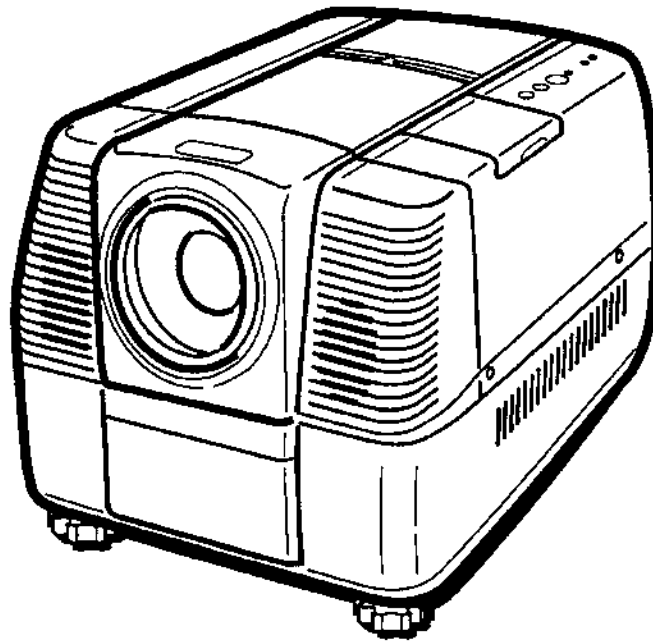# SANYO

LCD COLOUR VIDEO PROJECTOR WITH VIDEO CASSETTE PLAYER

MODEL PLV-1PB
PLV-1PP

OWNER'S INSTRUCTION MANUAL

TO THE OWNER

As the owner of a new LC Colour Video projector with Video Cassette Player , you are probably eager to try out your new projector. Before you do, we suggest that you spend a little time reading this manual to familiarize yourself with the operating procedures, so that you will receive maximum enjoyment from the many features included on your new projector.

This owner's manual will acquaint you with your projector's features. Reading it will help us too. Through the years, we have found that many service requests were not caused by problems with our projectors. They were caused by problems that could have been prevented, if the owner had followed the instructions in the manual.

You can often correct operating problems yourself. If your projector fails to work properly, locate the operating problem in the Helpful Hints Chart on page 19 and try the solutions marked for each problem.

SAFETY PRECAUTIONS

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 beam.

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

Changes or modifications not expressly approved by the manufacturer may void the user's authority to operate this LC Projector.

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

IMPORTANT:

For your protection in the event of theft or loss of this LC 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 dealer regarding this product.

Model No: _____

Serial No: _____

Do not discard shipping carton and packing materials. These items may be needed for storage or future servicing.

IMPORTANT: (UK MODEL ONLY)
This cord is already fitted with a moulded plug incorporating a fuse, the value of which is indicated on the pin face of the plug. Should the fuse need to be replaced, an ASTA approved BS 1362 fuse must be used of the same rating, marked thus ◈ . If the fuse cover is detachable, never use the plug with the cover omitted. If a replacement fuse cover is required, ensure it is of the same colour as that visible on the pin face of the plug (i.e. red or orange). Fuse covers are available from the Parts Department indicated in your User Instructions.
If the plug supplied is not suitable for your socket outlet, it should be cut off and destroyed.
The end of the flexible cord should be suitably prepared and the correct plug fitted. (See Over)

WARNING: A PLUG WITH BARED FLEXIBLE CORDS IS HAZARDOUS IF ENGAGED IN A LIVE SOCKET OUTLET.

The Wires in this mains lead are coloured in accordance with the following code:
    Green-and-yellow················Earth
    Blue ·······························Neutral
    Brown······························Live
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

WARNING: THIS APPARATUS MUST BE EARTHED.

IMPORTANT SAFETY INSTRUCTIONS

All the safety and operating instructions should be read before the product is operated.

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 dealer 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.
f. 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.
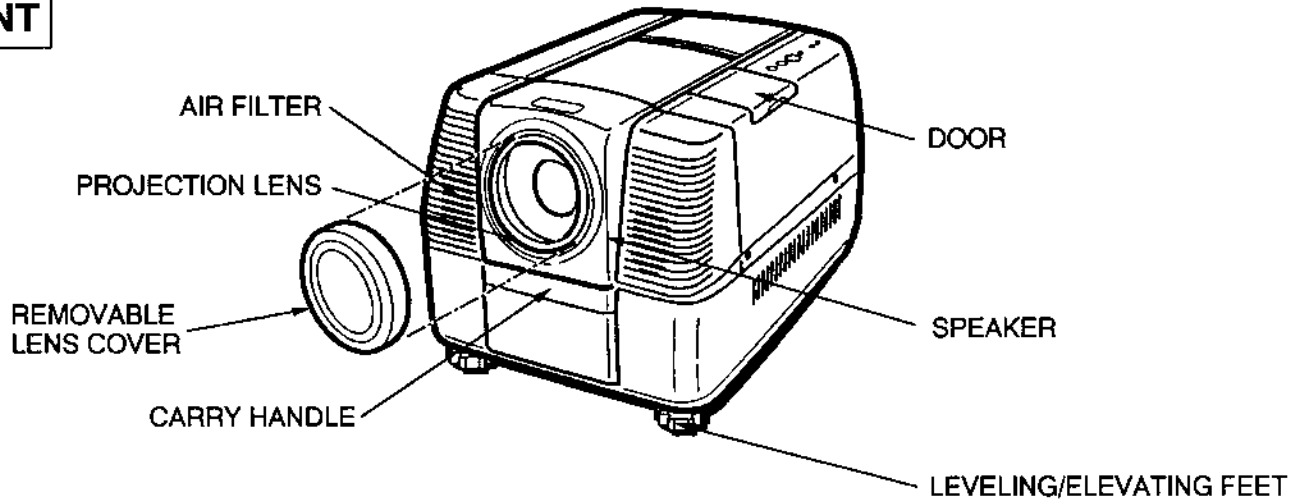
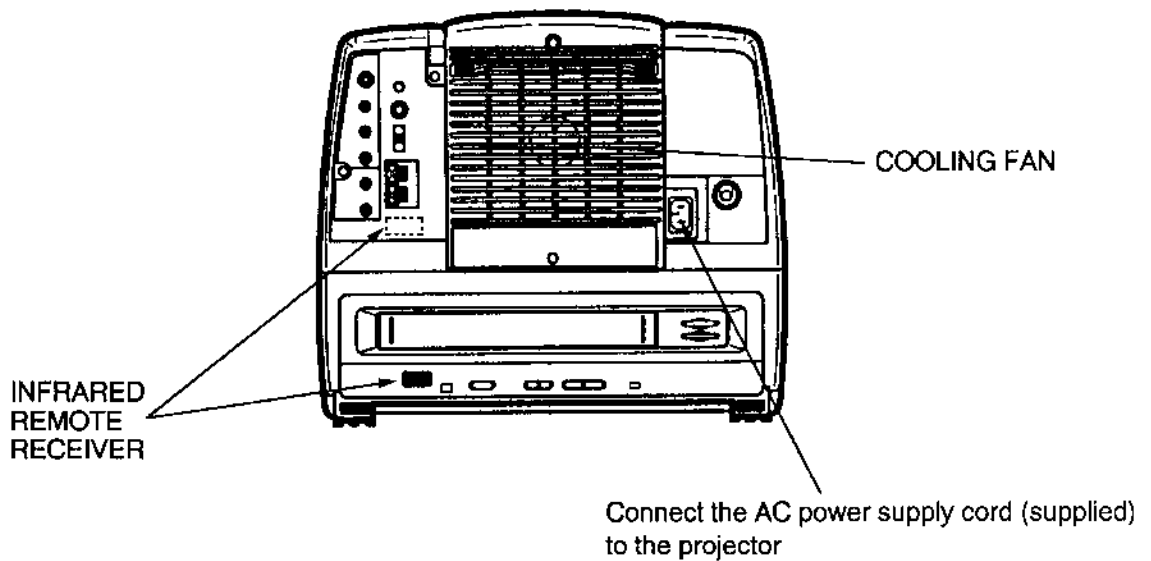# TABLE OF CONTENTS

