SHARP

MULTIMEDIA PROJECTOR

MODEL
XG-MB70X

SETUP GUIDE
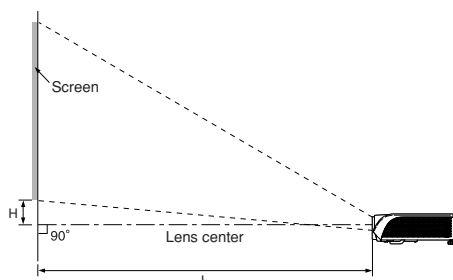
Screen Size and Projection Distance

The projection screen size varies according to the distance from the lens of the projector to the screen. Install the projector so that projected images are projected onto the screen at the optimum size by referring to the table below. Use the values in the table as a reference when installing the projector.

Side View

Screen

H

90° Lens center

L

NORMAL Mode (4:3)

Picture (Screen) size					Projection distance [L]		Distance from the bottom of the image to the lens center [H]	
Diag. [χ]		Width		Height	Minimum [L1]	Maximum [L2]		
300"	(762 cm)	610 cm (240")		457 cm (180")	9.1 m (29' 9")	13.7 m (44' 9")	−10.2 cm	(−4 1/64")
250"	(635 cm)	508 cm (200")		381 cm (150")	7.6 m (24' 9")	11.4 m (37' 4")	−8.5 cm	(−3 11/32")
200"	(508 cm)	406 cm (160")		305 cm (120")	6.0 m (19'10")	9.1 m (29'10")	−6.8 cm	(−2 43/64")
150"	(381 cm)	305 cm (120")		229 cm (90")	4.5 m (14'10")	6.8 m (22' 5")	−5.1 cm	(−2 1/64")
100"	(254 cm)	203 cm (80")		152 cm (60")	3.0 m (9'11")	4.6 m (14'11")	−3.4 cm	(−1 11/32")
84"	(213 cm)	171 cm (67")		128 cm (50")	2.5 m (8' 4")	3.8 m (12' 6")	−2.9 cm	(−1 1/8")
72"	(183 cm)	146 cm (58")		110 cm (43")	2.2 m (7' 2")	3.3 m (10' 9")	−2.4 cm	(−31/32")
60"	(152 cm)	122 cm (48")		91 cm (36")	1.8 m (5'11")	2.7 m (8'11")	−2.0 cm	(−51/64")
40"	(102 cm)	81 cm (32")		61 cm (24")	1.2 m (4' 0")	1.8 m (6' 0")	−1.4 cm	(−17/32")

χ: Picture size (diag.) (in/cm)
L: Projection distance(m/ft)
L1: Minimum projection distance (m/ft)
L2: Maximum projection distance (m/ft)
H: Distance from the bottom of the image to the lens center (cm/in)

The formula for picture size and projection distance

[m/cm]
L1 (m) = 0.0302χ
L2 (m) = 0.0455χ
H (cm) = −0.034χ

[Feet/inches]
L1 (ft) = 0.0302χ / 0.3048
L2 (ft) = 0.0455χ / 0.3048
H (in) = −0.034χ / 2.54

STRETCH Mode (16:9)

Picture (Screen) size					Projection distance [L]		Distance from the bottom of the image to the lens center [H]	
Diag. [χ]		Width		Height	Minimum [L1]	Maximum [L2]		
250"	(635 cm)	553 cm (218")		311 cm (123")	8.2 m (27' 0")	12.4 m (40' 8")	−61.1 cm	(−24 5/64")
225"	(572 cm)	498 cm (196")		280 cm (110")	7.4 m (24' 3")	11.2 m (36' 7")	−55.0 cm	(−21 43/64")
200"	(508 cm)	443 cm (174")		249 cm (98")	6.6 m (21' 7")	9.9 m (32' 6")	−48.9 cm	(−19 17/64")
150"	(381 cm)	332 cm (131")		187 cm (74")	4.9 m (16' 2")	7.4 m (24' 5")	−36.7 cm	(−14 14/32")
133"	(338 cm)	294 cm (116")		166 cm (65")	4.4 m (14' 4")	6.6 m (21' 8")	−32.5 cm	(−12 13/16")
106"	(269 cm)	235 cm (92")		132 cm (52")	3.5 m (11' 5")	5.3 m (17' 3")	−25.9 cm	(−10 13/64")
100"	(254 cm)	221 cm (87")		125 cm (49")	3.3 m (10'10")	5.0 m (16' 3")	−24.5 cm	(−9 5/8")
92"	(234 cm)	204 cm (80")		115 cm (45")	3.0 m (9'11")	4.6 m (15' 0")	−22.5 cm	(−8 55/64")
84"	(213 cm)	186 cm (73")		105 cm (41")	2.8 m (9' 1")	4.2 m (13' 8")	−20.5 cm	(−8 3/32")
72"	(183 cm)	159 cm (63")		90 cm (35")	2.4 m (7' 9")	3.6 m (11' 9")	−17.6 cm	(−6 15/16")
60"	(152 cm)	133 cm (52")		75 cm (29")	2.0 m (6' 6")	3.0 m (9' 9")	−14.7 cm	(−5 25/32")
40"	(102 cm)	89 cm (35")		50 cm (20")	1.3 m (4' 4")	2.0 m (6' 6")	−9.8 cm	(−3 55/64")

χ: Picture size (diag.) (in/cm)
L: Projection distance(m/ft)
L1: Minimum projection distance (m/ft)
L2: Maximum projection distance (m/ft)
H: Distance from the bottom of the image to the lens center (cm/in)

The formula for picture size and projection distance

[m/cm]
L1 (m) = 0.0329χ
L2 (m) = 0.04957χ
H (cm) = −0.24459χ

[Feet/inches]
L1 (ft) = 0.0329χ / 0.3048
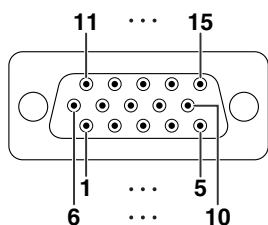L2 (ft) = 0.04957χ / 0.3048
H (in) = −0.24459χ / 2.54

✎ **Note**

• There may be an error of ± 3% in the above values.
• Values with a minus (−) sign indicate that the lens center is lower than the bottom of the screen.

Connecting Pin Assignments

INPUT 1/INPUT 2 and OUTPUT RGB Signal Terminal: 15-pin Mini D-sub female connector
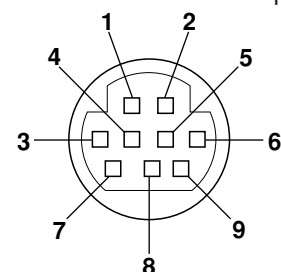
11 ··· 15

1 ··· 5

6 ··· 10

RGB Input
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
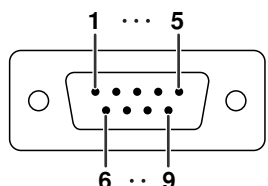14. Vertical sync signal: TTL level
15. Data clock

Component Input
1. P_R (C_R)
2. Y
3. P_B (C_B)
4. Not connected
5. Not connected
6. Earth (P_R)
7. Earth (Y)
8. Earth (P_B)
9. Not connected
10. Not connected
11. Not connected
12. Not connected
13. Not connected
14. Not connected
15. Not connected

RS-232C Terminal: 9-pin Mini DIN female connector

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			Connected to Pin 8
8	CS			Connected to Pin 7
9				Not connected

DIN-D-sub RS-232C adaptor: 9-pin D-sub male connector

1 ··· 5

6 ·· 9

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			Connected to internal circuit
8	CS			Connected to internal circuit
9				Not connected

✎ **Note**

• Pin 8 (CS) and Pin 7 (RS) are short circuited inside the projector.

