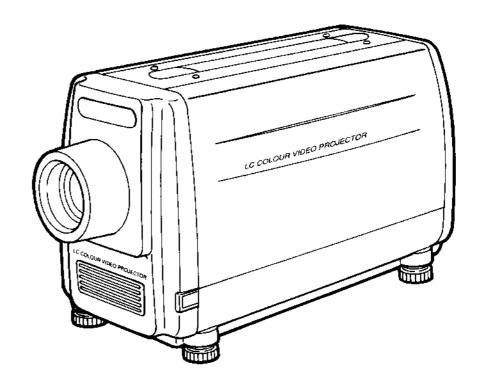


LC COLOUR VIDEO PROJECTOR

MODEL PLC-100PB PLC-100PP





OWNER'S INSTRUCTION MANUAL

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1 SAFETY PRECAUTIONS

IMPORTANT (UK MODEL ONLY)

The wires in the mains lead are coloured in accordance with the following code.

Blue...... Neutral Brown..... Live

The wires in the mains must be connected to the terminals in the plug as follows.

Wire Colour...... Plug Terminal Marking

Blue...... N or BLACK
Brown..... L or RED

Do not make any connection to the terminal in the plug which is marked by the letter "E" or by the safety earth symbol " \bot " or coloured green or green and yellow.

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

Intense light source. Do not stare directly into the projection lens as possible eye damage could result. Be especially careful that children do not stare directly into the light beam.

If the LC colour video projector will not be used for an extended time, unplug the LC colour video projector from the power outlet.

READ AND KEEP THIS OWNER'S INSTRUCTION MANUAL FOR LATER USE.

IMPORTANT:

For your protection in the event of theft or loss of this LC colour video projector, please record the Model Number and Serial Number located on the rear of unit and retain this information. Refer to these numbers whenever you call upon your authorized distributor regarding this product.

Model No:	
-----------	--

Serial No:	
------------	--

2 FEATURES

- 4 colour system, PAL, SECAM, NTSC4.43, NTSC compatible.
- 3-LCD projection system realizes 304cm (120-inch) big screen size with a sharper and clearer picture.
- High-quality 7.9cm (3.1-inch) twin-TFT LCD panel.
- Screen size is adjustable from 21 inches to 120 inches.
- Can be projected directly onto a white screen or white wall.
- 110,450 pixels per panel promises high resolution.
- ZOOM, FOCUS are adjustable by wireless remote control.
- SCART, S-VIDEO terminals provided.
- Audio monitor output terminal provided for the external sound system.
- Remote control receivers are on both sides to allow use in most installations.
- With the optional side throw mirror, the distance from the projector to the screen can be effectively reduced.
- Built-in Audio amplifier and speaker (monaural).

3 IMPORTANT SAFETY INSTRUCTIONS

Read all of the instructions given here and retain them for later use. Unplug this projector from AC power supply before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.

Do not use attachments not recommended by the manufacturer as they may cause hazards.

Do not place this projector on an unstable cart, stand, or table. The projector may fall, causing serious injury to a child or adult, and serious damage to the projector. Use only with a cart or stand recommended by the manufacturer, or sold with the projector. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.

Do not expose this unit to rain or use near water... for example, in a wet basement, near a swimming pool or the like.

Slots and openings in the cabinet and the back or bottom are provided for ventilation, to insure reliable operation of the equipment and to protect it from overheating.

The openings should never be covered with cloth or other material, and the bottom opening should not be blocked by placing the projector on a bed, sofa, rug, or other similar surface. This projector should never be placed near or over a radiator or heat register.

This projector should not be placed in a built-in installation such as a bookcase unless proper ventilation is provided.

This projector should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied, consult your authorized distributor or local power company.

Do not overload wall outlets and extension cords as this can result in fire or electric shock. Do not allow anything to rest on the power cord. Do not locate this projector where the cord will be abused by persons walking on it.

Never push objects of any kind into this projector through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the projector.

Do not attempt to service this projector yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Unplug this projector from wall outlet and refer servicing to qualified service personnel under the following conditions:

- a. When the power cord or plug is damaged or frayed.
- b. If liquid has been spilled into the projector.
- c. If the projector has been exposed to rain or water.
- d. If the projector does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the projector to normal operation.
- e. If the projector has been dropped or the cabinet has been damaged.
- When the projector exhibits a distinct change in performance - this indicates a need for service.