POWER REQUIREMENTS

Your projector uses nominal input voltage of 220 ~ 240 VAC. The projector automatically selects the correct input voltage. The projector is designed to work with single-phase power systems having a grounded neutral conductor. To reduce the risk of electrical shock, do not plug into any other type of power system. Consult your authorized dealer or service station if you are not sure what type of power is supplied to your building.

DESCRIPTION

FRONT

AIR FILTER

PROJECTION LENS

REMOVABLE
LENS COVER

CARRY HANDLE

DOOR

SPEAKER

LEVELING/ELEVATING FEET

REAR

COOLING FAN

INFRARED
REMOTE
RECEIVER

Connect the AC power supply cord (supplied)
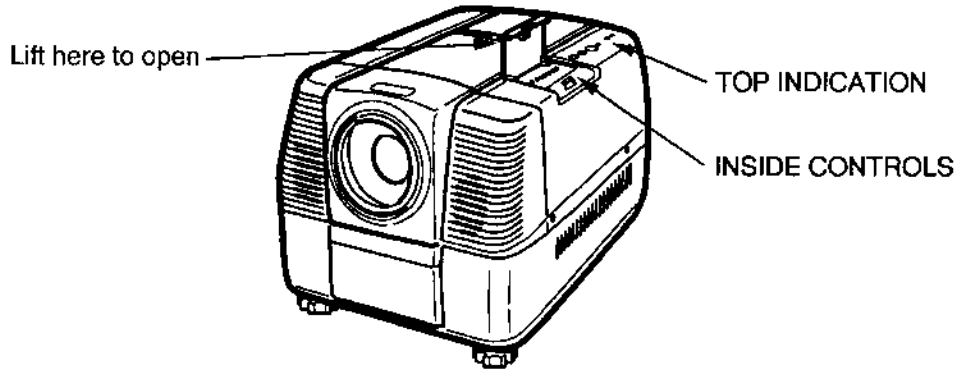to the projector

---

MOVING THE PROJECTOR

Push the front center of the projector to release
the carry handle.
Use the carry handle when moving projector.

Please attach the lens cover to the carry handle
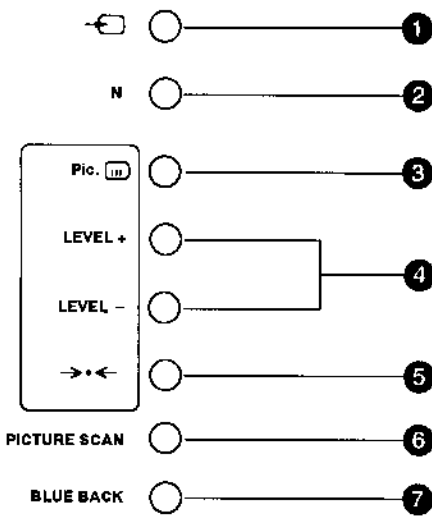with the wire accessory, so it will not be lost.

Carry handle
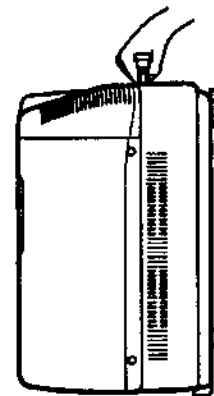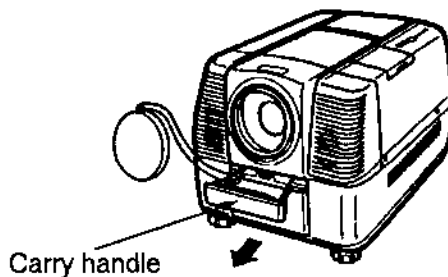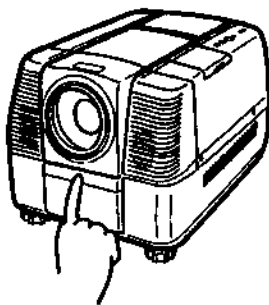
Replace the lens cover and retract the lens when moving the projector to prevent
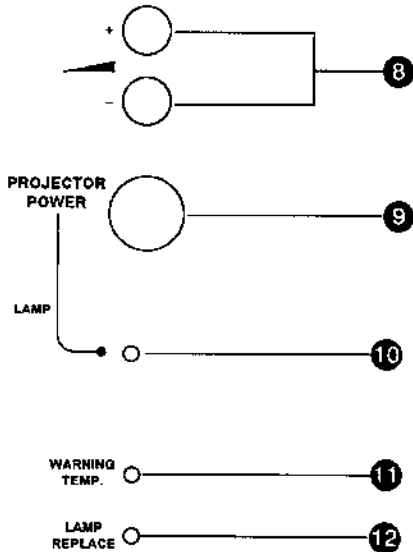damage to the lens. Retract the leveling/elevating feet.

OPERATION OF CONTROLS (PROJECTOR)

Lift here to open — TOP INDICATION

INSIDE CONTROLS

INSIDE CONTROLS

- ❶
- ❷
- Pic. — ❸
- LEVEL + / LEVEL − — ❹
- →•← — ❺
- PICTURE SCAN — ❻
- BLUE BACK — ❼

TOP INDICATION

- + / − — ❽
- PROJECTOR POWER — ❾
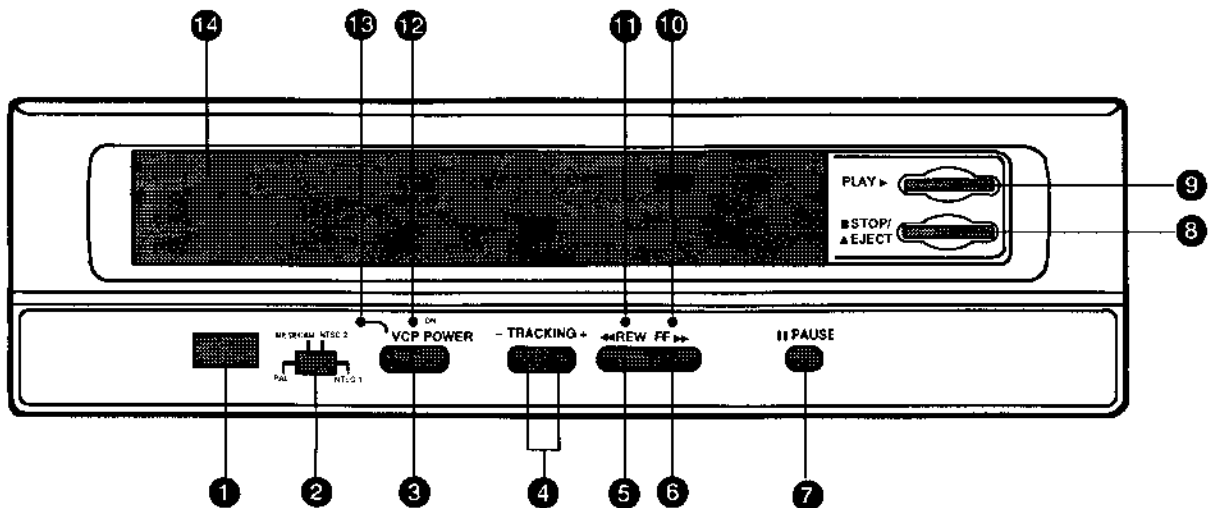- LAMP — ❿
- WARNING TEMP. — ⓫
- LAMP REPLACE — ⓬