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

5 ··· 1

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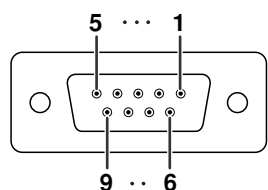
Pin No.	Signal	Pin No.	Signal
1	CD	1	CD
2	RD	2	RD
3	SD	3	SD
4	ER	4	ER
5	SG	5	SG
6	DR	6	DR
7	RS	7	RS
8	CS	8	CS
9	CI	9	CI

✎ **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.	Computer Pin No.
4	4
5	5
6	6

USB Terminal: 4-pin B-type USB female connector

4 3

1 2
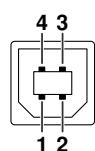
Pin No.	Signal	Signal Name
1	VCC	USB power
2	USB–	USB data–
3	USB+	USB data+
4	SG	GND

LAN Terminal : 8-pin RJ-45 modular connector

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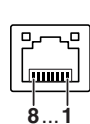
Pin No.	Signal	Pin No.	Signal
1	TX+	5	
2	TX–	6	RX–
3	RX+	7	
4		8	

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 27 of the projector's 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 / 115,200 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

| C1 | C2 | C3 | C4 | P1 | P2 | P3 | P4 |

Command 4-digit　　　　Parameter 4-digit

Return code (0DH)

Response code format

Normal response

| O | K | Return code (0DH) |

Problem response (communication error or incorrect command)

| E | R | R | Return code (0DH) |
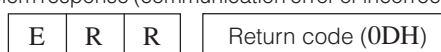
📕 **Info**

- 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.
- If more than one command will be sent to the projector, wait for projector reply before sending next command.

✎ **Note**

- Use "POWR????" and "TLPS___1" for projector polling.
- When the projector receives these commands, the on-screen display will not disappear and these commands will not reset the "Auto Power Off" function timer when no signal is present.

Commands

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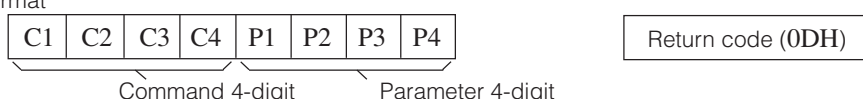
Computer

| P | O | W | R | _ | _ | _ | 1 | ↵ |

→　←

Projector

| O | K | ↵ |
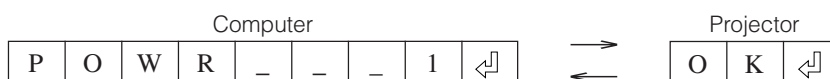
Control Contents	Command				Parameter				Return
Standby	P	O	W	R	_	_	_	0	OK or ERR
Power ON	P	O	W	R	_	_	_	1	OK or ERR
Power Status	P	O	W	R	?	?	?	?	0 : Standby, 1 : ON
Projector Status	T	A	B	N	_	_	_	1	0 : Normal, 1 : Temp High, 2 : Fan Err, 8 : Lamp 5% or less, 16 : Lamp Burnt-out, 32 : Lamp Not Ignition Failure, 64 : Temp Abnormally High
Lamp Status	T	L	P	S	_	_	_	1	0 : OFF, 1 : ON, 2 : Retry, 3 : Waiting, 4 : Lamp Error
Volume (0-60)	V	O	L	A	_	_	*	*	OK or ERR
AV Mute : OFF	I	M	B	K	_	_	_	0	OK or ERR
AV Mute : ON	I	M	B	K	_	_	_	1	OK or ERR
Keystone (-127 ~ +127)	K	E	Y	S	*	*	*	*	OK or ERR
INPUT1 (RGB1)	I	R	G	B	_	_	_	1	OK or ERR
INPUT2 (RGB2)	I	R	G	B	_	_	_	2	OK or ERR
INPUT3 (Video)	I	V	E	D	_	_	_	1	OK or ERR
INPUT4 (S-Video)	I	V	E	D	_	_	_	2	OK or ERR
Freeze : OFF	F	R	E	Z	_	_	_	0	OK or ERR
Freeze : ON	F	R	E	Z	_	_	_	1	OK or ERR
Auto Sync Start	A	D	J	S	_	_	_	1	OK or ERR

RS-232C Specifications and Commands

Control Contents	Command	Parameter	Return
INPUT1 Resize : Normal	R A S R	_ _ _ 1	OK or ERR
INPUT1 Resize : Dot By Dot	R A S R	_ _ _ 3	OK or ERR
INPUT1 Resize : Border	R A S R	_ _ _ 6	OK or ERR
INPUT1 Resize : Stretch	R A S R	_ _ _ 2	OK or ERR
INPUT2 Resize : Normal	R B S R	_ _ _ 1	OK or ERR
INPUT2 Resize : Dot By Dot	R B S R	_ _ _ 3	OK or ERR
INPUT2 Resize : Border	R B S R	_ _ _ 6	OK or ERR
INPUT2 Resize : Stretch	R B S R	_ _ _ 2	OK or ERR
INPUT3 Resize : Normal	R A S V	_ _ _ 1	OK or ERR
INPUT3 Resize : Border	R A S V	_ _ _ 3	OK or ERR
INPUT3 Resize : Stretch	R A S V	_ _ _ 2	OK or ERR
INPUT4 Resize : Normal	R B S V	_ _ _ 1	OK or ERR
INPUT4 Resize : Border	R B S V	_ _ _ 3	OK or ERR
INPUT4 Resize : Stretch	R B S V	_ _ _ 2	OK or ERR
Auto Focus Start	A F S T	_ _ _ 1	OK or ERR
INPUT 1 Picture Mode : Standard	R A P S	_ _ 1 0	OK or ERR
INPUT 1 Picture Mode : Presentation	R A P S	_ _ 1 1	OK or ERR
INPUT 1 Picture Mode : Cinema	R A P S	_ _ 1 2	OK or ERR
INPUT 1 Picture Mode : Game	R A P S	_ _ 1 3	OK or ERR
INPUT 2 Picture Mode : Standard	R B P S	_ _ 1 0	OK or ERR
INPUT 2 Picture Mode : Presentation	R B P S	_ _ 1 1	OK or ERR
INPUT 2 Picture Mode : Cinema	R B P S	_ _ 1 2	OK or ERR
INPUT 2 Picture Mode : Game	R B P S	_ _ 1 3	OK or ERR
INPUT 3 Picture Mode : Standard	V A P S	_ _ 1 0	OK or ERR
INPUT 3 Picture Mode : Presentation	V A P S	_ _ 1 1	OK or ERR
INPUT 3 Picture Mode : Cinema	V A P S	_ _ 1 2	OK or ERR
INPUT 3 Picture Mode : Game	V A P S	_ _ 1 3	OK or ERR
INPUT 4 Picture Mode : Standard	V B P S	_ _ 1 0	OK or ERR
INPUT 4 Picture Mode : Presentation	V B P S	_ _ 1 1	OK or ERR
INPUT 4 Picture Mode : Cinema	V B P S	_ _ 1 2	OK or ERR
INPUT 4 Picture Mode : Game	V B P S	_ _ 1 3	OK or ERR
INPUT 1 Bright Boost (0 -10)	R A W E	_ _ * *	OK or ERR
INPUT 2 Bright Boost (0 -10)	R B W E	_ _ * *	OK or ERR
INPUT 3 Bright Boost (0 -10)	V A W E	_ _ * *	OK or ERR
INPUT 4 Bright Boost (0 -10)	V B W E	_ _ * *	OK or ERR
INPUT 1 CLR Temp *1	R A C T	_ * * *	OK or ERR
INPUT 2 CLR Temp *1	R B C T	_ * * *	OK or ERR
INPUT 3 CLR Temp *1	V A C T	_ * * *	OK or ERR
INPUT 4 CLR Temp *1	V B C T	_ * * *	OK or ERR
INPUT1 sRGB : OFF	C S R A	_ _ _ 0	OK or ERR
INPUT1 sRGB : ON	C S R A	_ _ _ 1	OK or ERR
INPUT2 sRGB : OFF	C S R B	_ _ _ 0	OK or ERR
INPUT2 sRGB : ON	C S R B	_ _ _ 1	OK or ERR
IRIS : High Brightness	I R I S	_ _ _ 1	OK or ERR
IRIS : High Contrast	I R I S	_ _ _ 3	OK or ERR
INPUT1 Signal Type : Auto	I A S I	_ _ _ 0	OK or ERR
INPUT1 Signal Type : RGB	I A S I	_ _ _ 1	OK or ERR
INPUT1 Signal Type : Component	I A S I	_ _ _ 2	OK or ERR
INPUT2 Signal Type : Auto	I B S I	_ _ _ 0	OK or ERR
INPUT2 Signal Type : RGB	I B S I	_ _ _ 1	OK or ERR
INPUT2 Signal Type : Component	I B S I	_ _ _ 2	OK or ERR
INPUT1 Adjustment Reset	R A R E	_ _ _ 1	OK or ERR
INPUT2 Adjustment Reset	R B R E	_ _ _ 1	OK or ERR
INPUT3 Adjustment Reset	V A R E	_ _ _ 1	OK or ERR
INPUT4 Adjustment Reset	V B R E	_ _ _ 1	OK or ERR
Auto Sync : OFF	A A D J	_ _ _ 0	OK or ERR
Auto Sync : ON	A A D J	_ _ _ 1	OK or ERR

