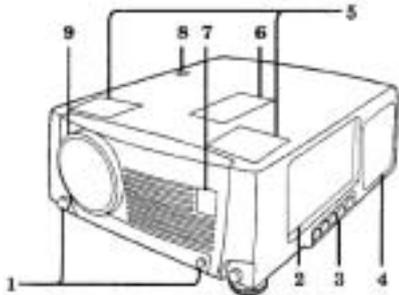


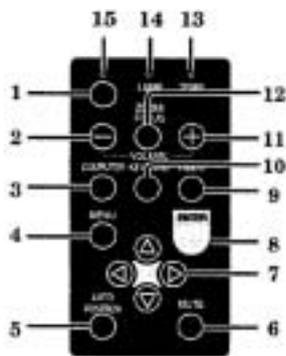
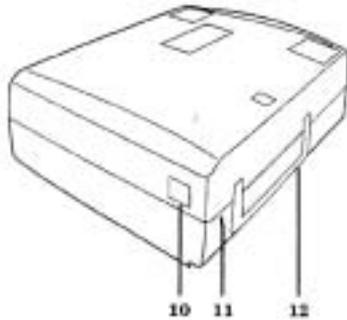
---

: LCD PROJECTOR  
: LVP-X490U

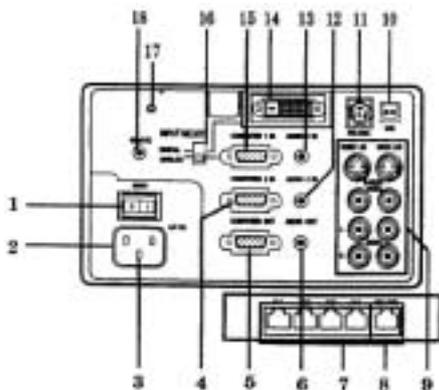
A	가



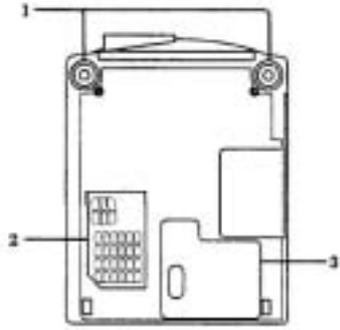
1. ( / )
- 2.
3. HUB
- 4.
5. ( / )
- 6.
7. ( )
8. IRIS
- 9.
10. ( )
11. Kensington Security Lock Standard
12. Easy - carry



1. Power  
I:ON  
O:OFF
2. -(VOLUME)
3. COMPUTER
4. MENU
5. AUTO POSITION
6. MUTE
7. Direction
8. Enter
9. VIDEO
10. KENSTONE
11. +(VOLUME)
12. ZOOM/FOCUS
13. TEMP( )
14. LAMP
15. Power



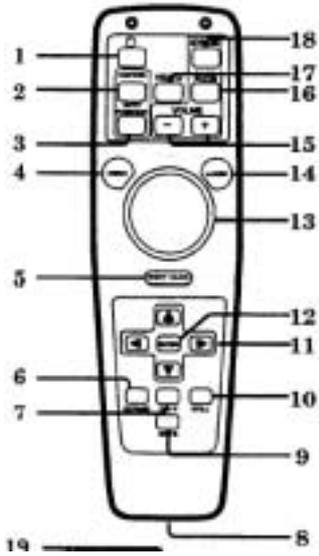
1. Main
2. Power
3. Ground
4. COMPUTER 2 IN (D-SUB mini 15P)
5. COMPUTER OUT (D-SUM mini 15P)
6. AUDIO OUT
7. LAN X1 - X4
8. LAN II5(X5)
9. /
10. USB
11. RS-232C(DIN 8P)
12. COMPUTER 2 AUDIO IN
13. COMPUTER 1 AUDIO IN
14. COMPUTER 1 IN (DVI-D24P,X490 )
15. COMPUTER 1 IN (D-SUB mini 15P)
16. INPUT SELECT
- 17.
18. Wired (REMOTE)



1. ( / )
- 2.
- 3.

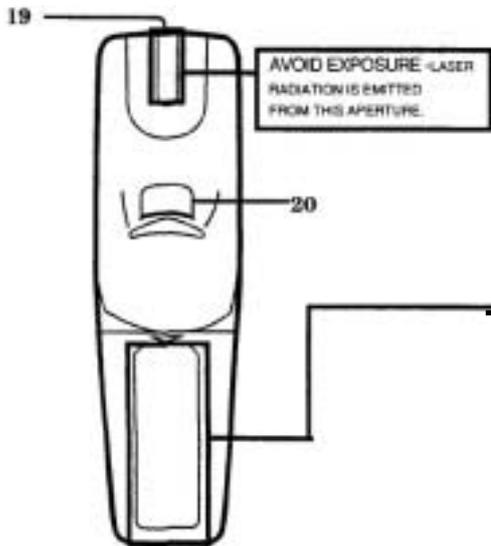
:

가

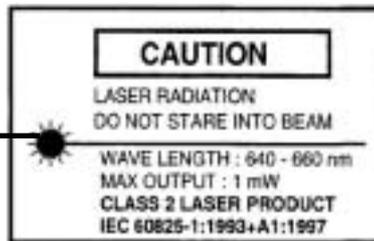


1. Power
2. COMPUTER
3. AUTO POSITION
4. MENU
5. ( / )
6. EXPAND
7. PinP
8. Wired
9. MUTE( / )
10. STILL
11. Direction
12. ENTER
- 13.
14. LASER
15. +, -(VOLUME)
16. ZOOM/FOCUS
17. VIDEO
18. KEYSTONE
19. Laser aperture
20. ( / )

• LASER 1 LASER



class 2( 1mW  
640-660nm)  
Beam Divergence: 10.0mm x 10.0mm 6m  
(±6.0mm)



• 가 LASER

가

- 1.
- 2.
- 3.

