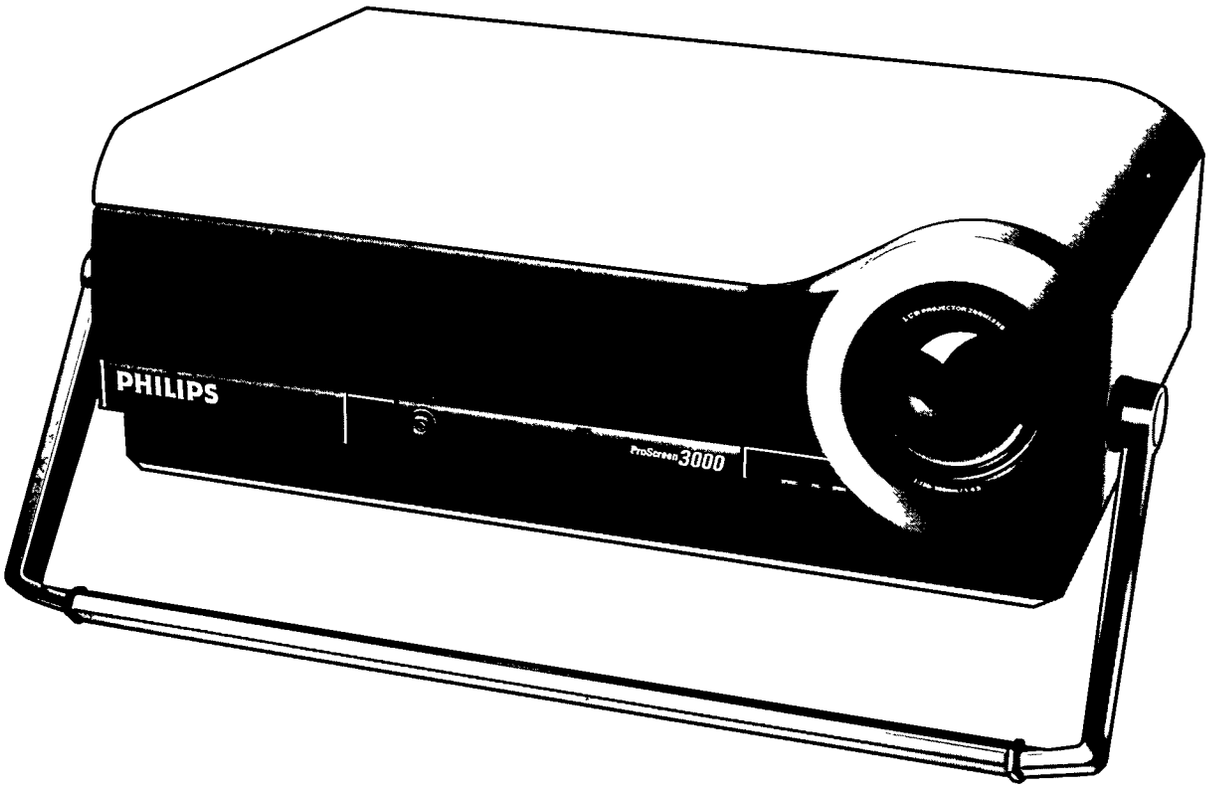
PHILIPS

DATA/VIDEO PROJECTOR
OWNER'S MANUAL



MODEL LC 3000

PHILIPS

PHILIPS

PLEASE SEE INSIDE COVER
FOR 3 IMPORTANT STEPS
TO TAKE BEFORE
OPERATING YOUR
NEW PROJECTOR

PHILIPS
Smart.Very smart.

WARRANTY REGISTRATION CARD

Return your Warranty Registration Card today to ensure you receive all the benefits you're entitled

Once your PHILIPS purchase is registered, you're eligible to receive all the privileges of owning a PHILIPS product. So complete and return the Warranty Registration Card enclosed with your purchase at once. And take advantage of these important benefits.

■ Warranty Verification

Registering your product within 10 days confirms your right to maximum protection under the terms and conditions of your PHILIPS warranty.

■ Owner Confirmation

Your completed Warranty Registration Card serves as verificaton of ownership in the event of product theft or loss.

■ Model Registration

Returning your Warranty Registration Card right away guarantees you'll receive all the information and special offers which you qualify for as the owner of your model.

PHILIPS
Smart.Very smart.

HURRY! Registration Needed Within 10 Days

Congratulations on your purchase, and welcome to the 'family'!

Dear PHILIPS product owner

Thank you for your confidence in PHILIPS. You've selected one of the best-built, best-backed products available today. And we'll do everything in our power to keep you happy with your purchase for many years to come.

As a member of the PHILIPS 'family', you're entitled to protection by one of the most comprehensive warranties and outstanding service networks in the industry.

What's more, your purchase guarantees you'll receive all the information and special offers for which you qualify, plus easy access to accessories from our convenient home shopping network.

And most importantly you can count on our uncompromising commitment to your total satisfaction.

All of this is our way of saying welcome and thanks for investing in a PHILIPS product.

Sincerely,

Robert Minkhorst
President and Chief Executive Officer

P.S. Remember, to get the most from your PHILIPS product, you must return your Warranty Registration Card within 10 days. So please mail it to us right now!

Know these safety symbols

⚠ This 'bolt of lightning' indicates uninsulated material within your unit may cause an electrical shock. For the safety of everyone in your household, please do not remove product covering.

⚠ The 'exclamation point' calls attention to features for which you should read the enclosed literature closely to prevent operating and maintenance problems.

WARNING: To prevent fire or shock hazard, do not expose this equipment to rain or moisture.

CAUTION: To prevent electric shock, match wide blade of plug to wide slot, and fully insert.

For Customer Use

Enter below the Serial No. which is located on the rear of the cabinet. Retain this information for future reference.

Model No. _____

Serial No. _____

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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD DO NOT EXPOSE THIS UNIT TO RAIN OR EXCESSIVE MOISTURE.

The Model and Serial Numbers are found on the back of this Projector. Please record these numbers and purchase date in the space below. Refer to them whenever you ask your dealer about this Projector.

Model No. .....

Serial No. .....

Purchase Date .....

Please attach your sales receipt to this book and keep it for future reference.

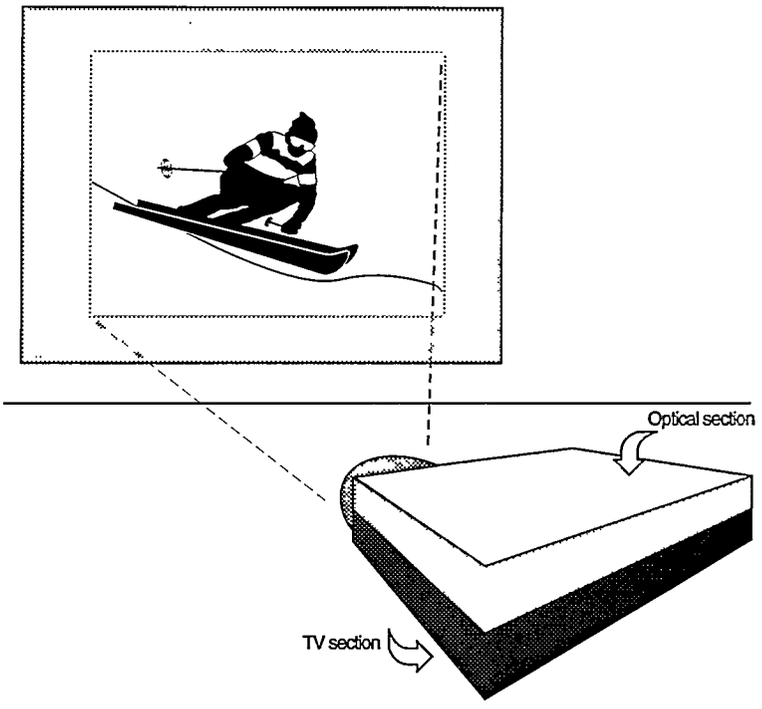
How your Projector Works

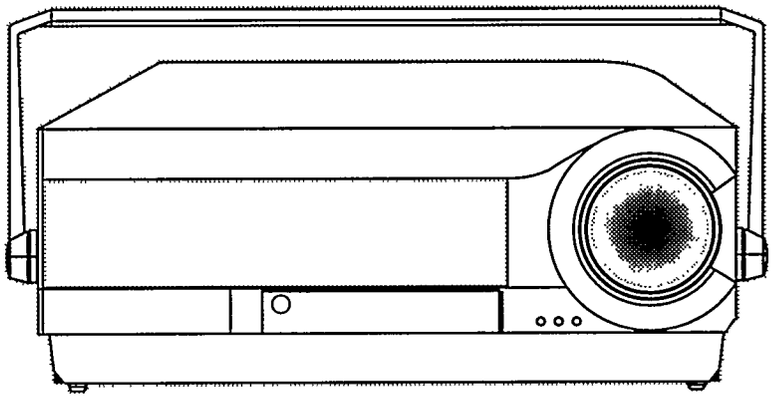
Your Projector is a compact unit which enables you to project large TV pictures onto screens, just like a slide or movie projector.

Inside your Projector are two main sections:
- the Electronic section which handles the signals coming from your computer or video source
- the Optical section which projects the pictures onto your screen.

The picture is built up inside the projector on three Liquid Crystal panels, one for each of the three primary colors (red, green and blue). The optical system combines these into one high-quality, full-color picture which is then projected onto your screen.

The Projector uses a zoom lens so you can easily change the picture size to fit your screen.





FEATURES

Compact Projector with 2x zoom lens, giving pictures from 40 to 140 inches wide. Zoom and focus manually and via remote control.

Liquid Crystal Display panels for high quality pictures. Long life metal Halide Lamp. Multi beam light collection for excellent corner brightness.

On-Screen graphics display for feature controls such as channel programming, timer settings, and color adjustments.

Infrared Remote Control operates your Projector and many VCRs and Cable TV Converters.

Standard Broadcast (VHF/UHF) or Cable TV (CATV) channel capability.

Automatic channel programming for quick, and easy selection of favorite stations in your area.

Channel Control for blanking of channels and Audio/Video connections preventing not authorized users from watching.

Stereo-Ready TV for receiving TV programs broadcast in stereo sound or (SAP) bilingual broadcast. Internal, monaural speaker. Connects to audio hi-fi systems for stereo sound.

Closed Captioning (CC) is available for 4 data channels with Text and Captionings utilizing 2 languages for broadcasts and pre-recorded tapes (when CC is available)

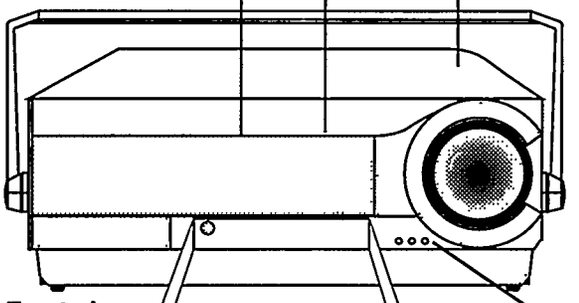
Audio/Video jackpanel for direct connections of accessories such as VCRs.

RGB Inputs

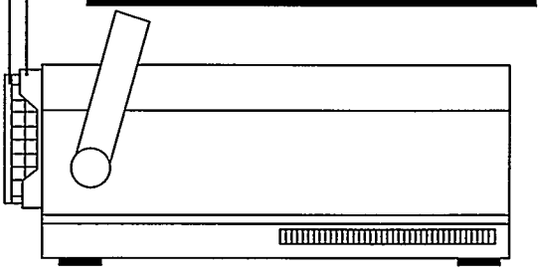
Timer which automatically turns the Projector OFF after a preset time period.

LENS
The picture is projected from here onto your screen
LOUDSPEAKER
Hidden behind the front grille
POWER ON/STAND BY
Lights when Projector is ON.

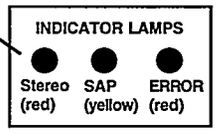
FOCUS CONTROL RING
Turning this makes the picture on your screen sharper.
ZOOM CONTROL RING
Turning this makes the picture on your screen larger or smaller.

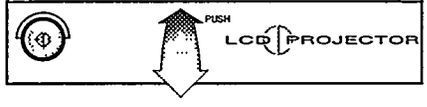


Front view



Side view



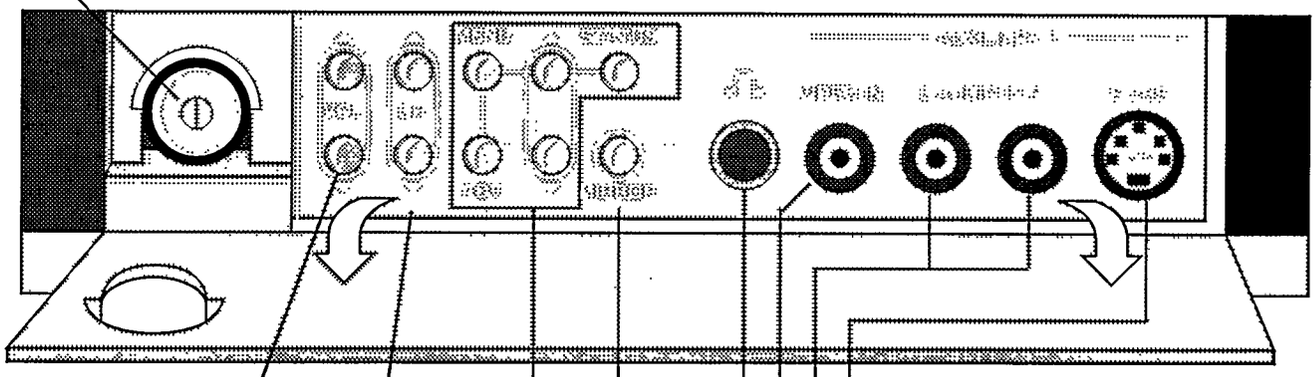


Push the front control door to make it swing open. Push it again to close.

Controls are behind the swing-out front control door. See next page for details.

Projector Front Panel Buttons and Jacks

POWER ON / STAND BY BUTTON



VOLUME ▲ (UP), ▼ (DOWN) BUTTONS
Press to adjust the Projector sound level.

CHANNEL ▲ (UP), ▼ (DOWN) BUTTONS
Press to scan up or down through the channel numbers.

MENU BUTTONS
Press the MENU button to display On-Screen feature controls.
Press ADV(ance) to move through the list of On-Screen features.
Press ▲ to get a menu of a selected On-Screen feature.
Press ▲ and ▼ to adjust the menu item selected.
In Menu mode, press STATUS (EXIT) to switch On-Screen displays OFF.
In normal mode, press STATUS (EXIT) once to get short display of settings, twice to get long, more detailed display.

S-VHS (AUX 3)
Jack for S-VHS, Video input from VCR or camcorder.

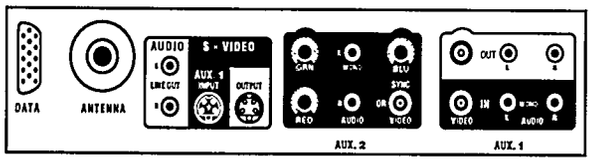
AUDIO JACKS
L(eft) jack for left-channel audio input.
R(ight) jack for right-channel audio input.

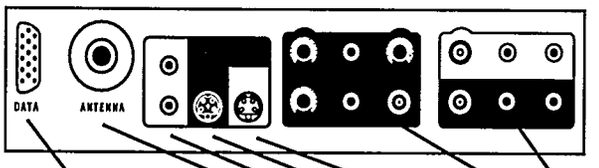
VIDEO IN (AUX 3)
RCA Jack for VCR or camcorder.

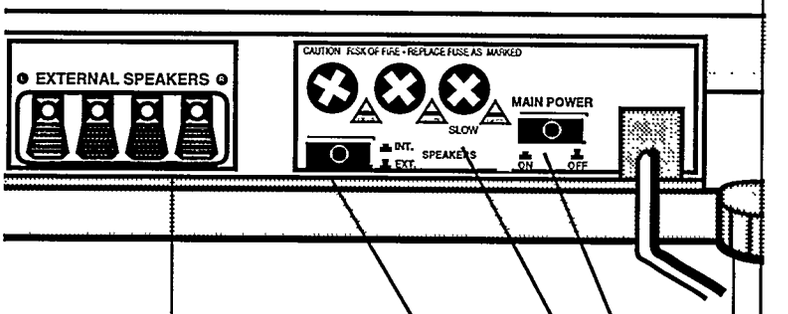
HEADPHONES " "
Jack for headphones (6,3 mm).
You can switch off the internal speaker with the INTERNAL/EXTERNAL speaker switch on the back of the Projector (See page 7).

MIRROR
This button controls an internal electronic "mirror" which determines how the picture appears on your screen. You only need to use this control when you want to use the Projector with a rear projection screen or mirror. Each time you press the button it changes the orientation of the picture on your screen (See page 11).
The Projector 'remembers' its last setting.

Projector Back Panel







DATA
Use this connector (Sub-D) to connect a personal computer (VGA or Macintosh input). See page 29 for details.
Connect the audio (R+L, or mono) to the RCA jacks of AUX 2.

ANTENNA
Plug your TV antenna in here (See page 13 for details).

AUDIO
The selected audio signal is output here for connection to an external audio amplifier. (Not remote controlled)

S-VHS INPUT
Plug your S-VHS VCR or camcorder in here (See page 27 for details).

S-VHS OUTPUT
Loop output of S-VHS input.

AUX 1 & 2
Use these connectors for external equipment such as a VCR or CDV (Compact Disc Video) (See pages 26 & 27).

AUX 1
Use these connectors (BNC) to connect the video from (or to) external equipment such as a VCR or CDV (Compact Disc Video). Connect the audio (R+L, or mono) to the RCA jacks.

AUX 2
Use these connectors (BNC) to connect an RGB video source. Connect the audio (R+L, or mono) to the RCA jacks. At sync/video

EXTERNAL SPEAKERS
Connect your external speakers here (See page 15).

INTERNAL/EXTERNAL SPEAKER SWITCH
Press to play sound through your external speaker connections. The Projector speaker is OFF in this position.
Press again to listen to sound from the Projector speaker.