Control Contents	Command	Parameter	Return
Lamp Usage Time (hour)	T L T T	_ _ _ 1	0 - 9999
Remaining Lamp Life (Percentage)	T L T L	_ _ _ 1	0 - 100
OSD Display : OFF	I M D I	_ _ _ 0	OK or ERR
OSD Display : ON	I M D I	_ _ _ 1	OK or ERR
Video System : Auto	M E S Y	_ _ _ 1	OK or ERR
Video System : PAL	M E S Y	_ _ _ 2	OK or ERR
Video System : SECAM	M E S Y	_ _ _ 3	OK or ERR
Video System : NTSC4.43	M E S Y	_ _ _ 4	OK or ERR
Video System : NTSC3.58	M E S Y	_ _ _ 5	OK or ERR
Video System : PAL-M	M E S Y	_ _ _ 6	OK or ERR
Video System : PAL-N	M E S Y	_ _ _ 7	OK or ERR
Video System : PAL-60	M E S Y	_ _ _ 8	OK or ERR
Background : Logo	I M B G	_ _ _ 1	OK or ERR
Background : Blue	I M B G	_ _ _ 2	OK or ERR
Background : None	I M B G	_ _ _ 4	OK or ERR
Eco Mode : Standard	T H M D	_ _ _ 0	OK or ERR
Eco Mode : Low Power	T H M D	_ _ _ 1	OK or ERR
Auto Power Off : Disable	A P O W	_ _ _ 0	OK or ERR
Auto Power Off : Enable	A P O W	_ _ _ 1	OK or ERR
Auto Focus : OFF	A T A F	_ _ _ 0	OK or ERR
Auto Focus : ON	A T A F	_ _ _ 1	OK or ERR
Auto Keystone : OFF	A T K S	_ _ _ 0	OK or ERR
Auto Keystone : ON	A T K S	_ _ _ 1	OK or ERR
Speaker : OFF	A S P K	_ _ _ 0	OK or ERR
Speaker : ON	A S P K	_ _ _ 1	OK or ERR
Audio Out : FAO	A O U T	_ _ _ 1	OK or ERR
Audio Out : VAO	A O U T	_ _ _ 2	OK or ERR
PRJ Mode : Reverse Off	I M R E	_ _ _ 0	OK or ERR
PRJ Mode : Reverse On	I M R E	_ _ _ 1	OK or ERR
PRJ Mode : Invert Off	I M I N	_ _ _ 0	OK or ERR
PRJ Mode : Invert On	I M I N	_ _ _ 1	OK or ERR
Monitor Out : Disable	M O U T	_ _ _ 0	OK or ERR
Monitor Out : Enable	M O U T	_ _ _ 1	OK or ERR
LAN/RS232C : Disable	L N R S	_ _ _ 0	OK or ERR
LAN/RS232C : Enable	L N R S	_ _ _ 1	OK or ERR
All Reset	A L R E	_ _ _ 1	OK or ERR
Language : ENGLISH	M E L A	_ _ _ 1	OK or ERR
Language : DEUTSCH	M E L A	_ _ _ 2	OK or ERR
Language : ESPAÑOL	M E L A	_ _ _ 3	OK or ERR
Language : NEDERLANDS	M E L A	_ _ _ 4	OK or ERR
Language : FRANÇAIS	M E L A	_ _ _ 5	OK or ERR
Language : ITALIANO	M E L A	_ _ _ 6	OK or ERR
Language : SVENSKA	M E L A	_ _ _ 7	OK or ERR
Language : 日本語	M E L A	_ _ _ 8	OK or ERR
Language : PORTUGUÊS	M E L A	_ _ _ 9	OK or ERR
Language : 汉语	M E L A	_ _ 1 0	OK or ERR
Language : 한국어	M E L A	_ _ 1 1	OK or ERR
Model Name Check	T N A M	_ _ _ 1	XGMB70X
Model Name Check 2	M N R D	_ _ _ 1	XG-MB70X
Projector Name Setting 1 (First four characters)*2	P J N 1	* * * *	OK or ERR
Projector Name Setting 2 (Middle four characters)*2	P J N 2	* * * *	OK or ERR
Projector Name Setting 3 (Last four characters)*2	P J N 3	* * * *	OK or ERR
Projector Name Check	P J N 0	_ _ _ 1	XG-MB70X

✎ **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.

*1 Parameters of CLR Temp settings are as follows.

CLR Temps	Parameter		
5500K	_ 0	5	5
6500K	_ 0	6	5
7500K	_ 0	7	5
8500K	_ 0	8	5
9300K	_ 0	9	3
10500K	_ 1	0	5

*2 For setting the projector name, send the commands in order of PJN1, PJN2 and PJN3.
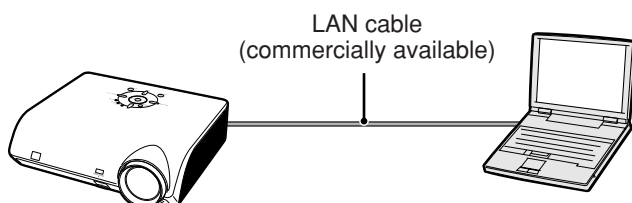
Setting up the Projector Network Environment

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.

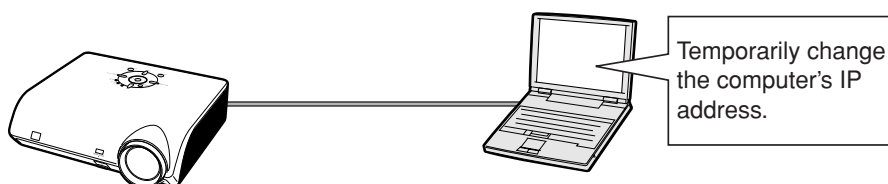## 1. Connecting the projector to a computer

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

LAN cable
(commercially available)

➡ Page 7

2. Setting an IP address for the computer

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

Temporarily change the computer's IP address.

➡ Pages 8, 9

3. Setting up a network connection for the projector

Adjust the projector network settings to conform to your network.