가

(+ +, - -)

1



2



3

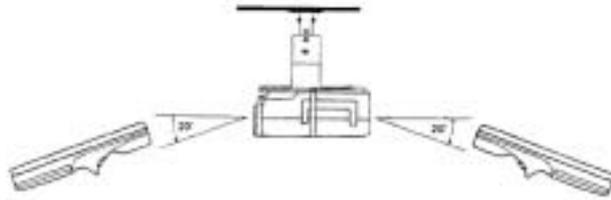


- 
- 
- 

( 가 가 )

10m

7m( 23 )



2m(6.5 )

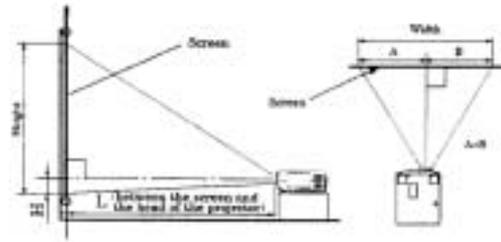


가

, pin-pin

1.8(min)

2.4( )



Screen			Distance from screen (L)/(approximate)				Height projected image (H)	
Diagonal size (inch)	Height (inch)	Width (inch)	Maximum zoom (WIDE)		Minimum zoom (TELE)		Height projected image (H)	
			(m)	(inch)	(m)	(inch)	(cm)	(inch)
40"	24"	32"	1.5	58"	1.9	75"	3.0	1.2"
60"	36"	48"	2.3	89"	2.9	114"	4.6	1.8"
80"	48"	64"	3.0	120"	3.9	152"	6.1	2.4"
100"	60"	80"	3.8	150"	4.9	191"	7.6	3.0"
150"	90"	120"	5.8	227"	7.3	289"	11.4	4.5"
200"	120"	160"	7.7	304"	9.8	386"	15.2	6.0"
250"	150"	200"	9.7	381"	12.3	483"	19.1	7.5"
300"	180"	240"	11.6	458"	-	-	22.9	9.0"

가

가

가

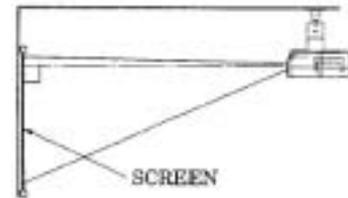
, INSTALLATION

IMAGE REVERSE

MIRROR INVERT

가

가



가



50

가

가

가

가

가

가

가 41 (+5 )

104 (40 )

:

가

RGB 가 PC, VCRs,

- 
- 
- 
- 

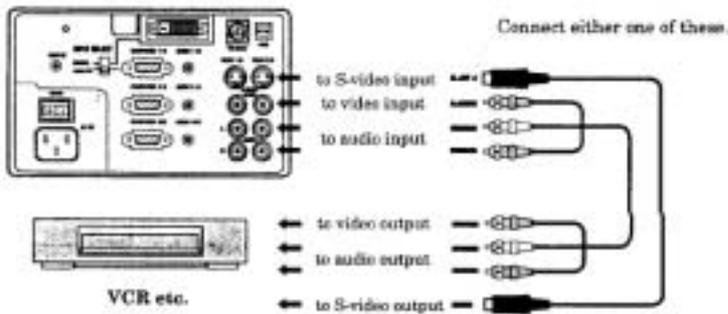
가 가

+AV

- 
- S-

AV

S-



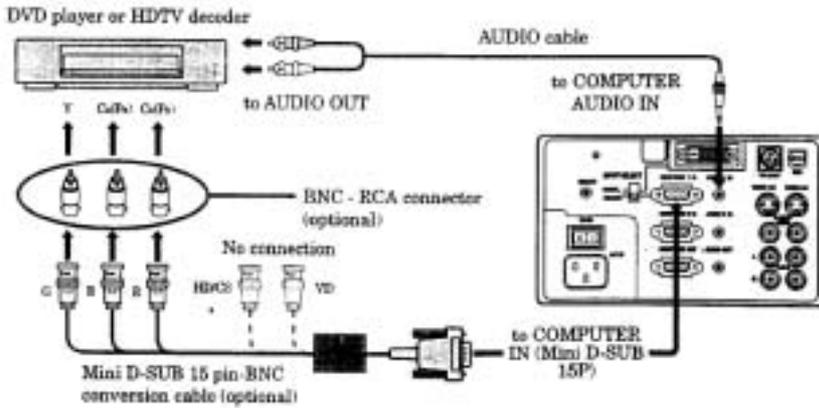
+DVD

HDTV

DVD 3 (Y, C<sub>B</sub>, C<sub>R</sub>)

COMPUTER 1 IN

COMPUTER 2 IN



• Y, P<sub>B</sub>, P<sub>R</sub> HDTV

• Mini D-SUB 15 pin-BNC

• DVD

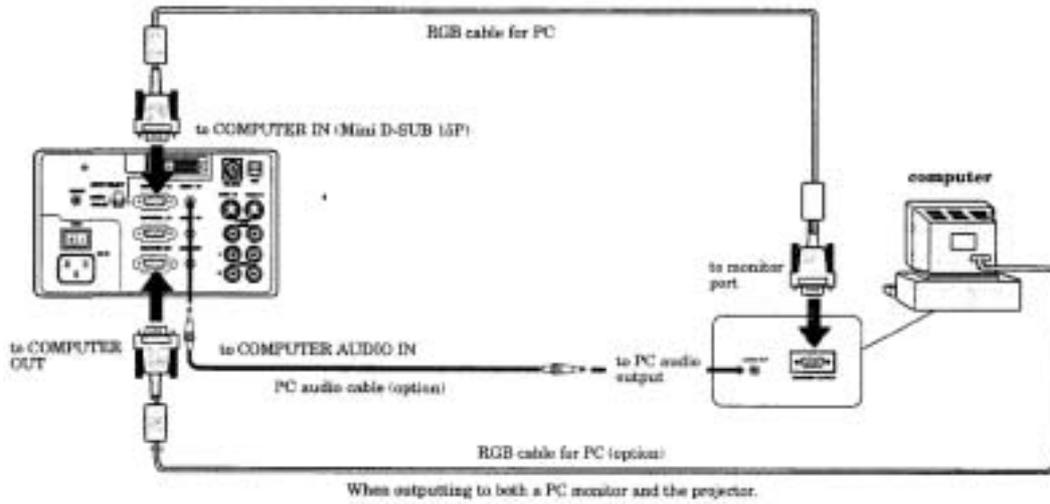
• R, G, B HDTV  
SIGNAL  
COMPUTER INPUT  
RGB

