirm that the values are set properly, and then click the "Confirm" button.

- Close the browser.
- This completes the network settings.
- After setting items, wait for about 15 seconds and then re-access.
- Change the IP address of the setting computer back to its original address, which you have noted down in Step 6-① on page 14, and then connect the computer and the projector to the network.

#### Network - TCP/IP

New Password	<input type="text"/>
	(4 digits)
Reconfirm	<input type="text"/>

This password is for protection of the TCP/IP setting.

DHCP Client	<input checked="" type="radio"/> OFF <input type="radio"/> ON
IP Address	<input type="text" value="192"/> <input type="text" value="168"/> <input type="text" value="150"/> <input type="text" value="2"/>
Subnet Mask	<input type="text" value="255"/> <input type="text" value="255"/> <input type="text" value="255"/> <input type="text" value="0"/>
Default Gateway	<input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> * "0.0.0.0" means "Using no default gateway."

DNS Server	<input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> * "0.0.0.0" means "Using no DNS server."
------------	---

#### Network - TCP/IP

New Password	<input type="text"/>
	(4 digits)
Reconfirm	<input type="text"/>

This password is for protection of the TCP/IP setting.

DHCP Client	<input checked="" type="radio"/> OFF <input type="radio"/> ON
IP Address	<input type="text" value="192"/> <input type="text" value="168"/> <input type="text" value="150"/> <input type="text" value="2"/>
Subnet Mask	<input type="text" value="255"/> <input type="text" value="255"/> <input type="text" value="255"/> <input type="text" value="0"/>
Default Gateway	<input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> * "0.0.0.0" means "Using no default gateway."

DNS Server	<input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> * "0.0.0.0" means "Using no DNS server."
------------	---

→

#### Network - TCP/IP

The TCP/IP settings will be changed as below.

DHCP Client : OFF  
IP Address : 192.168.150.2  
Subnet Mask : 255.255.255.0  
Default Gateway : 0.0.0.0  
DNS Server : 0.0.0.0

Do you want to change the TCP/IP settings?

→

After you click "Confirm", if you want to continue to operate this projector via the network, please wait for about 15 seconds and then re-access to "192.168.150.2".



# Controlling the Projector via LAN

After connecting the projector to your network, enter the projector IP address in “Address” on Internet Explorer (version 6.0 or later) using a computer on the network to start a setup screen that will enable control of the projector via the network.

## Controlling the Projector Using Internet Explorer

Complete connections to external equipment before starting the operation. (See pages 22-26 of the projector's operation manual.)

Complete the AC cord connection. (See page 26 of the projector's operation manual.)

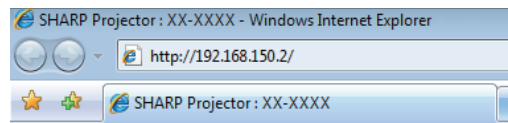
### Note

- When connecting the projector to the LAN, use a commercially available LAN cable (UTP cable, Category 5, cross-over type). When connecting the projector to a hub, use a straight-through cable.

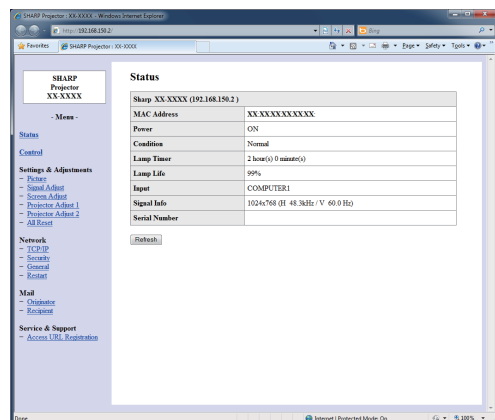
**1** Start Internet Explorer on the computer.

**2** Enter “http://” followed by the projector IP address set by the procedure on page 16 followed by “/” in “Address”, and then press the “Enter” key.

- When “DHCP Client” is set to “Off” on the projector, IP address is 192.168.150.2. If you did not change the IP address in “3. Setting up a Network Connection for the Projector” (pages 15-16), enter “http://192.168.150.2/”.



**3** A screen for controlling the projector appears, ready for performing various status conditions, control, and settings.