Use Internet Explorer (version 5.0 or later) to make various projector settings.
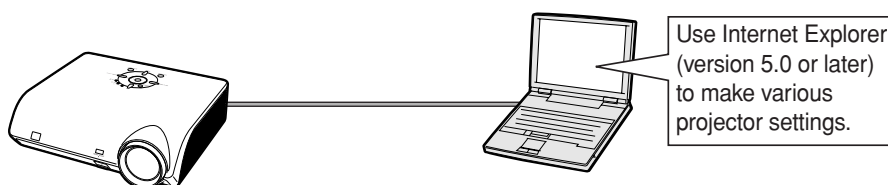
➡ Page 10

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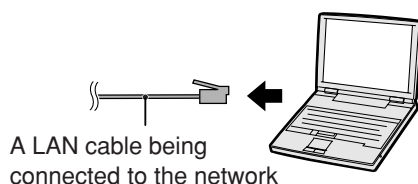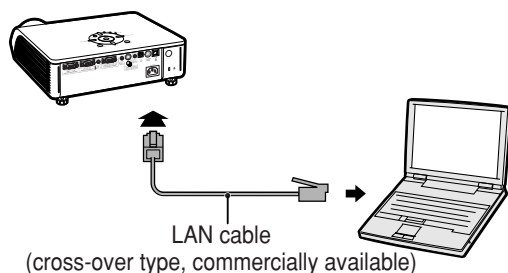# 1. Connecting the Projector to a Computer

Establishing a one-to-one connection from the projector to a computer. Using a LAN 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.**

A LAN cable being connected to the network

2 **Connect a LAN cable (a 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.**

LAN cable
(cross-over type, commercially available)

3 **Turn on the projector.**

ON
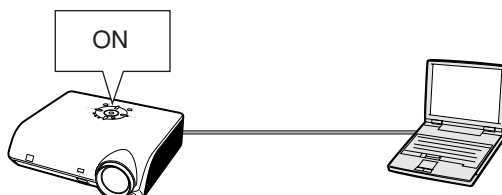
4 **Turn on the Computer.**

ON
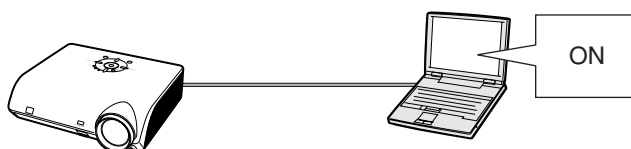
📕 Info

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® XP (Professional or Home edition).

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

2 Click the "Start" button, and click "Control Panel".
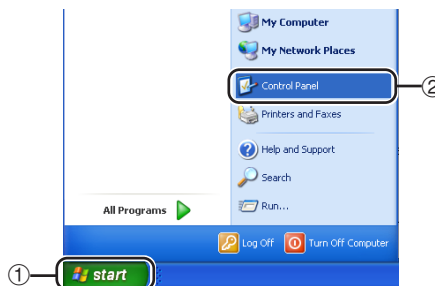
3 Click "Network and Internet Connections", and click "Network Connections" in the new window.

- This manual uses examples to explain the operations in Category View. If you are using Classic View, double-click "Network Connections".
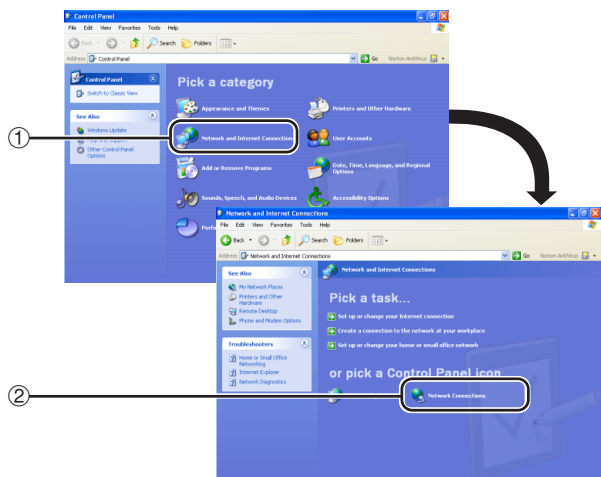
4 Right-click "Local Area Connection" and select "Properties" from the menu.
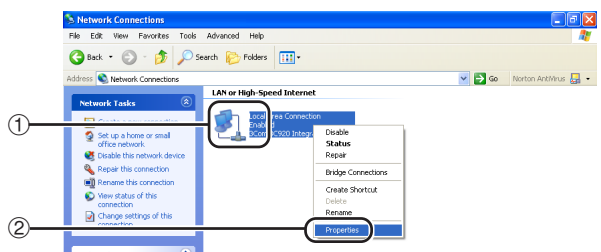
5 **Click "Internet Protocol (TCP/IP)", and click the "Properties" button.**
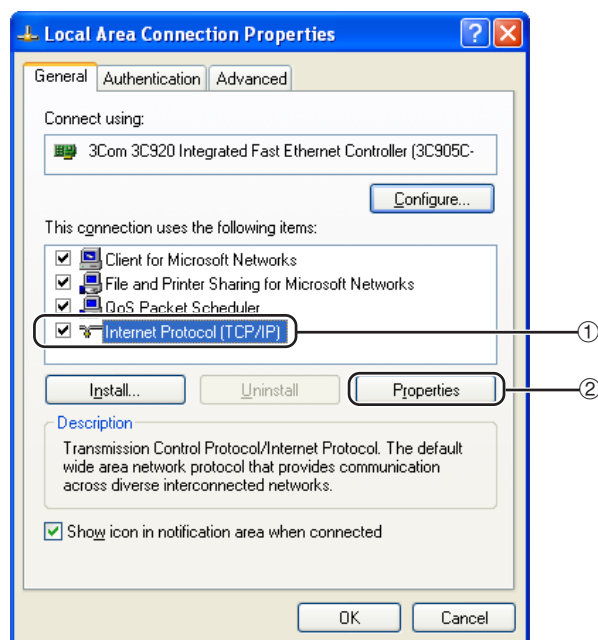
6 **Confirm or change an IP address for the setup computer.**

① **Confirm and note the current IP address and Subnet mask.**
Make sure to note the current IP address and Subnet mask as you will be required to reset it later.

② **The factory default setting for the projector IP address is "192.168.150.2". Set an IP address temporarily as follows :**
IP Address : 192.168.150.3
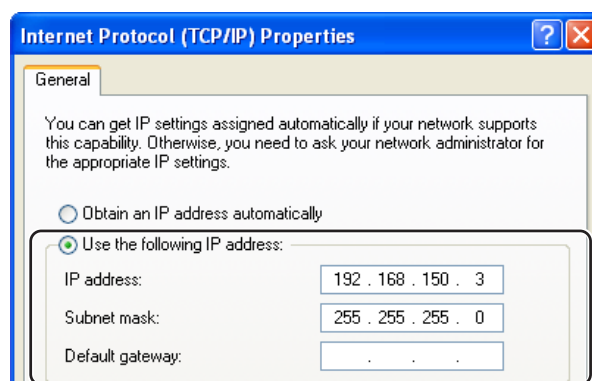
7 **After setting, click the "OK" button, and then restart the computer.**

After confirming or setting, proceed to "3. Setting up Network Environment 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.

1 **Start Internet Explorer (version 5.0 or later) on the computer, and enter "http://192.168.150.2/" in "Address", and then press the "Enter" key.**
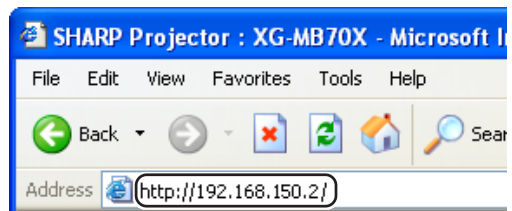
2 **If a user name and a password have not yet been set, just click the "OK" button.**

   • 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.
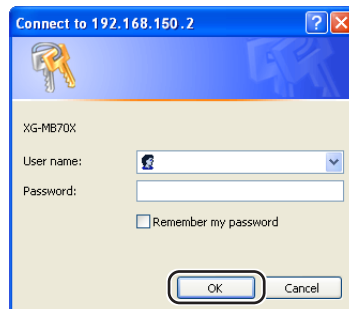
3 **When the screen as shown on the right appears, click "TCP/IP".**
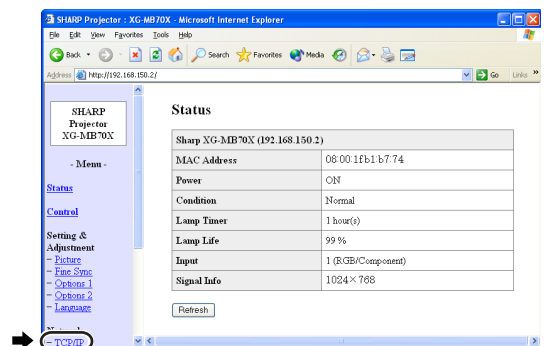
4 **The TCP/IP setting screen appears, ready for network settings for the projector.**

Items	Setting example / Remarks
IP Address	Factory default setting: 192.168.150.2 Enter an IP address appropriate for the network.
Subnet Mask	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	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".

