

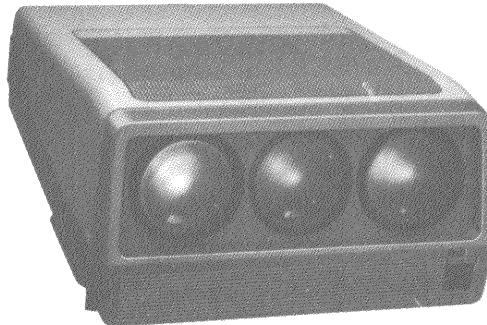
VPH-1270Q

RM-1270

SERVICE MANUAL

*US Model
Canadian Model*

Chassis No. SCC-D27A-A



SuperData

Note: The service manual for RM-1270 has been issued separately.

MODELS OF THE SAME SERIES

VPH-1270Q	
VPH-1270QM	

SPECIFICATIONS

Optical

Projection system	3 picture tubes, 3 lenses, Horizontal inline system
Picture tube	7-inch high-brightness monochrome tubes, with coolant sealed
Projection lens	HACC (High-resolution Aspherical and Color Corrected) lenses F 1.12/140mm
Projected picture size	Factory-adjusted to 120 inches measured diagonally 70—250 inches measured diagonally adjustable by changing the parts
Light output	650 lm (white peak) 200 lm (all white) TYP

General

Color system	NTSC, PAL, SECAM and NTSC _{4.43} systems, switched automatically
Resolution	1250 TV lines (RGB input at 15kHz) 700 TV lines (VIDEO input)

RGB inputs

Horizontal frequency:

15kHz — 75kHz

Vertical frequency:

38Hz — 150Hz

Test signal

Cross-hair test pattern generator is incorporated.

Speaker

4 × 8 cm (1 5/8 × 3 1/4 inches), total 3W

Inputs

VIDEO input

VIDEO IN

Y/C: 4-pin mini DIN connector

Y (luminance) signal:

1 Vp-p ± 2dB, sync

negative, 75 ohms

terminated

C (chrominance) signal:

burst 0.286 Vp-p ± 2dB,

75 ohms terminated

(NTSC)

0.3 Vp-p ± 2dB, 75 ohms

terminated (PAL)

— Continued on page 2 —



COLOR VIDEO PROJECTOR
SONY®

VIDEO: BNC connector
Composite video input,
1 Vp-p \pm 2dB, sync
negative, 75 ohms
terminated

AUDIO IN: phono jack
436m Vrms, Impedance: more
than 47 k ohms

RGB input

R: BNC connector
Red input, 0.7Vp-p \pm 2dB,
75 ohms terminated, positive

G/G SYNC: BNC connector
Green input, 0.7Vp-p \pm 2dB,
75 ohms terminated, positive
Green with sync input,
1Vp-p \pm 2dB, 75 ohms
terminated, positive

B: BNC connector
Blue input, 0.7Vp-p \pm 2dB,
75 ohms terminated, positive

SYNC/HD: BNC connector
Composite sync input, 0.3—8
Vp-p, high impedance,
positive/negative
Horizontal sync input,
0.3—8Vp-p, high impedance,
positive/negative

VD: BNC connector
Vertical sync input, 0.3—8Vp-p,
high impedance,
positive/negative

AUDIO IN L(MONO)/R: phono
jacks

REMOTE 1 connector: 14-pin
connector (see "Signal
assignment")

REMOTE 2 connector: 9-pin
connector (see "Signal
assignment")

CONTROL S IN: minijack, 5Vp-p

VIDEO OUT: BNC connector
Composite video output,
1Vp-p \pm 2dB, impedance
75 ohms, output video signal
from the VIDEO IN connector

CONTROL S OUT: minijack,
5Vp-p

Outputs

Power requirements

Power consumption

Dimensions

Weight

Accessories supplied

120 V AC, 50/60Hz

360 W (Video input)

410 W (RGB input)

Approx. 620 \times 355 \times 817mm (w/h/d)
(24 1/2 \times 14 \times 32 1/4 inches)

Approx. 61 kg (134 lb 8 oz)

Remote Commander RM-1270 (1)

with 3 AA (R6) batteries

Remote Commander cable (1)

AC power cord (1)

Spacer for 72" projection (4)

Spacer for 200" projection (4)

Extension board

Optional Accessories

Signal interface

switcher

PC-1270

Projector suspension support

PSS-1270, PSS-10

Screen

VPS-100F1 (100" flat)

VPS-120F (120" flat)

VPS-72HG1 (72" curved)

VPS-100HG1 (100" curved)

VPS-700R (70" rear projection)

Shielded cable

SMF-506 (D-sub 25-pin \leftrightarrow 4 BNC)

CCQ BRS cables

Interface board

IFB-10 (5BNC)

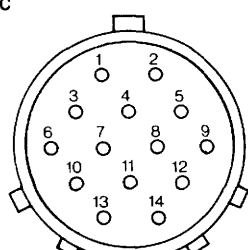
IFB-20 (9-pin)

IFB-1000 (Video, Y/C)

Signal Assignment

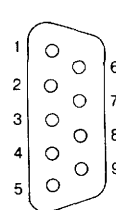
REMOTE 1 connector (14-pin)

Pin No.	Signal
1	GND
2	HD/Composite Sync
3	SIRCS
4	NC
5	GND(SIRCS)
6	B/C
7	GND (B/C)
8	GND (G/Y)
9	G/Y
10	RGB/Video
11	R/Composite Video
12	Composite Video/YC
13	AUDIO
14	VD



REMOTE 2 connector (D-sub 9-pin)

Pin No.	Signal
1	Frame Ground
2	Transit A
3	Receive B
4	Receive Common
5	Spare
6	Transmit Common
7	Transmit B
8	Receive A
9	Frame Ground



RS-422 format

Y/C connector (4-pin mini DIN)

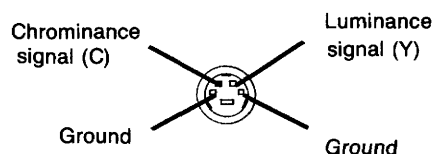




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SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

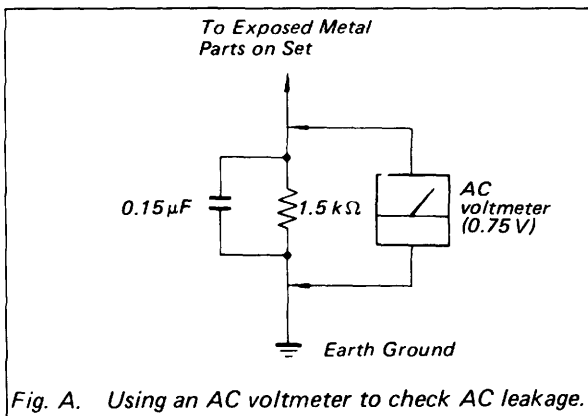
ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÉCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

SAFETY CHECK-OUT (US only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).
Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.



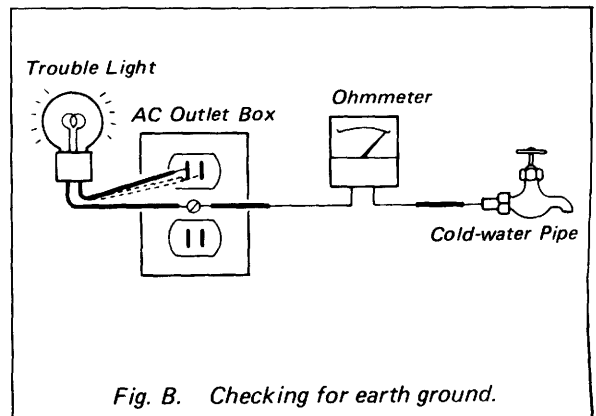
LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60–100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)



SECTION 1 GENERAL

1-1. FEATURES

Multiscan projector

The projector accepts and detects automatically the horizontal scanning frequencies between 15kHz-75kHz and the vertical scanning frequencies between 38Hz-150Hz. In addition to high-resolution pictures from computers, pictures from teletext decoders, VCRs, and video cameras can also be projected.

Bright image—light output 650 lumen

A newly-developed phosphor, large CRT, and improved high voltage circuitry provides super brightness.

Fine-detailed picture resolution —1250 TV lines

Sony HACQ(High-resolution Aspherical and Color Corrected) lens contributes to picture sharpness and improved contrast. High quality picture with a resolution of 1250 TV lines is obtained combining the use of an electron gun for a sharp picture, a colored coolant filter for efficient color reproduction, a double focus lens for accurate focus in the corners as well as the screen center, and an anti-reflection coating to improve focus and contrast in the corners.

Wireless and wired remote control

All adjustments can be remotely controlled from both front and rear of the projector with the supplied Remote Commander. The Commander can also be connected to the projector with a cable and used as a wired Commander.

On-screen display

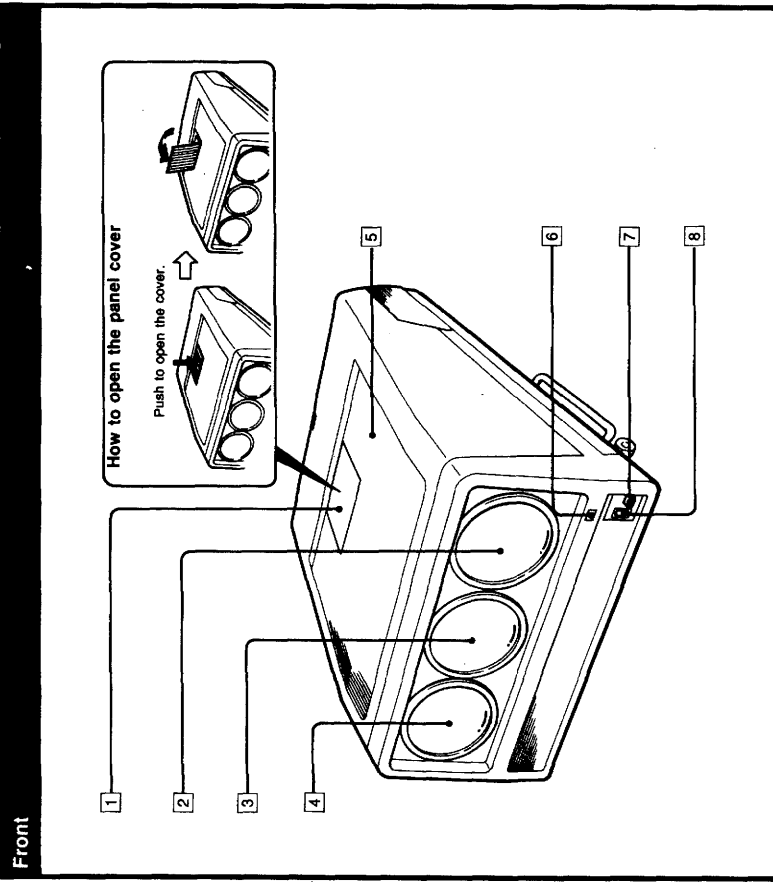
Adjustment instructions and indications such as picture and sound controls and guide and error messages can be displayed on the screen. The current setting of each control and input condition can also be displayed.