❶ VIDEO MODE BUTTON
Used to select video source (Built-in Video or External Video equipment).

❷ COLOUR SYSTEM BUTTON
Used to select colour system.

❸ MENU BUTTON
Used to select on-screen adjustment displays for colour, tint, brightness, contrast and sharpness. Press repeatedly to cycle.

❹ LEVEL CONTROL BUTTONS
Used to adjust colour, tint, brightness, contrast, sharpness by pressing + or − button.

❺ NORMAL BUTTON
Used to reset to normal picture adjustment preset by factory.

❻ PICTURE SCAN BUTTON
Used to reverse scan for rear projection.

❼ BLUE BACK BUTTON
Used to project a blue image without video noise.

❽ VOLUME BUTTONS
Used to adjust volume.

❾ POWER (LAMP) ON/OFF BUTTON
Used to turn projection lamp on or off.

❿ POWER INDICATOR
Lights dim when the projector is on.
Lights bright when the projector is stand-by position.

⓫ TEMPERATURE WARNING INDICATOR
Lights red when internal projector temperature is too high.

⓬ LAMP REPLACEMENT INDICATOR
Lights orange when projection lamp is nearing end of service life.

BACK OF THE PROJECTOR
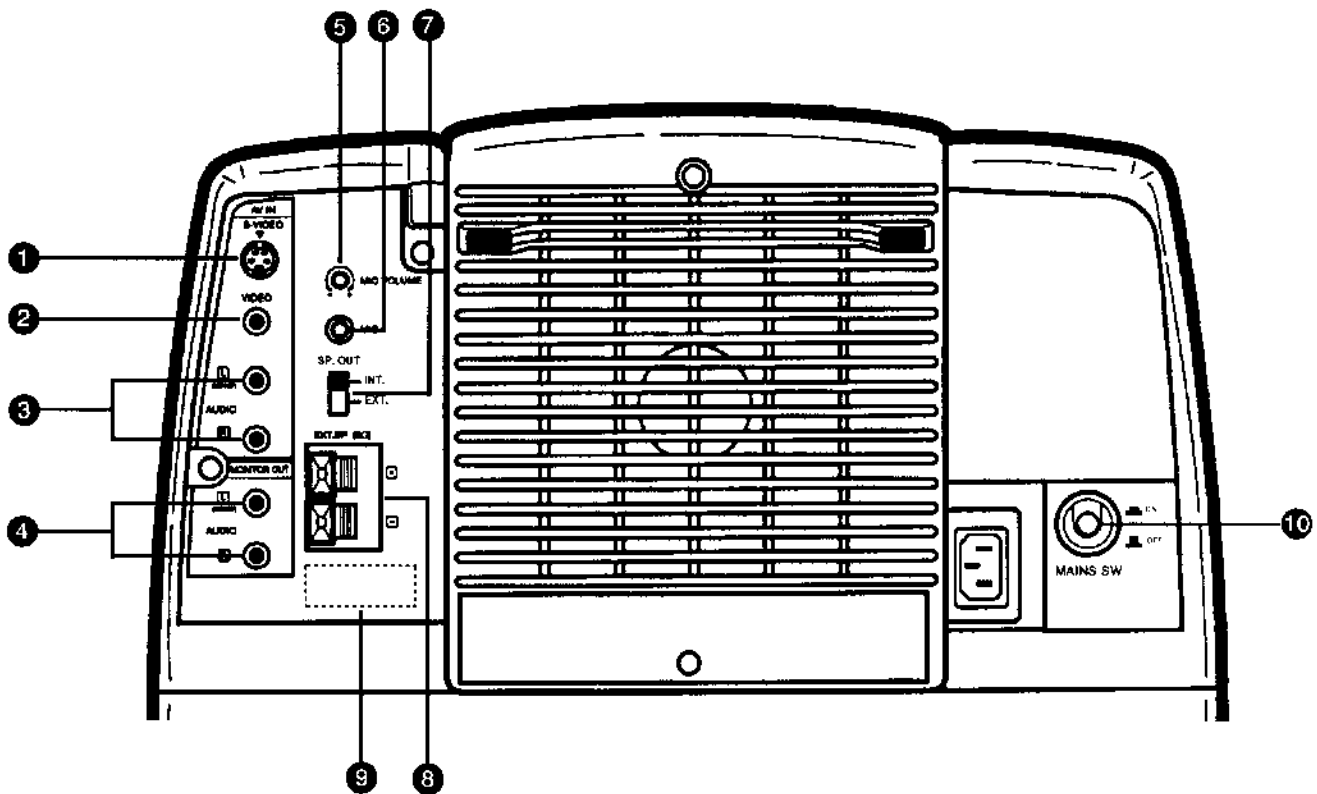
① S-VIDEO INPUT JACK
Used to connect a S-VHS video source to the projector.

② VIDEO INPUT JACK
Used to connect a video source to the projector.

③ AUDIO INPUT JACKS
Used to connect an audio source to the projector.

④ AUDIO MONITOR OUTPUT JACKS
Permits audio connection to a monitor.

⑤ MICROPHONE VOLUME
Used to adjust the microphone volume.

⑥ MICROPHONE JACK
Used to connect the microphone.

⑦ SP OUT SWITCH
Used to select speaker output "INT." or "EXT." (built-in speaker or external speaker).

⑧ EXTERNAL SPEAKER TERMINAL
Used to connect the external speaker.

⑨ PROJECTOR IR SENSOR
Used to receive the PROJECTOR control signal from remote control unit.