Confirming the Projector Status (Status)

Status

Sharp XX-XXXX (192.168.150.2)	
MAC Address	XXXXXXXXXXXX
Power	ON
Condition	Normal
Lamp Timer	2 hour(s) 30 minute(s)
Lamp Life	99%
Input	COMPUTER1
Signal Info	1024x768 (H 48.3kHz / V 60.0 Hz )
Serial Number	

Refresh

On this screen, you can confirm the projector status. You can confirm the following items:

- MAC Address
- Power
- Condition
- Lamp Timer
- Lamp Life
- Input
- Signal Info
- Serial Number



Note

- If you click the “Refresh” button before the screen is displayed completely, an error message (“Server Busy Error”) will be displayed. Wait for a moment and then operate again.
- For details about each item, refer to the projector's operation manual.

Controlling the Projector (Control)

Control

Power	<input type="radio"/> STANDBY <input checked="" type="radio"/> ON
Input Select	COMPUTER1 ▾
Audio Input (COMPUTER1)	Audio 1 ▾
Volume	1 ▾
AV Mute	<input checked="" type="radio"/> OFF <input type="radio"/> ON

Refresh

On this screen, you can perform projector control. You can control the following items:

- Power
- Input Select
- Audio Input
- Volume
- AV Mute



Note

- If you click the “Refresh” button before the screen is displayed completely, an error message (“Server Busy Error”) will be displayed. Wait for a moment and then operate again.
- You cannot operate this page while the projector is warming up.
- While the projector is in standby mode, you can only control “Power ON”.
- For details about each item, refer to the projector's operation manual.

## Setting and Adjusting the Projector (Settings & Adjustments)

Example: "Picture" screen display for COMPUTER1

### Settings & Adjustments -Picture (COMPUTER1 )

Picture Mode	Standard ▾
CLR Temp	0 ▾
BrilliantColor™	1 ▾
DNR	Level 2 ▾
Eco + Quiet	<input checked="" type="radio"/> OFF <input type="radio"/> ON

Reset

Refresh

On these screens, you can make projector settings or adjustments. You can set or adjust the following items:

- Picture Mode
- CLR Temp
- BrilliantColor™
- Film Mode
- DNR
- Eco + Quiet
- Resolution Setting
- Signal Type
- Dynamic Range
- Video System
- Video Setup
- Resize
- Overscan
- OSD Display
- Background
- Setup Guide
- Projection Mode
- Wall Color
- OSD Language
- Auto Sync
- Auto Power Off
- Auto Restart
- Internal Speaker
- Fan Mode
- Quick Start Menu
- COMPUTER2 Select
- DLP® Link™
- DLP® Link™ Invert
- All Reset

### Note

- If you click the "Refresh" button before the screen is displayed completely, an error message ("Server Busy Error") will be displayed. Wait for a moment and then operate again.
- You cannot operate this page while the projector is warming up.
- For details about each item, refer to the projector's operation manual.

## Setting the Security (Network – Security)

### Network - Security

User Name	<input type="text"/> (MAX 8 characters)
Password	<input type="password"/> (MAX 8 characters)

This user name / password is for accessing via Web browser and Telnet.

\*You will need to re-login with the new user name / new password after you change the user name / password.

Accept IP Address	<input checked="" type="radio"/> All IP Addresses <input type="radio"/> From only specific IP addresses
Address 1	<input type="text"/> 0 <input type="text"/> 0 <input type="text"/> 0 <input type="text"/> 0
Address 2	<input type="text"/> 0 <input type="text"/> 0 <input type="text"/> 0 <input type="text"/> 0
Address 3	<input type="text"/> 0 <input type="text"/> 0 <input type="text"/> 0 <input type="text"/> 0

Apply

Refresh

On this screen, you can make settings relating to security.

Items	Description
User Name	Setting of user name for security protection.
Password	Setting of password for security protection.
Accept IP Address	It is possible to set up to three IP addresses allowing connection to the projector.
All IP Addresses	No limits are set to IP addresses connecting to the projector.
From only specific IP addresses	For security improvement, only an IP address set by "Address 1-3" can be connected to the projector.

### Note

- User Name and Password can be up to 8 characters.
- You can input the characters below:  
a-z, A-Z, 0-9, -, \_

### Making General Settings for the Network (Network - General)

#### Network - General

Projector Name	<input type="text" value="XX-XX-XX"/> (MAX 12 characters)
Auto Logout Time	<input type="text" value="5"/> minute(s) (0-65535) * If the set value is made 0, the Auto Logout function is disabled.
Data Port	<input type="text" value="10002"/> (1025-65535)
Search Port	<input type="text" value="5006"/> (1025-65535)

On this screen, you can make general settings relating to the network.

Items	Description
Projector Name	Setting the projector name.
Auto Logout Time	Setting the time interval in which the projector will be automatically disconnected from the network in units of a minute (from 1 to 65535 minutes). If the set value is made 0, the Auto Logout function is disabled.
Data Port	Setting the TCP port number used when exchanging data with the projector (from 1025 to 65535).
Search Port	Setting the port number used when searching for the projector (from 1025 to 65535).