Other features

- **Four color systems available**
One of NTSC, PAL, SECAM or NTSC+3* color systems is selected automatically.
- **Various installation possibilities**
The projector is designed to be installed on desk, floor or ceiling and can be used with a flat screen, curved screen or rear projection screen.
- **Illuminated Remote Commander and control panel**
When the LIGHT button on the Remote Commander or control panel on the projector is pressed, the indications are illuminated for easy operation in dim or dark places.
- **Internal test signal**
Centering adjustment can be performed easily by projecting the built-in cross-hair test signal. No external test signal is needed.
- **Easy adjustment of the horizontal tilt**
The horizontal tilt of the projector can be easily adjusted with the adjusters on the bottom of the projector.

*A signal of NTSC+3 system is obtained by playing back NTSC-recorded video tapes with a video tape recorder/player specially designed for use with this system.

1-2. LOCATION AND FUNCTION OF CONTROLS



1 Control panel

The keys inside the panel cover are the same as the Remote Commander.

2 Red lens

3 Green lens

4 Blue lens

5 Speaker

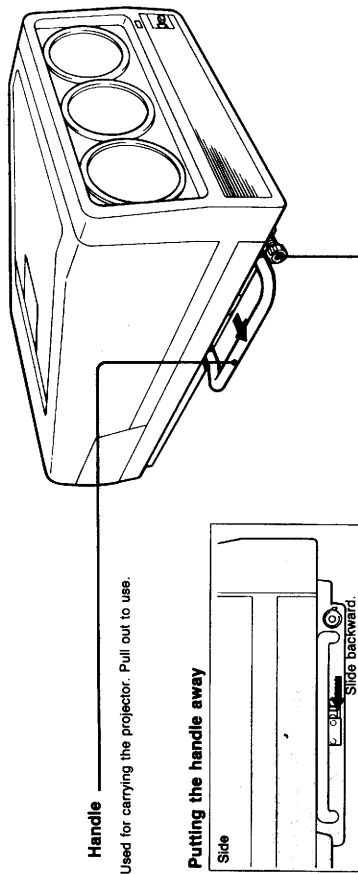
6 Front remote control detector

7 MAIN POWER switch (ON/OFF)

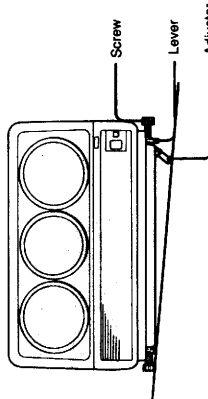
8 AC IN socket

Connect the supplied AC power cord.

Bottom



The horizontal tilt of the projector can be adjusted using the adjusters.



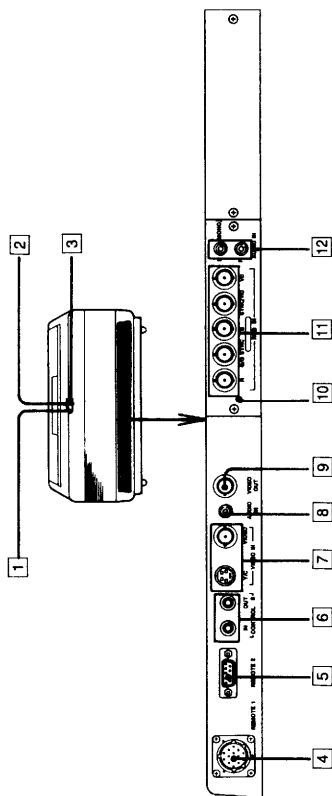
1 While pushing up the lever, lift the projector a little.
Adjuster is unlocked and comes out.

2 Let go of the projector at the desired height.

3 If it is too high, turn the screw to the right to lower the projector.
If it is too low, lift the projector again and let go at the desired height.

To retract the adjusters, tighten the screw by turning to the right.
When the screw is tightened completely, the adjusters are locked and put away.
Retract the adjusters when carrying the projector.

Rear



1 Rear remote control detector

2 POWER Indicator

Green indicator is on when the power is turned on.

3 STANDBY Indicator

When the MAIN POWER is on, the red light indicating standby will be on. When the red light is on, the projector can be controlled with the Remote Commander.

Note

When the MAIN POWER is turned off, there will be a slight delay before the red light goes off.

4 REMOTE 1 connector (14-pin)

Connect to REMOTE 1 connector of the optional switcher PC-1270.

5 REMOTE 2 connector (9-pin)

Connect RS-422 interface for interactive communication with the external equipment. Take off the red cap before use.

6 CONTROL S IN/OUT connectors

Connect to the CONTROL S connectors of other Sony equipment. It is then possible to control the whole system with a single Remote Commander.
CONTROL S IN: Connect to the CONTROL S OUT of the Remote Commander to be used as a wired Commander.

7 VIDEO IN connectors

Y/C (4-pin): Connect to the Y/C output of a VCR.
VIDEO (BNC type): Connect to the video output of a video equipment.

Note

The VIDEO connector is disconnected automatically when a cable is connected to the Y/C connector.

8 AUDIO IN jack (phono)

Connect to the audio output of video equipment.

9 VIDEO OUT connector (BNC type)

Loop-through output of the VIDEO connector. Connect to the video input of a VCR or another monitor. The signal input from Y/C connector is not output from this connector.

10 Indicator

Lights when INPUT A mode is selected.

The optional interface board is also equipped with this indicator which lights when INPUT B mode is selected.

11 RGB IN connectors (BNC type)

R, G/G SYNC, B, SYNC/HD, VD connectors:

Connect to the RGB outputs of a computer or a video camera.

12 AUDIO L/R IN jacks (phono)

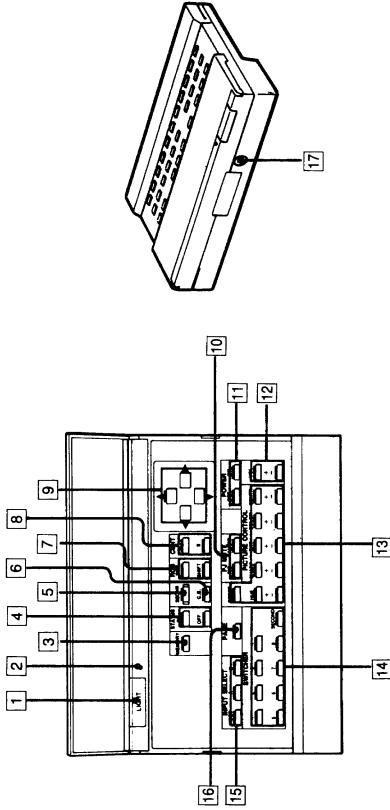
Connect to the audio output of a computer or a video camera connected to RGB IN connectors. For stereo equipment, use AUDIO L and R IN jacks. For monaural equipment, use AUDIO L IN jack only.

Note

The projector is monaural so that sound will not be reproduced in stereo.

Remote Commander RM-1270

The same keys are inside the control panel of the projector.



1 LIGHT button

Press to illuminate the indications on the Commander. The light will go off in about 10 seconds after the operation.

2 Indicator

Lights when any of the buttons on the Commander is pressed. If the indicator does not light, battery replacement is required.

3 MEMORY key

Press to store the adjustment data.

4 STATUS ON/OFF key

Press OFF key to cut the on-screen display. However, PAGE is displayed even when in OFF mode. "OFF" indication will be displayed if a key is pressed when in OFF mode. Press ON key to restore the on-screen display.

5 SECAM key

Press when the color of a picture from SECAM color source is incorrect. Press again to switch over to other standard system sources, NTSC or PAL.

6 C.B. (Clear Blue) key

Press to make the blue color clear in the picture input from RGB IN connectors. Press again to restore the normal condition.

7 RGB SIZE/SHIFT key

Press to adjust the picture input from RGB IN connectors.

SIZE: Press to enter the size adjustment mode. The size adjustment of the picture is performed using the four arrow keys.

◀ to reduce horizontal size

▶ to expand horizontal size

▲ to expand vertical size

▼ to reduce vertical size

SHIFT: Press to enter the shift adjustment mode. The shift adjustment of the picture is performed using the four arrow keys. The picture shifts according to the direction of the arrow.

8 CENT R/B key

Press for centering adjustments of the red or blue.
R: Press to enter the red centering adjustment mode.
B: Press to enter the blue centering adjustment mode.
The centering adjustments are performed using the four arrow keys.

9 Arrow keys

Used for various adjustment functions.

10 PJ MUTE keys

Press to cut off the picture. To restore the picture, press PIC again or CONTR+.

AUDIO: Press to cut off the sound. To restore the previous sound level, press AUDIO again or VOL+.

11 POWER ON/OFF keys

Press to turn on and off the projector (when the MAIN POWER is ON).

12 VOL +/- keys

Press to adjust volume.

+ : to increase volume

- : to decrease volume

13 PICTURE CONTROL keys

Press to adjust picture condition: hue, sharpness, brightness, color, and contrast. Press RESET key to restore the factory preset levels.

14 SWITCHER keys

When the PC-1270 switcher is connected to the projector, press the number key to select the input from the switcher. SECOND key is used when there are two switchers. To control the second switcher (FIRST/SECOND/REMOTE switch is set to SECOND), first press SECOND key and then the number key.

15 INPUT SELECT keys

Press to select the input signal.

VIDEO: to select the signal input from VIDEO IN (Y/C or VIDEO) connectors

A: to select the signal input from RGB IN connectors

B: to select the signal input from the connectors of "B" section (optional interface board)

Note

For the location of "A" and "B".

16 PAGE key

Press to display and switch the following four on-screen displays. (On PAGE 1, 2, and 3, adjustment can also be done.)

PAGE 1: Displays STATUS ON/OFF, PIC MUTE ON/OFF, AUDIO MUTE ON/OFF, CLEAR BLUE ON/OFF, and SECAM ON/OFF.

PAGE 2: Displays the picture conditions: contrast, color, brightness, sharpness, hue, and volume levels.

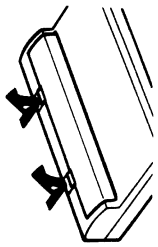
PAGE 3: Displays the color temperature level.

PAGE 4: Displays the input signal conditions: IH, IV, H/C-sync, V-sync, Sync on Green, and input signal.

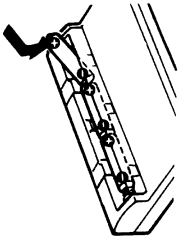
17 CONTROL S OUT connector

Connect the supplied cable to this connector and to CONTROL S IN connector of the projector for wired Commander application.

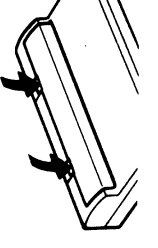
1 Push to open the lid.



2 Install three AA (R6) batteries with the correct polarity.



3 Replace the lid.

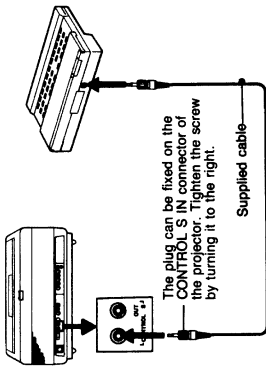


• If the projector does not operate properly, the batteries might be worn out. Replace all three of them with new batteries.