⑩ MAINS SWITCH
Used to turn the projector and built-in video cassette player main power on or off.
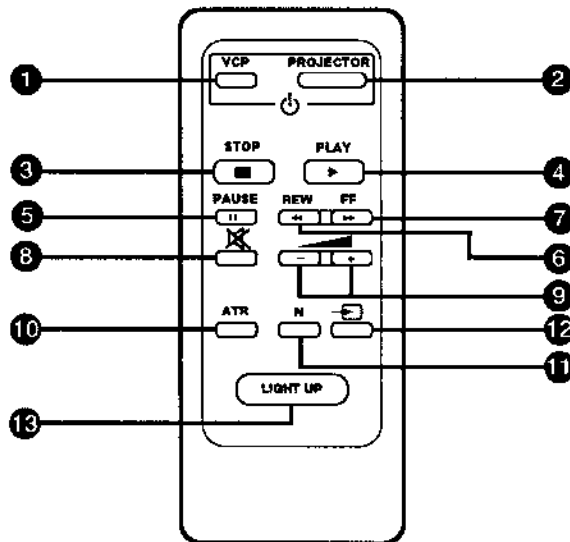
OPERATION OF CONTROLS (VIDEO CASSETTE PLAYER)

① VCP IR SENSOR
Used to receive the VCP control signal from remote control unit.

② COLOUR SYSTEM SWITCH
Used to select colour system.

③ VCP POWER BUTTON
Used to turn built-in video cassette player on or off.

④ TRACKING BUTTONS
Used to eliminate the noise on playback picture.

⑤ REW (Rewind)/REVERSE SEARCH BUTTON
● VCP STOP Mode
Used to rapidly rewind a tape to its beginning.
● VCP PLAYBACK Mode
Used to quickly review picture playback in reverse direction.

⑥ FF (Fast-Forward)/FORWARD SEARCH BUTTON
● VCP STOP Mode
Used to rapidly advance a tape to forward location.
● VCP PLAYBACK Mode
Used to quickly view picture playback in forward direction.

⑦ PAUSE BUTTON
Used to stop playback temporarily.

⑧ STOP/EJECT BUTTON
● VCP STOP Mode
Used to eject the tape.
● VCP PLAYBACK Mode
Used to stop the playback.

⑨ PLAY BUTTON
Used to begin playback.

⑩ FF INDICATOR
Lights red when fast-forward or forward search operation.

⑪ REW INDICATOR
Lights red when rewind or reverse search operation.

⑫ ON INDICATOR
Lights red when the VCP is on condition.

⑬ VCP POWER INDICATOR
Lights red when the VCP is stand-by condition.

⑭ CASSETTE LOADING SLOT
Used to loading the video cassette tape.

REMOTE CONTROL OPERATION

**REMOTE
CONTROL
UNIT**

① VCP POWER BUTTON
Used to turn built-in video cassette player on or off.

② PROJECTOR POWER BUTTON
Used to turn projection lamp on or off.

③ STOP BUTTON
Used to stop the playback.

④ PLAY BUTTON
Used to begin playback.

⑤ PAUSE BUTTON
Used to stop playback temporarily.

⑥ REW (Rewind)/REVERSE SEARCH BUTTON
VCP STOP Mode; ·· Used to rapidly rewind a tape to its beginning.
VCP PLAYBACK Mode; ·································· Used to quickly review picture playback in reverse direction.

⑦ FF (Fast Forward)/FORWARD SEARCH BUTTON
VCP STOP Mode; ·· Used to rapidly advance a tape to forward location.
VCP PLAYBACK Mode; ·································· Used to quickly view picture playback in forward direction.

⑧ MUTE BUTTON
Used to mute sound.

⑨ VOLUME BUTTONS
Used to adjust volume.

⑩ ATR (Auto Tracking) BUTTON
Used to adjust tracking to the optimum point automatically.

⑪ COLOUR SYSTEM SELECT BUTTON
Used to select colour system.

⑫ VIDEO MODE BUTTON
Used to select video source (Built-in Video or External Video equipment).

⑬ LIGHT UP BUTTON
Press to light the back light for function buttons on the remote control unit for 5 seconds. Press any other function button during the lighting to light for another 5 seconds.
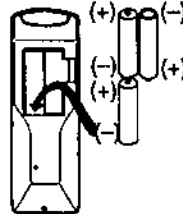
REMOTE CONTROL BATTERY INSTALLATION

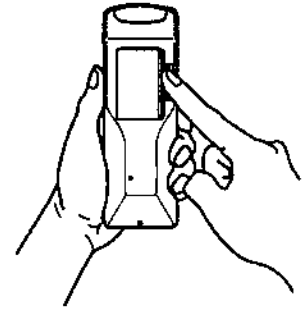**1** Remove the battery compartment lid.

PUSH UP
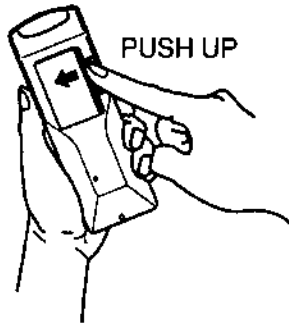
2 Slide the batteries into the compartment.

Note: For correct polarity (+ and – terminal), be sure the battery terminals are in contact with the pins in the compartment.

(+)　(–)
(–)　(+)
(+)
(–)

3 Replace the compartment lid.

USING THE REMOTE CONTROL UNIT

Point the remote control toward the back of the projector (IR sensor) whenever pressing the buttons. Maximum operating range for the remote control is about 5m and 60° from the back of the projector.

5m

60°

To insure safe operation, please observe the following precautions:
* Use (3) AA, UM3 or R06 type batteries.
* Change three batteries at the same time.
* Do not use a new battery with a used battery.
* Avoid contact with water.
* Do not drop the remote control unit.
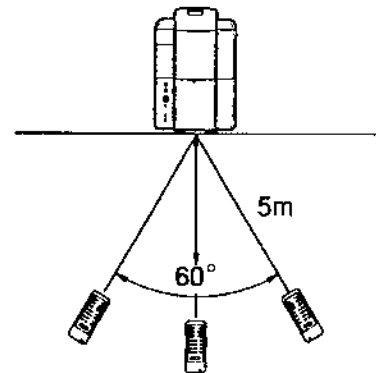
SETTING-UP THE PROJECTOR

POSITIONING:
- This projector is basically designed to project on a flat projection surface. If the projector is not placed at a 90° angle to the screen, the projected image may become distorted and difficult to view.
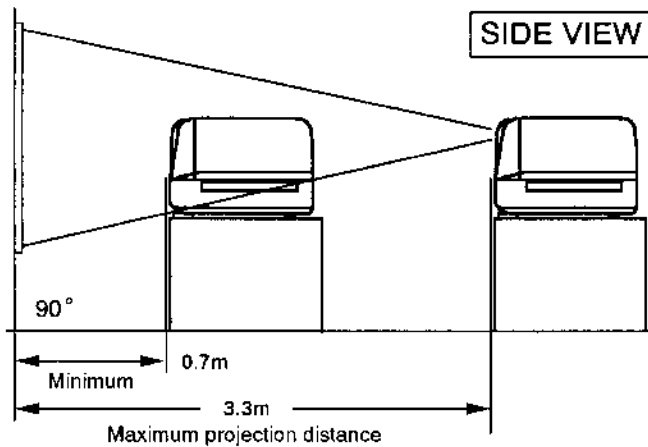- This projector can be focused from 0.7m ~ 3.3m.
- Use the illustration below as an example when positioning the projector to the screen.

SIDE VIEW

90°

0.7m
Minimum

3.3m
Maximum projection distance

ROOM LIGHT

The projector should ideally be placed in a room with very limited light. Picture quality will be directly affected by lighting conditions.