- 525p 가 SIGNAL INPUT SELECT
- 

ANALOG

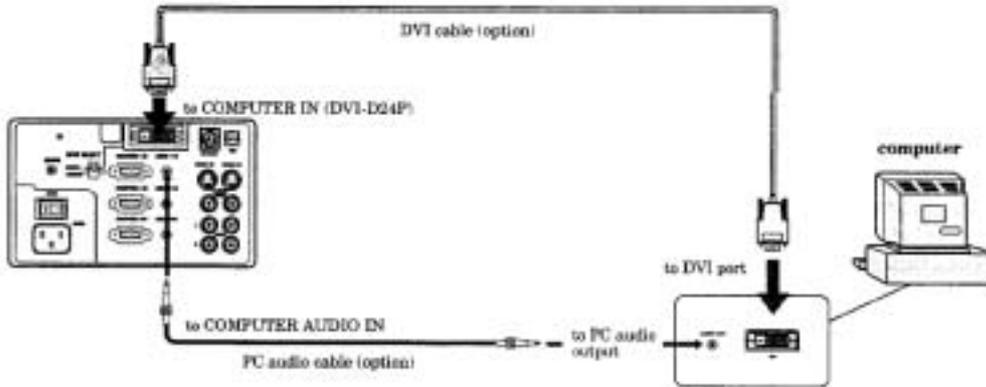
**+ PC**

Mini D-SUB 15P 가 (IBM PC IBM PC 가 )



• INPUT SELECT ANALOG

DVI 가 (X490 )



• INPUT SELECT DIGITAL  
• COMPUTER 1 IN (DVI) COMPUTER OUT

• DVI DVI

• RGB  
• RGB PC 가  
• 가

**Macintosh**

• 가 Macintosh  
• RGB MAC PC

DDC™ (DVI )

VESA™ DDC™ 2B(EDID) 가 DDC™ 2B(EDID)  
Windows 98 Windows 96

Mitsubishi

- 1.
- 2.
- 3.

90

- 가 “ON”
- 

가

- 3-

가

, A/C

가

120V

가

가

- 100-240V AC 50/60Hz

- 

가

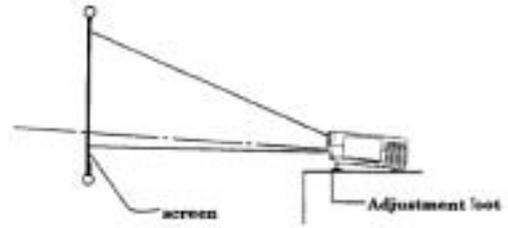
- 

가

:

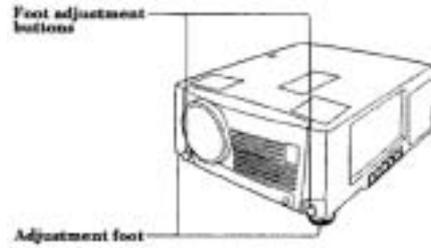
- 

- 



- 1.
- 2.
- 3.
- 4.

가



- 5.

:

- 

가

KEYSTONE

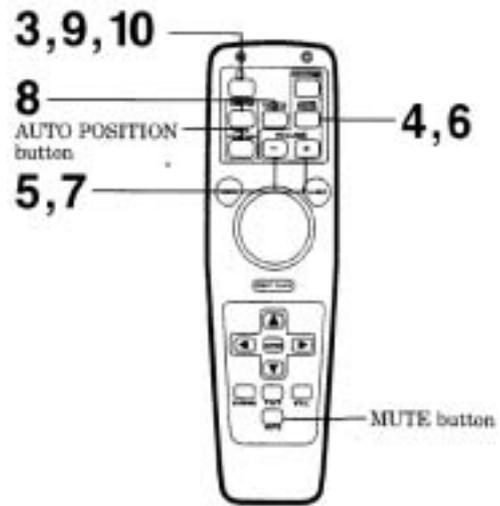
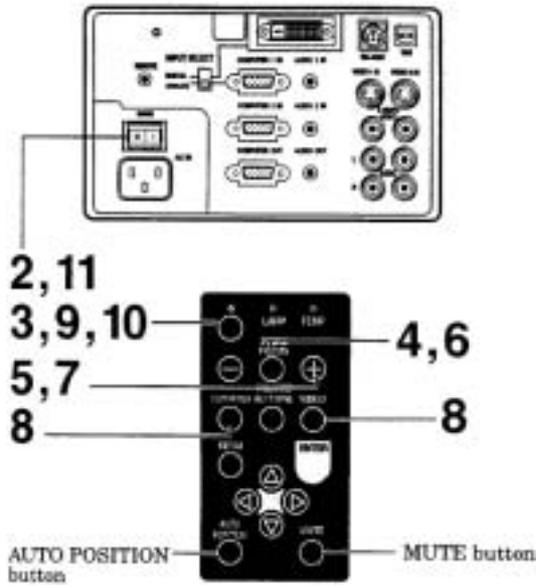
+ -