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or injury to persons.

Upon completion of any service or repairs to this projector, ask the service technician to perform routine safety checks to determine that the projector is in safe operating condition.

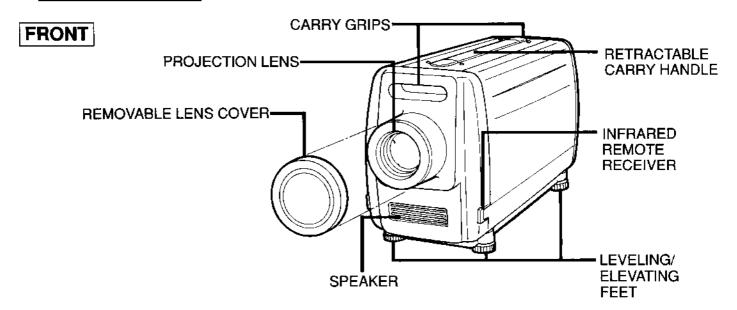
Follow all warnings and instructions marked on the projectors.

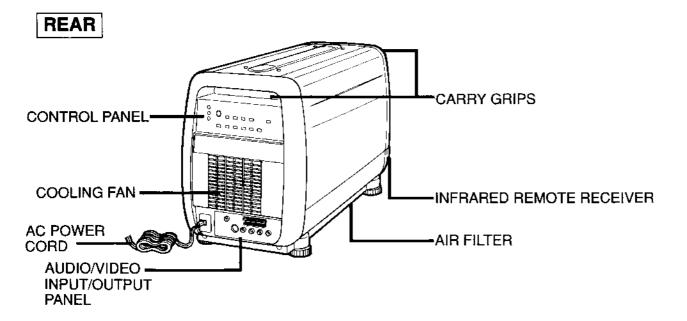
For added protection for the projector during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage due to lightning and powerline surges.



An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

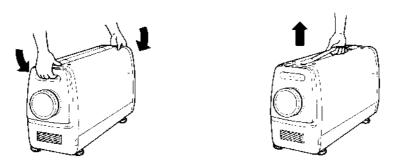
4 DESCRIPTION





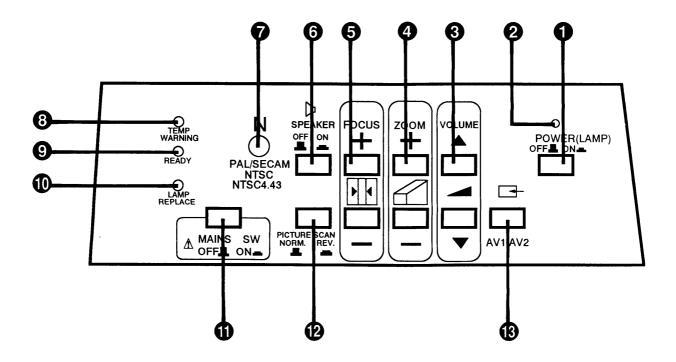
MOVING THE PROJECTOR

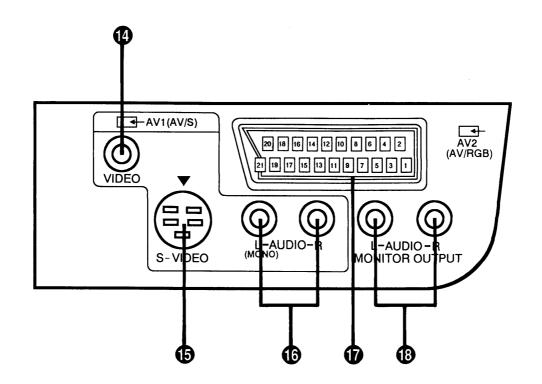
Use the built-in carry grips or retractable carry handle when moving the projector.



Replace the lens cover when moving the projector to prevent damage to the lens.

5 OPERATION OF CONTROLS





POWER (LAMP) ON/OFF BUTTON

Press to turn power and projection lamp on or off.

2 POWER INDICATOR

Lights dim when the projector is on.

Lights bright when the projector is stand-by position.

O VOLUME BUTTONS

Used to increase or decrease sound level.