Network - TCP/IP

IP Address	192	168	150	2
Subnet Mask	255	255	255	0
Default Gateway	0	0	0	0

* "0.0.0.0" means "Using no default gateway."

| DNS Server | 0 | 0 | 0 | 0 |

* "0.0.0.0" means "Using no DNS server."

✎**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.**

Network - TCP/IP

IP Address	192	168	150	2
Subnet Mask	255	255	255	0
Default Gateway	0	0	0	0

* "0.0.0.0" means "Using no default gateway."

| DNS Server | 0 | 0 | 0 | 0 |

* "0.0.0.0" means "Using no DNS server."

➡ [Apply]
[Refresh]

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

After setting items, wait for 10 seconds and then re-access.

Network – TCP/IP

The TCP/IP settings will be changed as below.

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?

➡ [Confirm] [Cancel]

After you click "Confirm", if you want to continue to operate this projector via the network, please wait for 10 seconds and then re-access to "192.168.150.2".

This completes the network settings.
Change the IP address of the setting computer back to its original address, and then connect the computer and the projector to the network.

Controlling the Projector via LAN

After connecting the projector to your network, enter the projector IP address in "Address" on Internet Explorer (Version 5.0 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
(Version 5.0 or later)

Complete connections to external equipment before starting the operation. (See pages 21-28 of the projector's operation manual.) Complete the AC cord connection. (See page 29 of the projector's operation manual.)

✎ Note
• When connecting the projector to the LAN, use a LAN cable (Category 5). When connecting the projector to a hub, use a straight-through cable.

1 Start Internet Explorer (version 5.0 or later) on the computer.

2 Enter "http://" followed by the projector IP address set by the procedure on page 11 followed by "/" in "Address", and then press the "Enter" key.

The factory default setting for 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" (page 10–11), enter "http://192.168.150.2/".

3 A screen for controlling the projector appears, ready for performing various status conditions, control, and settings.
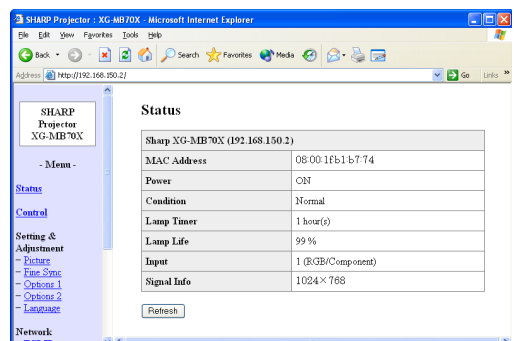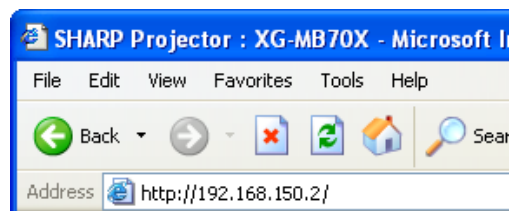
Confirming the Projector Status (Status)

Status

Sharp XG-MB70X (192.168.150.2)	
MAC Address	08:00:1fb1:b7:74
Power	ON
Condition	Normal
Lamp Timer	1 hour(s)
Lamp Life	99 %
Input	1 (RGB/Component)
Signal Info	1024×768

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**

✎ 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	○ STANDBY ● ON
Input Select	INPUT1 (RGB/Component) ▼
Volume	1 ▼
AV Mute	● OFF ○ ON

Refresh

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

- **Power**
- **Input Select**
- **Volume**
- **AV Mute [OFF] [ON]**

✎ 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 (Setting & Adjustment)

Example: "Picture" screen display for INPUT 1

Setting & Adjustment - Picture(INPUT1)

Picture Mode	Standard ▼	Reset
Bright Boost	10 ▼	
CLR Temp	7500K ▼	
sRGB	◉ OFF ○ ON	

IRIS	High Bright ▼
Signal Type	Auto ▼

Refresh

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

- Picture Mode
- Bright Boost
- CLR Temp
- sRGB [OFF][ON]
- IRIS
- Signal Type
- Auto Sync [OFF][ON]
- Resize (INPUT 1)
- OSD Display [OFF][ON]
- Video System (INPUT 3/4)
- Background
- Eco Mode [OFF][ON]
- Auto Power Off [OFF][ON]
- Auto Focus (Startup) [OFF][ON]
- Auto Keystone [OFF][ON]
- Internal Speaker [OFF][ON]
- Audio Out [OFF][ON]
- Projection Mode
- RS-232C Speed
- Monitor Out (Standby)
- OSD Language

✎ 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	
	(MAX 8 characters)
Password	
	(MAX 8 characters)

This user name / password is for accessing via Web browser and Telnet.
*If you change the user name / password, you will need to re-login with the new user name / new password.

Accept IP Address	◉ All IP Addresses
	○ From only specific IP addresses
	Address 1 [0] [0] [0] [0]
	Address 2 [0] [0] [0] [0]
	Address 3 [0] [0] [0] [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 Addres	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 address	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	XG-MB70X
	(MAX 12 characters)
Auto Logout Time	5 minute(s)
	(0-65535)
	* If the set value is made 0, the Auto Logout function is disabled.
Data Port	10002
	(1025-65535)
Search Port	5006
	(1025-65535)

Apply

Refresh

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 a 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 10 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 Setting)

Mail - Originator Setting

SMTP Server	
	(MAX 64 characters)
Originator E-mail Address	
	(MAX 64 characters)
Originator Name	
	(MAX 64 characters)

Apply

Refresh

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

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

Mail - Recipient Setting

Recipient Addresses	E-mail Address (MAX 64 characters)	Error Mail Lamp Temp Fan	
1		☐ ☐ ☐	Test
2		☐ ☐ ☐	Test
3		☐ ☐ ☐	Test
4		☐ ☐ ☐	Test
5		☐ ☐ ☐	Test

Apply

Refresh

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)	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 "@" just one time.)
- For details about error items, refer to the projector's operation manual.

Setting the Projector Using RS-232C or Telnet

Connect the projector to a computer using RS-232C or Telnet, and open the SETUP MENU on the computer to carry out various settings for the projector.

When Connecting Using RS-232C

1 **Launch general purpose terminal emulator.**

2 **Input settings for the RS-232C port of the terminal emulator as follows.**

Baud Rate : 9600 bps*
Data Length : 8 bit
Parity Bit : None
Stop Bit : 1 bit
Flow Control : None

∗ This is the factory default setting. If the value of Baud Rate for the projector has been changed, set Baud Rate here according to the changed value on the projector.

3 **Input "PJS11234" and press the "Enter" key.**

4 **"OK" is displayed. Input "PJS25678" and press the "Enter" key within 10 seconds.**

5 **"User Name:" is displayed. Input the user name and press the "Enter" key.**

• If a user name has not yet been set, just press the "Enter" key.

6 **"Password:" is displayed. Input the password and press the "Enter" key.**

• If a password has not yet been set, just press the "Enter" key.

7 **Input "setup" and press the "Enter" key.**

• SETUP MENU will be displayed.

▼**SETUP MENU**

```
--------------------------------SETUP MENU--------------------------------
[1]IP Address          [2]Subnet Mask        [3]Default Gateway
[4]User Name           [5]Password
[6]RS-232C Baud Rate   [7]Projector Name
[A]Advanced Setup                            [D]Disconnect All
[V]View All Setting    [S]Save & Quit        [Q]Quit Unchanged

setup>
```

✎ **Note**

• User name and password are not set in the factory default settings.
• If the user name or password is entered incorrectly three times, SETUP MENU will be quit.

Setting the Projector Using RS-232C or Telnet

When Connecting Using Telnet

1 Click "Start" from the Windows® desktop and select "Run".

2 Enter "telnet 192.168.150.2" in the text box that opens up. (If the IP address of the projector is 192.168.150.2.)

3 Click the "OK" button.

4 "User Name:" is displayed. Input the user name and press the "Enter" key.

• If a user name has not yet been set, just press the "Enter" key.

5 "Password:" is displayed. Input the password and press the "Enter" key.