- 

90 가

- 

-



- 1.
2. POWER standby
3. POWER 가
- LAMP POWER
- 가
- 2
- 1

	LAMP	POWER
stand-by	-	
가	-	

- POWER 가
- COMPUTER VIDEO MENU가 ( )가
- COMPUTER 가
- COMPUTER 1 INPUT SELECT DIGITAL
- LAMP MODE STANDARD가

- 가
- 가
- 4. ZOOM/FOCUS FOCUS "FOCUS"가
- 5. + -
- 6. ZOOM/FOCUS ZOOM "ZOOM"
- 7. + -
- 가
- PinP EXPAND
- 8. COMPUTER VIDEO
- 
- COMPUTER VIDEO MENU가 ( )가
- COMPUTER 가
- COMPUTER 1 INPUT SELECT DIGITAL
- LAMP MODE STANDARD가

### AV mute

MUTE

가

9. POWER

“POWER OFF?YES:PRESS AGAIN” 가

- 가 , POWER, LASER, R/L- , STILL, VOLUME + -

, MUTE

- AUDIO OUT 가

MUTE

10. POWER

POWER

120

LCD

- , 120

- , 60

60

11.

, POWER

- POWER 가 가

- Intake/exhaust 가

10

3

가

가

- 가 가 , “TEMP!” 가

### AUTO POSITION

가 COMPUTER

가

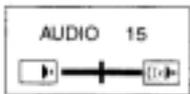
1. 가 가

2. Screen saver가 , screen saver

3. AUTO POSITION

- 가 , SIGNAL

+ - 가



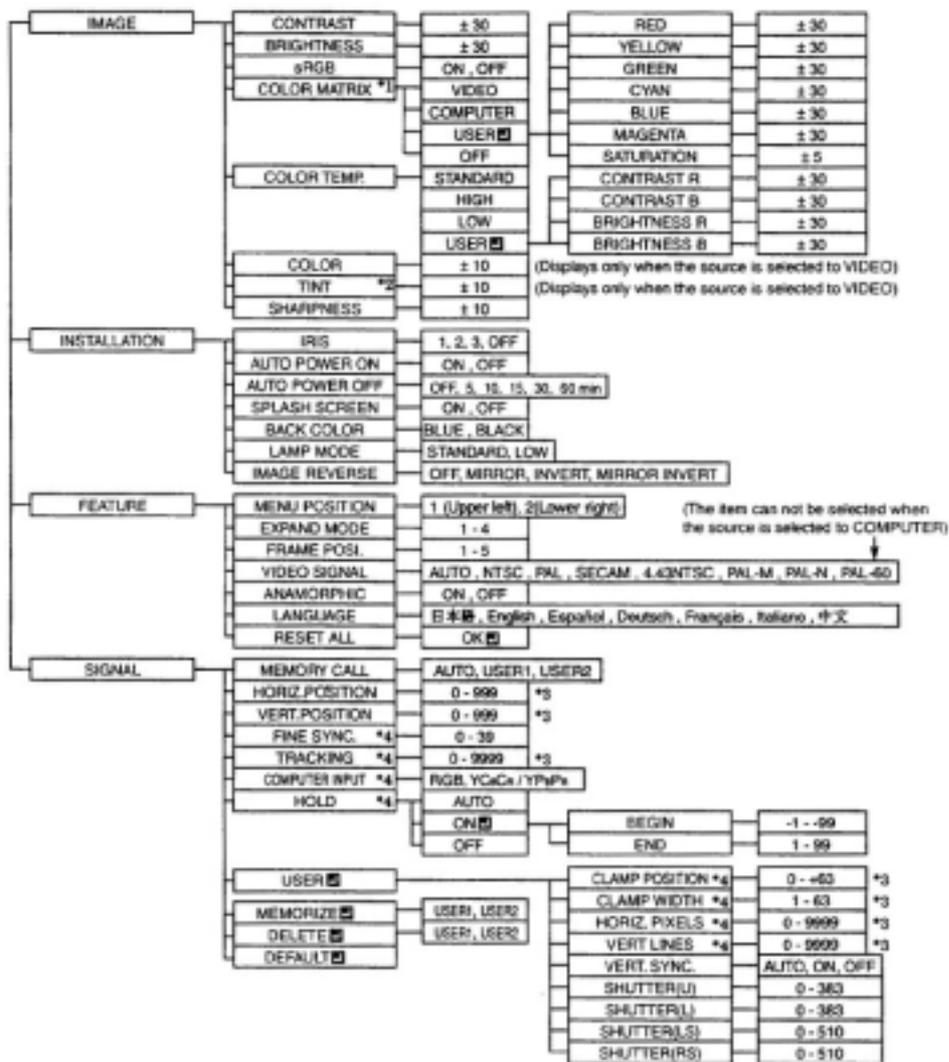
10

MENU

MENU가

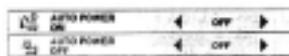
DVD가

COMPUTER AUDIO IN

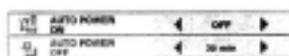


가 Menu  
: Auto power off

4. AUTO POWER OFF



5. auto power off



1. MENU



2. INSTALLATION



3. ENTER ( )



6. MENU

• RESET

• ENTER

①

CONTRAST..... 가 가  
 BRIGHTNESS..... 가 가  
 sRGB.....ON  
 • sRGB가 ON , COLOR MATRIX  
 • sRGB가 OFF , 가  
 • sRGB가 ON COLOR TEMP가 STANDARD  
 sRGB  
 • 가 VIDEO-IN S-VIDEO IN  
 sRGB가 ON , sRGB



COLOR MATRIX.....  
 COLOR TEMP.....  
 COLOR..... (VIDEO가 가 )  
 TINT..... 가 가  
 가 (VIDEO가 가 )  
 • TV50(PAL, SECAM) 가 , TINT  
 SHARPNESS..... 가 가