• The life of the batteries depends on frequency of usage and how often you use the LIGHT button. If they wear out quickly, replace them with new alkaline batteries.

• To avoid damage from possible battery leakage, remove the batteries when the Commander will not be used for a long time.

- Be sure that there are no obstructions between the Commander and the unit.
- Operable range is limited. The shorter the distance between the Commander and the projector, the wider the angle within which the Commander can control the projector.



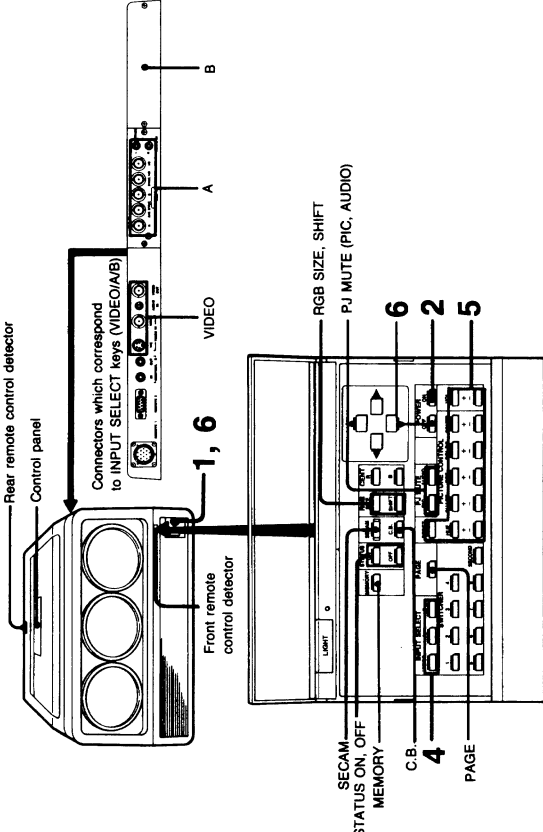
The plug can be fixed on the CONTROL S IN connector of the projector by tightening the screw by turning it to the right.

Supplied cable

When the connection is made, the remote control detectors of the projector will not function.

For wireless operation, make sure to disconnect both plugs after using the Commander wired.

The keys on the control panel of the projector are the same as those found on the Remote Commander.



1, 6

1 Depress the MAIN POWER switch of the projector (ON).

2 Turn the power on by pressing the POWER ON key on the Remote Commander or the control panel of the projector.

3 Turn on the connected equipment.

4 Select the input signal to be projected by pressing INPUT SELECT key (VIDEO, A or B).
VIDEO: to select the signal input from VIDEO IN (Y/C or VIDEO)
A: to select the signal input from RGB IN connectors
B: to select the signal input from the connectors of "B" section (optional interface board)

5 Adjust the picture and sound.

6 To turn off the power, press the POWER OFF key on the Remote Commander or the control panel of the projector, then press the MAIN POWER switch of the projector.
Note: Be sure to turn the power off by pressing the POWER OFF key first, then the MAIN POWER switch, or the data may be erased.

To cut the onscreen display

Press STATUS OFF key.
However, PAGE is displayed even when in OFF mode.
To restore the on-screen display, press STATUS ON key.

To cut off sound or picture

To mute the sound

Press PJ MUTE AUDIO key. To restore the previous sound level, press PJ MUTE AUDIO key again or VOL + key.

To cut off the picture

Press PJ MUTE PIC key. To restore the previous brightness level, press PJ MUTE PIC key again or CONTR + key.

Projecting a picture input from RGB IN

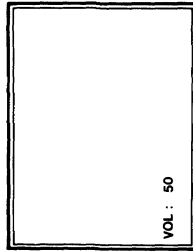
- To make the blue color clear, press C.B. key.
- Press again to restore the normal condition.
- If necessary, adjust the size and shift of the picture using the RGB SIZE/SHIFT and arrow keys.

If SECAM Color Source is Incorrect

Press SECAM key. Press again to switch over to other standard system sources, NTSC or PAL.
If you wish to keep the C.B. ON/OFF or SECAM ON/OFF setting, store the data.

Adjusting the Picture and Sound

Use the VOL and PICTURE CONTROL keys on the Remote Commander.
The adjustment levels are digitally displayed on the screen having a range of MIN, 1, 2, ..., 98, 99, MAX.

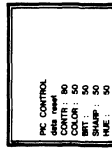


VOL + / - keys	+ : to increase volume - : to decrease volume
CONTR + / - keys	+ : to increase picture contrast - : to decrease picture contrast
COLOR + / - keys	+ : to increase color intensity - : to decrease color intensity
BRT + / - keys	+ : to make the picture brighter - : to make the picture darker
SHARP + / - keys	+ : to make the picture sharper - : to make the picture softer
HUE + / - keys	+ : to make skin tones greenish - : to make skin tones purplish

- COLOR, SHARP and HUE controls do not function on the picture input from RGB IN.
- HUE control does not function with PAL or SECAM color source.

To Restore Factory Preset Levels

Press RESET key. The factory preset levels will be displayed on the screen.



To Display the Current Control Settings and Conditions

Press PAGE key for displaying the following four on-screen displays. Adjustment can also be done on PAGE 1, 2, and 3. The displays will switch as follows every time PAGE key is pressed:



PAGE 1

PAGE 1	VIDEO
USER PRESET	
STATUS :	ON
PIC MUTE :	OFF
AUDIO MUTE :	OFF
CLEAR BLUE :	---
SECAM :	OFF
	NEXT : [PAGE]

The STATUS ON/OFF, PIC MUTE ON/OFF, AUDIO MUTE ON/OFF, CLEAR BLUE (C.B.) ON/OFF, and SECAM ON/OFF settings are displayed. "----" indicates that the control does not function with the current input signal.

To change the settings, adjust with appropriate key.

PAGE 3

PAGE 3	VIDEO
SYSTEM PRESET	
COLOR TEMPERATURE :	
9300	6500 3200 PRESET
	SELECT : []
	NEXT : [PAGE]

The color temperature setting is displayed. To change the setting, adjust by pressing ◀ or ▶ keys. If you wish to keep the current setting, store the data.

PAGE 2

PAGE 2	VIDEO
USER CONTROL	
CONTR : 80	
COLOR : 50	
BRT : 50	
SHARP : 50	
HUE : --	
VOL : 50	
	NEXT : [PAGE]

The picture conditions: contrast, color, brightness, sharpness, hue, and volume levels are displayed. "----" indicates that the control does not function with the current input signal. (In this case, the input signal is PAL or SECAM.)

To change the levels, adjust with VOL and PICTURE CONTROL keys.

PAGE 4

PAGE 4	VIDEO
INPUT INFO	
f _H : 15.7kHz	
f _V : 60.0Hz	
H/C-SYNC :	---
V-SYNC :	---
SYNC ON G :	NEG
INPUT SIGNAL :	NTSC
	EXIT : [PAGE]

The signal input conditions are displayed.

f_H: The horizontal frequency of the input signal
f_V: The vertical frequency of the input signal

H/C-SYNC: The polarity of the H/C-SYNC

V-SYNC: The polarity of the V-SYNC

SYNC ON G: The polarity of the SYNC on the Green

POS: positive
NEG: negative
---: no input

INPUT SIGNAL: The current input signal.

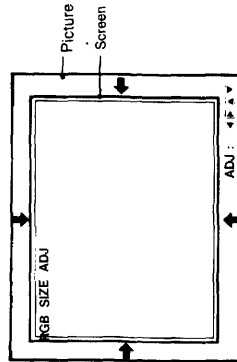
The projector operates with the sync signal indicated in green.

Adjusting the picture input from RGB IN

If necessary, adjust the size and shift of the picture using the RGB SIZE/SHIFT and arrow keys. This adjustment does not function with input signal from VIDEO IN connectors.

RGB SIZE ADJUSTMENT

If size of the picture does not fit the screen, adjust RGB SIZE.



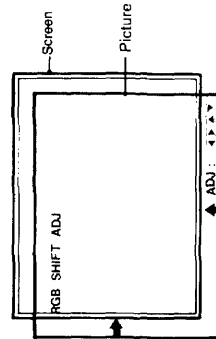
1 Press RGB SIZE key.

2 Adjust by pressing arrow keys so that the picture fits the screen.

- ◀ to reduce horizontal size
- ▶ to expand horizontal size
- ▲ to expand vertical size
- ▼ to reduce vertical size

RGB SHIFT ADJUSTMENT

If the picture needs to be shifted to fit the screen, adjust RGB SHIFT.



1 Press RGB SHIFT key.

2 Adjust by pressing arrow keys so that the picture fits the screen.

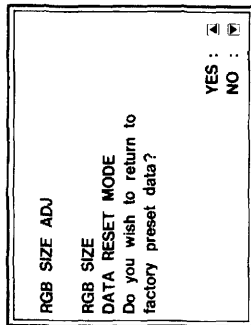
The picture shifts according to the direction of the arrow.

After the RGB SIZE/SHIFT adjustment, press the selected INPUT SELECT key (A or B) to cut the on-screen display.

If you wish to keep the current adjustment setting, store the data.

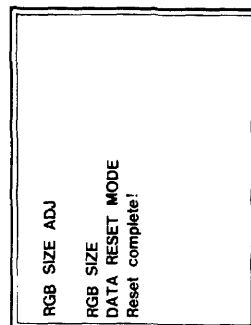
1 Press RGB SIZE or SHIFT key.

2 Press ◀ and ▶ keys simultaneously. The following on-screen display appears on the screen.



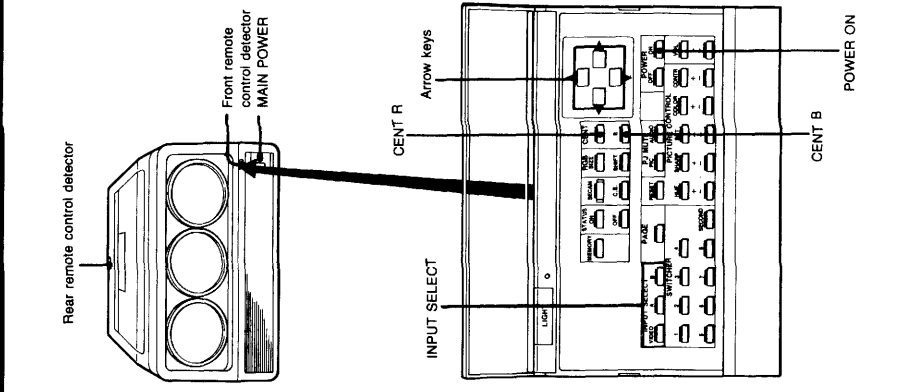
3 Press ▲ key.

The following on-screen display appears on the screen to confirm that resetting was completed. To keep the current setting instead of resetting, press ▼ key.