2 ZOOM BUTTONS

Used to operate power zoom lens.

6 FOCUS BUTTONS

Used to operate power focus system.

6 SPEAKER ON/OFF BUTTON

Turns the built-in speaker on or off.

OCOLOUR SYSTEM SELECT BUTTON

Press to select colour system. (AUTO → PAL → SECAM → NTSC4.43 → NTSC)

3 TEMPERATURE WARNING INDICATOR

Lights red when internal projector temperature is too high.

9 READY INDICATOR

Lights green when projector is ready to be turned on.

10 LAMP REPLACEMENT INDICATOR

Lights orange when projection lamp is nearing end of service life.

1 MAINS ON/OFF BUTTON

Press to turn the projector on.

12 REVERSE PICTURE SCANNING BUTTON

Automatically reverses the projected screen image.

VIDEO MODE SELECT BUTTON

Press to select video source. (Video Input-1, Video Input-2, or RGB INPUT)

VIDEO INPUT-1 JACK

Used to connect a video source to the projector.

6 S-VIDEO INPUT JACK

Used to connect a S-VHS video source to the projector.

6 AUDIO INPUT-1 JACKS

Used to connect an audio input to the projector.

1 21-PIN TERMINAL

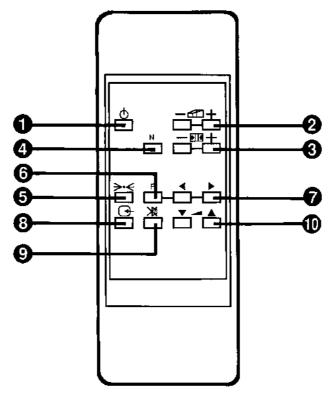
Used to connect a video source with a 21-pin terminal to the projector.

AUDIO MONITOR OUTPUT JACKS

Permits audio connection to a monitor.

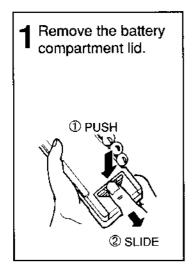
6 REMOTE CONTROL OPERATION

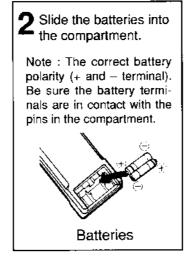
INFRARED REMOTE CONTROL

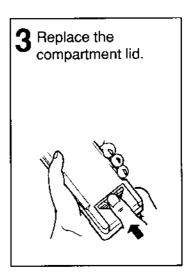


- POWER (LAMP) ON/OFF BUTTON Press to turn projection lamp on or off.
- 2 ZOOM BUTTONS Used to operate power zoom lens.
- **3** FOCUS BUTTONS
 Used to operate power focus system.
- 4 COLOUR SYSTEM SELECT BUTTON Press to select colour system. (AUTO → PAL → SECAM → NTSC4.43 → NTSC)
- NORMALIZATION BUTTON Used to reset to normal factory set picture adjustment.
- 6 FUNCTION SELECT BUTTON Used to select on-screen adjustment displays for colour, tint, contrast, brightness, video tone. Press repeatedly to cycle.
- LEVEL CONTROL BUTTONS
 Used to adjust colour, tint, contrast, brightness, video tone by pressing
 or ▶ buttons.
- VIDEO MODE SELECT BUTTON Press to select video source. (Video Input-1, Video Input-2 or RGB Input)
- SOUND MUTE BUTTON Used to mute sound.
- VOLUME BUTTONS
 Used to adjust volume.

REMOTE CONTROL BATTERY INSTALLATION



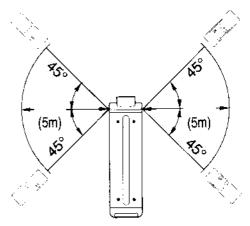




USING THE REMOTE CONTROL WITH THE PROJECTOR

After installing the remote control, press the POWER (LAMP) ON/OFF BUTTON to ON. Point the remote control toward the front of the projector (Receiver window) whenever pressing the buttons.

Maximum operating range for the remote control is about 5m and 45° from the front of the projector.