②

IRIS..... 가  
 가  
 1  
 , 2  
 가  
 , 3 . OFF , IRIS  
 • 가 , 가



AUTO POWER ON....ON 가 off 가  
 • 가 off stand-by  
 AUTO POWER OFF.. 가 stand-by  
 SPLASH SCREEN.....ON splash  
 BACK COLOR..... 가  
 LAMP MODE..... LOW가 , ,  
 • LAMP MODE 1 STANDARD  
 가  
 IMAGE REVERSE..... MIRROR  
 MIRROR, INVERT

③

FEATURE

MENU POSITION.....  
 EXPAND MODE.....  
 FRAME POSI.....  
 VIDEO SIGNAL.....AUTO가 , 가  
 ANAMORPHIC..... DVD ON  
 LANGUAGE..... (日本語  
 /English/Deutsch/Francais/Italiano/中文)  
 RESET ALL.....MENU (LANGUAGE )



- FEATURE 15 LANGUAGE가 English NTSC . ( . )

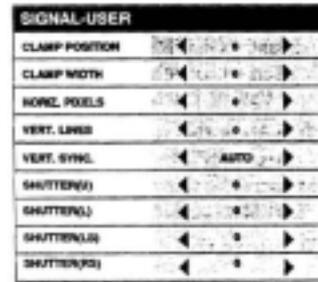
④ SIGNAL

MEMORY CALL.....AUTO, USER 1, USER 2  
 HORIZ.POSITION.....  
 VERT.POSITION.....  
 FINE SYNC..... 가 PC 가



⑤ SIGNAL-USER

CLAMP POSITION/  
 CLAMP WIDTH..... CLAMP POSITION CLAMP  
 WIDTH  
 HORIZ.PIXELS..... 가 가 . ( . )  
 VERT.LINES..... 가 가 . ( . )  
 VERT.SYNC..... AUTO  
 SHUTTER(U).....  
 SHUTTER(L).....  
 SHUTTER(LS).....  
 SHUTTER(RS).....



2

1. SIGNAL MEMORY ENTER .(USER1 USER2)
  - 2.
  3. ENTER
- 3 가 .

SIGNAL RESET ENTER

SIGNAL MEMORY CALL .(USER 1 USER 2)

1. SIGNAL DELETE ENTER .(USER 1 USER 2)
  - 2.
  3. ENTER
- 3 가 .

IMAGE

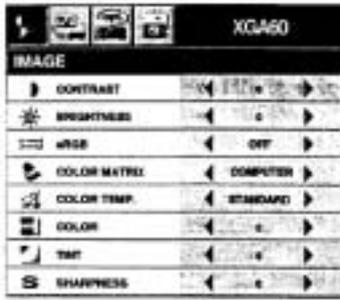


IMAGE CONTRAST  
가

IMAGE BRIGHTNESS

IMAGE COLOR  
가

IMAGE TINT

IMAGE SHARPNESS  
가

Color ( , ) RGB  
Color

1. IMAGE COLOR MATRIX
2. USER
3. ENTER



4. SATURATION

- 5.
6. 4 5

7. MENU

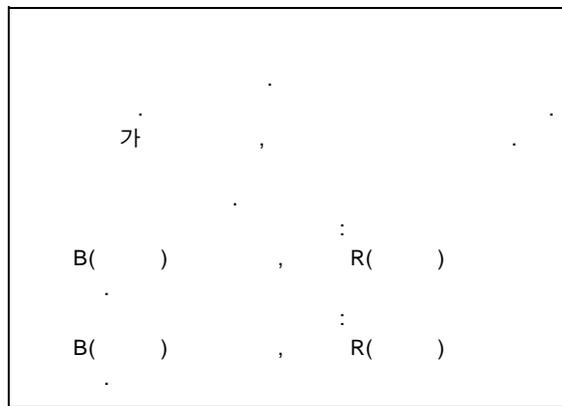
- COMPUTER 2 VIDEO 가
- VIDEO S-VIDEO , VIDEO
- 가 COMPUTER
- COMPUTER
- Color matrix , 2
- OFF

1. IMAGE COLOR TEMP
2. USER
3. ENTER



- 4.
- 5.
6. 4 5

7. MENU



PC

가 PC  
 , PC  
 가 , MENU



SIGNAL HORIZ.POSITION

SIGNAL VERT.POSITION

/ 가  
 SIGNAL FINE SYNC.



가 .:  
 SIGNAL - USER CLAMP  
 POSITION CLAMP WIDTH

.:  
 SIGNAL - USER SHUTTER(LS),  
 SHUTTER(RS), HORIZ.PIXELS

.:  
 SIGNAL - USER SHUTTER(U), SHUTTER(L),  
 VERT.LINES

SIGNAL HOLD . ON  
 ENTER 가  
 BEGIN END

가 .:  
 SIGNAL - USER VERT.SYNC  
 AUTO

• USER

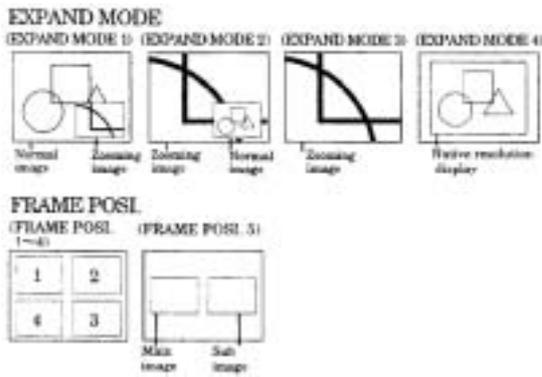
1. SIGNAL HORIZ.POSITION
- 2.
3. SIGNAL TRACKING
- 4.
5. 1 4
6. SIGNAL VERT.POSITION
- 7.