FUSES
Not user serviceable. Fuses should only be replaced by your dealer or service organization.

MAIN POWER
The Projector can be turned on or off, using the Power TV button on the remote control or the POWER ON/STAND BY button on the front. Press MAIN POWER to cut off power to the Projector completely. In the OUT position, you cannot switch on the Projector using the remote or the POWER ON/STAND BY button on the front panel.

HEIGHT ADJUSTING FEET
Turn these to tilt the Projector downwards (See page 10 for details).

REMOTE CONTROL UNIT

M(enu) (▲ ▼) BUTTONS
Press the M button to display On-Screen feature controls. Press ▲ or ▼ buttons to move forward and backward through the list of On Screen items. The menu buttons can also be used for zoom/ focus (See below).

ZOOM AND FOCUS BUTTONS
The ▲ ▼ buttons are to control ZOOM.
The - + buttons are to control FOCUS.
You can enable/disable the zoom and focus controls using the LENS CONTROL menu (See page 40).
Remote control of zoom and focus is not possible when the menu is activated (After pressing M button).

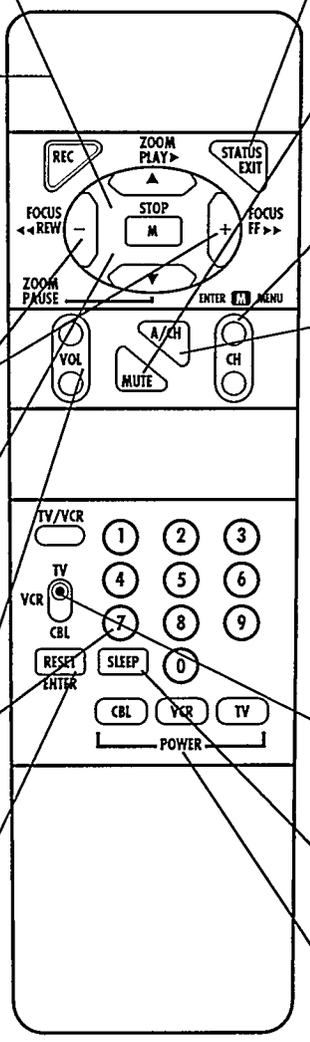
(-) AND (+) BUTTONS
Press to select an On-Screen menu item and adjust settings.

VCR BUTTONS
For use of VCR (Video Cassette Recorder) buttons see "How to Operate VCRs with the Projector remote" on page 41.

VOLUME BUTTON
Press to adjust the sound level.

NUMBER BUTTONS
Press these buttons to select TV channels. Press two number buttons to select single digit channels. For example: To select channel 6, press "0" first and then "6".

RESET BUTTON
Selection of 5 personal preference settings and one Factory preset.



STATUS/EXIT BUTTON
Press to see the current channel number or source on the Projector screen. Also press this button to clear the screen after control adjustments.

MUTE BUTTON
Press to turn the sound OFF on the TV Projector. Press again to return the sound to its previous level.

CHannel SCAN BUTTON
Press to scan up or down through the channel numbers.

A/CH (Alternate Channel) BUTTON
1. Press to select the previously-viewed channel. For example: You are watching channel 4 and change to channel 10 (using the number buttons). Press A/CH and your Projector will return to channel 4. Press A/CH again and your Projector will return to channel 10.
2. When the Projector is in the DATA INPUT mode press A/CH to blank the projected picture with a pre-defined curtain (See page 53 for details).

TV-VCR-CBL SWITCH
Slide to TV to operate your Projector, slide to VCR to operate a VCR, slide to CBL to operate a Cable Converter.

TIMER BUTTON
Set the Projector to turn itself OFF automatically. See page 52 for details.

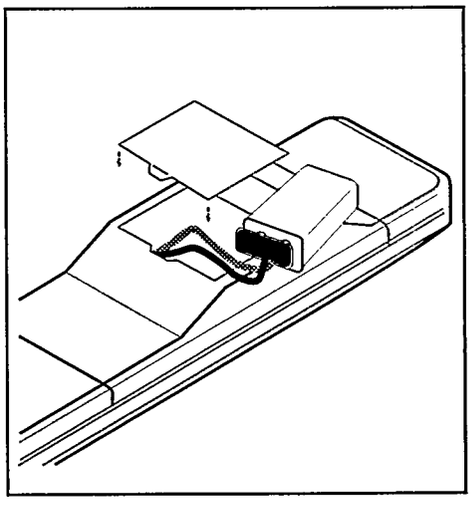
TV-VCR-CBL BUTTONS
Press to turn the TV Projector, accessory cable converters and VCRs ON and OFF (See pages 46 thru 48 for details).

To load the supplied (9 Volt) battery into the remote:

BEGIN

1. Remove the battery compartment lid on the back of the remote.
2. Place the battery in the remote. Be sure to line the (+) and (-) ends of the battery up correctly.
3. Reattach the battery lid.

STOP



Bottom of remote control unit

REMOTE CONTROL OPERATION OF A VCR

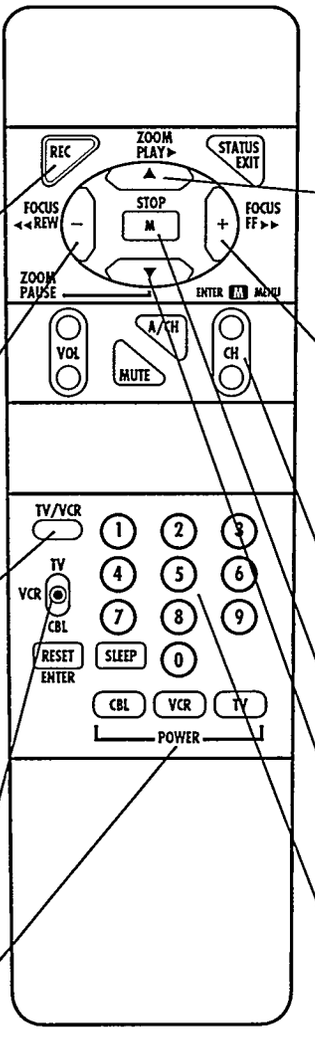
When using the Projector remote with your VCR, first make certain it is set to control the VCR by the REMOTE CODE or SEARCH method. See page 44.

1 Slide the TV-VCR-CBL button on the remote to the VCR position.

2 Point the front of the remote towards the front of the VCR (remote sensor window) when pressing buttons.

Remember. The VCR function buttons on the Projector remote will not operate your VCR if it does not have those features.

Remember. Position TV on this remote means Projector.



RECORD BUTTON
Hold the RECORD button down and then press the PLAY button to begin a VCR recording.

REW(IND) BUTTON
Press to rewind tapes. For some VCRs you may need to press the STOP button first, then REWIND. In the Playback mode, hold REW button down to view picture moving rapidly in reverse.

TV-VCR BUTTON
Press to the VCR position ("VCR" indicator on the VCR will light) to view the playback of a tape. Press again to place in the TV position ("VCR" indicator on the VCR will go OFF) to view one program on the TV while recording another program on the VCR.

TV-VCR-CBL SWITCH
Slide to VCR to control your VCR, using the remote.

POWER BUTTON
Press to turn the VCR ON and OFF.

PLAY BUTTON
Press to playback a tape. Hold down after pressing the RECORD button to start a recording.

FF (FAST FORWARD) BUTTON
Press to rapidly advance the tape. For some VCRs you may need to press STOP first, then FF. In Playback mode, hold button down to view the picture moving rapidly in the forward direction.

CH(annel) SCAN BUTTONS
Press to scan up or down through VCR channel numbers.

STOP BUTTON
Press to stop the tape.

PAUSE BUTTON
Press to temporarily stop the tape during a playback or recording. Press again to release PAUSE.

NUMBER BUTTONS
Press buttons for direct VCR channel selections or menu items.

Proper installation of your Projector will ensure that you make the most of the set's features. Read all of pages 10 through 12 carefully before starting to install your Projector.

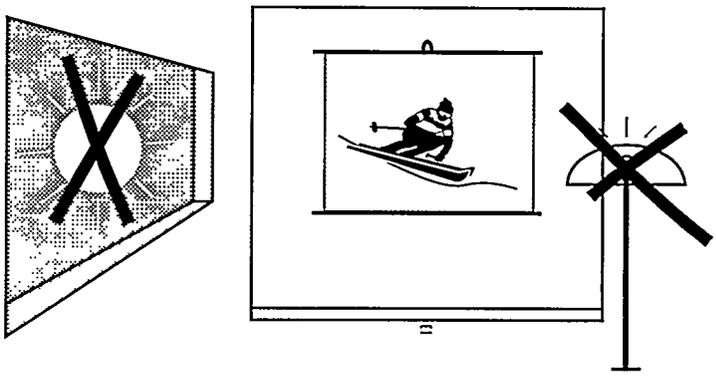
1) Choose the screen position
You get maximum picture contrast when the least ambient light falls on the screen. Place the screen where light from windows, room lighting etc. does not disturb the picture.

2) Choose the Projector position
Ideally, the Projector should be located at about the same height from the floor as the top of the screen and directly in front of it.

The Projector can be placed on a wall-mounted shelf (minimum size 17 x 24 inches), a cabinet top, or a rack can also be used. Make sure you can hide the cables connected to the set.

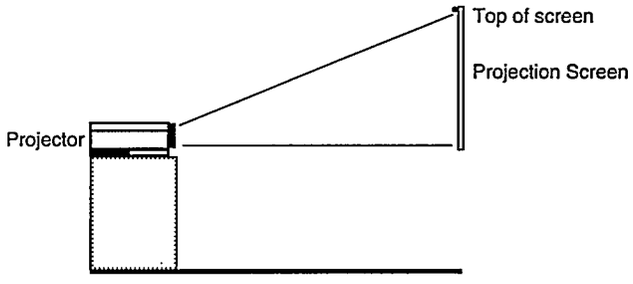
The Projector has adjustable feet at the rear. Turn these if you need to point the Projector downwards to the screen.

1. LIGHTING

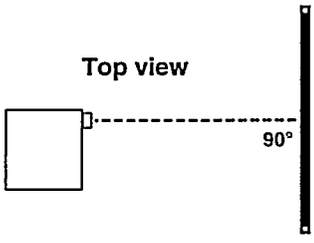


2. MOUNTING

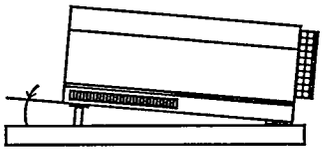
Side view



Top view



Side view



Height Adjusting Feet

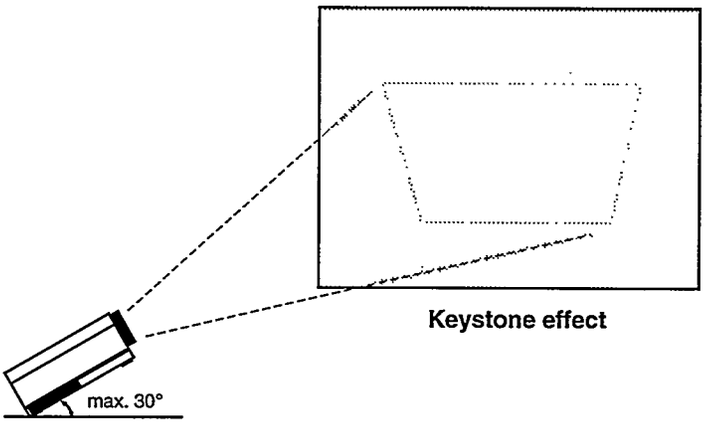
(Continued on next page)

If you cannot put the Projector at the same height as the top of the screen, but rather lower, you have two choices:

2A. The front of the Projector can be tilted upwards; the picture will not then be perfectly rectangular when the screen hangs vertically. This is called the "keystone" effect.
Note: The Projector should not be tilted up or down more than 15 degrees from its normal horizontal position.

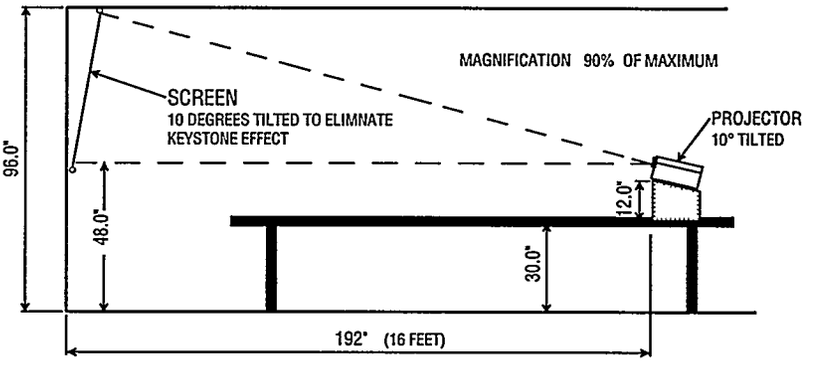
2B. If you want to use the Projector with a rear projection screen or in a ceiling mount (Projector positioned upside down), you will need to change the internal mirror. You do this using the button marked MIRROR which is behind the swing-out control door on the front panel. Each time you press MIRROR, the picture on the screen changes orientation.

3) Choose the size of screen
Choose a screen size that fits the planned seating capacity and room dimensions.
A good guide is:
* Two times the screen width should equal the distance from the screen to the front row of seats
* Six times the screen width should equal the distance from the screen to the back row of seats.

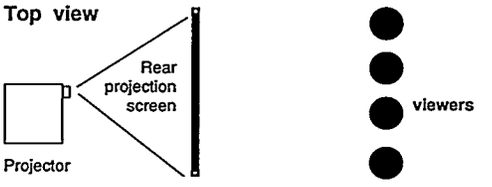


2A. TILTING

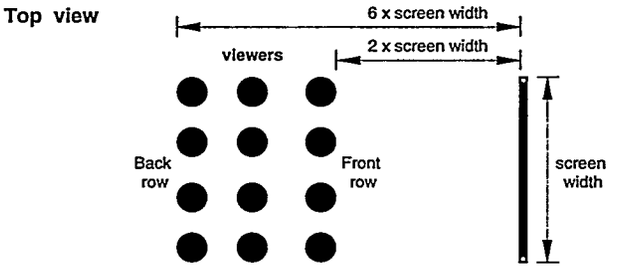
SAMPLE SET-UP FOR TABLE TOP USE



2B. REAR PROJECTION



3. CHOOSING THE SCREEN SIZE



Your Projector has a 2x zoom lens. This means that the picture you get on the screen at maximum magnification is twice as big as that projected at minimum magnification. For example, at a distance of 22 feet you get a 100-inch picture on the screen at full magnification. You can use the zoom lens to reduce this to 50 inches at minimum magnification.

If you want a picture size of 100 inches, the Projector can be between about 22 and 44 feet from the screen. Choose a screen and projection distance in the middle of the zoom range (mid-range magnification). This gives the best picture quality and means you can fit the picture exactly to your screen by zooming in or out a little.

The table alongside shows you typical picture sizes at various distances. More information is given in the "Technical Specification" on page 57.

3) Choose the type of screen
Choose the type of screen-mount you prefer (stand type, wall-mount, pull-down etc).

Choose a screen with a width to height ratio of 4:3 (aspect ratio of 1.33) to match the NTSC picture format. A black masking border around the screen will give a crisp rectangular picture.

The picture appears brightest (highest gain) when you sit directly in front of it and gets dimmer as you move to the sides. Try to keep the viewing angle as narrow as possible for most viewers.

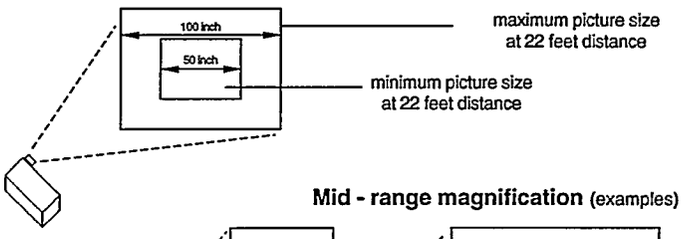
Choose the type of screen surface best suited to your room and viewing conditions:

Pearlescent - highest gain, narrow viewing angles.
Silver lenticular - medium gain, wide viewing angles. This type of screen is not recommended.
Matt white - wide viewing angles, needs darkened room.

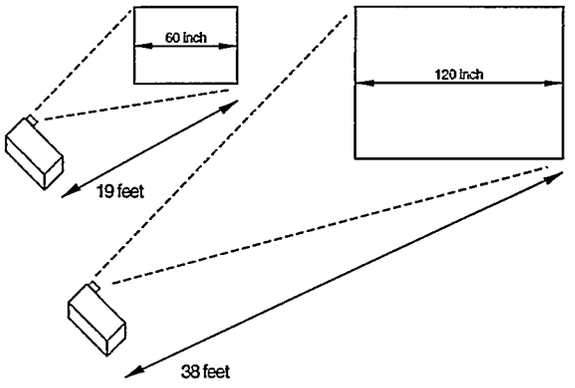
If in doubt, consult your dealer on the best choice of screen for your room.

MAGNIFICATION

Maximum and minimum magnification (examples)



Mid - range magnification (examples)



	Distance from Projector to screen (in feet)		
Picture width in inches	Maximum magnification	Mid-range magnification	Minimum magnification
40	9	13	18
60	14	19	26
80	18	25	35
100	22	31	44

Larger picture sizes can be reached by putting the Projector at a greater distance.
For best results, choose your screen and projection distance using mid-range magnification of the zoom lens.

GETTING STARTED - ANTENNA/CABLE TV/VCR CONNECTIONS

First connect your Antenna or CABLE TV signal to the Projector. There is only one 75 ohm antenna plug on the back of your TV Projector - and that's where the antenna goes.

BEGIN

1 IF your antenna (or CABLE TV signal) has a round cable (75 ohm) with a metal prong (F-connector) on the end, then you're ready to connect it to your Projector.

OR

IF your antenna has flat twin-lead wire (300 ohm), you first need to attach the antenna wires to the screws on an adapter (300 to 75 ohm).