TOP VIEW

100"
80"
60"
40"
20"
90°

0.7m
1.4m
2.0m
2.7m
3.3m
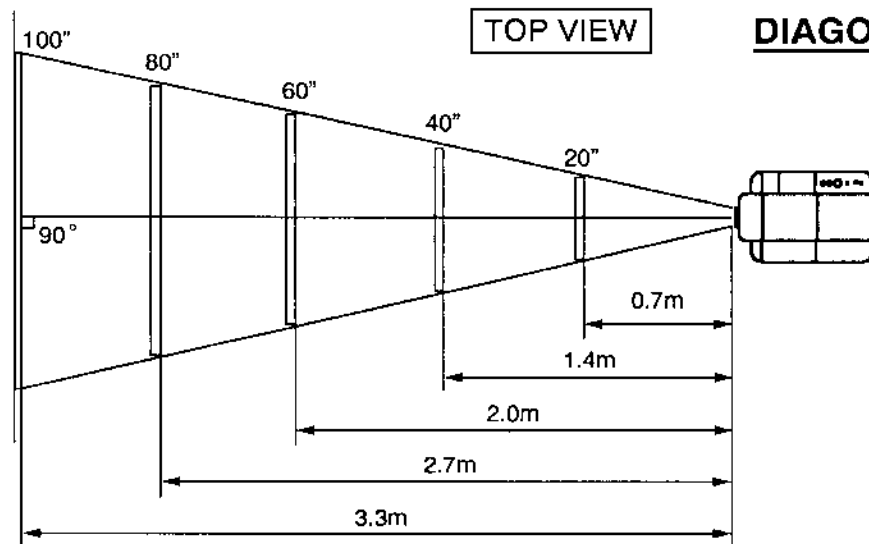
DIAGONAL IMAGE SIZES

LEVELING AND ELEVATING ADJUSTMENTS

Picture adjustments can be made with the two leveling/elevating feet.
Adjustments of 5° up are possible by rotating the feet on the bottom of the projector.

FEET

UP   DOWN

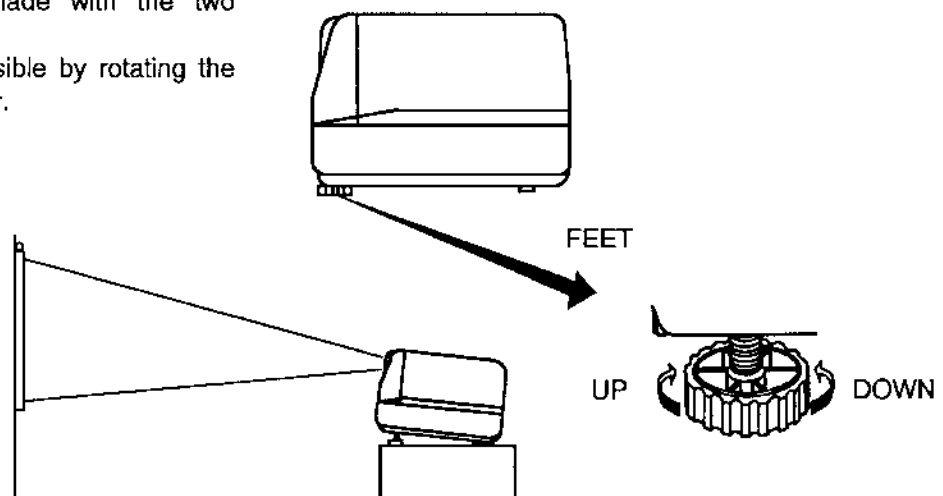# USING THE EXTERNAL VIDEO SOURCE

TO TURN ON THE PROJECTOR

Connect the projector to an external video source (VCR, Video Camera, Video Disc Player, etc.) using the appropriate terminals on the rear of the projector (See page 17).

Connect the projector's AC power cord into a wall outlet and press the MAINS switch (located on back of the projector) to ON (IN) position. The POWER indicator will light RED.

CAUTION:
● **DO NOT UNPLUG THE PROJECTOR OR PRESS MAINS SWITCH (LOCATED ON BACK OF THE PROJECTOR) TO OFF UNTIL THE COOLING FAN HAS STOPPED OPERATING.**

Press the POWER (LAMP) ON/OFF button on the projector (or on the remote control unit) to ON. The POWER indicator will light dim and the cooling fan will operate.

TO TURN OFF THE PROJECTOR

Press the POWER (LAMP) ON/OFF button on the projector (or on the remote control unit) to OFF. The POWER indicator will light bright. The cooling fan will operate for 1 minute after the projector is turned off.

NOTE 1: After you turn off the projector using the POWER (LAMP) ON/OFF button on the projector (or on the remote control unit) you must wait about 30 seconds before you can turn the projector on again.

NOTE 2: 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 18.)
(4). Press POWER (LAMP) ON/OFF button to ON.

If the TEMPERATURE WARNING INDICATOR still continues to flash, call your authorized distributor or dealer for service.
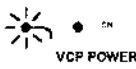
USING THE BUILT-IN VIDEO

This built-in VCP is based on a VHS-PAL signal system. Only video cassette bearing the [VHS] symbol can be used.

TO TURN ON THE BUILT-IN VIDEO

Connect the projector's AC power cord into a wall outlet and press the MAINS switch (located on back of the projector) to ON(IN) position, the VCP is in the stand-by condition. The VCP POWER indicator will light RED.

Press the POWER (LAMP) ON/OFF button on the projector (or on the remote control unit) to ON. Then press the VCP POWER button on the built-in VCP or on the remote control unit to ON. The VCP POWER and ON indicators will lights RED. The VCP is in the VCP power on condition.

VCP Stand-by Condition	VCP POWER indicator will light RED.	⚡ ● ON VCP POWER
VCP Power on Condition	VCP POWER and ON indicators will light RED.	⚡ ⚡ ON VCP POWER

AUTO POWER ON

The VCP power is automatically switched on as a cassette is inserted while the VCP is in the stand-by condition.

COLOUR SYSTEM

The built-in VCP can play back three types of tapes. The tapes recorded in the PAL format, the MESECAM format (Middle East Secam) and in the NTSC format.
Before beginning the playback of a tape, be sure to set the colour system switch on the front of the VCP as indicated in the table.

| Tape format	Projector colour system	VCP colour system
PAL	AUTO or PAL	PAL
NTSC	AUTO or NTSC	NTSC 1
	AUTO or PAL	NTSC 2
MESECAM	AUTO or SECAM	MESECAM

Notes:
[] If a cassette recorded on a SECAM VCR or a SECAM prerecorded tape is played back on this VCP, the picture will be black and white. Because this VCP cannot be used in France, the use of a SECAM system is suggested.

[] When using the AUTO position on a projector, the playback picture may be black and white or the sound may not be reproduced. In that case, set projector colour system to match position, according to the tape format to play back, indicated in the table.

CASSETTE LOADING AND UNLOADING

LOADING

When a video cassette is inserted, it will be loaded automatically.
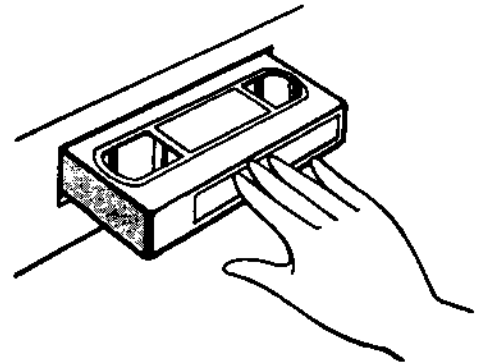
UNLOADING

POWER OFF EJECT

The video cassette will be ejected when the ■/▲ STOP/EJECT button is pressed, even when the VCP is in stand-by condition.