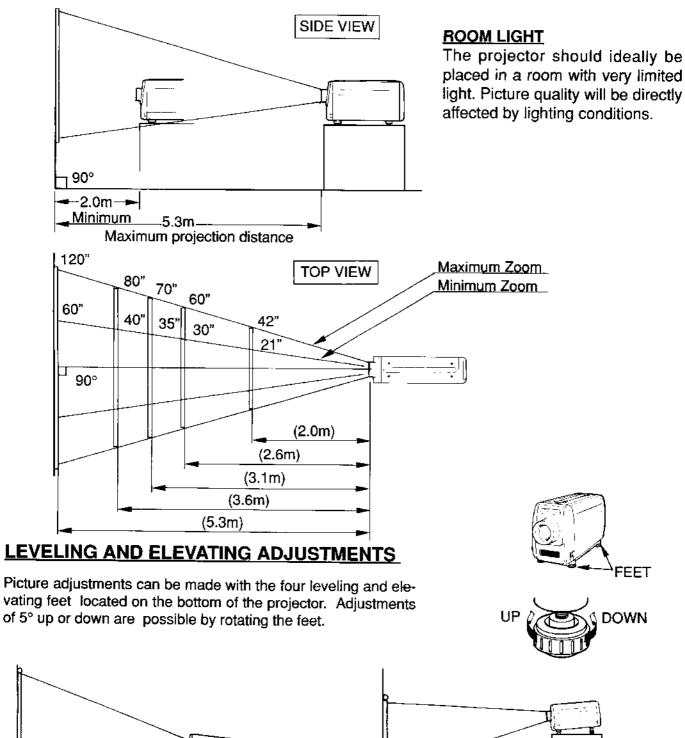
To insure safe operation, please observe the following precautions:

- * Use (2) AAA, UM4 or R03 type batteries.
- * Change both batteries at the same time.
- * Do not use a new battery with a used battery.
- * Avoid contacting the remote control with water.
- * Do not drop the remote control unit.

7 SETTING-UP THE PROJECTOR

POSITIONING:

- This projector is designed to project on a flat projection surface. If the projector is not placed at 90° angle to the screen, the projected image may become distorted and difficult to view.
- This projector can be focused from 2.0m-5.3m.
- Use the illustration below as an example when positioning the projector to the screen.



8 USING THE PROJECTOR

TO TURN ON THE PROJECTOR

- 1. Connect the projector to a video source (VCR, Video Camera, Video Disc Player, etc.) using the appropriate terminals on the rear of the projector (See page 12–14).
- 2. Connect the projector's AC power cord into a wall outlet, and press the MAINS ON/OFF button (located on projector) to ON. (If the READY lights green, proceed on step 3.)

NOTE: AFTER YOU TURN OFF THE PROJECTOR YOU MUST WAIT ONE MINUTE BEFORE YOU CAN TURN THE UNIT ON AGAIN.

3. Press the POWER (LAMP) ON/OFF button (located on projector) to ON. The POWER INDICATOR is dim. The wait display (A MOMENT!/UN MOMENTO! and numeral 30) appears on the screen and the count-down starts (30–29–28–...1). The signal from the video source appears after 30 seconds.

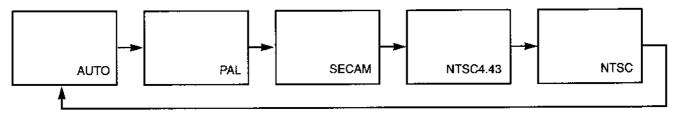


NOTE 1: If the TEMPERATURE WARNING INDICATOR flashes red, the projector will automatically turn off. Wait at least 5 minutes before turning the projector on.

If the TEMPERATURE WARNING INDICATOR continues to flash, follow the procedures below:

- (1) Press POWER (LAMP) ON/OFF button to OFF.
- (2) Check the air filter for dust accumulation.
- (3) Remove dust with vacuum cleaner. (See air filter care and cleaning on page 15.)
- (4) Press POWER (LAMP) ON/OFF button to ON.
 If the TEMPERATURE WARNING INDICATOR continues to flash, call your authorized distributor for service.
- NOTE 2: POWER (LAMP) ON/OFF button on the remote control can be activated only when POWER (LAMP) ON/OFF button on the projector is pressed to ON.
- NOTE 3: When the POWER INDICATOR will light red, press twice the POWER (LAMP) ON/OFF button (located on projector) to ON or press the POWER (LAMP) ON/OFF button on the remote control to ON.
- 4. Press the COLOUR SYSTEM select button (located on projector or remote control) to select AUTO, PAL, SECAM, NTSC4.43 or NTSC.