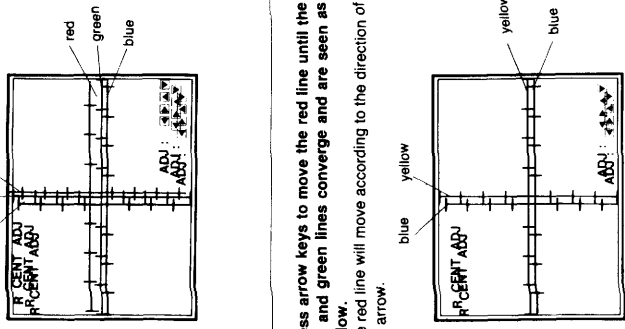


1-4. CENTERING ADJUSTMENT

The three colors red, green and blue must converge for proper projection. If they do not converge, centering adjustment is necessary.



- 1 Press MAIN POWER switch of the projector and press POWER ON key of the Remote Commander.**
- 2 Press CENT R key.**
The built-in cross hair test pattern will be displayed and the red line will be operable.
- 3 Press arrow keys to move the red line until the red and green lines converge and are seen as yellow.**
The red line will move according to the direction of the arrow.



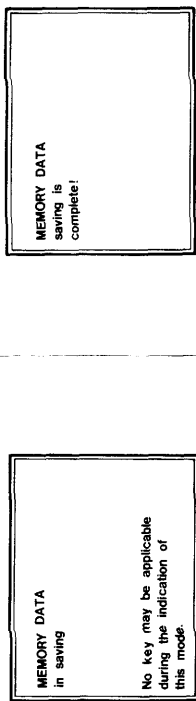
Continued

To Store the Adjustment Levels

If you wish to save the picture adjustment changes, you must store them in memory. The following conditions can be stored:

SECAM ON/OFF setting
CLEAR BLUE (C.B.) ON/OFF setting
COLOR TEMPERATURE setting on PAGE 3
RGB SIZE/SHIFT adjustment levels

- 1 After the adjustment, press MEMORY key.**
The following on-screen display appears to indicate that storing has begun. While the display is on, no other key will function.
- 2 The following on-screen display appears to confirm that storing has been completed.**



Messages on the Screen

The meaning of the color

Four colors are used in the letters of on-screen display.

Color	Meaning
Green	Function and condition, item being selected on PAGE display.
Cyan	Operation guide and messages
Yellow	Caution and error messages
White	Item being adjusted, item not being selected on PAGE display

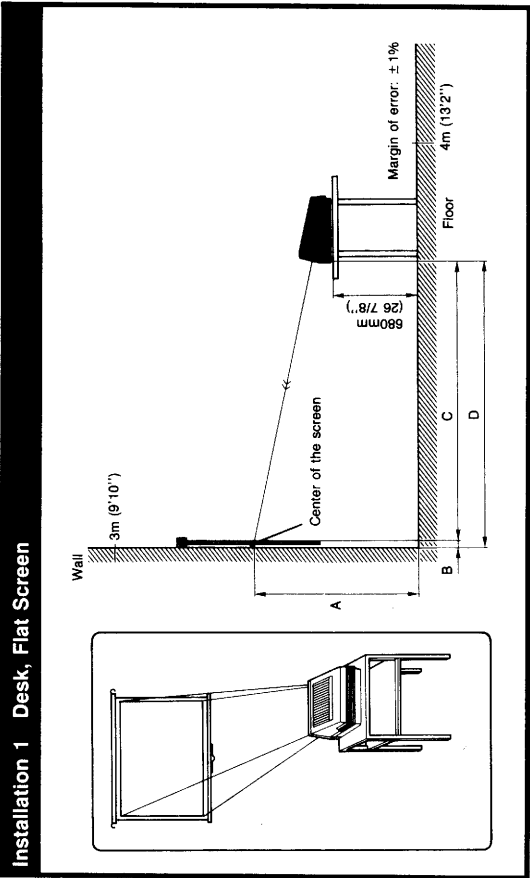
Error message

When you perform an error in operation, the following messages will be displayed.

Messages	Meaning
Not applicable!	The control does not function with the current input.
PIC MUTE	PIC MUTE is set to ON. If you want to adjust the picture controls, press PJ MUTE PIC key to cancel the PIC MUTE mode.
Overflow!	RGB SIZE/SHIFT and CENT R/B adjustment range limit has been reached.
OFF	STATUS is set to OFF to clear the on-screen display. To restore the on-screen display, press STATUS ON key.

1-5. INSTALLATION DIAGRAMS

The projector is designed to be installed on a desk, floor or ceiling and can be used with a flat screen, curved screen or rear projection screen.
Installation and preliminary adjustments should be carried out by qualified Sony personnel.



Screen Size (inches)	Unit: mm (inches)			
	A	B	C	D
72	1,436 (56 5/8")		2,047 (80 3/4")	
80	1,488 (58 5/8")		2,257 (89")	
100 (VPS-100F1*)	1,640 (64 3/4")	24 (31/32")	2,769 (109 1/8")	2,793 (110")
120 (VPS-120F*)	1,771 (70")	35 (1 7/16")	3,279 (129 3/8")	3,314 (130 7/8")
150	1,999 (78 3/4")		4,065 (160 1/8")	
180	2,197 (86 1/2")		4,816 (190")	
200	2,333 (92")		5,334 (210")	
250	2,677 (105 1/2")		6,635 (261 1/4")	

*Sony screen

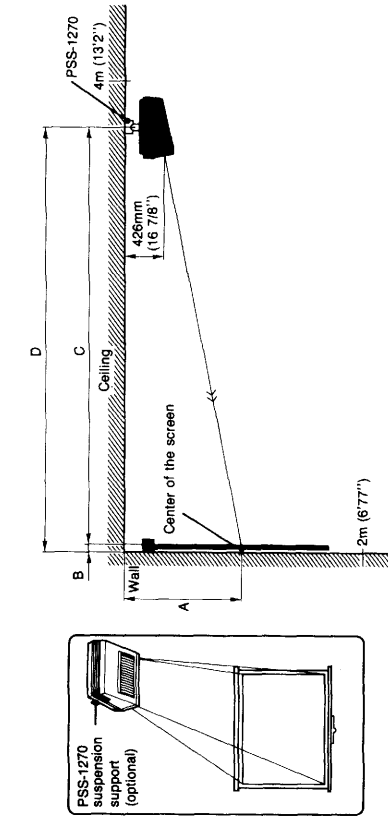
4 Press **CENT B** key.
The blue line will be operable.

5 Press arrow keys to move the blue line until the blue and yellow lines converge.
When all three color lines converge, the test pattern will be seen as white.

6 Press the selected **INPUT SELECT** key (**VIDEO**, **A** or **B**) to exit the test pattern mode.

Installation 2 Ceiling, Flat/Curved Screen

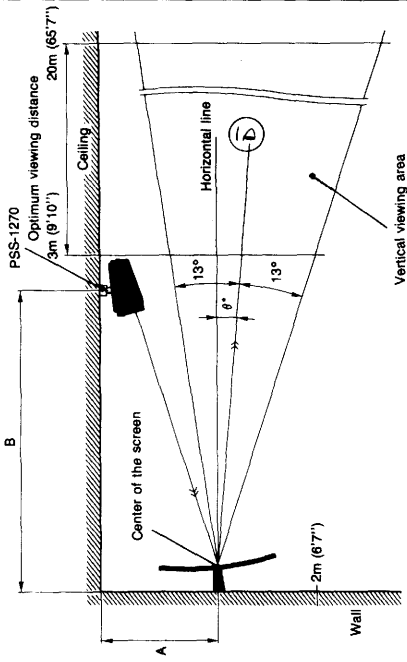
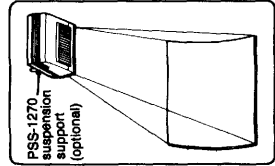
Flat screen



Margin of error: $\pm 1\%$

Screen Size (inches)	Unit: mm (inches)			
	A	B	C	D
72	936 (36 7/8")	2,369 (93 3/8")		
80	988 (39")	2,577 (101 1/2")		
100 (VPS-100F1*)	1,140 (45")	24 (31/32")	3,087 (121 5/8")	3,111 (122 5/8")
120 (VPS-120F*)	1,271 (50 1/8")	35 (1 7/16")	3,595 (141 5/8")	3,630 (142 1/2")
150	1,499 (59 1/8")		4,379 (172 1/2")	
180	1,697 (67")		5,128 (202")	
200	1,833 (72 1/4")		5,644 (222 1/4")	
250	2,177 (85 3/4")		6,953 (273 7/8")	

*Sony screen



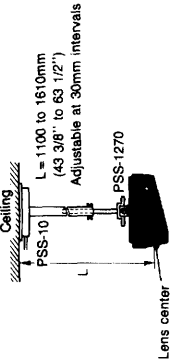
Margin of error: $\pm 1\%$

θ : The picture is the brightest in this area.

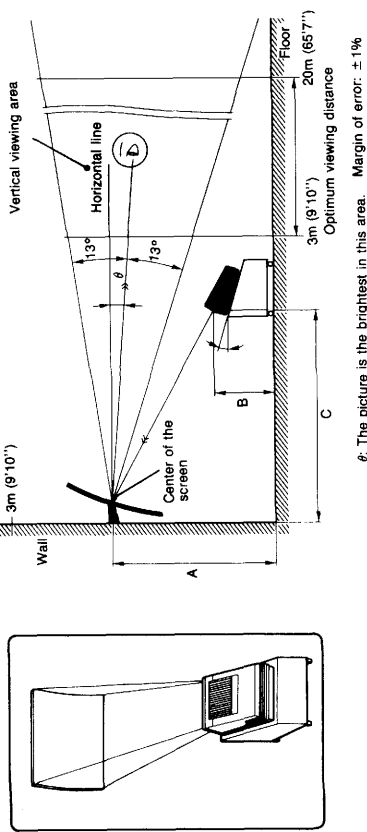
Screen Size (inches)	Unit: mm (inches)		Angle ($^{\circ}$)
	A	B	
72 (VPS-72HG1*)	1,271 (50 1/8")	2,477 (101 1/4")	5.5
100 (VPS-100HG1*)	1,639 (64 3/4")	3,324 (121 1/8")	5.0

*Sony screen

To adjust distance between the ceiling and the projector, use the optional PSS-10 projector suspension support in combination with the PSS-1270.