2 **Push the round end** of the adapter (or cable) onto the ANTENNA plug at the back of the Projector.

3 Make sure the MAIN POWER button at the rear is switched ON. Press the POWER ON/STAND BY button at the front panel to turn the Projector ON. You'll see a green light above the button and, after about a minute, you should see a picture on the screen. It may not be sharp or the size you want, so first you may have to adjust the picture.

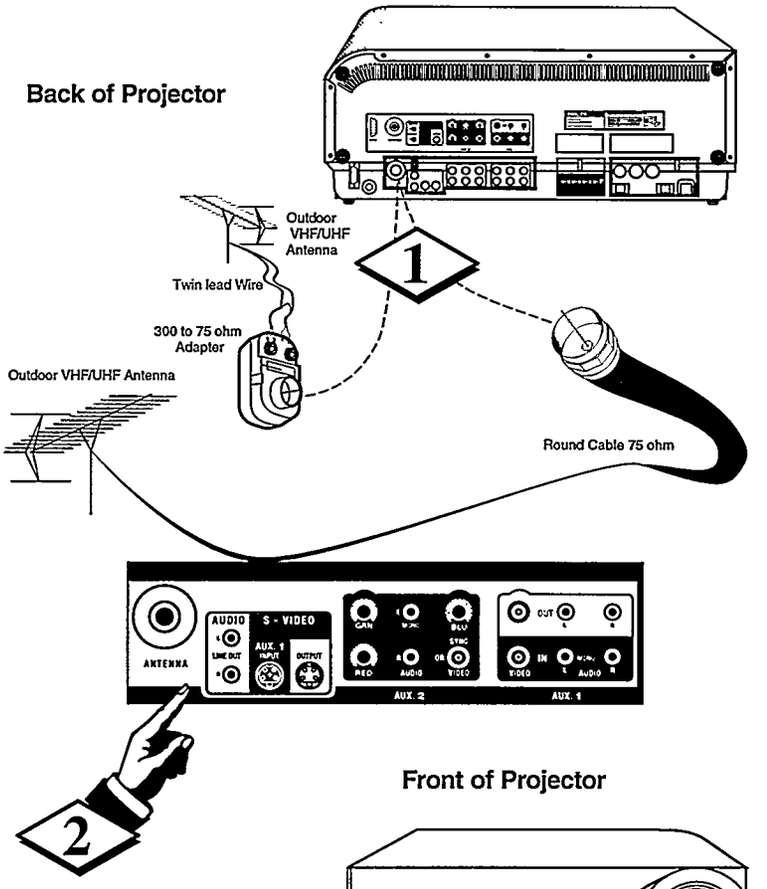
4 **Turn the zoom control** until the picture is the size you want. Then **turn the focus control** until it is sharp.

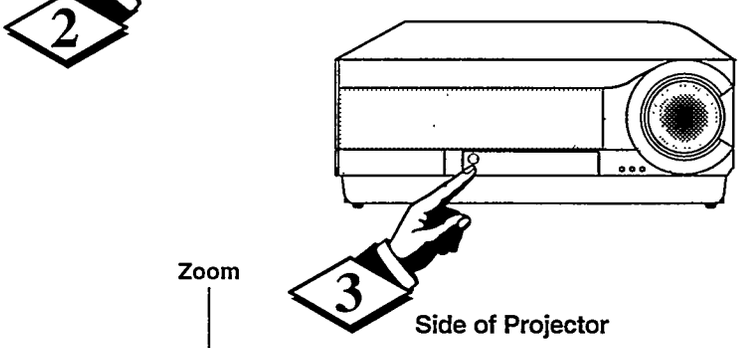
5 Open the control door (See page 5) and press the CH(annel) UP button. You should see local channels flash by.

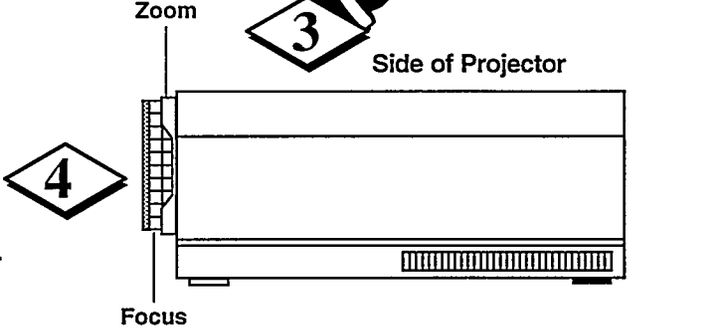
STOP

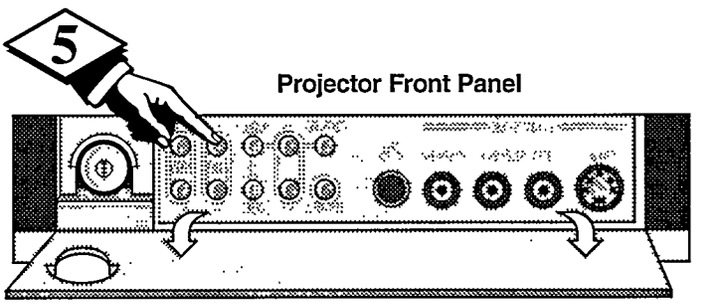
Try it out. First make sure your Projector is properly aimed at the screen. If you're not sure how to do this, go back and follow the instructions on pages 10 thru 12.

Remember. If the Projector is connected to a CABLE TV (CATV) signal, be sure to set the Projector for that type of signal (See page 24).









You may have two separate antennas. For instance, one antenna for VHF channels (2 - 13) and the other antenna for UHF channels (14 - 69).

BEGIN

For homes with separate antennas you will need an optional "combiner" before you can connect to your Projector.

1 Attach the separate antennas to the correct screws on the combiner.

2 Push the round end of the combiner onto the ANTENNA plug on the rear of the Projector.

STOP

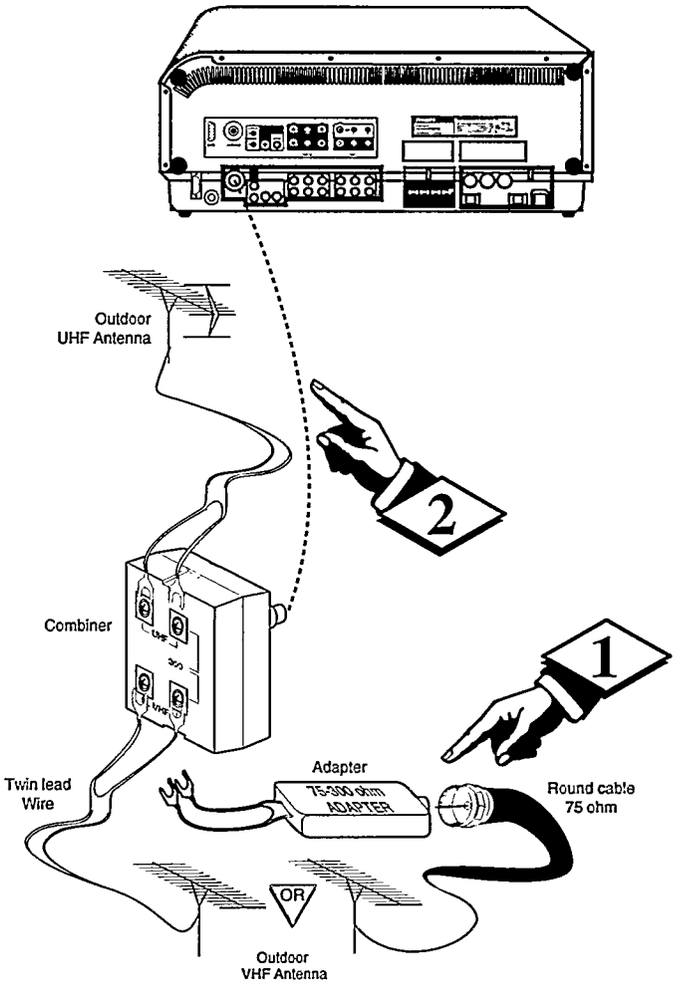
Remember. You get the best picture when you use high quality coax cables and connectors. Ask your dealer for advice.

To order any optional accessory, contact your dealer or call the toll-free accessory ordering number

(1-800-851-8885):

UHF/VHF Combiner.....SBV 1133A01
75 - 300 Ω Adapter.....SBV 1113A01
300 - 75 Ω Adapter.....483521827003

Back of Projector



CONNECTING A VCR

To connect a VCR to the Projector:

BEGIN

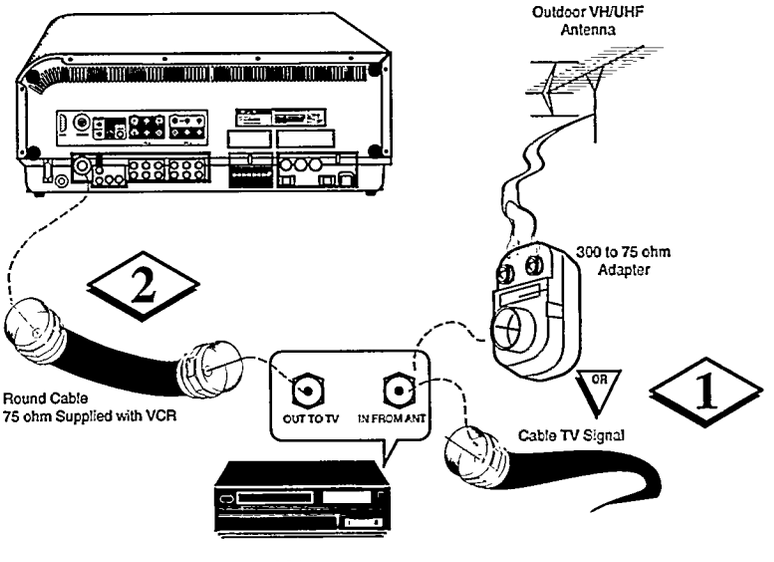
1 Connect your antenna or Cable TV signal to the IN FROM ANT(enna) input on your VCR.

2 Connect the OUT TO TV plug on the VCR to the ANTENNA plug on the Projector using the connecting cable supplied with the VCR.

3 Read page 46 on how to operate a VCR with the Projector remote.

STOP

Back of Projector



GETTING STARTED - AUDIO CONNECTIONS

EXTERNAL SPEAKERS

You can connect external speakers to enjoy stereo TV programs.

BEGIN

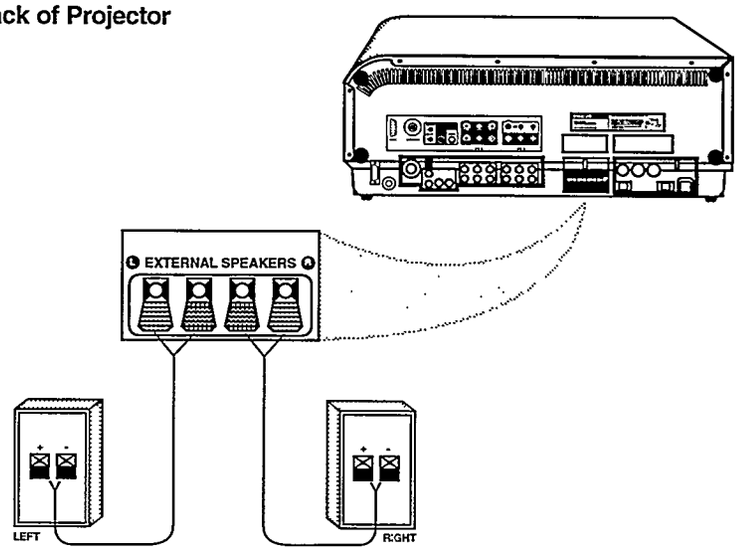
1 Connect external speakers to the speaker wire terminals on the Projector. Speakers: 8 ohm, 10 watt minimum.

2 **Turn Projector on.** Select AUDIO Menu and place the Projector in the STEREO mode (See page 21).

3 Place the speakers so you enjoy good stereo sound.

STOP

Back of Projector



External Speakers

AUDIO OUTPUT JACKS

The AUDIO OUT(put) jacks on the rear of the Projector may be used to play the sound of TV programs through an audio hi-fi system.

BEGIN

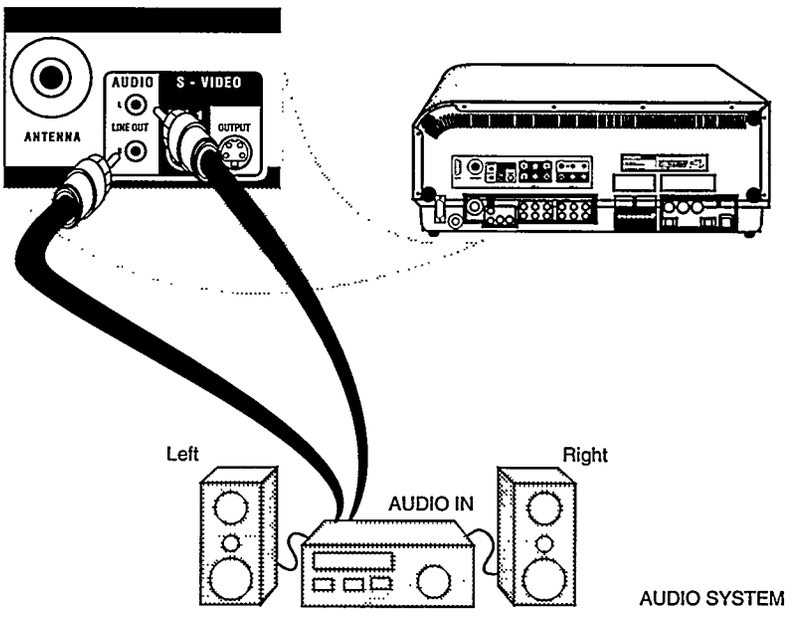
1 Connect the R(ight)and L(eft) AUDIO OUT(put) jacks on the Projector to the R and L AUDIO IN(put) jacks on your amplifier or sound system.

2 First turn your Projector on; then your audio system. Adjust the sound level coming from the Projector with the audio amplifier VOLUME control.

STOP

Remember. The audio system may have to be in AUX mode to play the sound of TV programs.

Projector Back Panel



PC (VGA OR MAC II-INPUT)

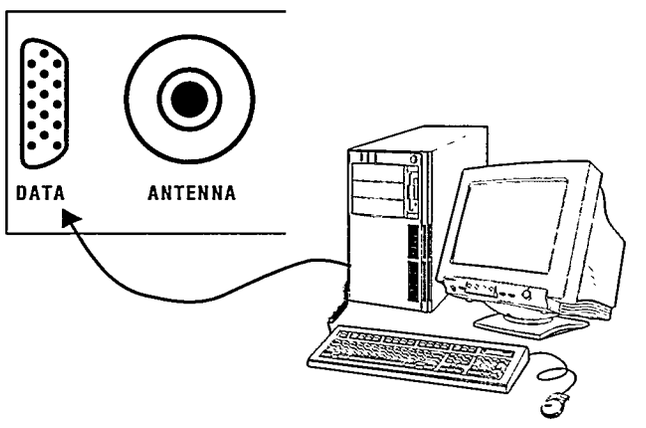
You can connect a personal computer to display the computerscreens onto the Projector screen

1 First turn OFF your computer and Projector.

2 Use a Sub-D plug to connect your computer to the DATA input socket.

3 If available, connect the audio (R+L, or mono) to the RCA jacks of AUX 2 (See page 7).

Computer Back Panel



You can operate your Projector using the controls on the set itself.

BEGIN

1 Press in the MAIN POWER button at the back of the set to turn the Projector ON. (For new sets this button is on).

2 Press the POWER ON/STANDBY button on the front of the Projector.
A green light above the button lights up.

3 Press the VOLUME ▲ (UP) or ▼ (DOWN) buttons to adjust the sound level.

4 Press the CHANNEL ▲ (UP) or ▼ (DOWN) buttons to select TV channels.
To receive all channels in your area you can also use automatic CHANNEL SCAN
(See page 25 for details).

STOP

Remember. When you first switch on, the last-viewed channel is selected automatically and its number appears briefly on the screen. After that, just press the STATUS/ EXIT button to see what channel the Projector is on.

Remember. During starting of the set a 'sparking' noise may be heard. This is quite normal.

TO SWITCH OFF

BEGIN

Stand By:

1 Press the POWER ON/STAND BY button on the front of the Projector.

OR

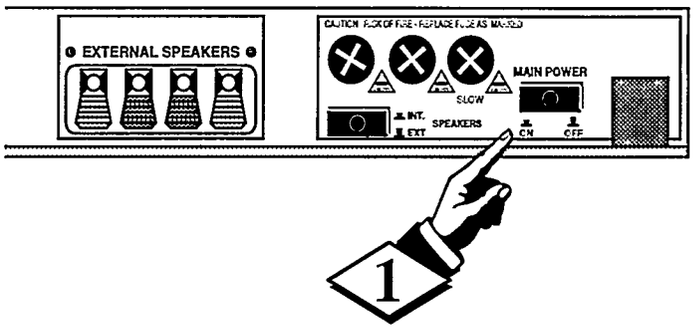
Completely off:

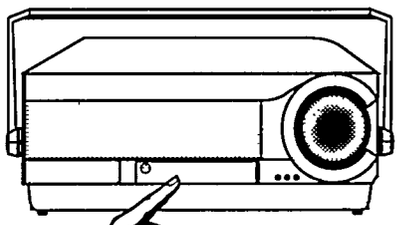
2 Press the MAIN POWER button (at the back of the Projector) so it goes to the OUT position.

STOP

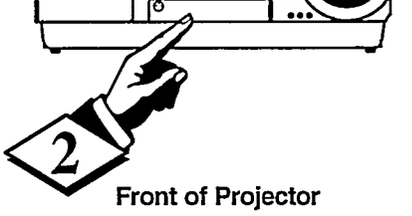
Remember. After switching off with the POWER ON/STAND BY button (or with the Remote) the cooling fan will run for a few more minutes. It is advised not to press the MAIN POWER button before the fan has stopped.