Each time Colour System select button is pressed, the colour system changes as follows:



When the colour system is set to "AUTO" position, this projector can receive colour programs from one of the 4 systems (PAL, SECAM, NTSC4.43 or NTSC), automatically.

If the signal quality is poor, make sure the proper colour system is selected to match the video source.

- 5. Press the VIDEO MODE select button (located on projector or remote control) to select Video Input-1 or Video Input-2 or RGB Input. The "AV1" or "AV2" or "RGB" display will appear on the screen.
- 6. Press the ZOOM buttons (located on projector or remote control) to obtain the desired picture size. For the larger size, press (+) and for the smaller size, press (-).

7. To adjust the focus, press the FOCUS button (located on projector or remote control) for sharper, crisper picture. (This focus display will appear for 5 seconds when it is pressed.) You can make the focus adjustment easily by using the display.

FOCUS

- 8. To use the built-in speaker, press the SPEAKER button (located on projector) to "ON" position.

 To adjust the volume, press the VOLUME buttons (located on projector or remote control). The volume level display will appear on the screen.
- 9. Pressing the MUTE button on the remote control will mute the audio (A mute display will appear). Press the MUTE button again to restore audio to its previous level.
- 10. The normal colour setting is factory preset on the projector and can be obtained anytime by pressing the NOR-MALIZATION button on the remote control. You can adjust the colour to your preference by using the FUNCTION and LEVEL buttons on the remote control.

TO TURN OFF THE PROJECTOR

Press the POWER (LAMP) ON/OFF button on the remote control to OFF. Video, Audio and projection lamp will turn off. The POWER INDICATOR will light red.

Or, press the POWER (LAMP) ON/OFF button on the projector to OFF. Video, Audio and projection lamp will turn off.

NOTE: When POWER (LAMP) ON/OFF button on the projector is turned off, the READY INDICATOR will turn off, and will relight 1 minute later.

The cooling fan will operate for 1 minute after the projector is turned off. (During this "cool down" period, the projector can not be turned on).

After 1 minute, the READY INDICATOR will light green and the cooling fan shut off. Now the projector is ready to be turned on. (See STEP 1 in "To turn on the projector").

CAUTION: • Do not turn off the main power using the MAINS ON/OFF button on the projector until the cooling fan stops.

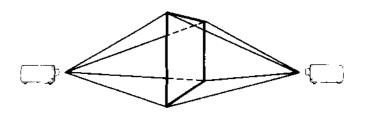
- When the READY INDICATOR lights green, the projector is ready to be turned on.
- When the READY INDICATOR light is off, the projector is not ready. Wait for 1 minute or until the indicator lights green.

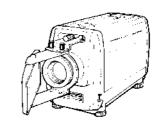
OTHER FEATURES

The versatile left/right picture reverse capability lets you project onto the screen from in front or behind.

 Press the REVERSE PICTURE SCANNING button on the projector, if required.

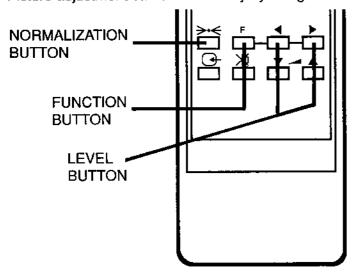
With the adjustable side throw projection mirror (optional accessory), the distance from the projector to the screen can be effectively reduced, permitting projection even in small rooms.





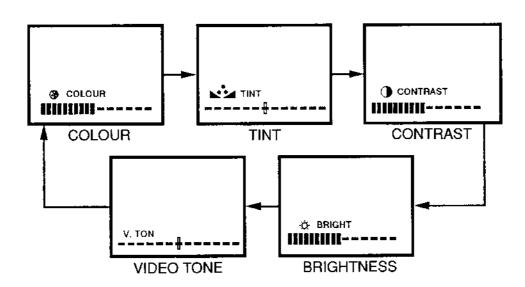
9 COLOUR AND PICTURE ADJUSTMENTS

Picture adjustment can be made only by using the wireless remote control.