Installation 3 Floor, Curved Screen

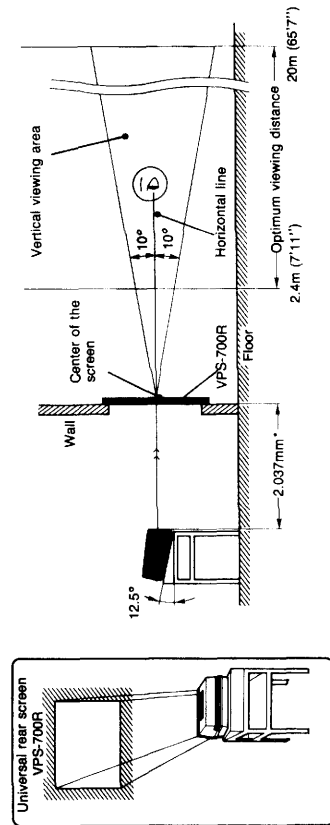


φ: The picture is the brightest in this area. Margin of error: ±1%

Screen Size (inches)	Unit: mm (inches)			Angle (°)	
	A	B	C	α	θ
72 (VPS-72HG1*)	1,886 (74 1/2")	739 (29 1/8")	2,038 (80 1/4")	18.1	4.5
100 (VPS-100HG1*)	2,107 (83")	545 (21 1/2")	2,867 (113")	17.4	3.4

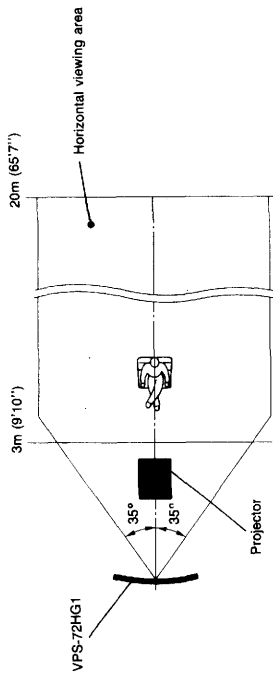
*Sony screen

Installation 4 70" Rear Projection, Desk, Flat Screen

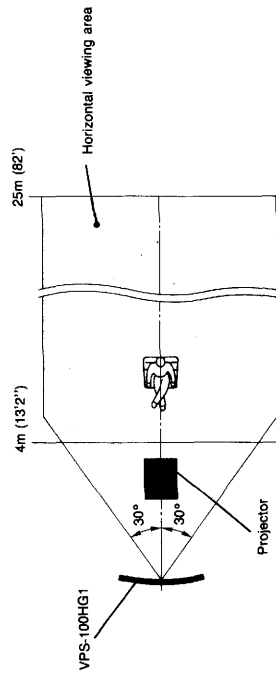


*Distance between the rear of the screen and the center of the G lens.

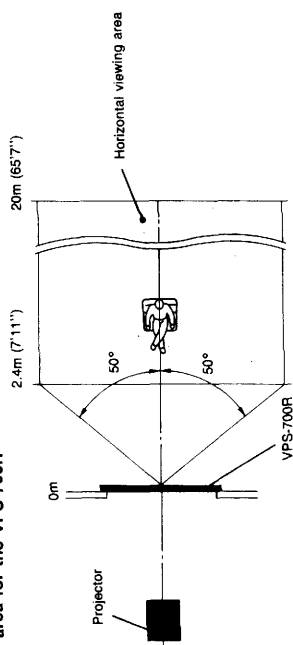
Horizontal viewing area for the VPS-72HG1



Horizontal viewing area for the VPS-100HG1



Horizontal viewing area for the VPS-700R

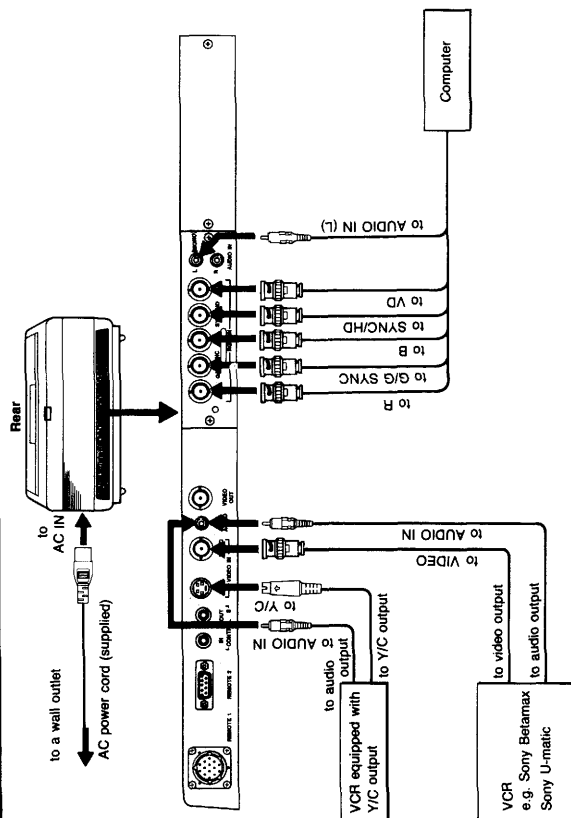


1-6. SYSTEM CONNECTIONS

Notes on connection

- First make sure that the power to each piece of equipment is turned off.
- Use connecting cables suitable for the equipment to be connected.
- The cable connectors should be fully inserted into the jacks. A loose connection may cause hum and noise.
- To disconnect the cable, pull it out by grasping the plug. Never pull the cable itself.
- For connection to the REMOTE 1 connector, the connecting cable may be extended to maximum 50m for VIDEO input and 25m for RGB input. If the connecting cable is longer than that, picture quality may be impaired somewhat. To extend the connecting cable for RGB input longer than 25m, please consult the qualified Sony personnel.
- Read the instruction manual of the equipment to be connected.

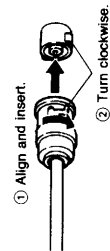
Connecting to the Projector Directly



Note

- The VIDEO connector is disconnected automatically when a cable is connected to the Y/C connector.
- The external sync signal has priority over the internal sync signal. However, when the external sync signal is incomplete, the internal sync signal has priority.

BNC connector



Notes

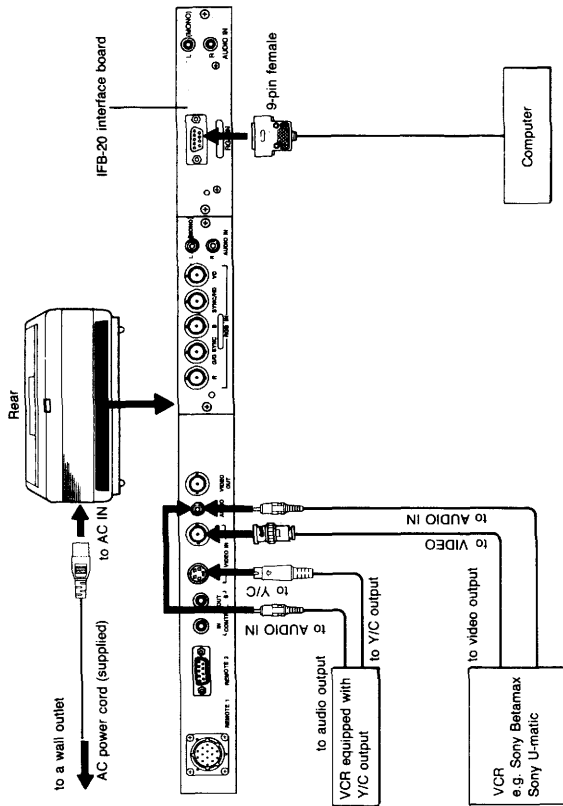
- Do not leave a still picture from a computer or video disc player projected for more than one hour.
- Depending on the computer, the dimensions of the character display area may change or the picture may be uncentered. This is not a fault of the projector.

- If your computer is equipped with a composite video output, connect it to the VIDEO IN VIDEO connector of the projector.
- If necessary, adjust the size and shift of the picture using RGB SIZE/SHIFT and arrow keys

Using the interface board

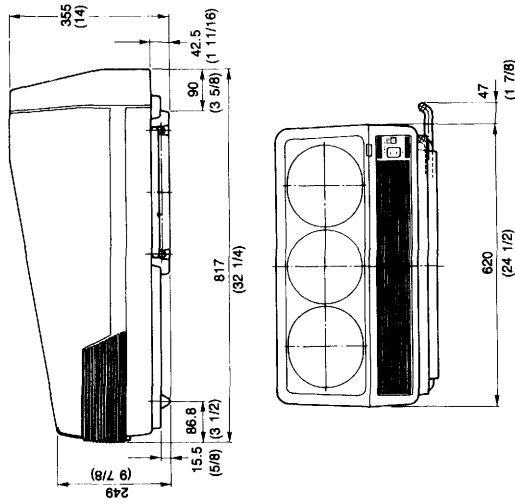
Use the optional interface board IFB-10, 20, or 1000 to expand the system connections.

Example: Using the IFB-20 interface board



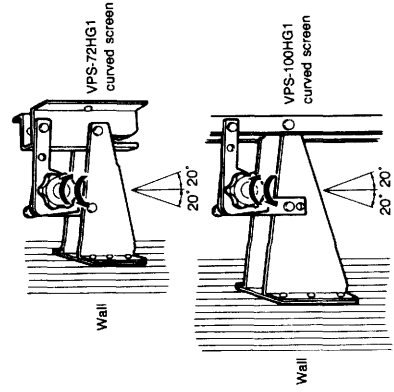
For installing the interface board, consult the qualified Sony personnel.

Projector Dimensions



Unit:mm (inch)

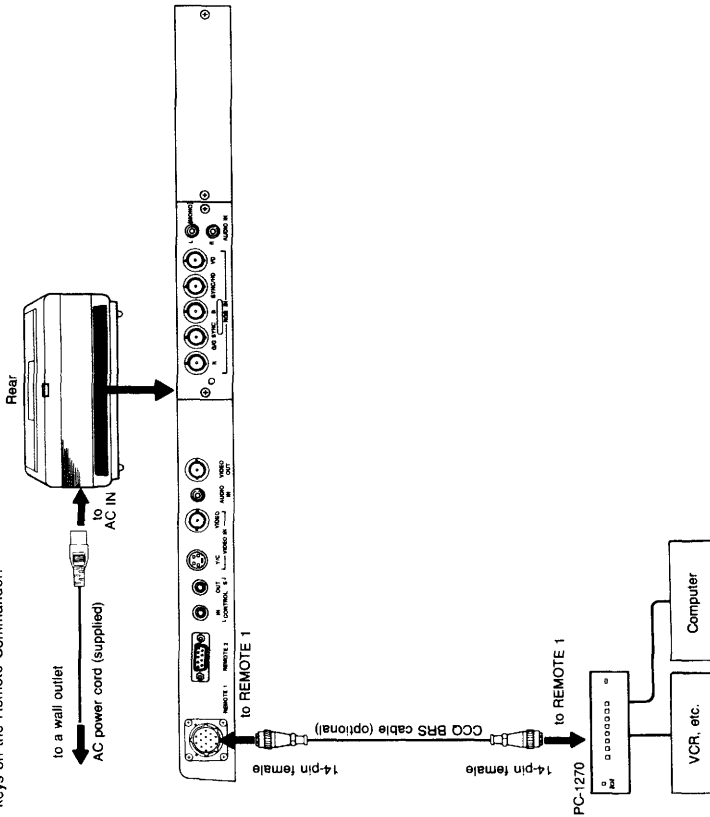
To Adjust the Angle of the Screen



Loosen the knobs, adjust the angle, then tighten the knobs firmly.

Using the Switcher

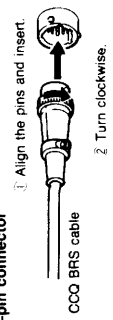
Use the optional switcher PC-1270 for connecting various video equipment. The input is selected by pressing the SWITCHER keys on the Remote Commander.