Projector Back Panel

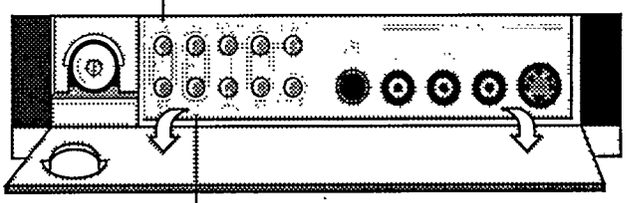


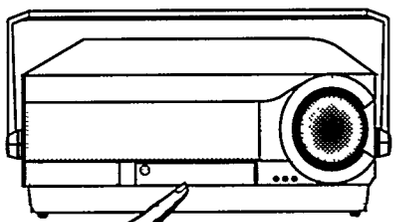


Front of Projector

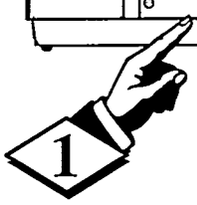


Front of Projector

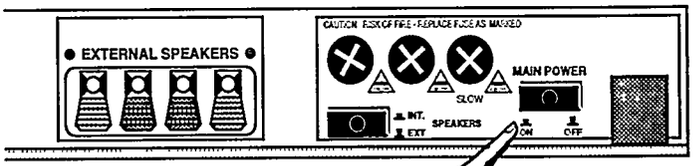




Front of Projector



Projector Back Panel



ZOOM AND FOCUS

MANUALLY

The zoom lens on your projector can be adjusted by hand to make the picture on the screen larger or smaller. It also has a focus control to make the picture sharp.

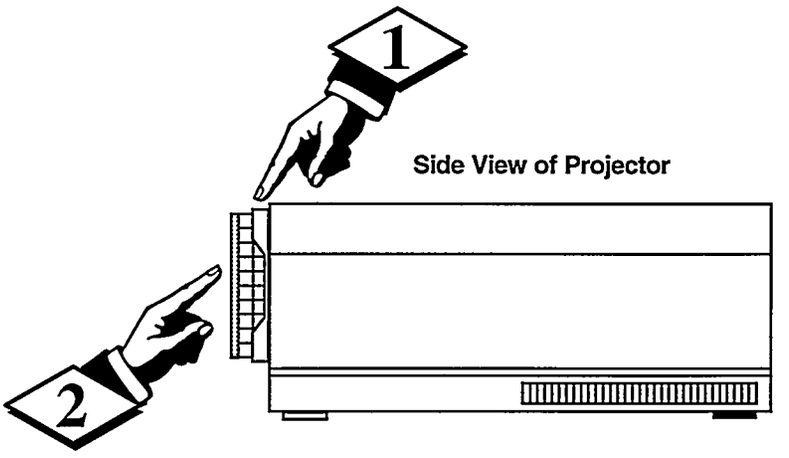
It is best to adjust the picture size first and then the focus.

BEGIN

1 Turn the Zoom Control ring until the picture on the screen is the size you want.

2 Turn the Focus Control ring until the picture is sharp.

STOP



USING THE REMOTE

BEGIN

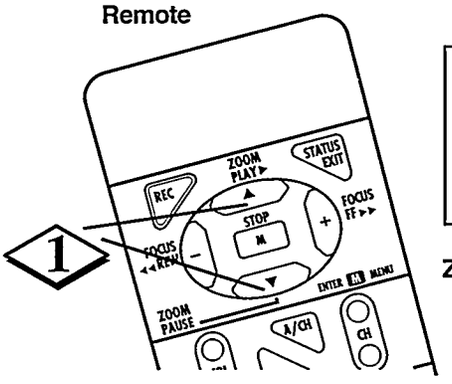
1 Press one of the zoom buttons on the remote until the picture on the screen is the size you want. You will see the word "ZOOM" on the screen while you do this.

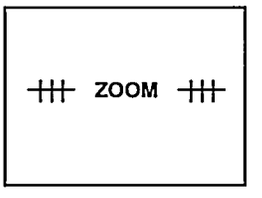
2 Press one of the focus buttons on the remote so that you see the word "FOCUS" on the screen. Press the focus buttons until the word is as sharp as possible. This is the best focus.

STOP

Remember. The zoom and focus functions on your remote can be disabled via the menu (See page 18 and 40).

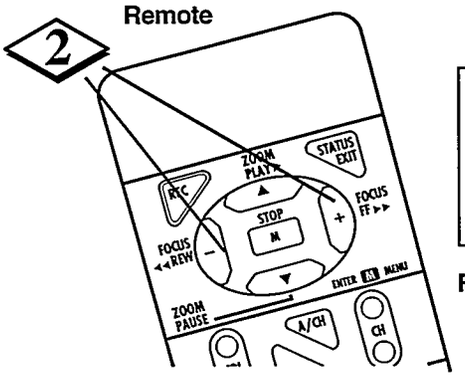
Remote

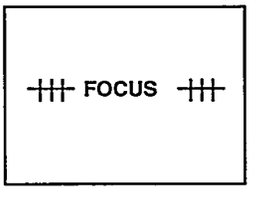




Zoom Adjustments

Remote





Focus Adjustments

How to Use On-Screen Menus with Remote

You make adjustments to your projected picture and sound using On-Screen Menus. To get them on your screen, first press the M(enu) button on your remote; you should then see this MAIN MENU. It is called a menu because, like in a restaurant, it lists the choices available to you. You will notice that the first item 1. AUDIO is highlighted. This means it is selected. The other available selections are white.

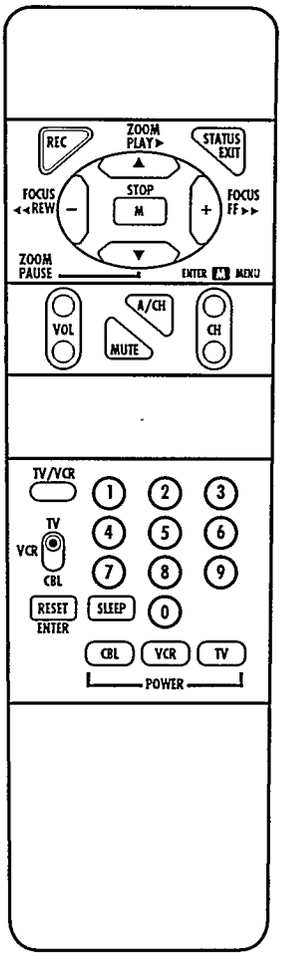
When you are switched to On-Screen Menus, the lens zoom and focus buttons on your remote work differently. The zoom buttons now let you step up and down through the menu choices. Try it. Press the lower zoom button and watch how each menu item is highlighted in turn.

Now we'll try changing the treble sound (the high notes). Press M(enu) button to highlight "1. AUDIO". Then press the "+" button to get a menu of all the choices available for adjusting the sound.

You should now see a picture like the one on the right here. Notice that there is a new element at the top of your picture. It has a solid blue bar. There is a " - " (minus) sign on the left and a "+" (plus) sign on the right. We will now make the blue bar longer and shorter to adjust the treble sound.

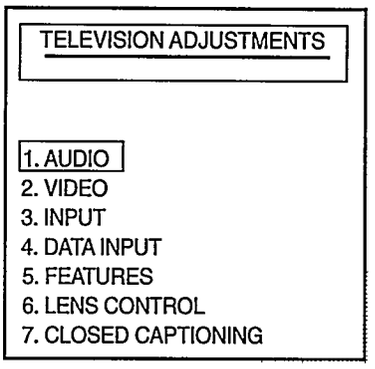
Press the lower zoom button (▼) to highlight "2. TREBLE". You could also push a number button, in this case 2, to select treble in a direct manner. Then press the "+" button and watch the blue bar get longer. Press the " - " button to make the blue bar shorter. As you make these changes, you will hear the sound changing to give you more or less treble. The Projector is set in the factory to give the best general performance when the blue bar reaches the middle position as shown in our diagram. But you can adjust things to suit yourself. When you're happy with the treble sound you can adjust some other items in the same way if you wish.

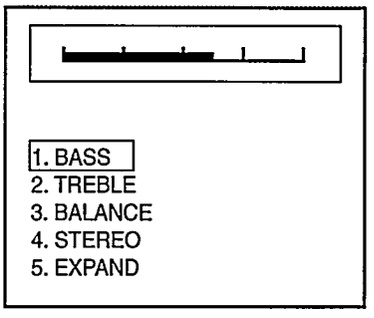
(Continued on next page)



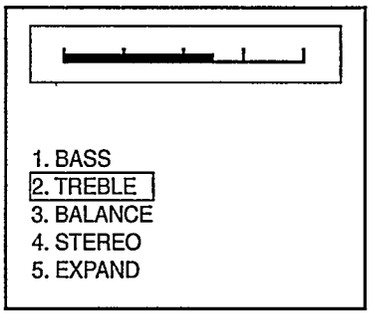
Remote

MAIN MENU Screen





BASS Adjustments



TREBLE Adjustments

(Continued on next page)

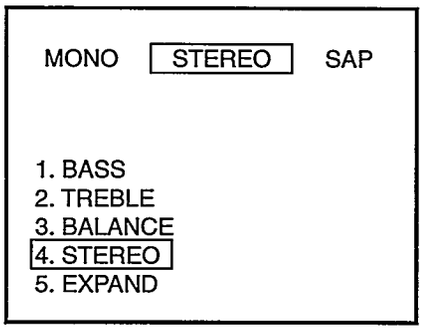
How to Use On Screen Menus with Remote (continued)

Most of the other menus work as described on the previous page except that you don't always have the blue bar; sometimes you get a choice of two or three items instead.

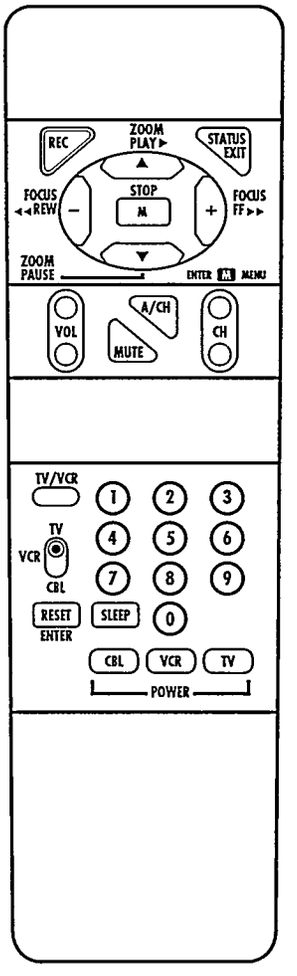
To try this out, press the lower zoom button (▼) to highlight "4. STEREO". You should get a display like the one on the right here. Press the " - " or "+" buttons to highlight in turn MONO, STEREO or SAP (Second Audio Program).

If there is no SAP being broadcast, you will see the message SAP NOT AVAILABLE when you try to select it. You may see other messages like this when using some of the other displays.

You can get back to the MAIN MENU at any time by pressing M(enu).
You can also switch the On-Screen Displays OFF at any time by pressing the STATUS/ EXIT button.



STEREO Screen



Remote

AUDIO CONTROL ADJUSTMENTS WITH REMOTE

TO SELECT AUDIO CONTROLS

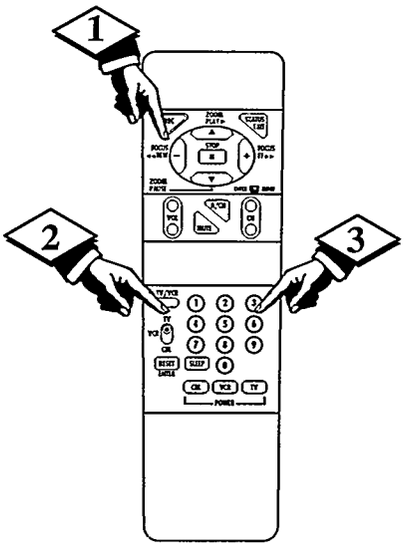
1. Press M(enu) button on the remote to show MAIN MENU.

2. Press 1 on the remote to select AUDIO (on the MAIN MENU).

3. Press number of the desired feature on the remote (See below).

STOP

Remember. The highlighted item is ready for adjustment.



Remote

MAIN MENU Screen

TELEVISION ADJUSTMENTS

1. AUDIO
2. VIDEO
3. INPUT
4. DATA INPUT
5. FEATURES
6. LENS CONTROL
7. CLOSED CAPTIONING

1. BASS 2. TREBLE 3. BALANCE

Beyond the normal volume level controls, your Projector also has individual sound controls for BASS (low frequency), TREBLE (high frequency), and Speaker BALANCE sound.

BEGIN

1. With the AUDIO Menu displayed, press 1 for BASS, 2 for TREBLE, or 3 for BALANCE.

2. Press the (+) or (-) buttons to adjust the sound to levels your prefer.

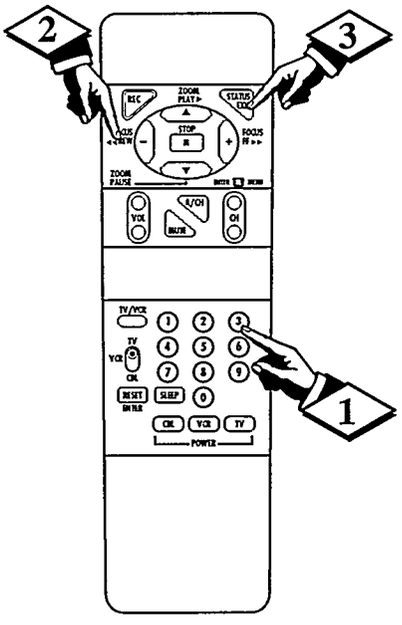
3. Press the STATUS/EXIT button to clear the screen.

STOP

Go to next adjustment or remember, when the bar scale is centered, speaker BALANCE is centered between the Projector's right and left side speakers.

AUDIO Screen:
BASS Adjustment Selected

1. BASS
2. TREBLE
3. BALANCE
4. STEREO
5. EXPAND



Remote

4. STEREO

Your Projector is able to receive broadcast stereo TV programs. The Projector is equipped with an amplifier and twin-speaker connector to which external speakers can be connected to hear stereo sound.

The stereo indicator (on the front of the Projector) will light when a stereo broadcast is received.

BEGIN

1 With the AUDIO Menu displayed, press 4 for STEREO.

2 Press the (+) or (-) buttons to place the TV in the STEREO mode.
The word STEREO is highlighted to confirm setting.

3 Go to next adjustment or press the STATUS/EXIT button to clear the screen

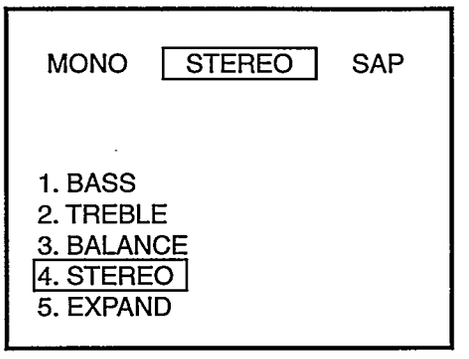
STOP

Remember. If a stereo signal is not available and the Projector is placed in the STEREO mode, sound from the Projector will remain monaural (mono).

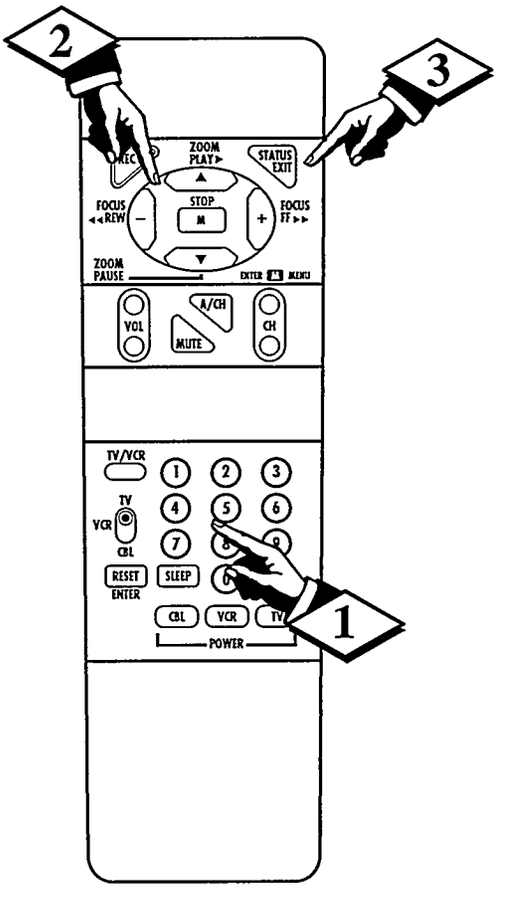
SECOND AUDIO PROGRAM (SAP) is part of the stereo broadcast system. SAP is a third audio track that is sometimes used to broadcast foreign language translations of TV programs.

The SAP indicator will light on the front of the Projector when SAP is available with the selected channel.

If a SAP signal is not available, "SAP NOT AVAILABLE" will appear on the Projector screen.



AUDIO Screen:
STEREO Adjustment Selected



Remote

5. EXPAND

Expanded sound can be used to add greater depth and dimension to both monaural (MONO) and STEREO sound.

BEGIN

1 With the AUDIO Menu displayed, press button 5 for EXPAND.

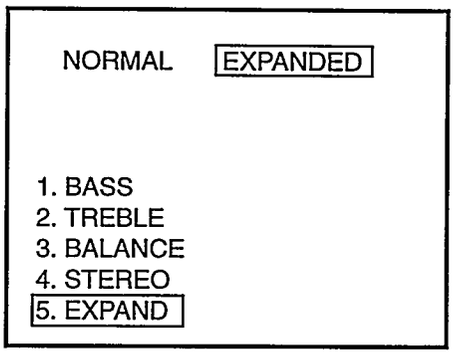
2 Press the (+) or (-) buttons to place the Projector in the EXPAND sound mode.

The word "EXPANDED" is highlighted to confirm setting.