Colour and picture adjustments have been preset at the factory to quality standards. However, with the FUNCTION and LEVEL buttons on the remote control you can select colour and picture adjustments you personally prefer.

1. Select the picture adjustments function by pressing FUNCTION button. Each time FUNCTION button is pressed, the control function changer as follows:



NOTE: "TINT" will be skipped during in the PAL and SECAM mode.

- 2. Adjust the colour intensity, tint, contrast, brightness or video tone by pressing LEVEL (▶ and ◄) buttons.
- 3. The ON -SCREEN display will disappear automatically in 8 seconds.

NOTE: The projector is equipped with a built-in memory feature that eliminates the need to readjust the picture each time the projector is turned on. If NORMALIZATION button is pressed, the projector will return to factory preset colours.

10 CONNECTING THE PROJECTOR

Your projector comes equipped with various audio/video inputs and outputs including S-VHS video input and 21-pin terminals.

CONNECTING TO THE AV1 INPUT JACKS

Connect to the video and audio outputs of a VCR, video disc player, video camera, satellite TV tuner or other AV equipments.

- If the audio signal from the AV equipment is stereo, be sure to connect the right and left channels to the respective right and left audio input jacks.
- · If the external audio signal is monaural one, connect it to the left jack.

S-VHS FORMAT VCR CONNECTION

The AV1 inputs include an extra video input jack marked S-VIDEO to allow connection to an S-VHS format VCR that has separate Y/C video signals. The S-VIDEO jack has priority over the VIDEO jack.

CONNECTING TO THE AV2 21-PIN TERMINAL

VCR, Video disc player or other AV equipment can be connected to the 21-pin terminal on the rear of the projector. When the 21- pin terminal is used for connection of AV equipment, note the following point.

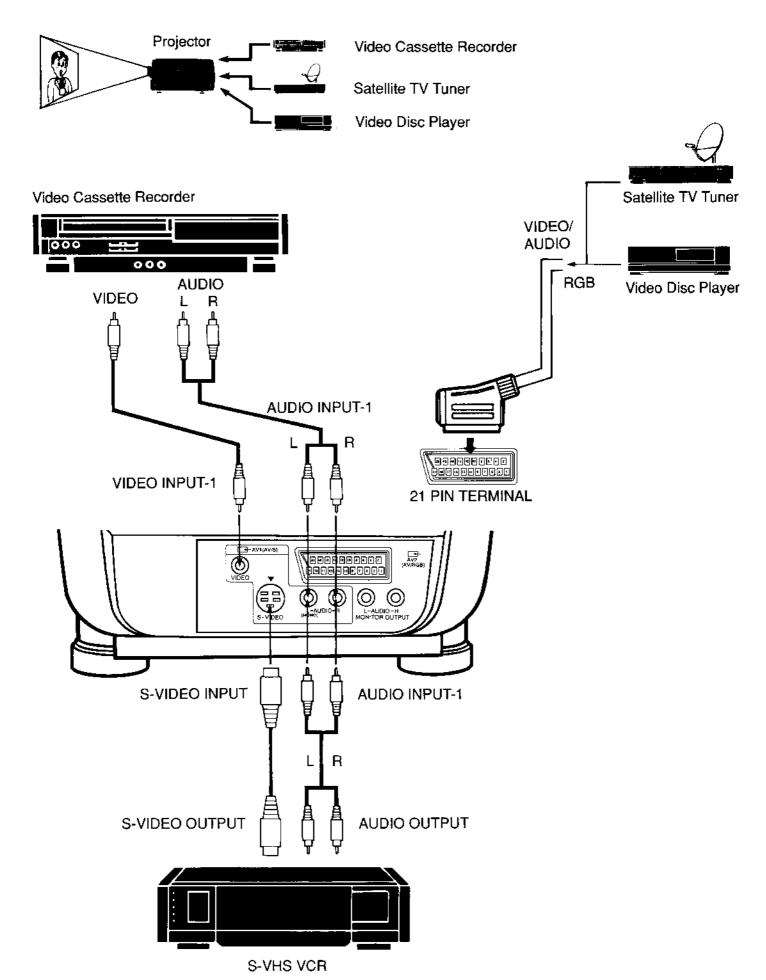
- When using equipment (VCR tapes or video discs) with the input function signal into PIN No. 8 of 21-pin terminal below, the VIDEO MODE is automatically set to "AV2" and VIDEO MODE selection is not required. And when using equipment without the input function signal, press VIDEO MODE select button on the projector or remote control to select "AV2" mode.
- When using equipment with RGB input signal and without the control signals for PIN No. 8 and 16 of 21-pin terminal below, press VIDEO MODE select button to select "RGB" mode, and when using equipment with both RGB input signal and the control signals, the VIDEO MODE is automatically set to "AV2", mode and VIDEO MODE selection is not required.