Using the SWITCHER keys on the Remote Commander

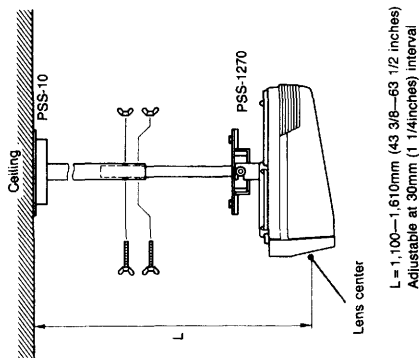
Press the number key from 1 to 8 to select the input number of the switcher. SECOND key is used when there are two switchers. To control the second switcher(FIRST/SECOND/REMOTE switch is set to SECOND),first press SECOND key and then the number key.

14-pin connector



PSS-10 projector suspension support

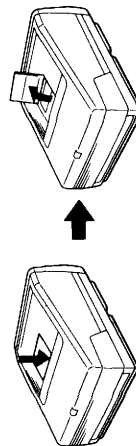
The PSS-10 projector suspension support is optional. When it is used in combination with the PSS-1270, it allows you to adjust the distance between the ceiling and the projector.



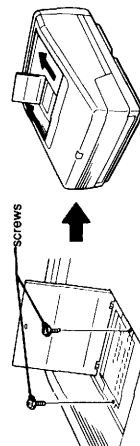
How to Open the Top Panel

To adjust the lens focus, you will have to open the top panel. You will need a medium size Phillips head screwdriver.

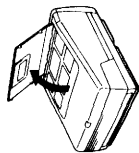
1 Push the control panel to open it.



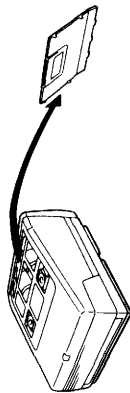
2 Remove two screws and slide the top panel in the arrow direction.



3 Pull the top panel slightly toward you.



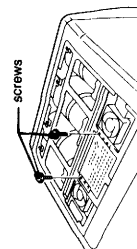
4 Remove the top panel. You can adjust the lens focus.



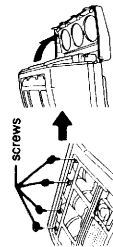
How to Open the hood

For conversion for other than 85-140 inches projection and polarity change, you will need to open the hood after removing the top panel. You will need a medium size Phillips head screwdriver.

1 Remove the two screws of the control panel.

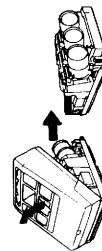


2 Loosen the four screws of the front panel.



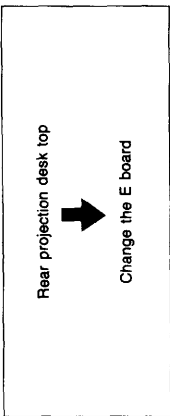
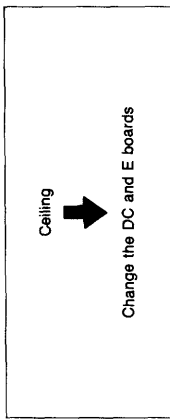
Lift up this part with the adjuster. See the "Operating instructions".

3 Remove the front panel.



1-8. PORALITY CHANGE

The projector is preadjusted at the factory for front projection and desk top installation. When the projector is installed on the ceiling or used in rear projection, the polarity must be changed.



For installations not explained in "Installation Diagrams"

Turn POWER on and press PAGE key so that the page display appears on the screen. Look at the letters to confirm and turn off the set.

Change the connectors on the DC board	Change the connectors on the E board
(A) The letters are backward	No Yes
(B) The letters are upside down	Yes No
(C) The letters are upside down and backward	Yes Yes

Yes: Necessary
No: Not necessary

(A)

VIDEO

STATUS : ON

PK MUTE : OFF

AUDIO MUTE : OFF

CLEAR BLUE : OFF

SECAM : MA

TEXT : [PAGE]

(B)

VIDEO

STATUS : ON

PK MUTE : OFF

AUDIO MUTE : OFF

CLEAR BLUE : OFF

SECAM : MA

TEXT : [PAGE]

(C)

VIDEO

STATUS : ON

PK MUTE : OFF

AUDIO MUTE : OFF

CLEAR BLUE : OFF

SECAM : MA

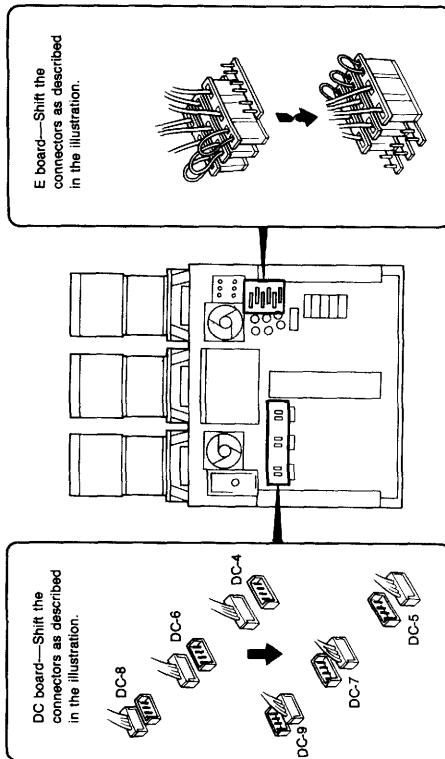
TEXT : [PAGE]

Operation

1 Turn off the power.

2 Open the hood.

3 Change the connector.



4 Make sure that the connectors are inserted correctly.

1-9. CONVERSION FOR OTHER THAN 85-140 INCHES PROJECTION

This projector is preset at the factory for 85-140 inches projection. By changing the spacers, the set can be used for 70-250 inch projection.

How to Change the Spacers

1 Remove the top panel.

2 Remove the hood.

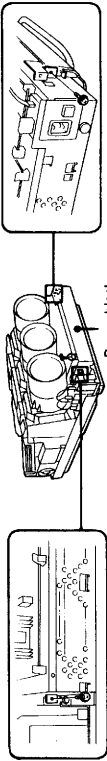
3 Select the spacers according to the screen size.

Screen size (inch)	70—85	85—140	140—250
CRT spacers	for 72 inch	for 120 inch	for 200 inch
Lens spacers	for 72 inch	for 120 inch	for 200 inch

Factory set

4 Separate the power block.

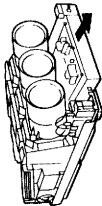
① Remove the two screws at the both sides of the power block.



② Unfasten the purselock on the left side.

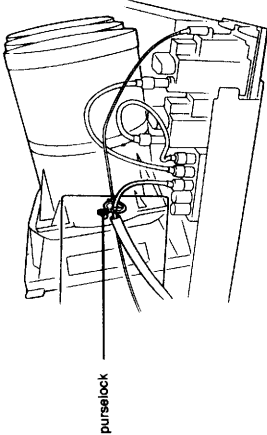


③ Pull the power block out toward you.

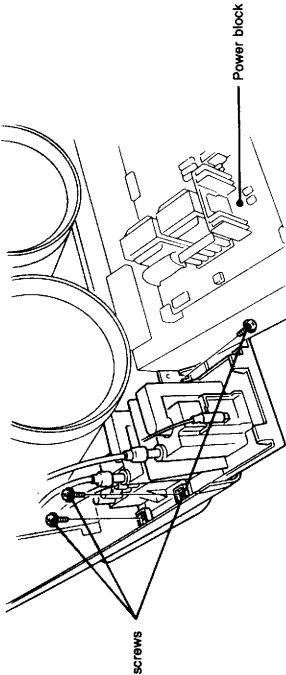


5 Separate the HV block.

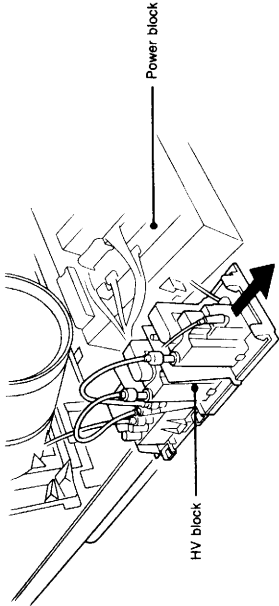
① Unfasten the purselock which connect the HV cable to the blue lens.



② Remove the three screws.

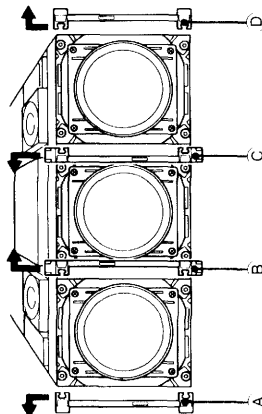
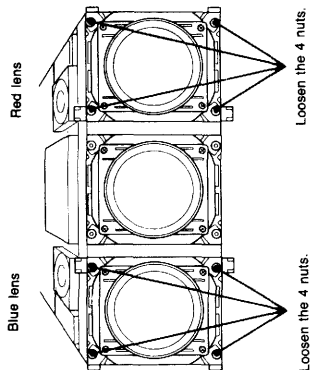


③ Pull the HV block out toward you.



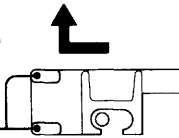
6 Change the CRT spacers for blue and red lenses.

① Remove the 4 CRT spacers A, B, C and D.

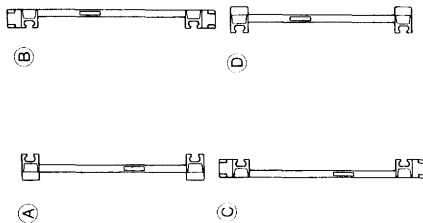
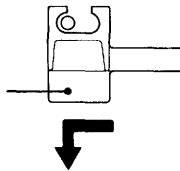


How to remove

Pinch and pull out rightward.



Pinch and pull out leftward.

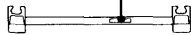


7 Confirm the "screen size", and "inside or outside mark" and change the 4 CRT spacers.

screen size (inch)	70—85	85—140	140—250
outside	72S	120S	200S
inside	72U	120U	200U

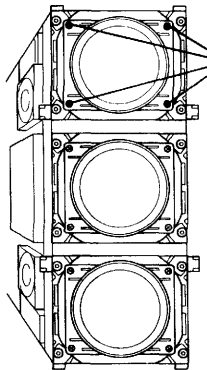
Factory set

See the mark and fasten the screws.

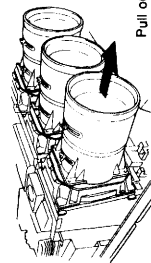


8 Change the lens spacers.

① Separate each lens from its lens support.



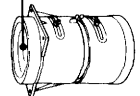
Remove the 4 screws for each lens.



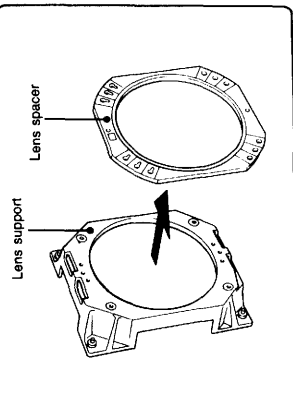
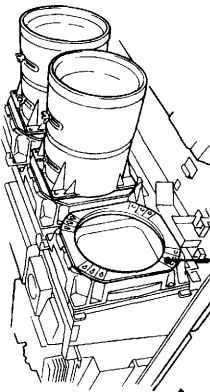
Pull out toward you.