## Expand

EXPAND  
,  
( )

## Expand

1. MENU
2. FEATURE
3. ENTER
4. EXPAND MODE FRAME POSI
5. EXPAND FRAME POSI
6. MENU



## Expand

1. EXPAND  
 • , , ,  
 • + -
2. EXPAND  
 가  
 S-  
 • EXPAND , zoom/focus

## REAL

- REAL ,
- REAL ( )가  
 + -

## Picture in Picture(PinP)

PinP . PinP

## PinP

1. PinP  
 • VIDEO IN S-VIDEO IN 가  
 , COMPUTER IN  
 가 -  
 • COMPUTER IN 가  
 , VIDEO IN S-VIDEO IN  
 가 -
2. VIDEO COMPUTER

Main Sun

- 3.
- 4.
5. PinP 가  
 • , ,  
 PinP

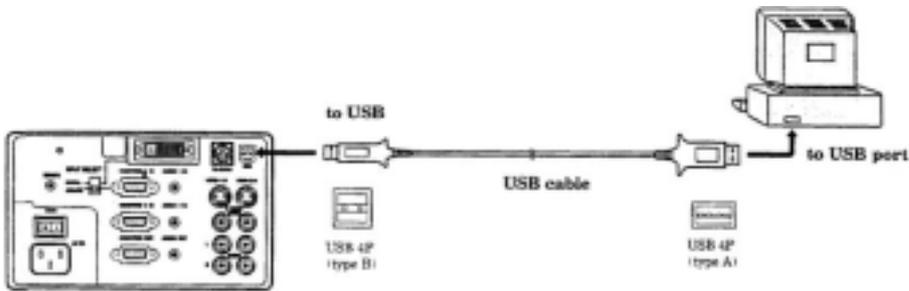
- PinP , Main Sub
- PinP , Main 가
- PinP ,

1. STILL

2. STILL

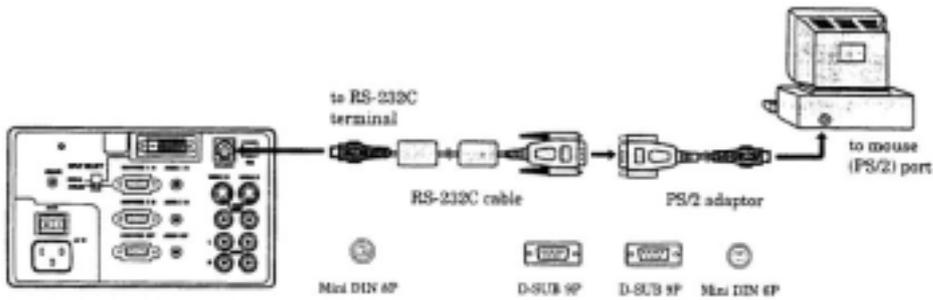
USB PS/2 PC

**+USB 가**

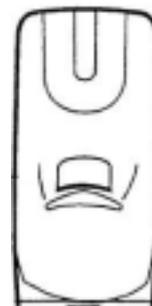
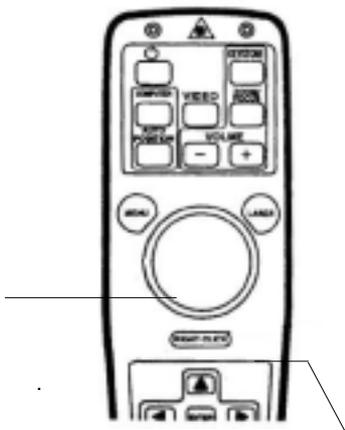


- 가 USB Windows 95 Windows 98 가 USB 가
- Macintosh ON , USB 가 ON USB

**+PS/2 가**



- PS/2 가 PC가 on
- 가 USB RS-232C , PC 가
- RS-232



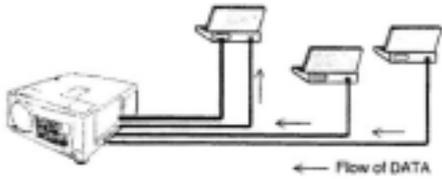
(HUB )

HUB

HUB

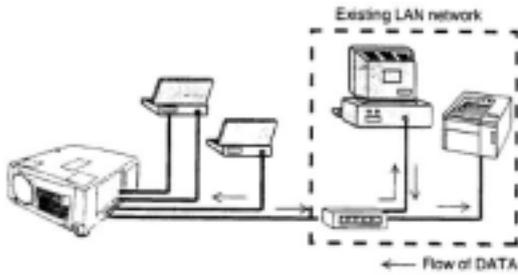
1) HUB

RGB



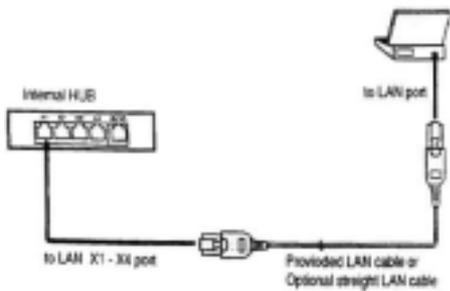
2) HUB LAN

LAN Network



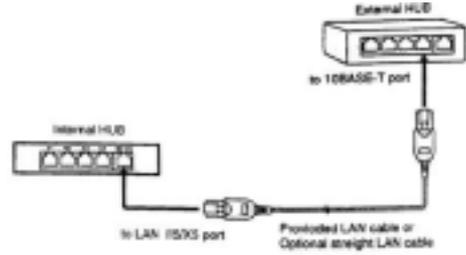
LAN IP 가

.