21-PIN TERMINAL



Specification of 21-pin terminal Pin No. Signal

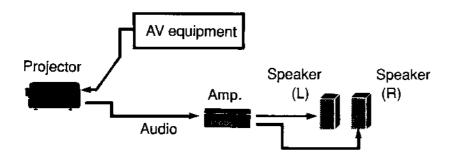
~p~~,	addit of E t pill to milat	
in No.	Signal	
1.	Audio output (right channel)	0.5 Vrms/ ≤1 K ohm
2.	Audio input (right channel)	0.5 Vrms/ ≥10 K ohm
3.	Audio output (left channel)	0.5 Vrms/ ≤1 K ohm
4.	Earth (audio)	
5.	Earth (blue)	
6.	Audio input (left channel)	0.5 Vrms/ ≥10 K ohm
7.	Blue (B) input	0.7 Vp-p75 ohm
8.	Function switching	L: 0-2V, H-12V
9.	Earth (green)	
10.	Not used	
11.	Green (G) input	0.7 Vp-p/75 ohm
12.	Not used	
13.	Earth (red)	
14.	Earth	
15.	Red (R) input	0.7 Vp-p/75 ohm
16.	Fast blanking	L: 0-0.4V, H:1-3V
17.	Earth (video)	
18.	Earth	
19.	Video sync. output	1 Vp-p/75 ohm
20.	Video sync. input	1 Vp-p/75 ohm
21.	Earth	

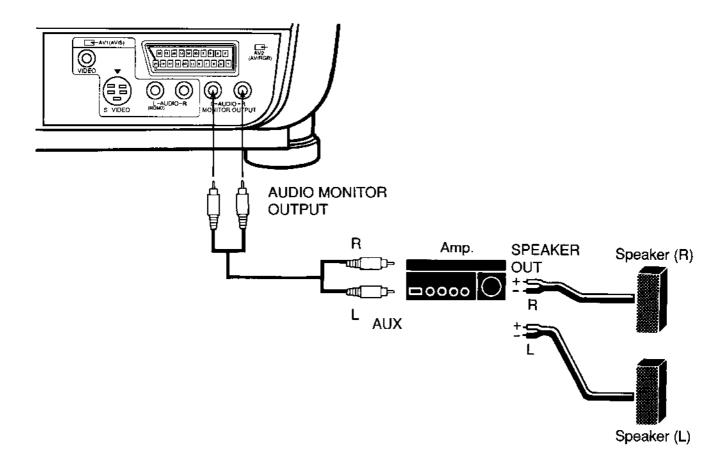


CONNECTING TO THE AUDIO MONITOR OUTPUT JACK

These jacks will contain the audio information of the selected program source being viewed on the screen. If you have selected program source AV1 whatever signal is connected to the AV1 jacks will be available at the audio monitor output jacks.

- If the audio input of the audio equipment is stereo, be sure to connect the right and left channels to the respective right and left jacks.
- · If the audio input of the audio equipment is monaural one, connect it to the left jack.





11 AIR FILTER CARE AND CLEANING

The removable air filter prevents dust from accumulating on the surface of the projection lens and projection mirror. Should the air filter become clogged with dust particles, it will reduce the cooling fan's effectiveness and may result in internal heat built up and reduced lamp life.

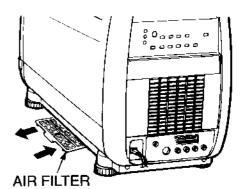
To clean the air filter, following the cleaning procedures below:

- 1. Turn the POWER (LAMP) ON/OFF button OFF.
- 2. Remove the air filter from the bottom of the projector.
- 3. Clean the air filter with a vacuum cleaner.
- 4. Replace the air filter. Make sure that it is fully inserted.