How to put the separated lenses

Put the lenses with the CRT side up. Treat the lenses with care.



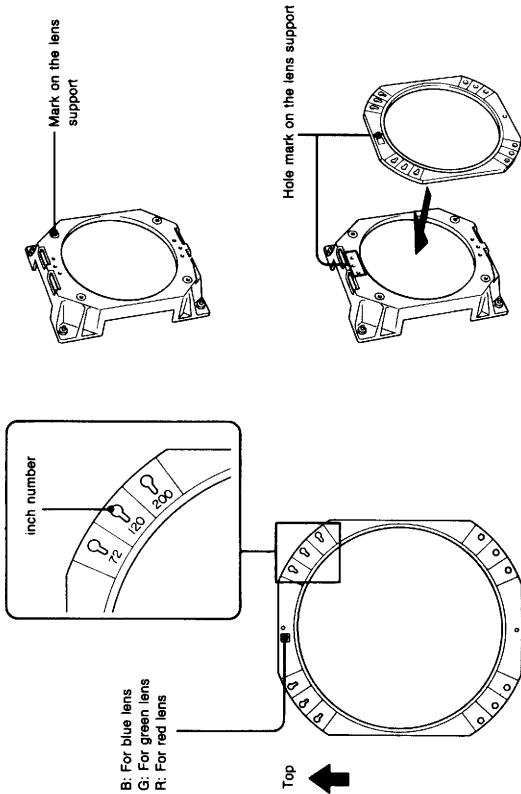
② Remove each lens spacer.



Continued

8 Change the lens spacers.

- ③ Select the appropriate hole, 72, 120 or 200.
Then fit the hole to the mark on the lens support.



- ④ Make sure that each lens spacers are attached to the lens support firmly.

9 Replace the lenses.

Make sure that the lens spacers and the lens support are fitted correctly, and fasten the screws.



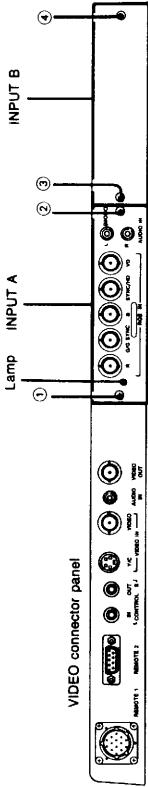
Replace the power block and the HV block.



Replace the hood and the top panel.

When replacing the hood, insert the two projections of the hood in the holes in the back of the projector. The hood must be slanted slightly backwards to insert the projections.

An optional interface board can be inserted in INPUT B. IFB-10 has been attached to INPUT A at the factory.



How to separate the interface board of INPUT A

Loosen screws ① and ② and pull the unit out toward you. Screws ① and ② cannot be removed from the board completely.

How to remove the cover of INPUT B

Remove screws ③ and ④ and pull the unit out toward you.

Optional interface board

- IFB-10
- IFB-20
- IFB-1000

How to select the input signal

To select the signal connected to INPUT A:
Press SELECT A key on the Commander.

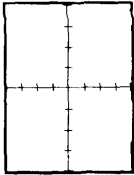
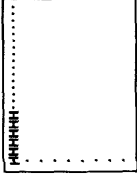
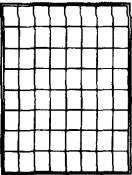
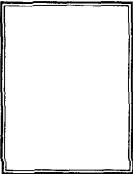
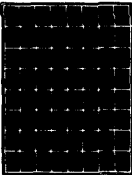
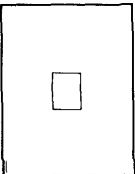
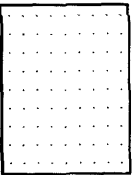
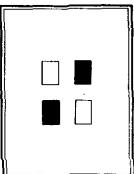
To select the signal connected to INPUT B:
Press SELECT B key on the Commander.

The lamp of the selected panel will be illuminated.

1-11. TEST PATTERNS

In each adjustment mode, an appropriate test pattern will be displayed. In addition, other test patterns can be displayed by pressing TEST key.

All the test patterns

Cross hair		H	
Hatch (9 x 9)		White	
Hatch (reverse)		Window	
Dot		Pluge	

Illustrations of the screen



Test Patterns in Each Mode

Mode	With one press of TEST key, test patterns change as follows.				
Normal	Cross hair	Hatch (9 x 9)	Hatch reverse	Dot	H
Registration	Pluge	Window	White		
SIZE LIN SKEW BOW	Cross hair	Hatch (9 x 9)	Select the desired one.		
KEY PIN	Hatch (5 x 5)	Hatch (9 x 9)	Select the desired one.		
ZONE	Hatch (9 x 9) + Cursor				
White balance					
BIAS	Pluge				
GAIN	Window	White			
BLKG	Hatch (9 x 9)				
CENT RGB	Cross hair	Hatch (5 x 5)	Select the desired one.		

1-12. LENS FOCUS ADJUSTMENT

Normally, it is unnecessary to focus the lens if the projector is installed in the proper position. In this case, the focus can be adjusted by moving the projector slightly.

However, when the projector is installed on the ceiling, it is necessary to focus the lens since the projector cannot be moved.

Preparation

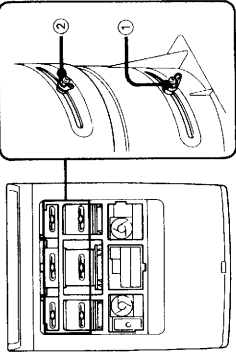
- 1 Remove the top panel and set the projector in the appropriate position.
- 2 Connect the power.
- 3 Press MAIN POWER switch on the set.
- 4 Press POWER ON key on the Commander.
- 5 Make the adjustment keys operable.

Adjustment

- 1 Press TEST key on the Commander five times.
An H-pattern will appear. Check the letters. If they are wrong, perform polarity change.

- 2 Press CUT OFF R and B key and adjust the green focus.

- ① Loosen the screw, slide it to adjust the center focus, then tighten it.
- ② Loosen the screw, slide it to adjust the corners focus, then tighten it.



- 3 Press CUT OFF G and B keys and adjust the red focus.

- 4 Press CUT OFF G and R keys and adjust the blue focus.

- 5 Replace the top panel.

Proceed to the registration adjustment.

Note
When the lens focus needs to be adjusted by a large amount, the setting position of the projector may be wrong. In this case, check the "Installation Diagrams" again. When the focus of left, right, upper and lower needs to be adjusted, the CRT spacer or the lens spacer may be wrong. In this case, check the CRT spacer or the lens spacer.

1-13. REGISTRATION ADJUSTMENT

Display the test pattern on the screen and adjust the registration.
First perform red adjustment and then blue adjustment.

Procedure

Connect the Remote Commander to the set and turn the power on.

Connect the desired input signal and select it on the Commander.

Red

Press ADJ R key to select red.
Press CUT OFF B key to cut off blue signal, and converge the red line to the green line.

CENT → SIZE → LIN → SKEW → BOW → KEY → PIN → ZONE

Blue

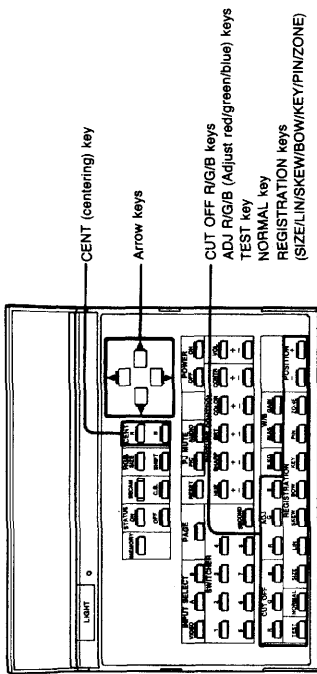
Press ADJ B key to select blue.
Press CUT OFF G (or R) key to cut off green (or red) signal, and converge the blue line to the red (or green) line.

CENT → SIZE → LIN → SKEW → BOW → KEY → PIN → ZONE

↔ : Go back and forth between two keys.

Indications on the Commander	Adjustment Items
CENT	centering
SIZE	size
LIN	linearity
SKEW	skew
BOW	bow
KEY	keystone
PIN	pin cushion
ZONE	zone

Keys for Registration Adjustment

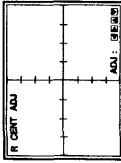


Centering Adjustment

Adjust so that each color lines converge in the middle of the screen.

Operation

- 1 Press CENT R key to enter red centering mode.**
To enter blue centering mode, press CENT B key.
- 2 Press CUT OFF B key to cut off blue signal.**
In blue centering mode, press CENT G key to cut off green signal.
- 3 Adjust moving red until it converges with the green line with ◀, ▶, ▲ and ▼.**
To adjust blue, move blue lines until they converge with the red lines.



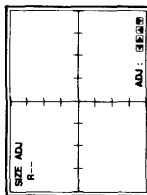
Note

When the lines are away from the center lines by a large amount, the setting position of the projector may be wrong. In this case, check the "Installation Diagrams" again.

SIZE Adjustment

Adjust the size of the displayed picture with respect to the screen.
Pay attention to the upper, low, right and left sides of the screen.

1 Press **SIZE** key to enter size adjustment mode.
If **TEST** key is pressed, the screen display will become 9 × 9 hatch pattern.



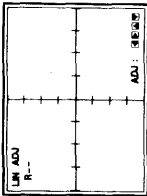
2 Adjust with **◀**, **▶**, **▲** and **▼** keys.

◀	Horizontal size To reduce	
▶	Horizontal size To expand	
▲	Vertical size To expand	
▼	Vertical size To reduce	

LIN (linearity) Adjustment

After preliminary vertical and horizontal size adjustment is completed, adjust the unbalanced size with this linearity adjustment. You may need to go back to the size adjustment again.

1 Press **LIN** key to enter the linearity adjustment mode.
If **TEST** key is pressed, the screen display will become 9 × 9 hatch pattern.



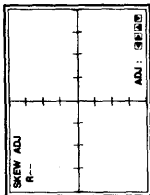
2 Adjust with **◀**, **▶**, **▲** and **▼** keys.

◀	The right and left vertical lines are shifted to the left while the vertical center line of the displayed picture remains unchanged.	
▶	The right and left vertical lines are shifted to the right while the vertical center line of the displayed picture remains unchanged.	
▲	The top and bottom horizontal lines are shifted upward while the horizontal center lines of the displayed picture remains unchanged.	
▼	The top and bottom horizontal lines are shifted downward while the horizontal center lines of the displayed picture remains unchanged.	

SKEW Adjustment

Adjust the horizontal and vertical center lines.

- 1 Press SKEW key to enter the skew adjustment mode.
If TEST key is pressed, the screen display will become 9 x 9 hatch pattern.



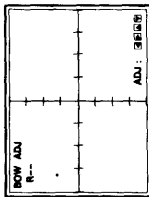
- 2 Adjust with ◀, ▶, ▲ and ▼ keys.