After clicking the “Apply” button, the set values appear. Confirm that the values are set properly, and then click the “Confirm” button.

#### Note

- After setting items, wait for about 15 seconds and then re-access.
- Projector Name can be up to 12 characters.
- You can input the characters below:  
A-Z, 0-9, -, \_, (, ), space  
(When “a-z” are input, they are converted to “A-Z” automatically.)

### Setting for Sending E-mail when an Error Occurs (Mail – Originator Settings)

#### Mail – Originator Settings

SMTP Server	<input type="text"/> (MAX 64 characters)
Originator E-mail Address	<input type="text"/> (MAX 64 characters)
Originator Name	<input type="text"/> (MAX 64 characters)

On this screen, you can make settings for sending e-mail to report when the projector has generated an error.

Items	Setting example / Remarks
SMTP Server	Setting an SMTP server address for e-mail transmission. e.g.1: 192.168.150.253 e.g.2: smtp123.sharp.co.jp * When using a domain name, make settings for the DNS server.
Originator E-mail Address	Setting the projector's e-mail address. The e-mail address set here becomes Originator E-mail Address.
Originator Name	Setting the sender's name. The name set here appears in the “Originator Name” column of the body of the message.

#### Note

- SMTP Server, Originator E-mail Address and Originator Name can be up to 64 characters.
- You can input the characters below:  
SMTP Server and Originator E-mail Address:  
a-z, A-Z, 0-9, !, #, \$, %, &, \*, +, -, /, =, ?, ^, {, |, }, ~, \_, `', ., @, `  
(You can input “@” only one time for “Originator E-mail Address”.)  
Originator Name: a-z, A-Z, 0-9, -, \_, (, ), space
- If the settings of “3. Setting up a Network Connection for the Projector” on pages 15 and 16 are incorrectly set, e-mail will not be sent.

Setting Error Items and Destination Addresses to which E-mail is to be Sent when an Error Occurs (Mail – Recipient Settings)

Mail – Recipient Settings

Recipient Addresses	E-mail Address (MAX 64 characters)	Error Mail				Test
		Lamp	Temp	Fan	Cover	
1	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Test"/>
2	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Test"/>
3	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Test"/>
4	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Test"/>
5	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Test"/>

On this screen, you can input e-mail destinations to which error notification (error items) e-mails are sent.

Items	Description
E-mail Address	Set addresses to which error notification e-mail is sent. You can set up to five addresses.
Error Mail (Lamp, Temp, Fan,Cover)	Error e-mail is sent on the error items checked in their check boxes.
Test	Send test e-mail. This allows you to confirm that the settings for e-mail transmission are properly set.

Note

- E-mail Address can be up to 64 characters.
- You can input the characters below:  
a-z, A-Z, 0-9, !, #, \$, %, &, \*, +, -, /, =, ?, ^, {, |, }, ~, \_ , ' , , @ , ` (You can input “@” only one time.)
- For details about error items, refer to the projector's operation manual.

Setting Error Items and the URL that are to be Displayed when an Error Occurs (Service & Support – Access URL)

Service & Support - Access URL Registration

Access URL	(MAX 64 characters)	Condition				Test	
		Always	Lamp	Temp	Fan		Cover
1	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Test"/>
2	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Test"/>
3	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Test"/>
4	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Test"/>
5	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Test"/>

On this screen, you can make settings of the URL and error items that are to be displayed when the projector has generated an error.

Items	Description
Access URL	Set the URL that is to be displayed when an error occurs. You can set up to five addresses.
Condition (Always, Lamp, Temp, Fan,Cover)	The URL is displayed when an error checked in their check boxes occurs.
Test	The set URL site is test-displayed. This allows you to confirm that the URL site is properly displayed.

Example of the display when an error occurs

Status

Sharp XX-XXXX (192.168.150.2)	
MAC Address	XXXXXXXXXXXXXX
Power	STANDBY
Condition	The cooling fan is not operating.
	Access URL 1 <a href="http://www.sharp-world.com/projector/">http://www.sharp-world.com/projector/</a>
Lamp Timer	1hour(s) 15minute(s)
Lamp Life	99%
Input	----
Signal Info	----
Serial Number	1234567

# Resetting the Lamp Timer of the Projector via LAN

When the projector is connected to a network, you can use the communications program to send a command to reset the lamp timer. The example below uses Windows® XP as the operating system. When you use Windows Vista®, use other communications program referring to the following steps, because Windows Vista® does not come with HyperTerminal.