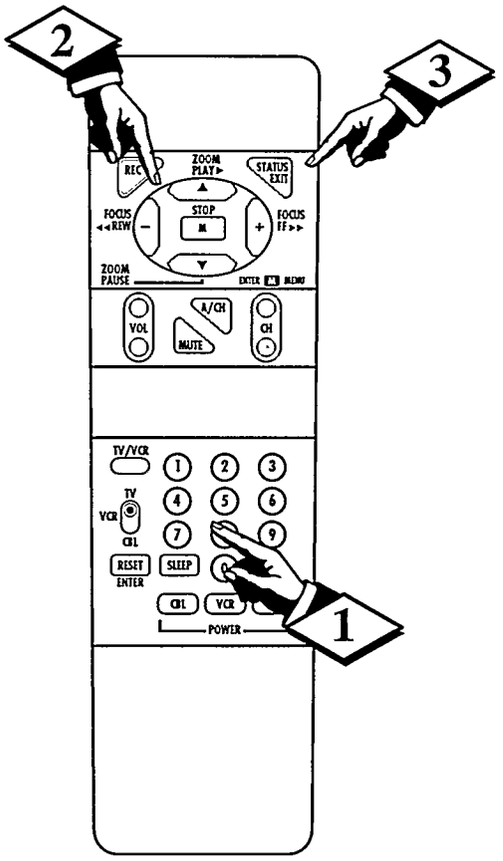
3 Press the STATUS/EXIT button to clear the screen.

STOP

Remember. Under some nonstandard transmission conditions the stereo signal received by the Projector may be unsuitable for the EXPANDED mode. If this condition exists, you may still receive quality stereo (or mono) sound by turning the EXPAND mode OFF (set Projector to NORMAL).
Expanded sound can only be heard with external speakers connected.



AUDIO Screen:
EXPANDED Sound Adjustment Selected



Remote

VIDEO CONTROL ADJUSTMENTS

TO SELECT VIDEO CONTROLS

BEGIN

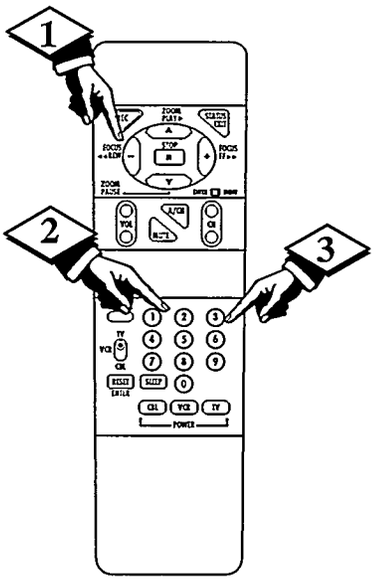
1 Press M(enu) button on the remote to show the main menu.

2 Press 2 on the remote to select VIDEO (on the main menu).

3 Press number of the desired feature on the remote.

STOP

Remember. The highlighted item is ready for adjustment.



Remote

MAIN MENU Screen

TELEVISION ADJUSTMENTS

1. AUDIO
2. VIDEO
3. INPUT
4. DATA INPUT
5. FEATURES
6. LENS CONTROL
7. CLOSED CAPTIONING

1.BRIGHT 2.CONTRAST 3.COLOR 4.TINT 5.SHARP

To adjust your Projector color and picture controls, select a channel and follow the steps shown below:

BEGIN

1 Select BRIGHT, CONTRAST, COLOR, TINT, or SHARP picture control.

With the VIDEO Menu displayed, press 1 for BRIGHT, 2 for CONTRAST, etc.

2 Press the (+) or (-) buttons to adjust the selected control.

3 Press the STATUS/EXIT button to clear the screen.

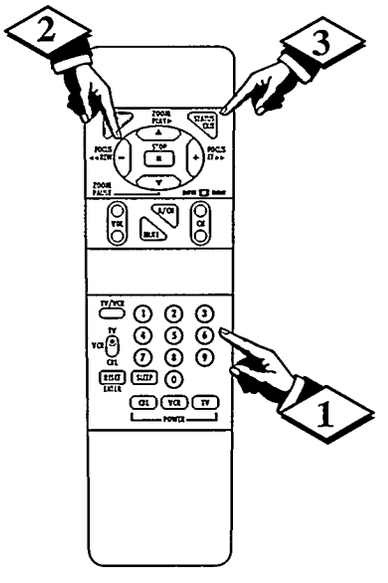
STOP

Remember, when the bar scale is centered, control settings are at normal mid-range levels.

BRIGHTNESS: Press (-) or (+) to see more or less detail in dark scenes.
CONTRAST: Press (-) or (+) to adjust the white level.
COLOR: Press (-) or (+) to add or eliminate color.
TINT: Press (-) or (+) to obtain natural skin tones. (Is not available in RGB)
SHARPNESS: Press (-) or (+) to improve detail in the picture.

1. BRIGHT
2. CONTRAST
3. COLOR
4. TINT
5. SHARP

VIDEO Screen: BRIGHT Adjustment Selected (Also for PICTURE, COLOR)



Remote

1. BRIGHT
2. CONTRAST
3. COLOR
4. TINT
5. SHARP

VIDEO Screen: TINT Adjustment Selected

NORMAL ENHANCED

1. BRIGHT
2. CONTRAST
3. COLOR
4. TINT
5. SHARP

VIDEO Screen: SHARP Adjustment Selected

INPUT (TUNING) CONTROL ADJUSTMENTS

TO SELECT INPUT CONTROLS

BEGIN

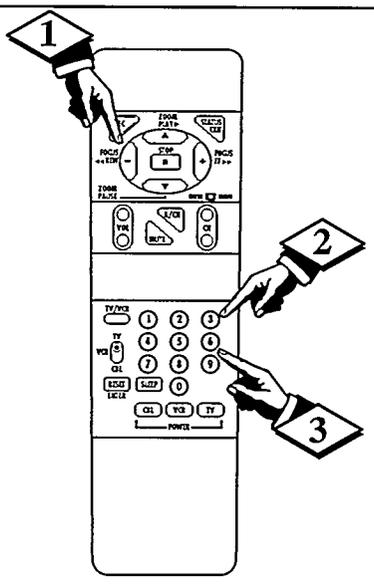
1 Press the M(enu) button on the remote to show the main menu.

2 Press 3 on the remote to select INPUT (on the main menu).

3 Press the NUMBER button of the desired feature on the remote.

STOP

Remember. The highlighted item is ready for adjustment.



Remote

MAIN MENU Screen

TELEVISION ADJUSTMENTS

1. AUDIO
2. VIDEO
3. INPUT
4. DATA INPUT
5. FEATURES
6. LENS CONTROL
7. CLOSED CAPTIONING

1. TUNING

You need to make sure that the Projector is set to pick up either Cable TV stations or Antenna signals. In other words, the Projector needs to know whether you have connected a Cable TV signal or a normal antenna to its ANTENNA plug.

BEGIN

1 With the INPUT Menu displayed, press button 1 for TUNING.

2 Press the (+) or (-) buttons to place the Projector in either:

CABLE if you DO have Cable TV connected to the Projector. Channels 1-125 (excluding 95-97) available

NORMAL if you have an Antenna connected to the Projector. Channels 2-69 available.

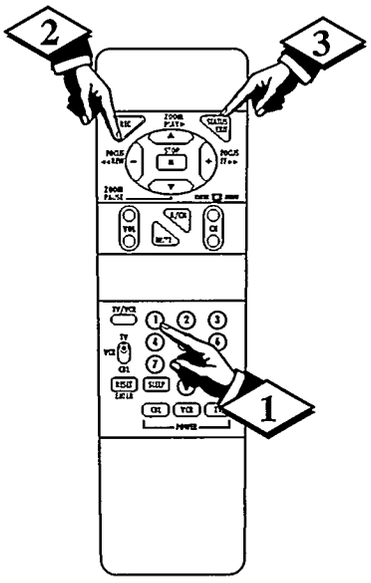
3 Press the STATUS/EXIT button to clear the screen.

Remember. Certain channel numbers have been added to the Projector 's program memory at the factory. See the following page on how to set the Projector to select only the channel numbers available in your area.

NORMAL CABLE

1. TUNING
2. CHANNEL SCAN
3. PICTURE SOURCE

INPUT Screen: TUNING Adjustment Selected



Remote

(Continued on next page)

INPUT (TUNING) CONTROL ADJUSTMENTS (CONTINUED)

2. CHANNEL SCAN

You can automatically preset the Projector to select only the channel numbers available in your area (or on your Cable TV system). Only channels added into the Projector's memory will be selected when the CH(annel) ▲ (UP) ▼ (DOWN) buttons are pressed on the remote.

BEGIN

1. With the INPUT Menu displayed, press 2 for CHANNEL SCAN.

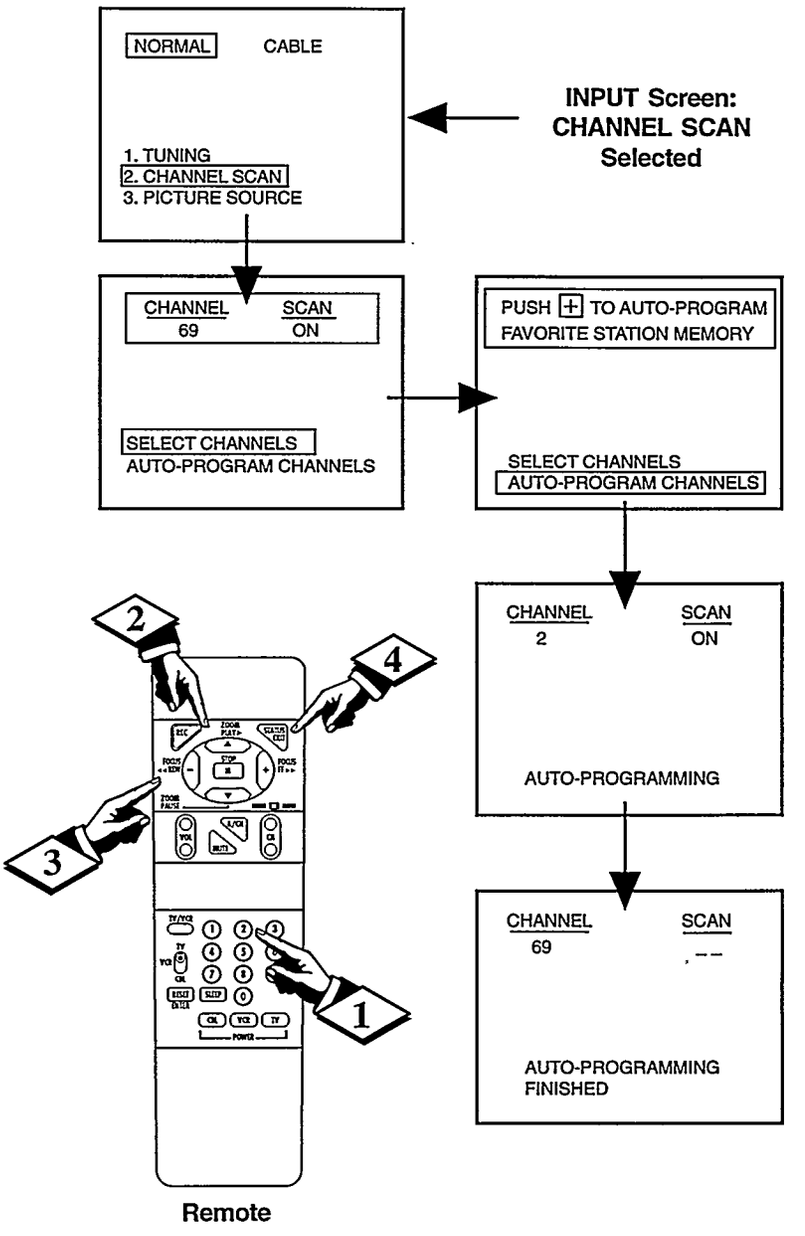
2. Press the ▲▼ buttons on the remote to select AUTO PROGRAM CHANNELS.

3. Press the (+) or (-) buttons to begin the AUTO PROGRAMMING of channel numbers.
CHANNEL SCAN "ON" confirms the channels as they are added into memory.
"FINISHED" appears when the Auto Programming is complete and the Input Menu is displayed again.

4. Press the STATUS/EXIT button to clear the screen.

Try it out. Press the CHANNEL ▲ or ▼ buttons and "scan" from channel to channel.

Remember. To add additional channels to (or delete unwanted channels from) the Projector's memory, see the SELECT CHANNELS section shown below.



To manually add (or delete) channels into the FAVORITE STATION MEMORY:

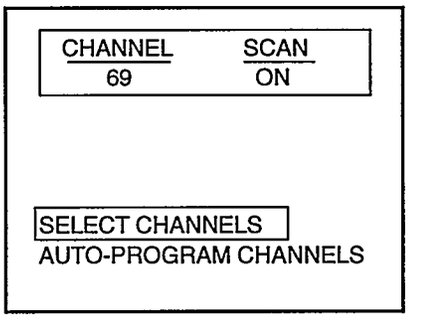
BEGIN

1. With the INPUT Menu displayed, press 2 for CHANNEL SCAN.

2. Press the ▲▼ buttons to select the SELECT CHANNELS control position.

3. Press the CH(annel) ▲ (UP) ▼ (DOWN) buttons to select channel you wish to add (or delete).
Note: The channel NUMBER buttons (on the remote) may also be used to select channels.

4. Press the (+) or (-) buttons to add or delete channels.



"ON" appears to confirm that a channel has been added.
"_ _" appears below the word SCAN to confirm a channel has been deleted.

3. PICTURE SOURCE - AUX 1,2 and 3

The Projector's Picture Source controls allow you to use the INPUT jacks (Audio, Video and S(uper)-Video located on the front and rear of the Projector. The Projector's INPUT jacks may be used for direct picture and sound connections with VCRs (or Video Disc Players, etc) that have their own Audio/Video OUTPUT jacks.

To view the playback of a VCR tape (or Video Disc) by using the Audio/Video jacks on the Projector:

BEGIN

1 Connect the **VIDEO OUT** jack from the VCR (or CDV) to the AUX1 VIDEO IN jack on the Projector.

2 Connect the **AUDIO OUT** jacks R(ight) and L(eft) from the VCR to the AUX 1 AUDIO IN jacks on the Projector.

3 Select **PICTURE SOURCE** control on the Projector.

With the INPUT Menu displayed, press 3 for PICTURE SOURCE.

4 Press the **(+)** or **(-)** buttons to place the Projector in the AUX 1 mode.

"AUX 1" is highlighted to confirm the setting.

5 Press STATUS/EXIT to clear screen. **Turn the VCR (or CDV) ON** and playback the tape (or disc) in a normal manner.

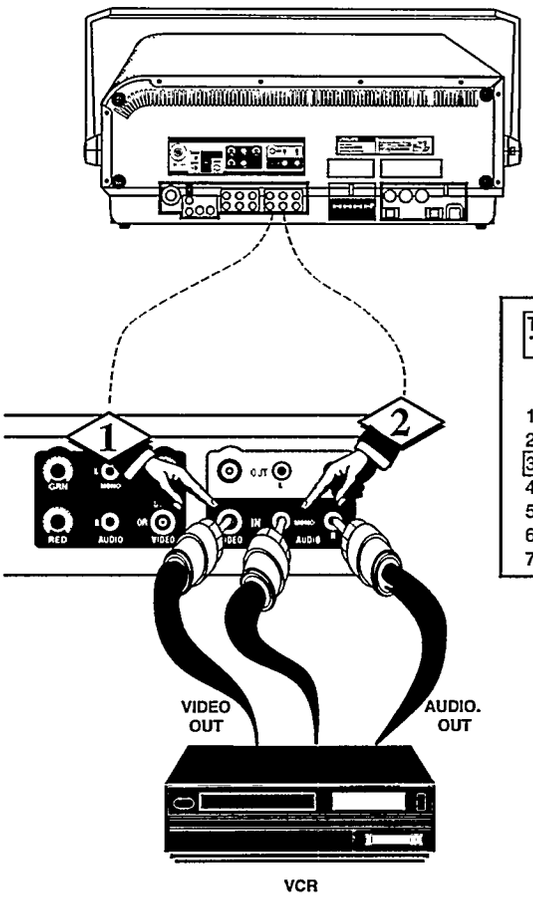
STOP

Connections and operation of the Projector's AUX 2 and 3 INPUT jacks are the same as those described for the AUX 1 jacks (except " AUX 2 or 3" is selected as the PICTURE SOURCE.)

PICTURE SOURCE RGB
Connect RGB and SYNC to the AUX 2 inputs and select RGB as picture source. (The SYNC signal must be composite negative sync.)

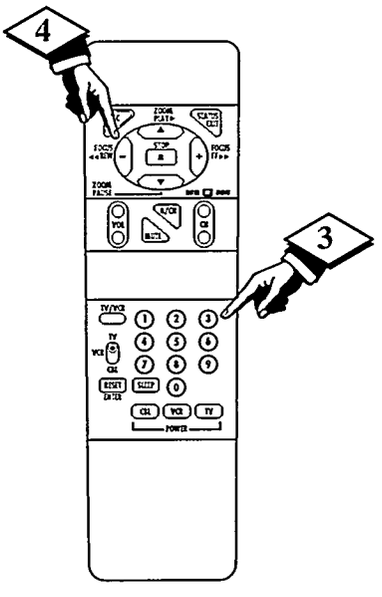
(Continued on next page)

Back of Projector



TELEVISION ADJUSTMENTS

1. AUDIO
2. VIDEO
3. INPUT
4. DATA INPUT
5. FEATURES
6. LENS CONTROL
7. CLOSED CAPTIONING



Remote

ANTENNA RGB
AUX 1 AUX 2 AUX 3

1. TUNING
2. CHANNEL SCAN
3. PICTURE SOURCE

INPUT Screen: PICTURE SOURCE Adjustment Selected

(Continued on next page)

3. PICTURE SOURCE - S-VIDEO

The S(uper)-VIDEO connection available on the rear of the Projector can result in far better picture clarity and detail, for the playback of VCR tapes or Video Discs, than the normal antenna connections.

Note: The VCR (or Compact Disc Player) must be equipped with a S-VIDEO OUT(put) jack in order to complete the connections shown on this page.