• If a password has not yet been set, just press the "Enter" key.

6 Input "setup" and press the "Enter" key.

• SETUP MENU will be displayed.

▼**SETUP MENU**

```
-------------------------------SETUP MENU-----------------------------
[1]IP Address          [2]Subnet Mask      [3]Default Gateway
[4]User Name           [5]Password
[6]RS-232C Baud Rate   [7]Projector Name
[A]Advanced Setup                          [D]Disconnect All
[V]View All Setting    [S]Save & Quit      [Q]Quit Unchanged

setup>
```

✎ **Note**

• If the IP address has been changed, ensure to enter the new IP address in step 2.
• User name and password are not set in the factory default settings.
• If the user name or password is entered incorrectly three times in steps 4 or 5, SETUP MENU will be quit.

Setting the Projector Using RS-232C or Telnet

SETUP MENU (Main Menu)

▼SETUP MENU

```
---------------------------------SETUP MENU----------------------------------
[1]IP Address          [2]Subnet Mask        [3]Default Gateway
[4]User Name           [5]Password
[6]RS-232C Baud Rate   [7]Projector Name
[A]Advanced Setup                            [D]Disconnect All
[V]View All Setting    [S]Save & Quit        [Q]Quit Unchanged

setup>
```

[1]IP Address (Factory default setting : 192.168.150.2)
   IP address settings. (Page **22**)
[2]Subnet Mask (Factory default setting : 255.255.255.0)
   Subnet mask settings. (Page **22**)
[3]Default Gateway (Factory default setting : Not Used)
   Default gateway settings. (Page **22**)
[4]User Name (Factory default setting : Not Required)
   Setting of user name for security protection. (Page **23**)
[5]Password (Factory default setting : Not Required)
   Setting of password for security protection. (Page **23**)
[6]RS-232C Baud Rate (Factory default setting : 9600 bps)
   Baud rate settings for the RS-232C terminals. (Page **23**)
[7]Projector Name (Factory default setting : XG-MB70X)
   It is possible to assign a projector name. (Page **23**)
[A]Advanced Setup
   Enters ADVANCED SETUP MENU. (Page **24**)
[D]Disconnect All
   Disconnect all connections. (Page **24**)
[V] View All Setting
   Displays all setting values. (Page **20**)
   Can also be used with ADVANCED SETUP MENU.
[S]Save & Quit
   Save set values and quit menu. (Page **21**)
[Q]Quit Unchanged
   Quit menu without saving setting values. (Page **21**)

ADVANCED SETUP MENU

▼ADVANCED SETUP MENU

```
******************* ADVANCED SETUP MENU ***********************
[1]Auto Logout Time    [2]Data Port
[5]Network Ping Test
[6]Accept IP Addr(1)   [7]Accept IP Addr(2)   [8]Accept IP Addr(3)
[9]Accept All IP Addr  [0]Search Port


[!]Restore Default Setting
[Q]Return to Main Menu


advanced>
```

[1]Auto Logout Time (Factory default setting : 5 minutes)
   Setting of time until automatic disconnection of network connection. (Page **24**)
[2]Data Port (Factory default setting : 10002)
   Setting the TCP port number used when exchanging data. (Page **24**)
[5]Network Ping Test
   It is possible to confirm that a network connection between the projector and a computer etc. is working normally. (Page **25**)
[6]Accept IP Addr(1)
[7]Accept IP Addr(2)
[8]Accept IP Addr(3)
[9]Accept All IP Addr (Factory default setting : Accept All)
   For improved security, it is possible to set up to three IP addresses allowing connection to the projector. Set IP addresses can be cancelled using [9] Accept All IP Addr. (Page **25**)
[0] Search Port (Factory default setting : 5006)
   Setting the port number used when searching for the projector. (Page **26**)
[!]Restore Default Setting
   Restores all setting values that can be set using the menu to the default state. (Page **26**)
[Q]Return to Main Menu
   Return to the main SETUP MENU. (Page **26**)

Ⓖ -19

Controlling the Projector Using RS-232C or Telnet

Enter number or symbol of item to be selected on the SETUP MENU. When setting, input the details to be set. Setting is carried out one item at a time, and saved at the end.

View Setting Detail List
([V]View All Setting)

▼SETUP MENU

```
----------------------------SETUP MENU----------------------------
[1]IP Address          [2]Subnet Mask      [3]Default Gateway
[4]User Name           [5]Password
[6]RS-232C Baud Rate   [7]Projector Name
[A]Advanced Setup                          [D]Disconnect All
[V]View All Setting    [S]Save & Quit      [Q]Quit Unchanged

setup>v                                                     ①
Model Name       : XG-MB70X
Projector Name   : XG-MB70X
MAC Address      : 08:00:1f:b1:b7:74
IP Address       : 192.168.150.2
Subnet Mask      : 255.255.255.0
Default Gateway  : Not Used
RS-232 Baud Rate : 9600 bps                                 *
Password         : Not Required
**********(Advanced Status)**********
Data Port        : 10002
Accept IP Address : Accept All
Auto Logout Time : 5 minutes
Search Port      : 5006
```

① **Enter "v" and press the "Enter" key.**
Display all setting values(*).

Set Items

Example: When setting IP Address (change from 192.168.150.2 to 192.168.150.3)

▼SETUP MENU

```
----------------------------SETUP MENU----------------------------
[1]IP Address          [2]Subnet Mask      [3]Default Gateway
[4]User Name           [5]Password
[6]RS-232C Baud Rate   [7]Projector Name
[A]Advanced Setup                          [D]Disconnect All
[V]View All Setting    [S]Save & Quit      [Q]Quit Unchanged

setup>1                                                     ①
IP Address       : 192.168.150.2                            *1
Please Enter     : 192.168.150.3                            ②
(change)    —>  192.168.150.3                               *2
----------------------------SETUP MENU----------------------------
[1]IP Address          [2]Subnet Mask      [3]Default Gateway
[4]User Name           [5]Password
[6]RS-232C Baud Rate   [7]Projector Name
[A]Advanced Setup                          [D]Disconnect All
[V]View All Setting    [S]Save & Quit      [Q]Quit Unchanged

setup>v                                                     ③
Model Name       : XG-MB70X
Projector Name   : XG-MB70X
MAC Address      : 08:00:1f:b1:b7:74
IP Address       : 192.168.150.3                            *3
Subnet Mask      : 255.255.255.0
Default Gateway  : Not Used
RS-232C Baud Rate : 9600 bps
Password         : Not Required
**********(Advanced Status)**********
Data Port        : 10002
Accept IP Address : Accept All
Busy Reply       : ERR+<CR> code
Input Hold Time  : 1000 milliseconds
Auto Logout Time : 5 minutes
Search Port      : 5006
```

① **Enter "1" (number of item to be set), and press the "Enter" key.**
Display current IP address (*1).
② **Enter IP address to be set and press the "Enter" key.**
Display IP address after change (*2).
③ **Enter "v" and press the "Enter" key to verify setting detail list.**
IP address is being changed (*3).

✎ Note

• Verification of setting detail list can be omitted.
• Setting details are not effective until they have been saved. (Page **21**)
• If an invalid number is entered, an error message ("Parameter Error!") will be displayed.

Save Settings and Quit
([S]Save & Quit)

Save set values and quit menu.

▼**SETUP MENU**

```
-----------------------------SETUP MENU-----------------------------
[1]IP Address          [2]Subnet Mask      [3]Default Gateway
[4]User Name           [5]Password
[6]RS-232C Baud Rate   [7]Projector Name
[A]Advanced Setup                          [D]Disconnect All
[V]View All Setting    [S]Save & Quit      [Q]Quit Unchanged

setup>s                                                        ①
All Connection will be disconnect.
Continue(y/n)? y                                               ②
Apply New setting...Done.
```

① **Enter "s" and press the "Enter" key.**
② **Enter "y" and press the "Enter" key.**

Quit without Saving Settings
([Q]Quit Unchanged)

Quit menu without saving setting values.