HUB LAN X1-X4

HUB

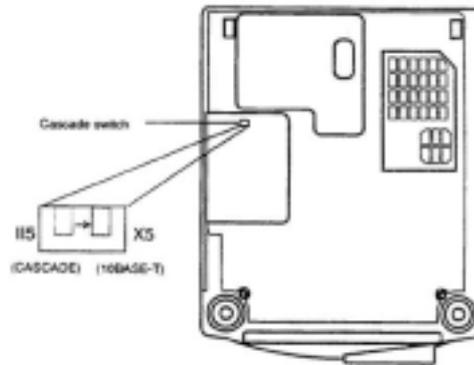


HUB HUB LAN 115/X5

5

HUB

X5(10BASE-T) LAN 115/X5



LCD  
가

:

•

•

stand-by  
가

120

off

가 LCD

가

1 가

•

•

•

가

•

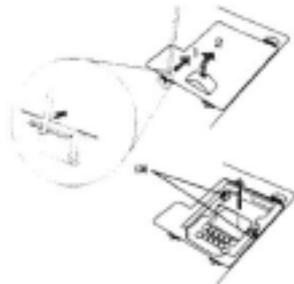
•

•

1.



2.



가

3.

(+)

4.

5.

•

가

•

가  
가 가

6.

•

가



(b)

7.

•

가

8.

9.

POWER

:

• 3

• 2 TEMP

가

•

• 가

:

•

가

•

1500

1500

가

가

1000<sup>\*1</sup>

( 가

가

14000<sup>\*1</sup>

“LAMP!”  
가

가  
1500<sup>\*1,2</sup>

1

가

가

:

•

•

가 1500

가

가

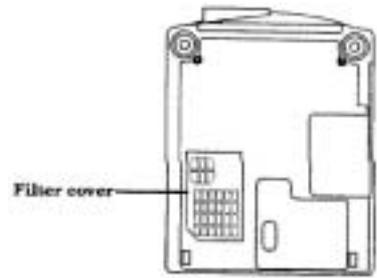
<sup>\*1</sup>)INSTALLATION

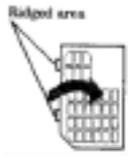
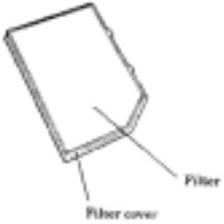
LAMP MODE가 STANDARD

<sup>\*2</sup>)LAMP MODE가 LOW

2000

가  
 • 가 , TEMP LAMP 가



1. 
- 2.
3. 
- 4.
- 5.

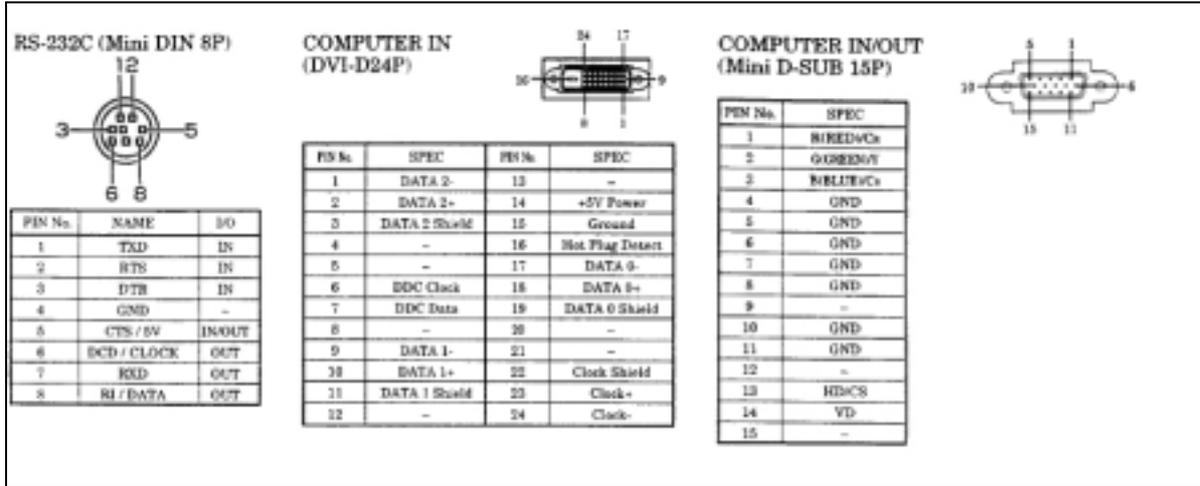
가  
 • 가  
 • 가

가  
 , 가 가

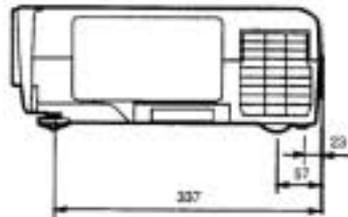
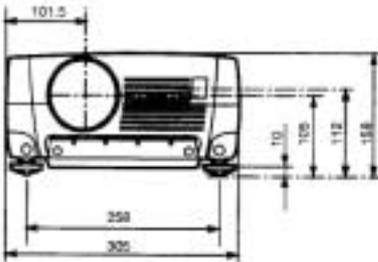
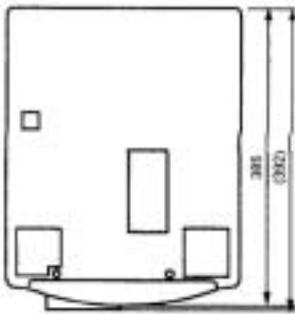
가  
 :  
 •  
 •  
 •  
 가  
 가