BEGIN

1 Connect the S-VIDEO (or S-VHS) OUT jack from the VCR (or CDV) to the S-VIDEO IN jack on the Projector.

2 Connect the AUDIO OUT jacks R(ight) and L(eft) from the VCR to the AUX 1 AUDIO IN jacks on the Projector.

3 Select PICTURE SOURCE control on the Projector.

With the INPUT Menu displayed, press 3 for PICTURE SOURCE.

4 Press the (+) or (-) buttons to place the Projector in the AUX 1 mode for S-VIDEO 1.

"AUX 1" is highlighted to confirm the setting.

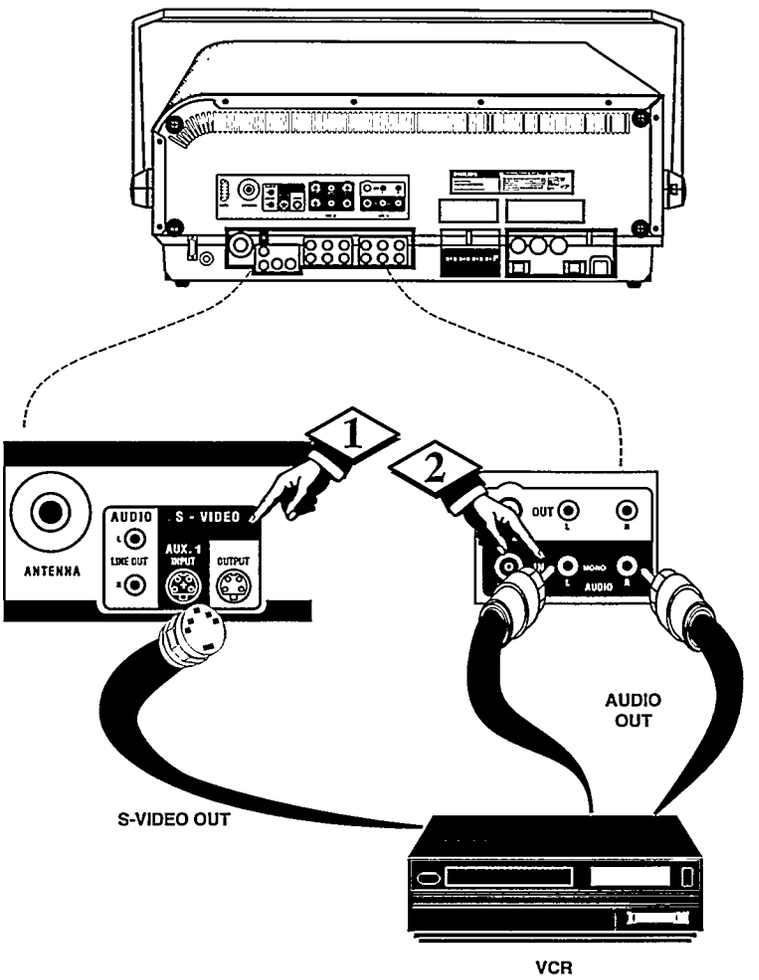
5 Turn the VCR (or CDV) ON and place it in the S-VIDEO (or S-VHS) playback mode. Insert S-VHS cassette tape and playback in a normal manner.
Press STATUS/EXIT to see: S-VIDEO 10:04.

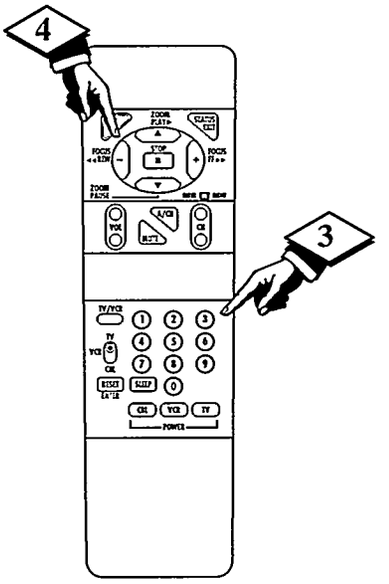
STOP

Remember. The S-VIDEO connecting cable will be supplied with the S-VHS VCR (or Compact Disc Player).

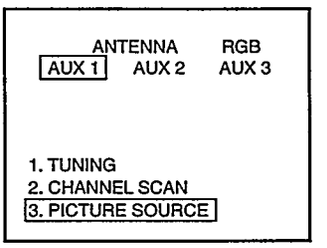
S-Video (or S-VHS) and audio can also be connected to the front panel jacks (AUX 3)

Back of Projector





Remote



INPUT Screen: PICTURE SOURCE Adjustment Selected

3. PICTURE SOURCE-TV PROJECTOR

The AUDIO/VIDEO OUT(put) jacks on your Projector can be used to record TV programs on VCRs equipped with AUDIO/ VIDEO IN(put) jacks or to connect a TV or monitor.

To record TV programs by using the AUDIO/ VIDEO jacks on the TV Projector:

1 **Connect the VIDEO OUT** jack from the Projector to the VIDEO IN jack on the VCR.

2 **Connect the AUDIO OUT** jacks R(ight) and L(eft) from the Projector to the AUDIO IN jacks on the VCR.

3 Select **PICTURE SOURCE** control on the Projector.

With the INPUT Menu displayed, press 3 for PICTURE SOURCE.

4 **Press the (+) or (-)** buttons to place the TV Projector in the ANTENNA mode.

"ANTENNA" is highlighted to confirm the setting.

Select the TV channel to be recorded.

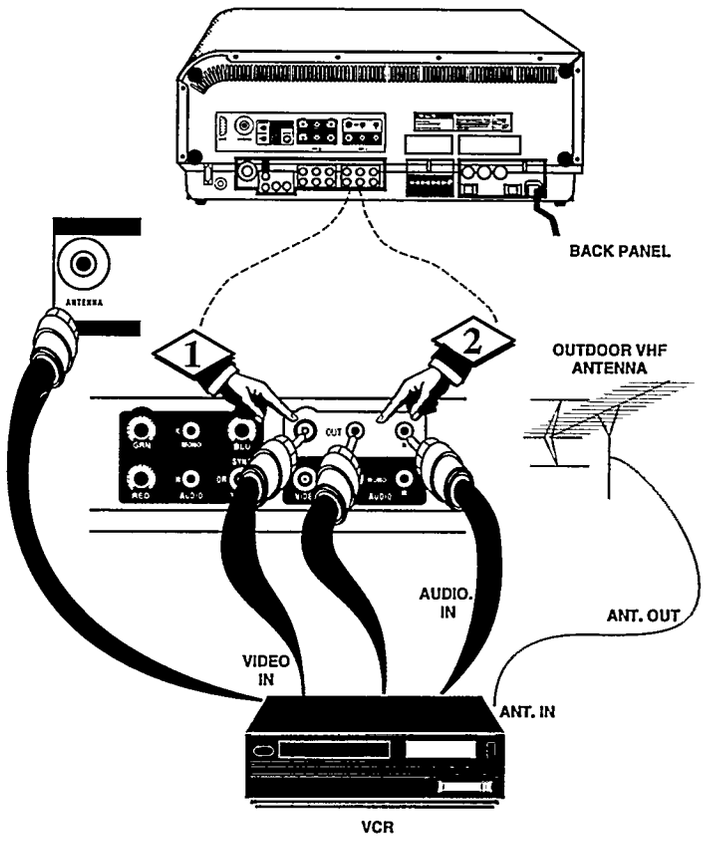
5 **Turn the VCR ON.** Place cassette tape in unit and place the VCR in the RECORD mode.

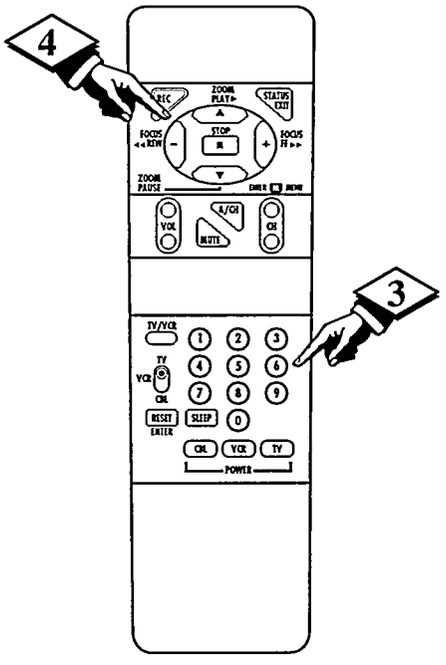
Remember. AUX 1 output is related to the selected input, i.e. what you are watching on your Projector.
However, with the RGB input selected, there is no video output available.

Remember. if the VCR has an INPUT SELECTOR switch, place it in the LINE or CAMERA position.

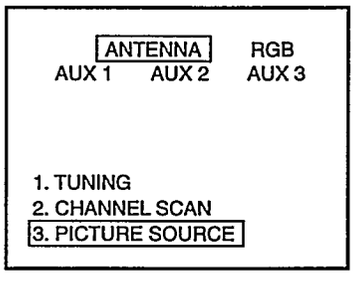
Since the Projector must be ON for the VCR to record, Unattended Timer Recordings with the VCR are possible, but not recommended with this connection.

Back of Projector





Remote



INPUT Screen

DATA INPUT

TO SELECT DATA INPUT

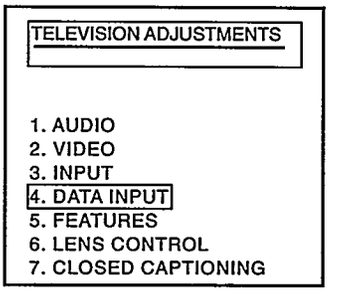
1 Press the M(enu) button on the remote control to show the main menu.

2 Press 4 on the remote control to select DATA INPUT.

3 Select PICTURE SOURCE control on the Projector.

The menu disappears and the Projector is in the DATA mode.

Remember. To adjust the DATA MENU controls see pages 42 thru 43.



FEATURE CONTROL ADJUSTMENTS WITH REMOTE

TO SELECT FEATURE CONTROLS

BEGIN

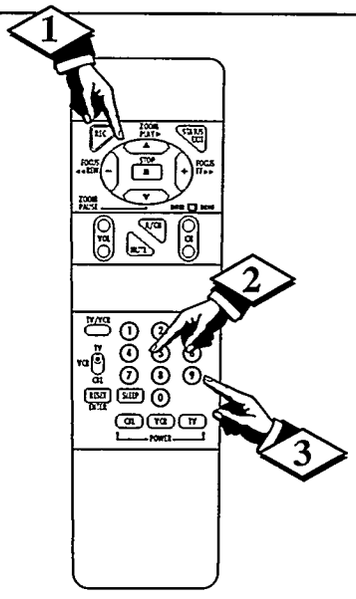
1. Press M(enu) button on the remote to show MAIN MENU.

2. Press 5 on the remote to select FEATURES (on the Main Menu).

3. Press number of the desired feature on the remote.

STOP

Remember. the highlighted item is ready for adjustment.



Remote

TELEVISION ADJUSTMENTS

1. AUDIO
2. VIDEO
3. INPUT
4. DATA INPUT
5. FEATURES
6. LENS CONTROL
7. CLOSED CAPTIONING

MAIN Screen

PUSH + TO MODIFY TIME

1. TIMESET
2. OPTIONS
3. CAPTIONS
4. CHANNEL CONTROL
5. PERSONAL PREFERENCE
6. OPERATING HOURS TIMER
7. AUTOSTART

FEATURES Screen

1. TIMESET

Your Projector is equipped with an on-screen clock. During normal operation the clock will appear on the screen with every channel change (and whenever the STATUS/EXIT button is pressed).

1. Select TIMESET control.

With the FEATURES Menu displayed, press 1 for TIMESET.

Clock and "ENTER CURRENT TIME" appears on the screen.

2. Press the (+) or (-) buttons to set the time or use 0 to 9 buttons.

3. Press the (+) or (-) buttons to set the minutes portion of the clock or use 0 to 9 digits.

4. Press the ▲▼ buttons to move the selection arrow to the hours portion of the clock.

Press the (+) or (-) buttons to set the hours portion of the clock.

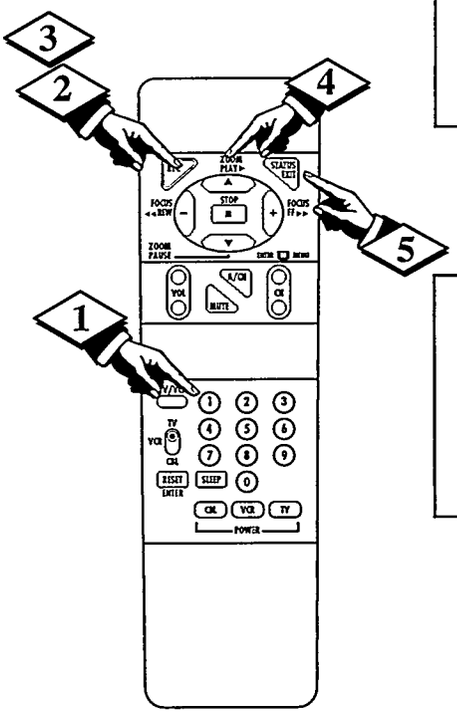
5. Press the STATUS/EXIT button to start the clock and clear the screen.

Remember. This function cannot be activated when the projector is in the DATA mode (See page 29).

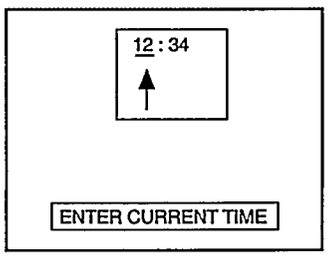
PUSH + TO MODIFY TIME

1. TIMESET
2. OPTIONS
3. CAPTIONS
4. CHANNEL CONTROL
5. PERSONAL PREFERENCE
6. OPERATING HOURS TIMER
7. AUTOSTART

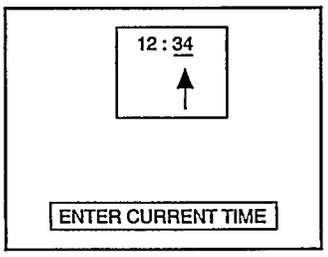
FEATURES Screen



Remote



TIMESET Adjustment hours



TIMESET Adjustment minutes

2. OPTIONS

Options allow you to vary the size and location of the on screen clock and channel information.

BEGIN

To adjust TIME DISPLAY options:

1 Select OPTIONS control.

With the FEATURES Menu displayed, press 2 for OPTIONS.

NORMAL, HALF-HOUR, and CONTINUOUS display options appear.

2 Press the (+) or (-) buttons to select the desired time display.

To adjust CHANNEL DISPLAY options:

1 With OPTIONS Menu displayed, press 2 for CHANNEL DISPLAY.

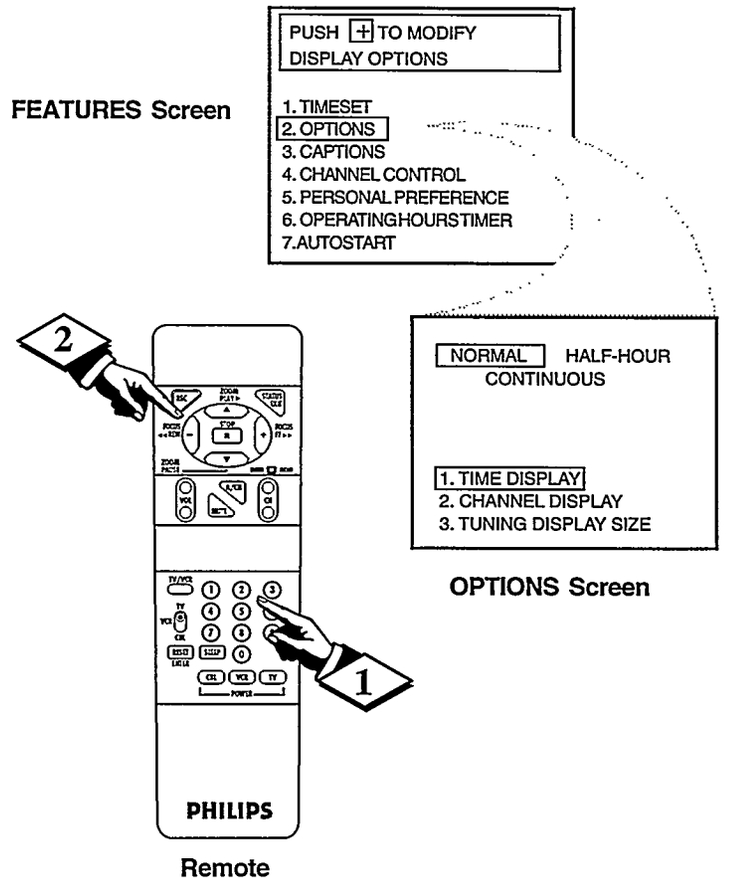
2 Press the (+) or (-) buttons to select the desired channel display.

To adjust TUNING DISPLAY SIZE options:

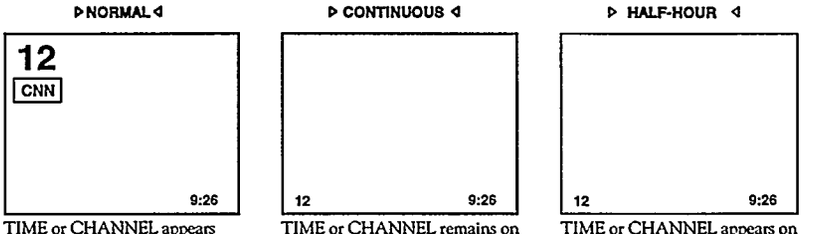
1 With OPTIONS Menu displayed, press 3 for TUNING DISPLAY SIZE.