## 1 Click “Start” – “All Programs” – “Accessories” – “Communications” – “HyperTerminal”.

- If you do not have HyperTerminal installed, see the operation manual of your computer.
- Depending on the settings of your computer, you may be required to enter your area code and other details. Enter the information as required.

## 2 Enter a name in the “Name” field, and click “OK”.



## 3 If you are required to enter the area code, enter it in the “Area code” field. From the “Connect using” drop-down menu, select “TCP/IP (Winsock)”, and click “OK”.

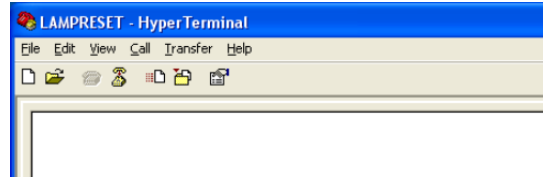


## 4 Enter the IP address of the projector in the “Host address” field (see “TCP/IP” on the “Network” menu of the projector), and enter the data port of the projector in the “Port number” field (“10002” is the factory default setting), and click “OK”.

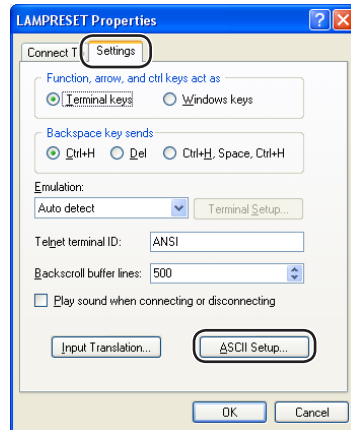


## Resetting the Lamp Timer of the Projector via LAN

- 5** Click “Properties” on the “File” menu.

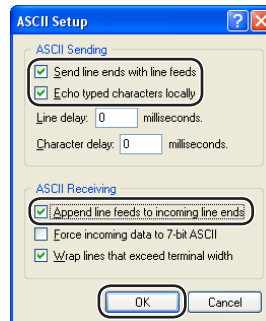


- 6** Click the “Settings” tab, and then click “ASCII Setup”.



- 7** Select the check boxes next to “Send line ends with line feeds”, “Echo typed characters locally”, and “Append line feeds to incoming line ends”, and click “OK”.

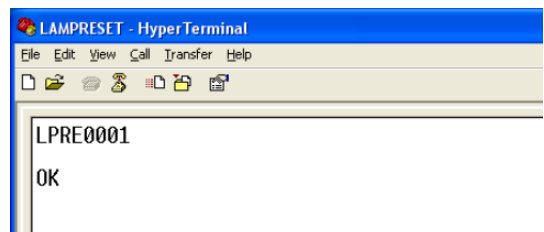
- The LAMPRESET Properties window appears, click “OK”.



- 8** If a user name and/or password is set for the projector, enter the user name and password.

- 9** Send the lamp reset command “LPRE0001”.

- This command can only be sent when the projector is in standby mode.
- When “OK” is received, this indicates that the lamp was successfully reset.



- 10** Close HyperTerminal.

## Communication cannot be established with the projector

### When connecting the projector using serial-connection

- ◀ Check that the RS-232C terminal of the projector and a computer or the commercially available controller are connected correctly.
- ◀ Check that the RS-232C cable is a cross-over cable.
- ◀ Check that the RS-232C port setting for the projector corresponds to the setting for the computer or the commercially available controller.

### When connecting the projector to a computer using network (LAN)-connection

- ◀ Check that the cable's connector is firmly inserted in the LAN terminal of the projector.
- ◀ Check that the cable is firmly inserted into a LAN port for a computer or a network device such as a hub.
- ◀ Check that the LAN cable is a Category 5 cable.
- ◀ Check that the LAN cable is a cross-over cable when connecting the projector to a computer directly.
- ◀ Check that the LAN cable is a straight-through cable when connecting the projector with a network device such as a hub.
- ◀ Check that the power supply is turned on for the network device such as a hub between the projector and a computer.
- ◀ If all of the above are unsuccessful, restart the network function using "Net." - "Restart Network". (See page 62 of the projector's operation manual.)