Do not clean with water. Doing so may damage the air filter.

Do not operate the projector with air filter removed.



12 LAMP REPLACEMENT & TEMPERATURE WARNING INDICATORS

LAMP REPLACEMENT INDICATORS

When the lamp nears the end of its service life, the picture quality and color quality will deteriorate and the lamp replacement indicator will light orange.

TEMPERATURE WARNING INDICATOR

The TEMPERATURE WARNING INDICATOR lights red when the internal temperature of the projector exceeds the normal temperature.

Possible causes for the temperature warning may be:

- 1. Ventilation slots at the rear or bottom of the projector are blocked. In such an event, reposition the projector so that ventilation slots are not obstructed.
- 2. Air filter is clogged with dust particles. Remove dust from the air filter by following instructions in the Air Filter Care and Cleaning section above.
 - If temperature warning indicator remains on after performing the checks listed above, cooling fan/internal circuits may have malfunctioned. Request service from an authorized distributor or service station.

13 TROUBLE SHOOTING GUIDE

Please perform these simple checks before calling for service.

SYMPTOMS	PROCEDURES
No power	 Plug the projector into an AC outlet. Press the MAINS ON/OFF button to ON. If READY INDICATOR does not light green, check to be sure AC power is being supplied to the outlet. Press the POWER (LAMP) ON/OFF button to ON.
No sound from built-in speaker	 Press the VOLUME (▲) and (▼) to (▲). Press the SPEAKER button to ON. Check audio cable connection with audio input source.
Picture is reversed	Press the REVERSE PICTURE SCANNING button.
Picture blurred or colour faded	 Adjust the FOCUS buttons. Adjust the ZOOM buttons. Make sure the projector is at a 90° angle to the projection-screen. Move the projector closer is at the screen. NOTE: Moving the projector from a cool temperature location to a warm temperature location may result moisture condensation on the lens. In such an event, leave the projector OFF and wait until condensation disappears.

14 <u>TECHNICAL SPECIFICATIONS</u> <u>SPECIFICATIONS</u>

Projector Type	Portable LC colour video projector
Dimensions (H x W x D)	323 mm x 221 mm x 633 mm
Net Weight	12.8 kg (28.2 lbs)
LCD Panel System	3.1" TFT Active Matrix type (Thin Film Transistor) x 3
Number of Pixels	331,350 (110,450 x 3)
Colour System	4 colour system (PAL, SECAM, NTSC4.43 and NTSC)
Projection Image Size (Diagonal)	53 cm to 304 cm (21 to 120 inch) Adjustable
Throw Distance	2.0 m ~ 5.3 m
Contrast Ratio	100 : 1
Horizontal Resolution	450 TV lines
Projection Lens	f4.5 lens with 14 ~ 28 cm Motor-drive zoom and focus
Lens Aperture	60 mm
Projection Lamp	Metal Halide, 150 watt
Projection Mirror	Dichroic mirror system
AV Input Jacks	PHONO Type x 1 (Video, Audio R and L),
	DIN 4 pin (S-Video) x 1 and 21 pin (SCART) x 1
Audio Monitor Output Jacks	PHONO Type x 1 (R and L)
Built-in Speaker	50mm x 90mm oval x 1
Audio Amplifier	Solid-State, 3 watt RMS (T.H.D. 10%)
Operating/Image Controls	Projection unit: Mains ON/OFF, Power (Lamp) ON/OFF, Volume, Zoom, Focus, Colour system select, Speaker ON/OFF, Reverse picture scanning and Video mode select. Infrared Remote Control: Power (Lamp) ON/OFF, Volume, Sound mute, Zoom, Focus, Colour system select, Video mode select, Normalization, Function select and Level control.
LED Indicators	Power ON/OFF, Ready, Temperature Warning, Lamp Replacement
Image Elevation Adjustment	Up 5°, Down 5°
Voltage	220 ~ 240V AC, 50/60Hz
Power Consumption	230 Watts
Operating Temperature	5°C ~ 35°C
Storage Temperature	-10°C ~ 60°C
Remote Control Battery	
Standard Accessories	(2) AAA,UM4 or R03 type
otalida di 7 00000001100	(2) AAA,UM4 or R03 type Infrared Remote Control, Owner's Instruction Manual, Protective Dust Cover