CAUTION: **Do not put your hand or other objects in the cassette loading slot because of the risk of injury or an accident.**
Be sure to keep small children away from the set.

AUTOMATIC HEAD-CLEANING SYSTEM

This VCP is equipped with an automatic head-cleaning system which automatically cleans the heads every time a cassette is loaded or unloaded. However if during playback noise appears in the picture, it is recommended to use commercially available head-cleaning cassettes to completely clean the video heads.

Note: Be careful not to use head-cleaning cassettes too often, as they may damage the video heads.

PLAYBACK

[] Insert the video cassette.

[] Press the ► PLAY button, the video cassette is playback. (► PLAY button is provided on the Built-in VCP or on the remote control unit).

[] Press the ◄◄ REW button, to rewind the tape. (◄◄ REW button is provided on the Built-in VCP or on the remote control unit).

[] Press the ►► FF button, to advance (fast-forward) the tape. (►► FF button is provided on the Built-in VCP or on the remote control unit).

[] Press the ■ STOP button, to stop the playback. (■ STOP button is provided on the Built-in VCP or on the remote control unit).

AUTO REWIND

When a video cassette is played to the end of the tape, the tape will be automatically rewind.

TRACKING ADJUSTMENT

AUTO-TRACKING ADJUSTMENT

If the playback picture is disturbed by noise interference press the ATR button on the remote control unit. Adjustment to the optimum point will occur automatically.

MANUAL TRACKING ADJUSTMENT

If the playback picture still shows interference, manually adjust it with the TRACKING (– ,+) controls on the built-in VCP, to minimize the noise.

Note: If you wish to return the tracking adjustment to its original "center position" after having changed it, press both the TRACKING (– , +) controls simultaneously.
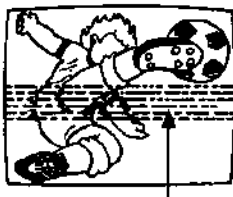
Noise interference

SPECIAL PLAYBACK

FORWARD SEARCH

[] Press the ►► FF button during playback or fast-forward operation. The picture can be viewed while the tape is advanced at a fast speed.

[] Normal playback will resume as the ► PLAY button is pressed.

REVERSE SEARCH

[] Press the ◄◄ REW button during playback or rewind operation. The picture can be viewed while the tape is rewound at a fast speed.

[] Normal playback will resume when the ► PLAY button is pressed.

Note: To search for a particular scene you can switch from fast forward to forward search and vice versa by simply pressing the ►► FF button, or from rewind to reverse search by simply pressing the ◄◄ REW button.

VCP PAUSE

[] Press the II PAUSE button during playback, to stop playback temporarily. (II PAUSE button is provided on the Built-in VCP or on the remote control unit).

[] Normal playback will resume when the ► PLAY button is pressed.

Notes:

During pause mode, the picture may contain some noise or vibration. But this is not a malfunction.

If pause the playback is continued for about five minutes, the VCP will automatically change to stop mode in order to prevent the tape from being damaged.
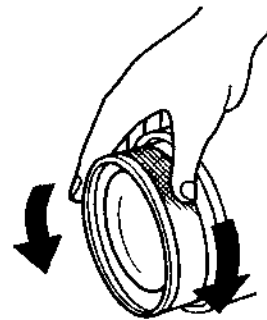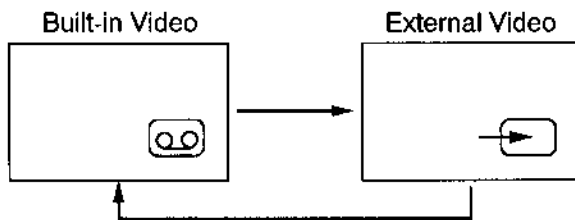
ADJUST THE PROJECTOR

FOCUS ADJUSTMENT
Turn the outside of lens using your fingers for sharper, crisper picture.

VIDEO MODE SELECT
Press the VIDEO MODE button (located on projector or remote control unit) to select Built-in Video or External Video equipment. The "⊠" or "⊟" display will appear on the screen.

Built-in Video   External Video

VOLUME ADJUSTMENT
Press VOLUME buttons (located on projector or remote control unit) to adjust the volume. The screen display will appear.
Pressing (+) will increase volume and the green indicator will increase to the right on the screen.
Pressing (-) will decrease volume and the green indicator will decrease to the left on the screen.

◢ SOUND
IIIIIIII----

SOUND MUTE ADJUSTMENT
Pressing MUTE button on the remote control unit will mute audio and the indication will be changed to red. Press MUTE button again to restore audio to its previous level.

◢ SOUND MUTE
IIIIIIII----

PICTURE ADJUSTMENT
The normal picture level is factory preset on the projector and can be obtained anytime by pressing the NORMAL button on the projector. (The Normal display will appear for 5 seconds.)
Picture adjustments can be made by using the MENU and LEVEL buttons on the projector. (See picture adjustment on page 15.)

NORMAL
- - -▶ ◀- - -

COLOUR SYSTEM SELECT
Press the SYSTEM button (located on projector or remote control unit) to select AUTO, PAL, SECAM, NTSC4.43 or NTSC.
Each time the SYSTEM 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 picture quality is poor, make sure the proper colour system is selected to match the video source.

AUTO → PAL → SECAM → NTSC4.43 → NTSC
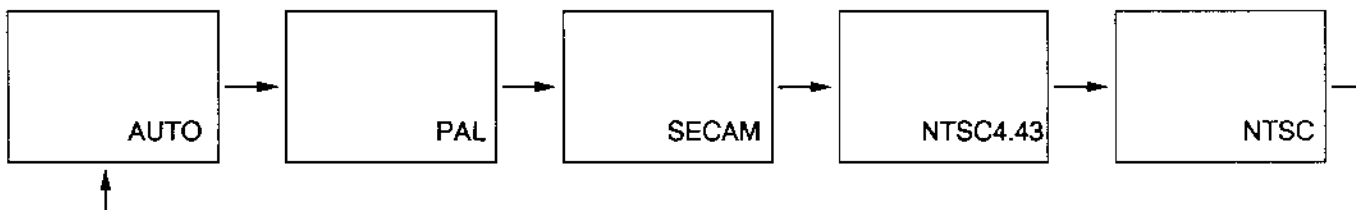
OTHER CONTROLS

BLUE BACK
Press BLUE BACK button on the projector.
Project the blue image without video noise on the screen when the video source is unplugged or turned off.
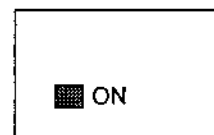
▓ ON   ☐ OFF
BLUE BACK ON   BLUE BACK OFF

PICTURE SCAN
Press PICTURE SCAN button on the projector.
Picture reverse capability lets you project onto the screen from in front or behind.