▼**SETUP MENU**

```
-----------------------------SETUP MENU-----------------------------
[1]IP Address          [2]Subnet Mask      [3]Default Gateway
[4]User Name           [5]Password
[6]RS-232C Baud Rate   [7]Projector Name
[A]Advanced Setup                          [D]Disconnect All
[V]View All Setting    [S]Save & Quit      [Q]Quit Unchanged

setup>q                                                        ①
Quit Without Saving(y/n)? y                                    ②
Setting Unchanged.
```

① **Enter "q" and press the "Enter" key.**
② **Enter "y" and press the "Enter" key.**

Controlling the Projector Using RS-232C or Telnet

The setting procedure for each item will be explained. For the basic procedure, please refer to "Set Items" on page 20.

IP Address Setting
([1]IP Address)

Setting of IP address.

```
setup>1                              ①
IP Address         :192.168.150.2
Please Enter       :192.168.150.3    ②
(change)     —>     192.168.150.3    *
```

① **Enter "1" and press the "Enter" key.**
② **Enter numerical value to be set and press the "Enter" key.**
   Display IP address after change (*).

Subnet Mask Setting
([2]Subnet Mask)

Setting subnet mask.

```
setup>2                              ①
Subnet Mask        :255.255.255.0
Please Enter       :255.0.0.0        ②
(change)     —>     255.0.0.0        *
```

① **Enter "2" and press the "Enter" key.**
② **Enter numerical value to be set and press the "Enter" key.**
   Display subnet mask after change (*).

Default Gateway Setting
([3]Default Gateway)

Setting default gateway.

```
setup>3                                        ①
note: "0.0.0.0" means "Using no default gateway."
Gateway Address   :0.0.0.0
Please Enter       :192.168.150.1              ②
(change)     —>  192.168.150.1                 *
```

① **Enter "3" and press the "Enter" key.**
② **Enter numerical value to be set and press the "Enter" key.**
   Display gateway address after change (*).

✎ **Note**

• If the values for IP Address, Subnet Mask or Gateway of the projector have been changed via Telnet, the computer for controlling cannot be connected to the projector depending on the computer's network settings.

User Name Setting ([4]User Name)

Carrying out security protection using user name.

```
setup>4                                    ①
User Name        :
Please Enter      : XG-MB70X               ②
(change)    —>    XG-MB70X                 *
```

① **Enter "4" and press the "Enter" key.**
② **Enter user name and press the "Enter" key.**
   Display set user name (*).

✎ **Note**

• User name can be up to 8 characters.
• You can input the characters below :
  a-z, A-Z, 0-9, -, _
• In the default state, user name is not set.

Password Setting ([5]Password)

Carrying out security protection using password.

```
setup>5                                    ①
Password         :
Please Enter      : sharppj                ②
(change)    —>    sharppj                  *
```

① **Enter "5" and press the "Enter" key.**
② **Enter password and press the "Enter" key.**
   Display set password (*).

✎ **Note**

• Password can be up to 8 characters.
• You can input the characters below :
  a-z, A-Z, 0-9, -, _
• In the default state, the password is not set.

RS-232C Baud Rate Setting ([6]RS-232C Baud Rate)

Setting of baud rate for RS-232C (COMPUTER and PROJECTOR) terminals.

```
setup>6                                                          ①
note: It sets both RS-232C (COMPUTER) and RS-232C (PROJECTOR).
0 ...   9600 bps
2 ... 115200 bps
Baud Rate Select[0, 2] :2                                        ②
RS-232C Baud Rate : 115200 bps                                  *
```

① **Enter "6" and press the "Enter" key.**
② **Select and enter the number 0 or 2 and press the "Enter" key.**
   Display set baud rate (*).

✎ **Note**

• Set the projector's baud rate to the same rate as that used by the computer.

Projector Name Setting ([7]Projector Name)

It is possible to assign a projector name.

```
setup>7                                    ①
Projector Name    : XG-MB70X
Please Enter      : MY XG-MB70X            ②
(change)    —>    MY XG-MB70X             *
```

① **Enter "7" and press the "Enter" key.**
② **Enter projector name.**
   Display set projector name (*).

✎ **Note**

• 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.)
• It is the same as the name which can be confirmed or set, using RS-232C commands "PJN0", "PJN1", "PJN2" and "PJN3".

Disconnecting All Connections ([D]Disconnect All)

It is possible to disconnect all the TCP/IP connections currently recognized by the projector. Even if the COM Redirect port is fixed in the Busy status due to a problem, it is possible to force the Ready status back by carrying out this disconnection.

```
setup>d                                          ①
Disconnect All Connections(y/n)?y                ②
Now Disconnecting...
```

① **Enter "d" and press the "Enter" key.**
② **Enter "y" and press the "Enter" key.**

✎ **Note**

• If Disconnect All is performed, the connection to the projector via network will be forcibly disconnected.

Entering ADVANCED SETUP MENU
([A]Advanced Setup)

Enters ADVANCED SETUP MENU.

```
setup>a                                          ①
****************** ADVANCED SETUP MENU ********************
[1]Auto Logout Time   [2]Data Port
[5]Network Ping Test
[6]Accept IP Addr(1)  [7]Accept IP Addr(2)   [8]Accept IP Addr(3)
[9]Accept All IP Addr [0]Search Port


[!]Restore Default Setting
[Q]Return to Main Menu


advanced>
```

① **Enter "a" and press the "Enter" key.**

Setting Auto Logout Time
(ADVANCED[1]Auto Logout Time)

If there is no input after a fixed time, the projector automatically disconnects network connection using the Auto Logout function. It is possible to set the time until the projector is automatically disconnected in units of a minute (from 1 to 65535 minutes).

```
advanced>1                                       ①
Valid range     : 0 to 65535 (minute)
note: if you enter "0", auto logout function will be disable.
Auto Logout Time : 5
Please Enter     :15                             ②
(change)        —> 15                            *
```

① **Enter "1" and press the "Enter" key.**
② **Enter numerical value and press the "Enter" key.**
Display set numerical value (*).

✎ **Note**

• If the set value is made 0, the Auto Logout function is disabled.
• If an invalid number is entered, an error message ("Parameter Error!") will be displayed and returns the ADVANCED SETUP MENU.

Data Port Setting
(ADVANCED[2]Data Port)

Setting of TCP port number can be set in the range of 1025 to 65535.

```
advanced>2                                       ①
Valid range     :1025 to 65535
Data Port       :10002
Please Enter    :10005                           ②
(change)        —>  10005                        *
```

① **Enter "2" and press the "Enter" key.**
② **Enter numerical value and press the "Enter" key.**
Display set numerical value (*).

✎ **Note**

• Set according to need. Normally, use with the factory default setting.

Carrying out Network Ping Test
(ADVANCED[5]Network Ping Test)

It is possible to confirm that a network connection between the projector and a computer etc. is working normally.

```
advanced>5                                          ①
Ping dest IP addr   :192.168.150.1
Please Enter        :192.168.150.152                ②
(change)        —>  192.168.150.152                 *1
32 bytes from 192.168.150.152: icmp_seq = 1, time = 0 ms
32 bytes from 192.168.150.152: icmp_seq = 2, time = 0 ms   *2
32 bytes from 192.168.150.152: icmp_seq = 3, time = 0 ms
32 bytes from 192.168.150.152: icmp_seq = 4, time = 0 ms
```

① **Enter "5" and press the "Enter" key.**
② **Enter IP address of device to be tested and press the "Enter" key.**
    Display entered IP address (*1).
    Display test result (*2).

✎ Note

• If the "Enter" key is pressed without entering an IP address, the Ping destination IP address used previously is entered.
• If there is a fault with the connection, "Error: No answer" is displayed after a 5 second retry. In this case, please confirm the settings for the projector and the computer, and contact your network administrator.

Setting of Accept IP Address (ADVANCED[6]Accept IP Addr(1) - [8]Accept IP Addr(3))

It is possible to improve security of the projector by allowing connection from only a prescribed IP address. It is possible to set up to three IP addresses allowing connection to the projector.

```
advanced>6                                          ①
Accept IP Addr(1)  : 0.0.0.0
Please Enter       : 192.168.150.152                ②
(change)       —>  192.168.150.152                  *
```

① **Enter "6", "7" or "8" and press the "Enter" key.**
② **Enter numerical value and press the "Enter" key.**
    Display set numerical value (*).