2 Press the (+) or (-) buttons to select the desired tuning display.

STOP



TIME AND CHANNEL DISPLAY OPTIONS

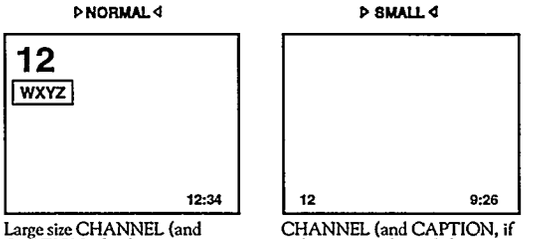


TIME or CHANNEL appears briefly on screen when the Projector is turned on or channels are changed. Text is large size (TIME lower right; CH upper left).

TIME or CHANNEL remains on screen continually (lower corners).

TIME or CHANNEL appears on screen every 30 minutes.

TUNING DISPLAY OPTIONS



Large size CHANNEL (and CAPTION, if set) appears in upper left of screen. Time appears in lower right.

CHANNEL (and CAPTION, if set) appears in lower left corner of the screen. TIME will not appear (unless set as a continuous display option).

3. CAPTIONS

Caption is a four character callout that may be set to appear with the on-screen channel number.
When set, the Caption will appear during channel changes and when the STATUS/EXIT button is pressed.
Example Caption: WXYZ (for a TV station's call letters.)

BEGIN

1 Select CAPTIONS control.

With the FEATURES Menu displayed, press 3 for CAPTIONS.

"CHANNEL CAPTION" appears on the screen.

2 Press the CH up/down (or Number buttons) to select channel to be captioned.

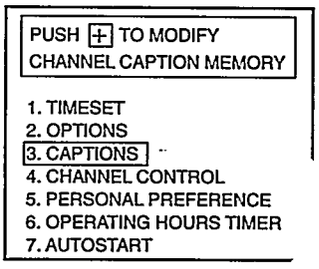
3 Press the (+) or (-) buttons to select the desired letter (or number) character.

Press the (+) button to scan forward through the list of available characters. Press the (-) button to scan back through the list.

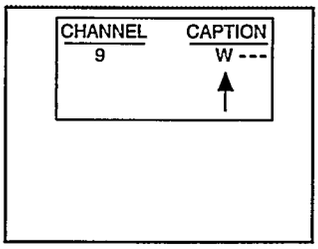
4 Press the ▲▼ buttons to move the arrow indicator to the next character space, and repeat step 3.

5 Press the STATUS/EXIT button when all desired channels have been captioned.

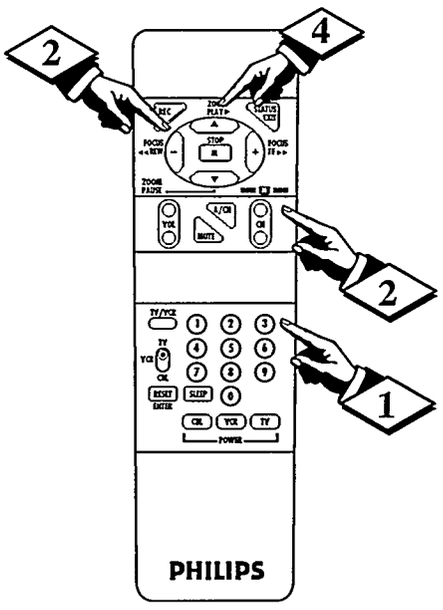
STOP



FEATURES Screen



CAPTION Adjustment



Remote

4. CHANNEL CONTROL

Channel control (CC) allows you to "CENSOR" (or blank out) any channel you consider undesireable for unauthorized persons to watch. A channel under Channel Control cannot be viewed until the correct access code is entered to unlock the channel for viewing.

To set the Channel Code:

BEGIN

1 Select CHANNEL CONTROL display.

With the FEATURES Menu displayed, press 4 for CHANNEL CONTROL.

"REPROGRAM CODE" appears on the screen.

2 Press the(+) or (-) buttons to set the CC code.

"ENTER ACCESS CODE" appears on screen.

3 Press your last defined access code on the remote. (For new sets this is 0000)
"XXXX" appears on screen as you press the number buttons.
"ENTER NEW CODE" appears on screen.

4 Enter a new four digit number code using the remote.

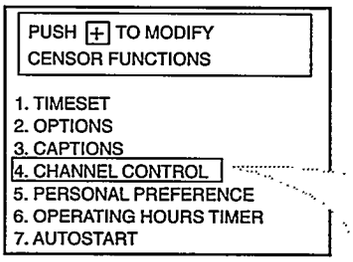
"ACCESS CODE REPROGRAMMED" appears on screen to confirm the new CC code.

Note : If you press a wrong acces code in step <3>, then "INCORRECT ACCESS CODE" will appear on screen instead of "ENTER NEW CODE".
You will have again the possibility to access the correct code.
Should you have forgotten your code, enter twice 4, 7, 1. 1. This will get you to "ENTER NEW CODE"

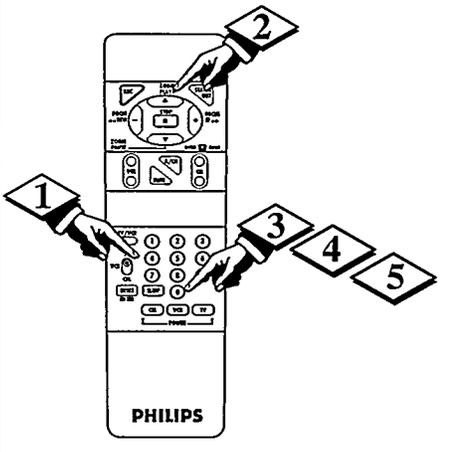
STOP

Remember. After setting the CC code go to the following section to see how to place desired channels under Channel Control.

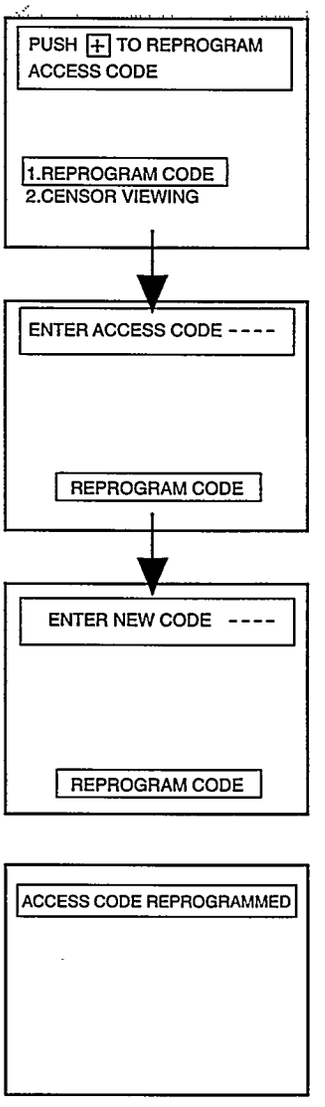
It isn't possible to unlock a preset CC code without changing to a new CC code number. A CC code number change should alert the authorized person that the code has been altered and the blanked out channel has been viewed.



FEATURES Screen



Remote



CHANNEL CONTROL Screen: REPROGRAM CODE Adjustment

(Continued on next page)

4. CHANNEL CONTROL

After the Channel Control Code has been set (see previous page), follow the steps below to select the channels you want to censor or blank out.

BEGIN

1 Select CHANNEL CONTROL display.

With the FEATURES Menu displayed, press 4 for CHANNEL CONTROL.

2 Select CENSOR VIEWING display (press 2 on the remote).

"ENTER ACCESS CODE appears on screen.

3 Enter correct CC CODE number (on the remote).

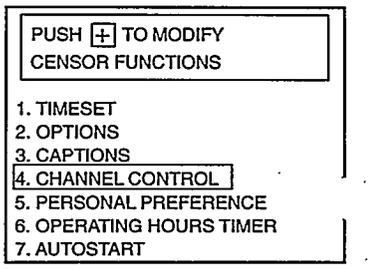
"CHANNEL CENSOR" appears on screen.

4 Press CH(annel) ▲▼ or Number buttons to select the desired channel to be placed under CHANNEL CONTROL.

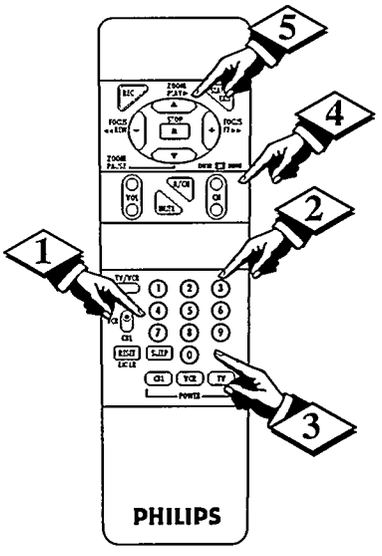
5 Press the (+) or (-) buttons to place selected channel under CHANNEL CONTROL.

Repeat steps 4 and 5 for any additional channels you wish to blank out.

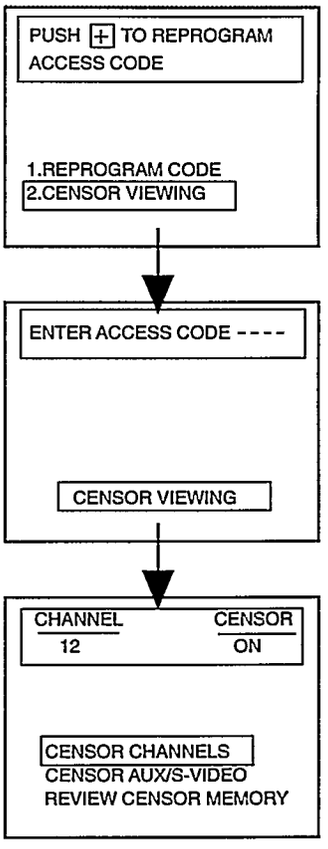
STOP



FEATURES Screen



Remote



CHANNEL CONTROL Screen: CENSOR VIEWING Adjustment - CENSOR CHANNELS

(Continued on next page)

CENSOR AUX / S-VIDEO

You may also censor the use of the Audio/ Video IN(put) jacks on the rear of the Projector. This way viewing VCR or Video Disc material (using the A/V jackpanel connections) can be prevented (unless the CC code is known).

To place the AUX(iliary) S-VIDEO IN(put) jacks under Channel Control:

BEGIN

1 With CENSOR VIEWING screen displayed, press ▲ ▼ to select CENSOR AUX/S-VIDEO position.

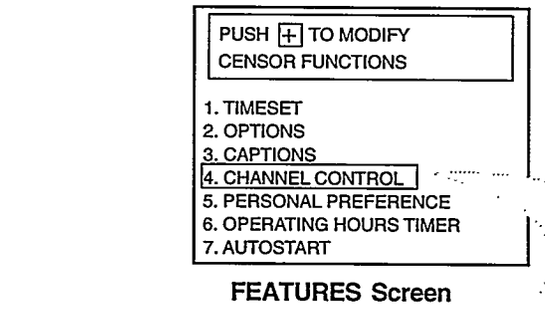
"SIGNAL INPUT CENSOR" appears on screen.

2 Press (+) or (-) buttons to place A/V jacks and S-VIDEO IN(put) under Channel Control.

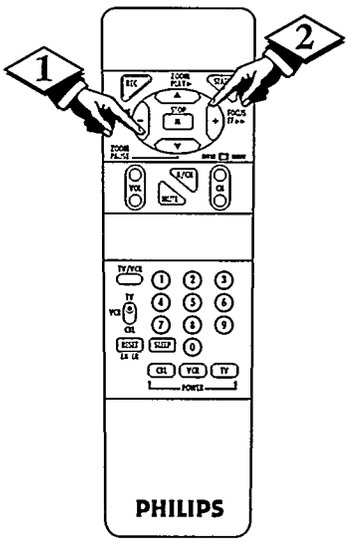
"ON" appears under the word CENSOR to confirm the setting.

STOP

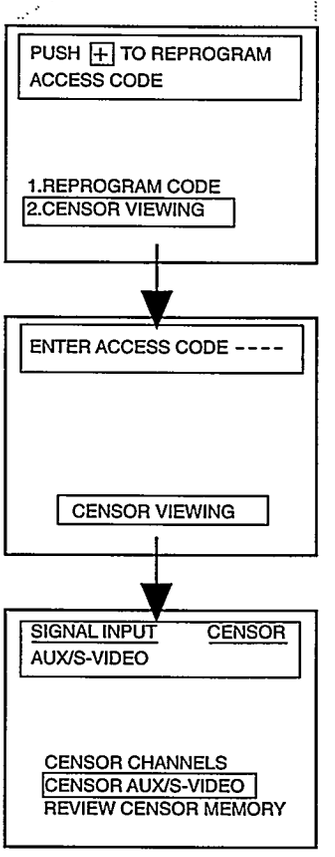
Remember. The correct CC Code number will now have to be entered before the jackpanel IN(puts) can be selected for use.



FEATURES Screen



Remote



CHANNEL CONTROL Screen: CENSOR VIEWING Adjustment - CENSOR AUX/S-VIDEO

(Continued on next page)

REVIEW CENSOR MEMORY

To quickly check which channels have been placed under Channel Control:

BEGIN

1 With CENSOR CHANNELS screen displayed, press ▲▼ to select REVIEW CENSOR MEMORY position.

"CENSORED CHANNELS" appears on screen with a listing of all channels that have been placed under Channel Control (CC).

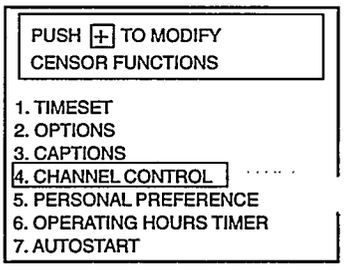
2 Press (+) or (-) buttons to scroll through the censor memory.

STOP

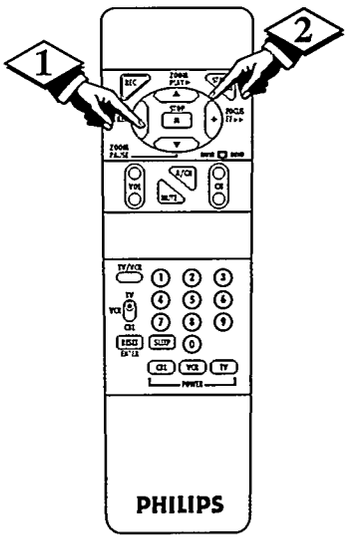
Remember. Once the CC code has been correctly entered for one blanked out channel, all channels (and A/V jacks) under Channel Control will be unlocked.

This makes viewing more convenient by eliminating the need to enter the CC code each time a Channel Control channel is selected.

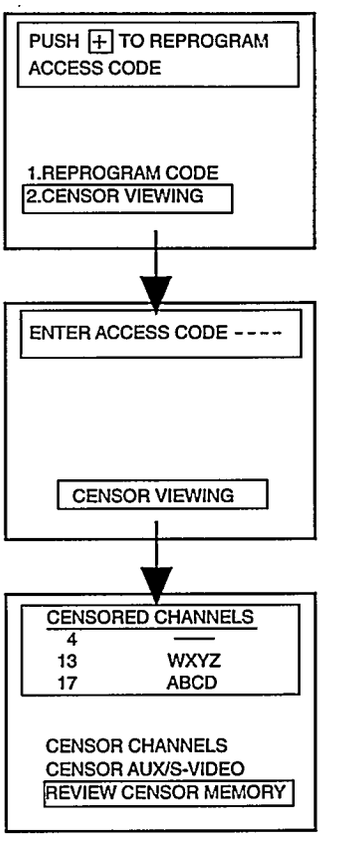
When the Projector is turned OFF and back ON again, Channel Control is back in place.



FEATURES Screen



Remote



CHANNEL CONTROL Screen: CENSOR VIEWING Adjustment - REVIEW CENSOR MEMORY

5. PERSONAL PREFERENCE

The Personal Preference button (located on the remote) will return the Projector to specific preset sources and their picture and audio level settings.

Five Personal Preference settings are available, so that the settings of each source can be stored (e.g. AUX 1 for VCR settings, 5.ANT. for TV channel settings).

BEGIN

1 Select a source and adjust the audio and picture controls to settings you personally prefer (See pages 20-23).

2 Press M(enu).
Press 5 (FEATURES).

With the FEATURES Menu displayed, press 5 for PERSONAL PREFERENCE.

3 Press the (+) or (-) buttons to store the settings you have made in step <1>.

"SELECT P. PREF ITEM TO STORE TV SETTINGS " appears on screen. Five levels are available.

4 Press the ▲▼ buttons on the remote to select one of the listed levels.

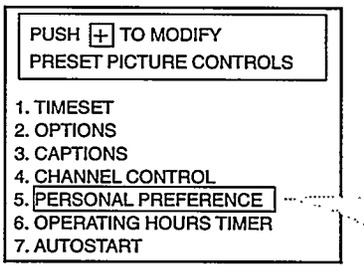
"P. PREF CAPTION" appears on screen.

5 Press the (+) or (-) buttons if you want to change the CAPTION title for the selected P. PREF. level (e.g. "VCR" instead of AUX 1).

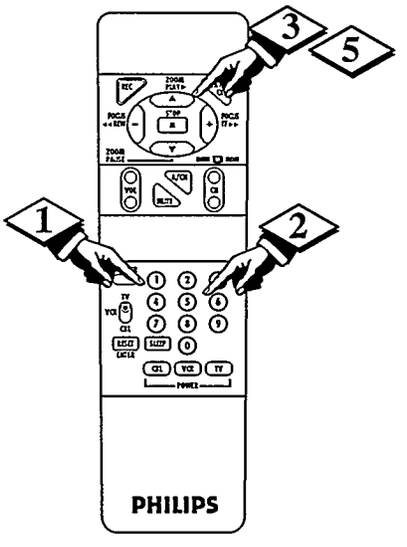
Press the ▲▼ buttons to move indicator to each new character space. Example Caption: VCR.

When the P. PREF. caption is complete, press the STATUS/EXIT button to clear the screen.