◀	<p>The cross center vertical line leans leftward.</p>
▶	<p>The cross center vertical line leans rightward.</p>
▲	<p>The cross center horizontal line leans toward upper right.</p>
▼	<p>The cross center horizontal line leans toward lower right.</p>

BOW Adjustment

Adjust the bow-like distortion of the center cross.

- 1 Press BOW key to enter bow adjustment mode.
If TEST key is pressed, the screen display will become 9 x 9 hatch pattern.



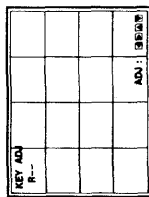
- 2 Adjust with ◀, ▶, ▲ and ▼ keys.

◀	<p>The vertical lines are curved leftward.</p>
▶	<p>The vertical lines are curved rightward.</p>
▲	<p>The horizontal lines are curved upward.</p>
▼	<p>The horizontal lines are curved downward.</p>

KEY (KEYSTONE) Adjustment

Adjust the trapezoidal distortion in the vertical and horizontal directions.

1 Press KEY key to enter the keystone adjustment mode.



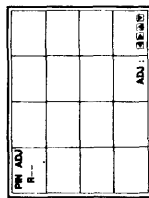
2 Adjust with ◀, ▶, ▲, and ▼ keys.

◀	The vertical lines of bottom side expand.	
▶	The vertical lines of top side expand.	
▲	The horizontal lines of right side expand.	
▼	The horizontal lines of left side expand.	

PIN (PINCUSHION) Adjustment

Adjust the pin-cushion distortion of all the sides.

1 Press PIN key to enter the PIN adjustment mode. If TEST key is pressed, the screen display will become 9 x 9 hatch pattern.



2 Adjust with ◀, ▶, ▲, and ▼ keys.

◀	The right and left side lines are curved like a barrel.	
▶	The right and left side lines are curved like a bobbin.	
▲	The top and bottom lines are curved like a bobbin.	
▼	The top and bottom lines are curved like a barrel.	

1-14. WHITE BALANCE ADJUSTMENT

The color temperature is factory preset at 9300K, 6500K, and 3200K, and will be selected automatically according to the input signal.

Normally, adjusting the white balance is unnecessary. However, if you wish to set the color temperature at your own level, you will need to adjust the white balance. To perform the white balance adjustment, first, display PAGE 3 by pressing the PAGE key, and select "PRESET" by pressing the arrow keys.

Then follow the steps to perform the adjustment. After the adjustment is done, store the data. The color temperature you have adjusted (PRESET level on PAGE 3) is restored only on the signal it was adjusted.

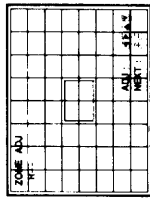
To adjust white balance, both BIAS adjustment and GAIN adjustment must be performed repeatedly.

Normally adjustment is performed with the test patterns displayed, but if desired, you can show an input signal display by pressing TEST key for about 5 seconds.

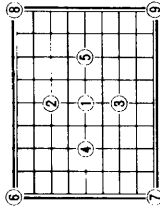
ZONE Adjustment

Adjust the lines in each zone.

- 1 Press ZONE key to enter the zone adjustment mode.**
The hatch patterns and the cursor will appear.



- 2 Press POSITION key to select the zone to be adjusted.**
+: The cursor moves sequentially.
-: The cursor moves in reverse.

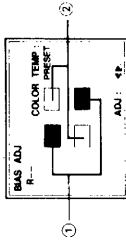


- 3 Adjust the distortion in the cursor position with ◀, ▶, ▲, and ▼ keys.**

After adjusting red signal, perform blue adjustment.
This adjustment is the last of the registration adjustments.
Proceed to the white balance adjustment.

1 BIAS Adjustment

- 1 Press W/B BIAS key to enter the BIAS adjustment mode.**
The plug pattern will appear.



- 2 Press ADJ R, G and B key to select color to be adjusted.**

- 3 Adjust with ◀ and ▶.**

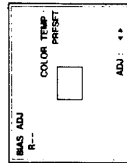
◀ More brightness
▶ Less brightness

Make part ① as dark as possible, so that finally the black of the background and part ② look the same. The part ② should be slightly lighter than background.



2 GAIN Adjustment

- 1 Press W/B GAIN key to enter the GAIN adjustment mode.**
The window pattern will appear.



- 2 Press ADJ R or B key to select the color to be adjusted.**
There is no need to adjust the green signal.

- 3 Adjust with ◀ and ▶ keys so that the screen is 100% white.**
▶ Brighter
◀ Less bright

- 4 Press MEMORY key.**
The adjustment data will be saved.

RGB SIZE and SHIFT Adjustments

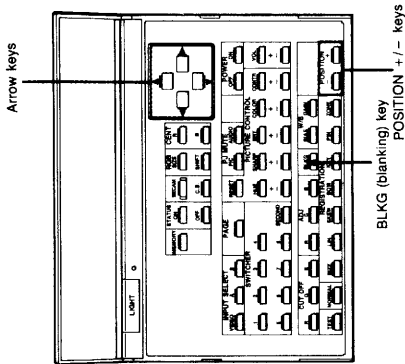
Display the input signal on the screen and adjust.
For details, see "Operating Instructions".

Note
When the picture is bigger or smaller than the screen, the setting position of the projector may be inadequate. In this case, see "Installation Diagrams".

Blanking Adjustment

When the picture is bigger or smaller than the screen, perform this adjustment.

Keys for blanking adjustment

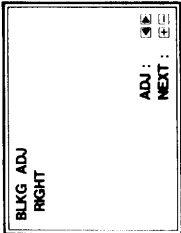


1 Press BLKG key to enter the blanking adjustment mode.



2 Press POSITION +/- key to select the position to be cut off. The position to be cut off will change as follows.

+ : UPPER → LOWER → LEFT → RIGHT
- : In reverse order

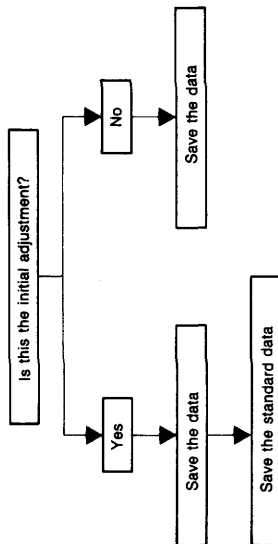


3 To adjust UPPER and LOWER:
Adjust with ▲ or ▼ keys.
To adjust LEFT and RIGHT:
Adjust with ◀ or ▶ keys.

PROCEED TO MEMORY OF ADJUSTMENT DATA

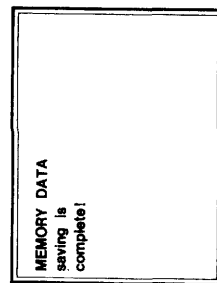
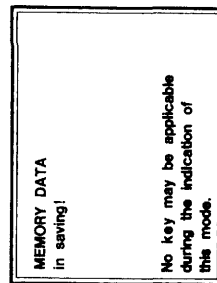
1-16. MEMORY OF ADJUSTMENT DATA

After adjustment, you need to save the adjustment data.
After the initial adjustment, you must perform 2 steps to save the data.



How to save data

After adjustment, press MEMORY key.
(Please do not keep pressing.)
The adjustment data of the input signal will be saved.
During saving others key cannot be operated.

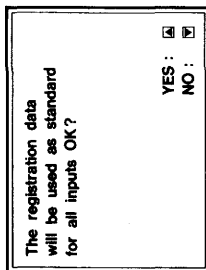


Saving the data is over.

How to save as the Standard Data

If the registration data is saved according to the horizontal frequency of the specific input signal and then saved as Standard Data, the registration data will be calculated for other horizontal frequencies and is applied when another input signals of different frequency are connected.

1 After saving the data, keep pressing **MEMORY** key for more than 3 seconds to enter the standard data saving mode.



2 Press **▲**.
All the registration data will be saved as the Standard Data, clearing all registration data which had been saved previously.

1-17. DATA RESET

For reference—The memory architecture

Memory Name	Memory Data	How the projector recognizes data	When data is memorized
Channel Memory	Picture control Volume	Input connector	When input connector is switched When the power is turned off with the Remote Commander
Status Memory	RGB SIZE, SHIFT SECAM ON/OFF CLEAR BLUE ON/OFF Color temperature (9300/6500/3200/Preset)	Horizontal and vertical frequency Condition of sync signal Input connector	When MEMORY key is pressed When the power is turned off with the Remote Commander
Registration Memory	Registration Blanking	Horizontal frequency of input signal	When MEMORY key is pressed When input connector is switched When horizontal frequency is changed When the power is turned off with the Remote Commander
Color Temperature Memory	W/B Bias and Gain	Status memory	When MEMORY key is pressed When input connector is switched When the color temperature is changed When the power is turned off with the Remote Commander

Notes

- When the power is turned off on the Commander, all the data is saved and when the power is turned on again, the data will be recovered.
- The data of Status Memory cannot be saved when the input channel is switched, never fail to press MEMORY key after adjustment or setting.
- Turn off the main power on the set after turning off the power on the Commander, unless the data will not be saved.

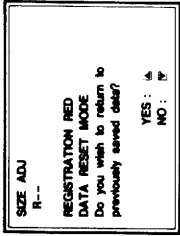
- This set has 2 possibilities for data reset.

Previous data reset

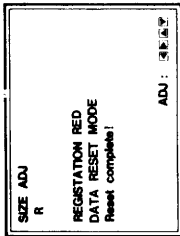
The data will be reset to the previously saved data (The data before the adjustment).

1 Enter the mode to be reset.

2 Press ◀ and ▶ simultaneously. (The illustration shows the red size adjustment case.)



3 Press ▲.

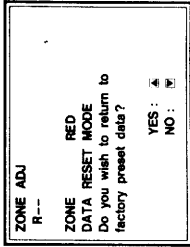


Factory reset

Perform after "previous data reset."
The data will be reset to the factory set level.

1 After "previous data reset", enter the mode to be reset.

2 Press ◀ and ▶ keys simultaneously. (The illustration shows the red zone adjustment case.)



3 Press ▲ key.

1-18. TO MAKE THE SERVICING KEYS INOPERABLE

When you turning off the set, the adjustment keys become inoperable in order to prevent the users from changing the registration adjustments.

Mode	Data to be reset
RGB Size	H-size and V-size
RGB Shift	H-shift and V-shift
R-centering	Not applicable
B-centering	Not applicable
Size, Linearity Skew, Bow Keystone, Pin cushion	All the registration data for the selected color (including the Zone data)
Zone	Zone data for the selected color
Blanking	UPPER/LOWER/LEFT/RIGHT side blanking data
Gain	All the Gain data for all colors of the current color temperature
Bias	All the Bias data for all colors of the current color temperature

1 Keep pressing **NORMAL** key for at least 3 seconds.

Do you wish to return to
the USER CONTROL MODE?

YES : ☐ ☐

NO : ☐ ☐

Press ▲ key.
The adjustment keys are now inoperable.