### Check the network settings for the computer and the projector

- ◀ Check the following network settings for the projector.
  - IP Address  
Check that the IP address for the projector is not duplicated on the network.
  - Subnet Mask  
When the gateway setting for the projector is "0.0.0.0" (Not Used), or the gateway setting for the projector and the default gateway setting for the computer are the same:
    - The subnet masks for the projector and the computer should be the same.
    - The IP address parts shown by the subnet mask for the projector and the computer should be the same.  
(Example)  
When the IP address is "192.168.150.2" and the subnet mask is "255.255.255.0" for the projector, the IP address for the computer should be "192.168.150.X" (X=3-254) and the subnet mask should be "255.255.255.0".
  - Gateway  
When the gateway setting for the projector is "0.0.0.0" (Not Used), or the gateway setting for the projector and the default gateway setting for the computer are the same:
    - The subnets for the projector and the computer should be the same.
    - The IP address parts shown by the subnet mask for the projector and the computer should be the same.  
(Example)  
When the IP address is "192.168.150.2" and the subnet mask is "255.255.255.0" for the projector, the IP address for the computer should be "192.168.150.X" (X=3-254) and the subnet mask should be "255.255.255.0".



#### Note

- When "DHCP Client" is set to "Off" on the projector:  
IP address: 192.168.150.2  
Subnet mask: 255.255.255.0  
Gateway address: 0.0.0.0 (Not Used)
- For network settings for the projector, refer to page 15.



- ◀ Take the following steps for checking the network settings for the computer.
1. Open a command prompt.  
Click "start" → "All Programs" → "Accessories" → "Command Prompt" in order.
  2. After launching the command prompt, enter the command "ipconfig", and press the "Enter" key.



### Note

- Communication may not be established even after carrying out the network settings for the computer. In such cases, restart your computer.

C:\>ipconfig

```
C:\>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 
    IPv4 Address. . . . . : 192.168.150.3
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.150.1
```



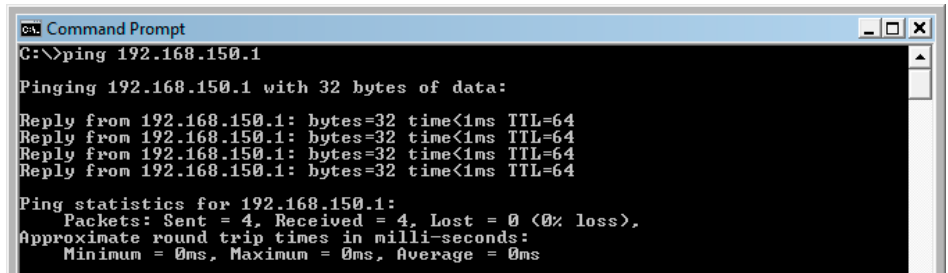
### Note

- Usage examples of ipconfig  
C:\>ipconfig /? displays how to use "ipconfig.exe".  
C:\>ipconfig displays the set IP address, subnet mask and default gateway.  
C:\>ipconfig /all displays all the setting information related to TCP/IP.

3. To return to the Windows® screen, enter "exit" and press the "Enter" key.

## Troubleshooting

- ◀ Check if the “TCP/IP” protocol is operating correctly using the “PING” command. Also, check if an IP address is set.
  1. Open a command prompt.  
Click “start” → “All Programs” → “Accessories” → “Command Prompt” in order.
  2. After launching the command prompt enter a command “PING”.  
Entry example C:\>ping XXX.XXX.XXX.XXX  
“XXX.XXX.XXX.XXX” should be entered with an IP address to be connected to, such as the projector.
  3. When connecting normally, the display will be as follows.  
(The screen may be slightly different depending on the OS type.)  
<Example> when the IP address connected to is “192.168.150.1”



```
C:\> Command Prompt
C:\>ping 192.168.150.1

Pinging 192.168.150.1 with 32 bytes of data:

Reply from 192.168.150.1: bytes=32 time<1ms TTL=64
Reply from 192.168.150.1: bytes=32 time<1ms TTL=64
Reply from 192.168.150.1: bytes=32 time<1ms TTL=64
Reply from 192.168.150.1: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.150.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

4. When a command cannot be sent, “Request time out” will be displayed.  
Check the network setting again.  
If communication can still not be established properly, contact your network administrator.
  5. To return to the Windows® screen, enter “exit” and then press the “Enter” key.
- ◀ When the projector cannot be connected, even though the “PING” command is checked:
    1. When “Accept IP Address” is set on the projector, set the IP address of the PC to be connected.
    2. When a security software is installed on the PC, or when a fire wall has been set up for the network system, connection may not be possible. Consult the system administrator when, for example, you want to change the settings to enable use of the TCP port set as the data port.
    3. When neither of the above two items applies, change the settings for the data port.

### **A connection cannot be made because you have forgotten your user name or your password.**

- ◀ Initialize the settings. (See page 62 of the projector's operation manual.)
- ◀ After the initialization, carry out setting again.