PICTURE ADJUSTMENTS

**INSIDE CONTROLS
OF THE PROJECTOR**

MENU
BUTTON
LEVEL CONTROL
BUTTONS
NORMAL
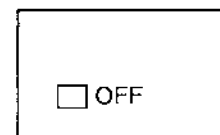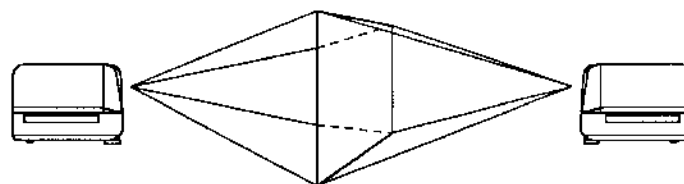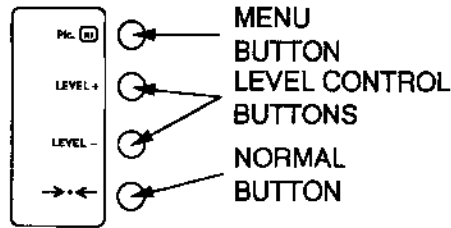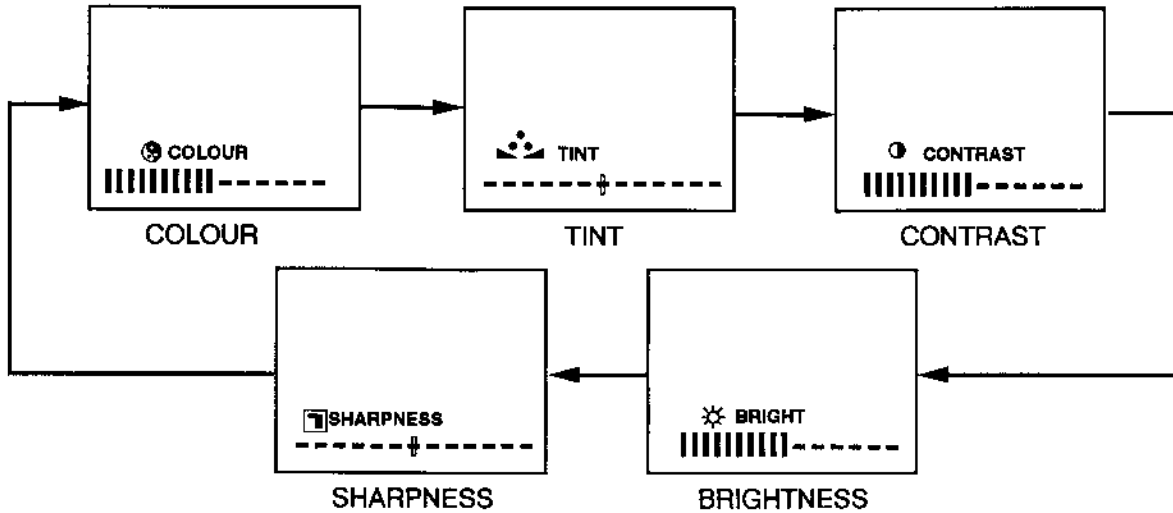BUTTON

Picture adjustments have been preset at the factory to our quality standards. The picture adjustments can be made by the MENU and LEVEL buttons on the projector.

1. Press the MENU button to select the picture adjustments function.
   Each time the MENU button is pressed, the control function changes as follows:

COLOUR

TINT

CONTRAST

SHARPNESS

BRIGHTNESS

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

2. Adjust the colour intensity, tint, contrast, brightness or sharpness by pressing the LEVEL (+ and -) buttons.
3. The ON-SCREEN display will disappear automatically in 5 seconds.

− LEVEL +	
• Press the LEVEL CONTROL buttons to make adjustments. Refer to the control chart below.	
COLOUR	DECREASES ◄──► INCREASES
TINT	MORE PURPLE ◄──► MORE GREEN
CONTRAST	SOFTER ◄──► SHARPER
BRIGHTNESS	DARKER ◄──► BRIGHTER
SHARPNESS	SOFTER ◄──► SHARPER

NOTE: The projector is equipped with a built-in memory feature that can maintain the picture adjustment levels set on Built-in video mode and External video mode respectively even if the projector is turned off and AC power cord is disconnected. If the NORMAL button is pressed, the projector will return to factory preset level.

CONNECTING THE PROJECTOR

CONNECTING TO THE AV INPUT JACKS

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

● Connect video/audio outputs from external sources to these input jacks.
● 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, connect it to the left jack.
● If your AV equipment has 21 pin scart connector, use phono-21 pin scart adaptor (supplied).

S-VHS FORMAT VCR CONNECTION

The AV input includes 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 PHONO type video jack.

CONNECTING TO THE AUDIO MONITOR OUTPUT JACKS

These jacks will contain the audio information of the selected program source being viewed on the screen. If you have selected program source "External video", the audio signals connected to the audio input jacks will be available at the audio monitor output jacks.

● Connect audio inputs from Audio equipment to these 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, connect it to the left jack.

EXTERNAL SPEAKER CONNECTIONS

The External Speaker Terminals are provided to directly connect projector to external speaker. For proper matching, the impedance of the external speaker should be 8 Ohms and the power rating should be more than 5 watts.
Connect wires from external speaker following indications on the terminals. Before connecting the wires to the terminals, strip off 3/8" of the insulation and twist the exposed wires. Press the tab on the terminal, insert the wires into the hole of the terminal, and release the tab.

Once the speaker is connect to the External Speaker Terminals, slide the SP OUT switch to the "EXT." position to receive audio through the external speaker system. To change back to the built-in speaker, slide the SP OUT switch to the "INT." position.

NOTE; 1. Do not change the position of the SP OUT switch while the projector is set at a high volume. Adjust the volume to the minimum level.
2. Do not connect these terminals with any other audio equipment, this also may damage the projector.
3. Also, do not attempt to connect more than one external speaker system at a time.

MICROPHONE CONNECTION

The Microphone jack (mini type) are provided projector.
● Connect the microphone into the microphone jack.
● Turn the MIC VOLUME control to adjust the microphone volume.

HOW TO CONNECT EXTERNAL AV EQUIPMENT

Microphone

Video Cassette Recorder

Projector

Satellite TV Tuner

Video Disc Player

SPEAKER (L)

Amp.

SPEAKER (R)

AUDIO

EXTERNAL
SPEAKER

AUDIO

S-VHS VCR

Microphone

Microphone
Jack

VIDEO OUTPUT

Satellite TV Tuner

AUDIO OUTPUT

AUDIO OUTPUT   S-VIDEO OUTPUT

Video Disc Player

S-VIDEO INPUT

AV IN

S-VIDEO

Video Cassette
Recorder

MIC VOLUME

VIDEO

AUDIO INPUT

VIDEO INPUT

SP. OUT

AUDIO INPUT

AUDIO

EXTERNAL
SPEAKER
TERMINAL

MONITOR OUT

AUDIO

AUDIO MONITOR
OUTPUT

EXTERNAL
SPEAKER

R   L

AUDIO   SPEAKER   SPEAKER
INPUT   OUTPUT   (L)

Amp.

SPEAKER
(R)

AIR FILTER CARE AND CLEANING

The removable air filter prevents dust from accumulating on the surface of the projection lens and LCD panel.
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 reduce the life of the projection lamp.