✎ Note

• To invalidate the Accept IP Address being currently set, enter "0.0.0.0".
• If there is one or more Accept IP Addr being set, no connections are allowed from IP addresses that are not yet set. They can be cancelled using [9]Accept All IP Addr.

Accepting All IP Addresses (ADVANCED[9]Accept All IP Addr)

Removes IP addresses set with "Accept IP Addr".

```
advanced>9                                          ①
Accept All IP Addresses(y/n)? y                     ②
```

① **Enter "9" and press the "Enter" key.**
② **Enter "y" and press the "Enter" key.**

✎ Note

• At the point in time where "y" was entered, the numerical values for Accept IP Addr(1)-(3) are reset to "0.0.0.0".
• If "n" is entered, setting is not altered.

Setting of Search Port
(ADVANCED[0]Search Port)

Sets the port number used when searching for the projector from the network.

```
advanced>0                                          ①
Please Enter Port Number for Search from Computer.
Valid range      : 1025 to 65535
Search Port      : 5006
Please Enter      : 5004                             ②
(change)     —>   5004                               *
```

① **Enter "0" and press the "Enter" key.**
② **Enter numerical value and press the "Enter" key.**
   Display set numerical value (*).

✎ **Note**

• Set according to need. Normally, use with the factory default setting.

Return to Default Settings
(ADVANCED[!]Restore Default Setting)

Returns all menu setting values to the default state.

```
advanced>!                                          ①
Restore All Setting to Default(y/n)? y              ②
— User Setting Initialized —
```

① **Enter "!" and press the "Enter" key.**
② **Enter "y" and press the "Enter" key.**

✎ **Note**

• If the values for IP Address, Subnet Mask or Gateway of the projector have been returned to the default settings via Telnet, the computer for controlling cannot be connected to the projector depending on the computer's network settings.

Return to Main Menu
(ADVANCED[Q]Return to Main Menu)

Returns to the main SETUP MENU.

```
advanced>q                                          ①
------------------------------SETUP MENU------------------------------
[1]IP Address        [2]Subnet Mask       [3]Default Gateway
[4]User Name         [5]Password
[6]RS-232C Baud Rate [7]Projector Name
[A]Advanced Setup                          [D]Disconnect All
[V]View All Setting  [S]Save & Quit        [Q]Quit Unchanged

setup>
```

① **Enter "q" and press the "Enter" key.**
   Returns to the SETUP MENU.

Troubleshooting

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.

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.
    (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.
    (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

• The factory default setting of the network setting for 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 **10**.
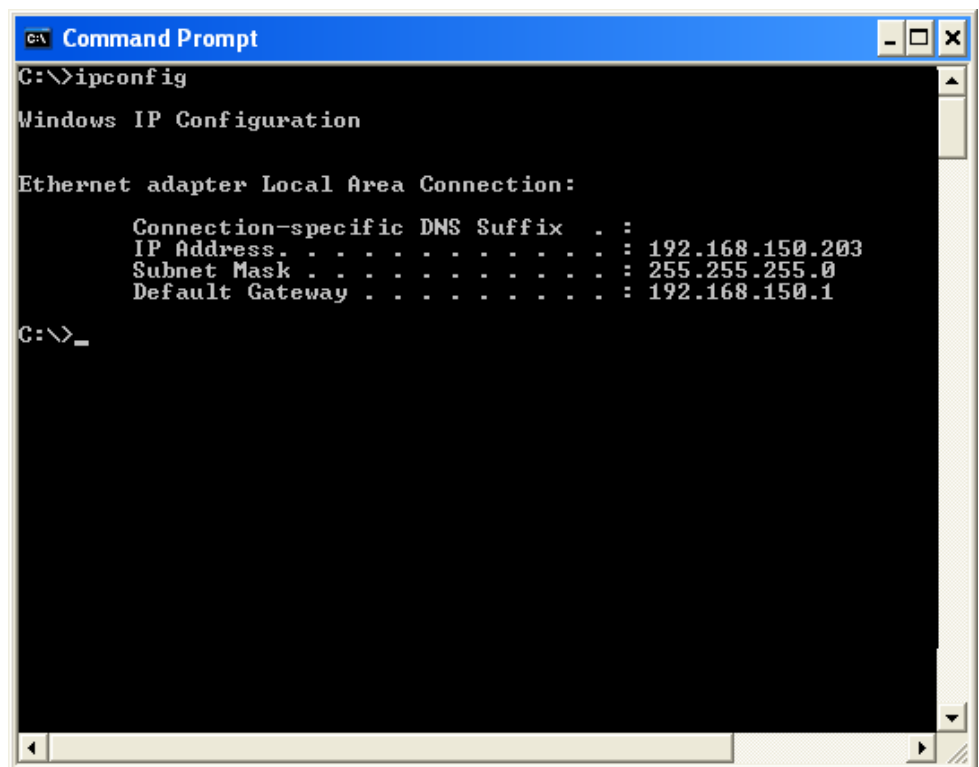
Troubleshooting

◄ Take the following steps for checking the network settings for the computer.
   1. Open a command prompt (MS-DOS Prompt).
      • In the case of Windows 98 or 98SE: click "START" ➔ "Programs" ➔ "MS-DOS Prompt" in order.
      • In the case of Windows Me: click "START" ➔ "Programs" ➔ "Accessories" ➔ "MS-DOS Prompt" in order.
      • In the case of Windows 2000: click "START" ➔ "Programs" ➔ "Accessories" ➔ "Command Prompt" in order.
      • In the case of Windows XP: click "START" ➔ "Programs" ➔ "Accessories" ➔ "Command Prompt" in order.
   2. After launching the command prompt (MS-DOS 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 "Enter"


```
Command Prompt                                                    _ □ ✕

C:\>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

        Connection-specific DNS Suffix  . :
        IP Address. . . . . . . . . . . . : 192.168.150.203
        Subnet Mask . . . . . . . . . . . : 255.255.255.0
        Default Gateway . . . . . . . . . : 192.168.150.1

C:\>_
```

✎ 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.

◀ 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 (MS-DOS Prompt).
   - In the case of Windows 98 or 98SE: click "START" ➔ "Programs" ➔ "MS-DOS Prompt" in order.
   - In the case of Windows Me: click "START" ➔ "Programs" ➔ "Accessories" ➔ "MS-DOS Prompt" in order.
   - In the case of Windows 2000: click "START" ➔ "Programs" ➔ "Accessories" ➔ "Command Prompt" in order.
   - In case of Windows XP: click "START" ➔ "Programs" ➔ "Accessories" ➔ "Command Prompt" in order.
2. After launching the command prompt (MS-DOS 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 "192.168.150.2"

```
Command Prompt                                          _ □ ×

C:\>Ping 192.168.150.2

Pinging 192.168.150.2 with 32 bytes of data:

Reply from 192.168.150.2: bytes=32 time<1ms TTL=128
Reply from 192.168.150.2: bytes=32 time<1ms TTL=128
Reply from 192.168.150.2: bytes=32 time<1ms TTL=128
Reply from 192.168.150.2: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.150.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>_
```

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.

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

◀ Initialize the settings.
◀ After the initialization, carry out setting again.

Dimensions

Units: inches (mm)

Rear View

Side View

Top View

Side View

1/16 (1.5)

11 7/64 (282)

1/8 (3.25)

Front View

12 13/64 (310)

2 11/64 (55.05)

3 1/2 (89)

1 29/32 (48.5)

2 3/16 (55.5)

13/64 (5)

3 15/16 (99.95)

5 3/32 (129.5)

5 3/32 (129.5)

Bottom View

1 9/64 (29.1)

1 7/32 (30.9)

M4

M4

M4

M4

8 9/32 (210.3)

8 7/8 (225.3)

35/64 (14)

39/64 (15.5)

4 3/16 (106.3)

1 47/64 (44.1)

1 7/32 (30.9)