	LCD
	X490U
	AC100-240V, 50-60Hz
	4.3A
LCD	1.3- LCD : 3 (R, G, B ) 1024 x 768 = 786,432 2,359,296 : 99.99%
	16,770,000
	F 1.8-2.1 f=51-64mm
	300W SHP
	40-300 ( 4:3)
PC	: 640 x 400 - 1024 x 768 + Compressed 1280 x 1024 Sync on Green 가
	NTSC/NTSC 4.43/PAL(PAL-M,N)/SECAM, PAL-60 DVD( )/HDTV(1080i)/720p/(525p)
	3W
	6cm (8 3W) x 2
S-	Luminance : 1.0Vp-p 75 (negative sync.) Chroma : 0.286Vp-p 75 (burst )
	1.0Vp-p 75 (negative sync.)
	350mVrms, 10k
RGB (mini D-SUB 15P)	RGB: 0.7Vp-p 75 (negative sync.) Y <sub>C<sub>B</sub>C<sub>R</sub></sub> : Y: 1.0Vp-p (negative sync.) C <sub>B</sub> C <sub>R</sub> : 0.7Vp-p HD/CS: TTL (positive negative) VD: TTL (positive negative)
PC	350mVrms, 10k , 3.5mm
	(Mini DIN 8 female ) RS-232C Mouse, Wired USB
HUB	10BASE-T 5 (CASCADE 1 ) LAN : IEEE 802.3
	305 x 148 x 385 mm ( x x )
	6.9kg
	114 (2.9m)
	+41 (+5 ) 104 (+40 ), 30-90%

(X490 DVI-D24P가 )



(mm)



2 AC	246C383-10	2 LAN	246C417-10
1 Audio/Video	246C383-20	1	939P878-10
1 PC RGB	246C381-10	1	246C424-10
1 RS-232C	246C394-10	1	871D340-10
1 PS/2	246C366-10	1 Quick reference	857D033-10
1 USB	246C367-10	1 HUB	871D350-10
	246C413-10	2	-

( / .)  
Spare mercury lamp 499B028-10(VLT -X500LP)

### RGB

Signal mode	resolution (H x V)	horizontal frequency (kHz)	Vertical frequency (Hz)	Normal mode (H x V)	Real mode (H x V)
TV60	-	15.73	59.94	1024 x 768	-
TV50	-	15.63	50.00	1024 x 768	-
1080i	-	33.75	60.00	1024 x 576	-
720p	-	45.00	60.00	1024 x 576	-
PC98	640 x 400	24.82	56.42	1024 x 640	640 x 400
CGA70	640 x 400	31.47	70.09	1024 x 640	640 x 400
CGA84	640 x 400	37.86	84.14	1024 x 640	640 x 400
CGA85	640 x 400	37.86	85.08	1024 x 640	640 x 400
VGA60	640 x 480	31.47	59.94	1024 x 768	640 x 480
VGA72	640 x 480	37.86	72.81	1024 x 768	640 x 480
VGA75	640 x 480	37.50	75.00	1024 x 768	640 x 480
VGA85	640 x 480	43.27	85.01	1024 x 768	640 x 480
SVGA56	800 x 600	35.16	56.25	1024 x 768	800 x 600
SVGA60	800 x 600	37.88	60.32	1024 x 768	800 x 600
SVGA72	800 x 600	48.08	72.19	1024 x 768	800 x 600
SVGA75	800 x 600	46.88	75.00	1024 x 768	800 x 600
SVGA85	800 x 600	53.67	85.06	1024 x 768	800 x 600
XGA43i	1024 x 768	35.52	86.96	1024 x 768	1024 x 768
XGA60	1024 x 768	48.36	60.00	1024 x 768	1024 x 768
XGA70	1024 x 768	56.48	70.07	1024 x 768	1024 x 768
XGA75	1024 x 768	60.02	75.03	1024 x 768	1024 x 768
XGA85	1024 x 768	68.68	85.00	1024 x 768	1024 x 768
SXGA70a	1152 x 864	63.85	70.01	1024 x 768	1024 x 768
SXGA75a	1152 x 864	67.50	75.00	1024 x 768	1024 x 768
SXGA85a	1152 x 864	77.49	85.06	1024 x 768	1024 x 768
SXGA60b	1280 x 960	60.00	60.00	1024 x 768	1024 x 768
SXGA75b	1280 x 960	75.00	75.00	1024 x 768	1024 x 768
SXGA43i	1280 x 1024	46.43	86.87	1024 x 768	1024 x 768
SXGA60	1280 x 1024	63.98	60.02	1024 x 768	1024 x 768
SXGA75	1280 x 1024	79.98	75.03	1024 x 768	1024 x 768
SXGA85	1280 x 1024	91.15	85.02	1024 x 768	1024 x 768
MAC13	640 x 480	35.00	66.67	1024 x 768	640 x 480
MAC16	832 x 624	49.72	74.55	1024 x 768	832 x 624
MAC19	1024 x 768	60.24	75.02	1024 x 768	1024 x 768
MAC21	1152 x 870	68.59	74.96	1024 x 768	1024 x 768
HP75	1024 x 768	62.94	74.92	1024 x 768	1024 x 768
HP72	1280 x 1024	78.13	72.00	1024 x 768	1024 x 768
SUN66a	1152 x 900	61.85	66.00	1024 x 768	1024 x 768
SUN76a	1152 x 900	71.81	76.63	1024 x 768	1024 x 768
SUN66	1280 x 1024	71.68	66.68	1024 x 768	1024 x 768
SUN76	1280 x 1024	81.13	76.11	1024 x 768	1024 x 768
SGI72	1280 x 1024	76.92	72.30	1024 x 768	1024 x 768
SGI76	1280 x 1024	82.00	76.00	1024 x 768	1024 x 768
IBM60	1280 x 1024	63.42	60.00	1024 x 768	1024 x 768

• FEATURE EXPAND MODE가

EXPAND

가 1024x768

:

• 가  
• 1024x768

• G(Green) SYNC가  
• G(Green) SYNC가

• 가  
가

• RGB HDTV , SIGNAL  
COMPUTER INPUT RGB

• SXGA

, SIGNAL TRACKING

• 525p 가 , SIGNAL  
USER TRACKING  
HORIZ.POSITION.....139  
VERT.POSITION.....48  
TRACKING.....800  
COMPUTER INPUT.....YCbCr/YPbPr  
CLAMP POSITION.....+9  
CLAMP WIDTH.....3  
HORIZ.PIXELS.....624  
VERT.LINES.....456  
VERT.SYNC.....ON  
HOLD.....ON  
BEGIN -1

END 8