To clean the air filter, follow the cleaning procedures below:
1. Turn the POWER (LAMP) ON/OFF button OFF.
2. Remove the air filter cover from the front of the projector.
3. Remove the air filter and sponge from the filter cover.
4. Clean the air filter and sponge with a vacuum cleaner.
5. Replace the air filter and sponge. Make sure that air filter cover is fully inserted.

⚠ Do not clean with water. Doing so may damage the air filter.
Do not operate the projector with air filter removed.

AIR FILTER
AND SPONGE

PULL

PUSH

AIR FILTER
COVER
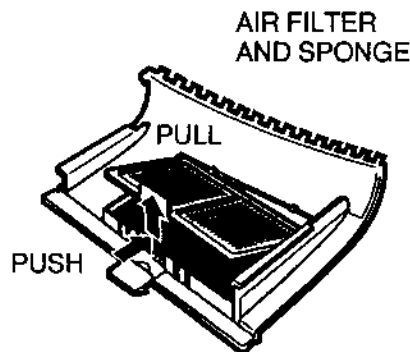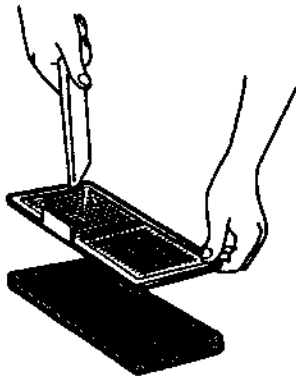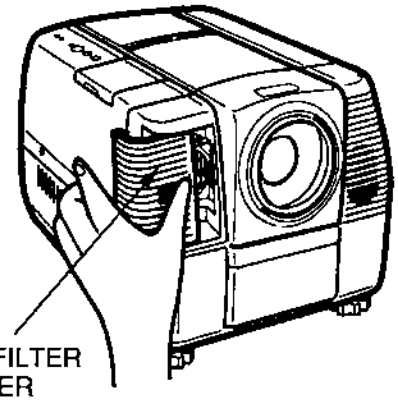
LAMP REPLACEMENT & TEMPERATURE WARNING INDICATORS

LAMP REPLACEMENT INDICATOR

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

⚠ **DO NOT ATTEMPT TO REMOVE OR CHANGE THE PROJECTION LAMP. THE LAMP CAN ONLY BE CHANGED BY QUALIFIED SERVICE PERSONNEL.**

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 front or rear 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 be malfunctioning. Request service from an authorized dealer or service station.

HELPFUL HINTS-Problems and Solutions

Check the following chart before requesting service.

PROJECTOR

Problem:	Try these Solutions:
No power.	● Plug the projector into an AC outlet. ● Press the MAINS switch to ON. ● Press the POWER (LAMP) ON/OFF button to ON.
No sound from built-in speaker.	● Press the VOLUME (▲) and (▼) to (▲). ● Check audio cable connection from audio input source. ● Check SP OUT switch to "INT." position.
Picture is reversed.	● Press the PICTURE SCAN switch.
Picture blurred or color faded.	● Check the projection distance 0.7m ~ 3.3m. ● Adjust the FOCUS control. NOTE: Moving the projector from a cool temperature location to a warm temperature location may result in moisture condensation on the lens. In such an event, leave the projector OFF and wait until condensation disappears.

BUILT-IN VCP

Problem:	Try these Solutions:
No power.	● Plug the projector into an AC outlet. ● Press the MAINS switch to ON. ● Press the VCP POWER button to ON.
Playback picture does not appear.	● The colour system switch setting does not correspond to the tape format.
Playback picture is black and white or no sound is reproduced.	● Is the colour system on projector correctly selected?
Interference in playback picture.	● Adjust the tracking control. ● Dust or dirt on video heads. Take the unit to an Authorized Service Station or dealer.

CAUTION CONCERNING CONDENSATION

BE CAREFUL OF CONDENSATION

Condensation is the moisture that forms on the outside of a glass when you fill it with cold water. Condensation can also form inside a VCP when it is suddenly moved from a cold place to a warm, humid one, or when a heater has been turned on to quickly heat the room.
Particular care must be taken with set because water particles that form on the video head drum, which is the video unit mechanism, can cause the video tape to stick to the drum. This prevents proper tape travel and may damage both tape and mechanism.

Follow the procedures below the first time you use the set, and whenever you use it in places which are subject to condensation:

1. Plug the power cord into a AC outlet.
2. Turn on the VCP power to warm it up and speed up the drying of any water particles that may have formed on the video head drum.
3. Do not insert a video cassette.

It takes about 1-1/2 to 2 hours to completely eliminate condensation. Wait at least this long before using the set.
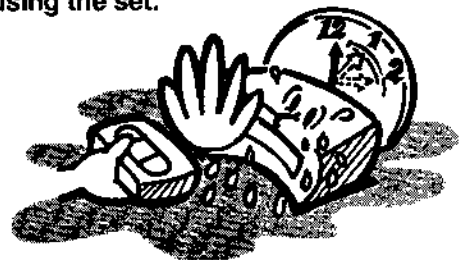
TECHNICAL SPECIFICATIONS

SPECIFICATIONS

Projector Type	LC Colour Video Projector with Video Cassette Player
Dimensions (H × W × D)	284mm × 316mm × 427mm
Net Weight	10.9 kg (24.1lbs)
LCD Panel System	3.6" TFT Active Matrix Type (Thin Film Transistor) × 1
Number of Pixels	301,158
Projector Colour System	4 Colour System (PAL, SECAM, NTSC4.43 and NTSC)
Projection Image Size (Diagonal)	50.8 cm to 254 cm (20 to 100 inch) Adjustable
Contrast Ratio	100 : 1
Horizontal Resolution	350 TV lines
Projection Lens	f2.5 lens with Manual focus
Lens Aperture	62.3mm
Throw Distance	0.7m ~ 3.3m
Projection Lamp	Metal Halide, 125 watts
AV Input Jacks	PHONO Type × 1 set (Video, Audio R and L), DIN 4 pin (S-Video) × 1
Audio Monitor Output Jacks	PHONO Type × 1 set (R and L)
Built-in Speaker	Monaural, 3.5 watts RMS (T.H.D. 10%)
Ext. SP. Terminals	Monaural, 5 watts RMS (T.H.D. 10%)
Microphone Jack	Mini Type
Video Format	VHS PAL/NTSC
Video Heads	2 Heads
Video Colour System	3 Colour System (PAL, MESECAM and NTSC)
Tape Speed	PAL/MESECAM format 23.39mm/sec. NTSC format 33.35mm/sec.
Image Elevation Adjustment	Up 5°
Voltage	220 ~ 240V AC, 50/60 Hz
Power Consumption	195 Watts
Operating Temperature	5℃ ~ 35℃
Storage Temperature	− 10℃ ~ 60℃
Remote Control Battery	AA, UM3 or R06 type × 3
Standard Accessories	Remote Control Unit, AC Power Supply Cord, phono-21 pin scart adaptor Lens Cover, Owner's Instruction Manual and Protective Dust Cover.

- MEMO -

- MEMO -

SANYO

SANYO Electric Co., Ltd