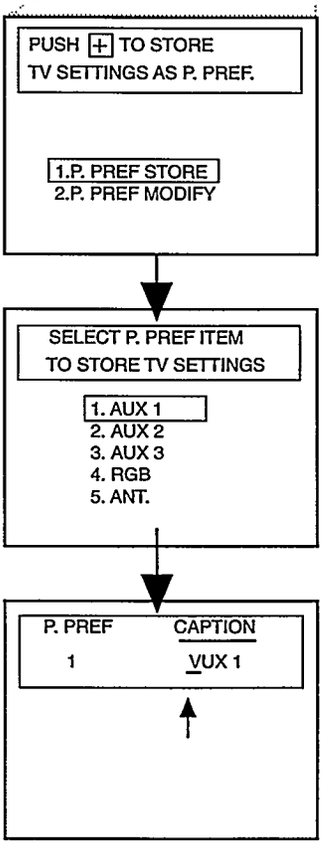
STOP



FEATURES Screen



Remote



PERSONAL PREFERENCE Screen: 1. P. PREF. STORE Writing a name

(Continued on next page)

To recall the Personal Preference:

BEGIN

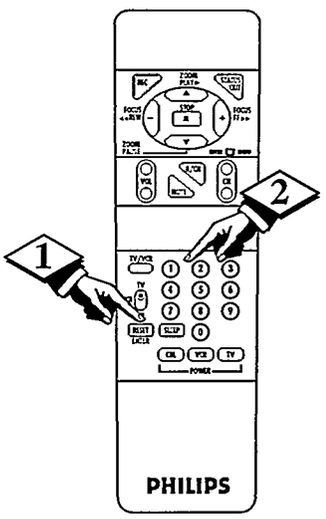
1 Press RESET (Personal Preference) button on the remote.

"PERSONAL PREFERENCES" list (with caption) appears on screen.

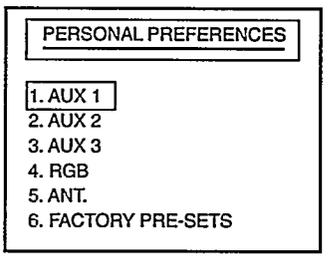
2 Press the ▲ ▼ buttons on the remote to select one of the listed personal preference levels.

Source, picture and audio settings will change to the preset levels you selected in the set-up procedure on the previous page.

STOP



Remote



PERSONAL PREFERENCE select

P REF(erence). MODIFY is available to quickly make changes to any existing P. PREF. setting.

BEGIN

1 Press M(enu).
Press 5(FEATURES).
Press 5(PERSONAL PREFERENCE).

With the P. PREF Menu displayed, press 2 for P. PREF MODIFY.

"SELECT P.PREF ITEM FOR MODIFICATION" appears on screen.

2 Select desired P. PREF from list. Example: press 1 for AUX 1.

3 Press 1 on the remote.

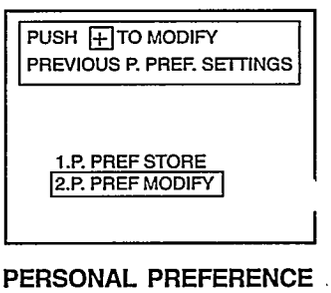
"P. PREF CAPTION" appears on screen.

4 Press ▲ ▼ buttons to select the desired adjustment item.

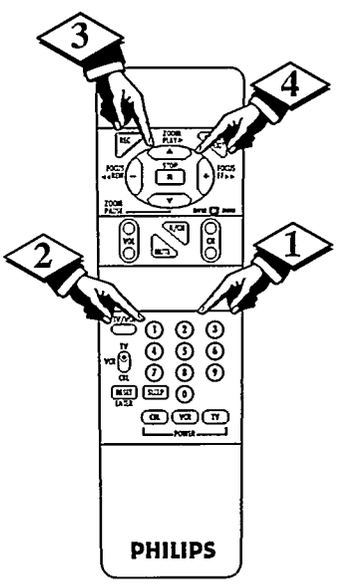
5 Press the (+) or (-) buttons to adjust the highlighted item.

STOP

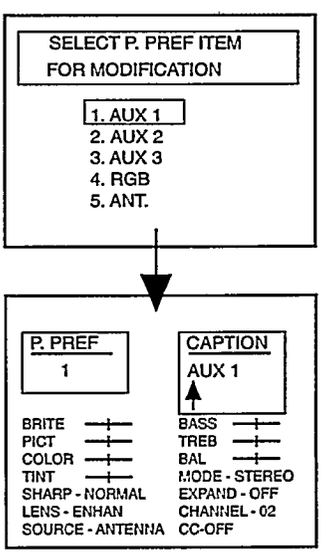
Remember. When "NONE" is selected as source then the modified pref. setting will not change the source selection.



PERSONAL PREFERENCE Screen



Remote



PERSONAL PREFERENCE Screen: 2. P. PREF MODIFY Adjustment

7. AUTOSTART

If the Projector is turned on with the main switch and autostart is activated, the Projector will start with the main picture connected to the last selected source. If the source is ANTENNA, the Projector will tune to the last selected channel.

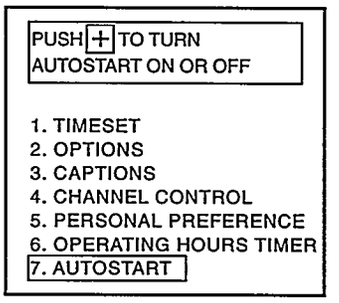
BEGIN

1 Select AUTOSTART control.

With the FEATURES menu displayed press 7 for AUTOSTART.

2 Press the (+) or (-) buttons to turn the function ON or OFF.

STOP



LENS CONTROL WITH REMOTE

ZOOM

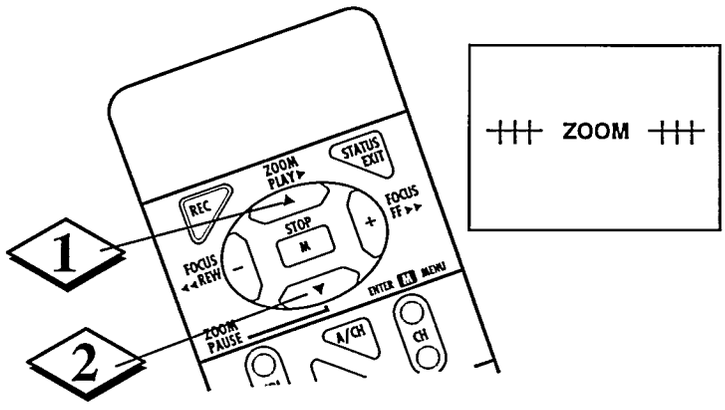
You use the zoom controls to make the picture on the screen larger or smaller.
You ENABLE or DISABLE the controls, using the LENS CONTROL menu. To zoom, make sure there is no menu on the screen.

BEGIN

1 Press the ▲ button to make the picture larger.

2 Press the ▼ to make the picture smaller.
Note: The word ZOOM appears on screen when using these controls.

STOP



FOCUS

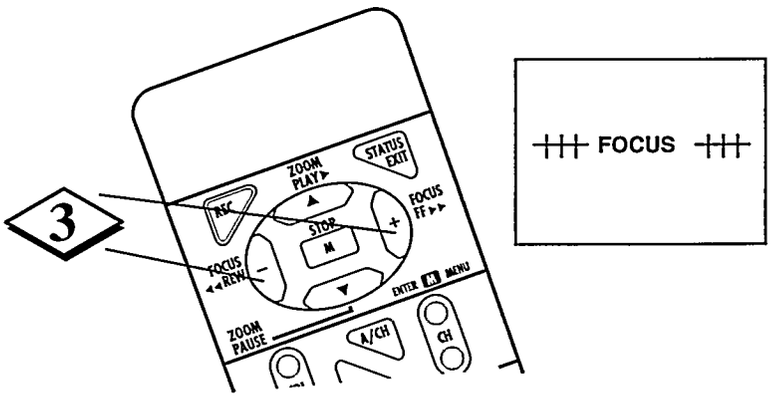
As you make the picture larger or smaller, it may appear fuzzy. You use the - and + controls to focus.

BEGIN

3 Press the controls - and + until the picture is sharp.

Note: The word FOCUS appears on screen when using these controls. Adjust the control so that the word FOCUS is sharp.

STOP



CLOSED CAPTIONING ADJUSTMENTS

Closed Captionning allows you to read the voice content of television programs on the screen. Designed to help the hearing impaired this feature uses on-screen "text boxes" to show dialogue and conversations while the TV program is in progress.

Remember. Broadcast stations will often use spelling abbreviations, symbols, dropouts and other grammatical shortcuts in order to keep pace with the on-screen actions. These type factors vary depending upon the source of the captioned text material and do not indicate a need for service on the part of the Projector.

BEGIN

1 Press M(enu) button on the remote to show MAIN MENU.

2 Press 7 on the remote to select CLOSED CAPTIONING (on the MAIN MENU).

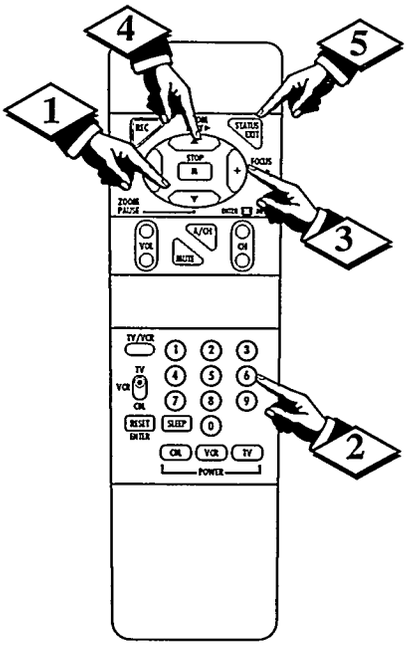
Remember. CLOSED CAPTIONING will only be displayed when available in the selected TV channel, tape or any chosen source.

3 Press the (+) or (–) buttons to select CLOSED CAPTIONING mode. Selecting OFF will remove CLOSED CAPTIONING information. Selecting CAPTIONS will display video related text on the screen (e.g. for sub-titles). Selecting TEXT will display messages encoded in the video you are watching.

4 Press the ▲ ▼ buttons to select channel 1 or 2. Channel 1 contains text in language 1 and channel 2 in the second language (when available).

5 Press the STATUS/EXIT button to return to the MAIN MENU.

STOP



TELEVISION ADJUSTMENTS

1. AUDIO
2. VIDEO
3. INPUT
4. DATA INPUT
5. FEATURES
6. LENS CONTROL
7. CLOSED CAPTIONING

PUSH [+] TO MODIFY TIME

1. TIMESET
2. OPTIONS
3. CAPTIONS
4. CHANNEL CONTROL
5. PERSONAL PREFERENCE
6. OPERATING HOURS TIMER
7. AUTOSTART

OFF CAPTIONS TEXT

1. MODE
2. CHANNEL

NOTE: Not all TV programs and product commercials are made for broadcast with Closed Caption (CC) information included. Neither are all Closed Caption modes necessarily being used by a broadcast station during the transmission of a closed caption program. Refer to your area's TV program listings for the stations and times of Closed Caption shows.

DATA MENU CONTROL ADJUSTMENTS

1.IMAGE - PHASE, BRIGHTNESS, CONTRAST

Beyond the normal picture levels, you can also control the image of projected computer pictures.

To adjust these settings, the Projector must be in the DATA mode (See page 29).

BEGIN

1 With the DATA mode selected press M(enu) on the remote.

The DATA MENU appears on screen.

2 With the DATA MENU selected press 1 for IMAGE.

The first ring-menu (PHASE) appears on screen.

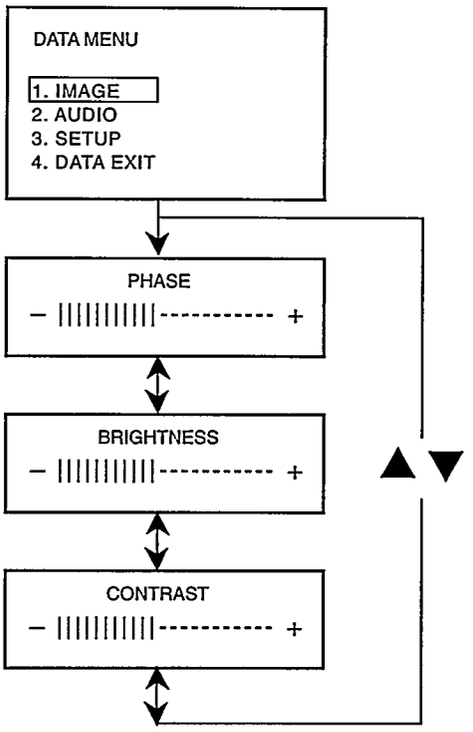
3 Press the ▲ ▼ buttons on the remote to select another ring-menu displayed (BRIGHTNES or CONTRAST).

4 Press the (+) or (–) buttons to adjust the setting of the ring-menu displayed.

5 Press M(enu) again to return to the DATA MENU.

STOP

Remember. When the bar scale is centered, control settings are at normal mid-range levels.



2.AUDIO - BASS, TREBLE, BALANCE, SOUND, MODE, EXPAND

Beyond the normal audio levels, you can also control the sound of projected computer pictures.

To adjust these settings, the Projector must be in the DATA mode (See page 29).

BEGIN

1 With the DATA mode selected press M(enu) on the remote.

The DATA MENU appears on screen.

2 With the DATA MENU selected press 2 for AUDIO.

The first ring-menu (BASS) appears on screen.

3 Press the ▲ ▼ buttons on the remote to select another ring-menu displayed (TREBLE, BALANCE, SOUND MODE or EXPAND).

4 Press the (+) or (–) buttons to adjust the setting of the ring-menu displayed.

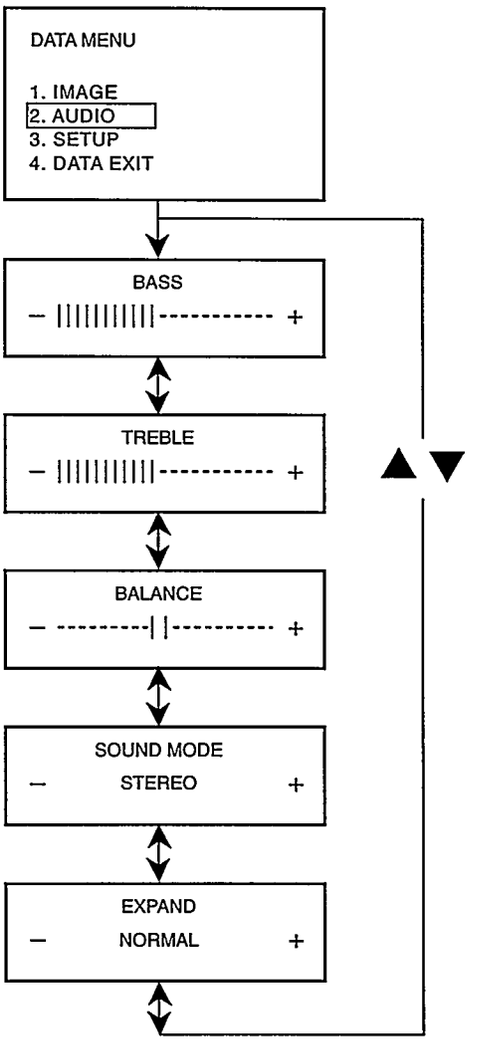
5 Press M(enu) again to return to the DATA MENU.

STOP

Remember. When the bar scale is centered, control settings are at normal mid-range levels.

SOUND MODE: Press the (+) or (–) buttons to select MONO or STEREO.

EXPAND: Press the (+) or (–) buttons to select NORMAL or EXPANDED sound.



3.SETUP - HOR. POSITION, VERT. POSITION, PERSONAL PREFERENCE, CURTAIN, COMPUTER IDENT.

To adjust the setup of the computer image displayed, the Projector must be in the DATA mode (See page 29).

BEGIN

1 With the DATA mode selected press M(enu) on the remote.
The DATA MENU appears on screen.

2 With the DATA MENU selected press 3 for SETUP.
The first ring-menu (HOR(izontal). POSITION) appears on screen.

3 Press the ▲ ▼ buttons on the remote to select another ring-menu displayed (VERT(ical). POSITION, PERSONAL PREFERENCE, CURTAIN or COMPUTER IDENT(ification).).

4 Press the (+) or (–) buttons to adjust the setting of the ring-menu displayed.

5 Press M(enu) again to return to the DATA MENU.

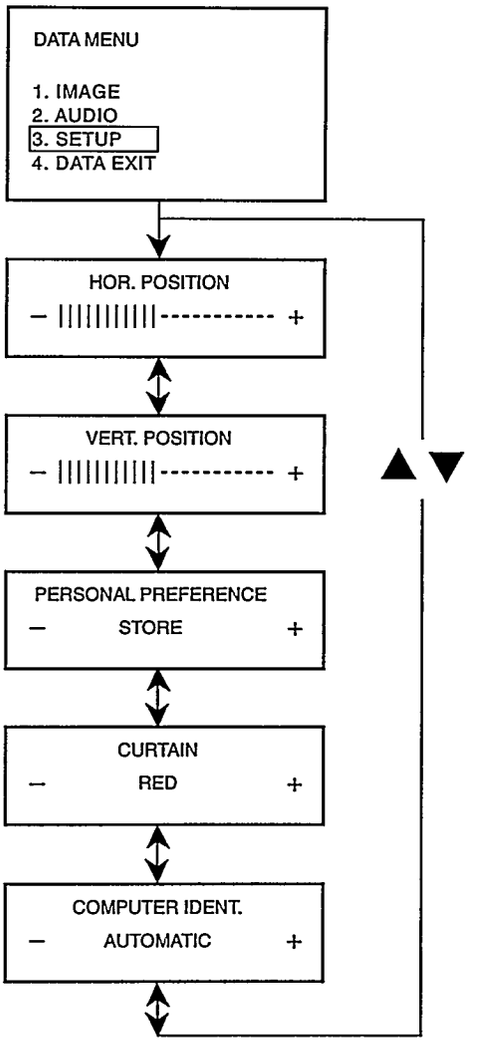
STOP

Remember. When the bar scale is centered, control settings are at normal mid-range levels.

PERSONAL PREFERENCE: After pressing the (+) or (–) button the current setting for the DATA mode will be stored. The text "VALUES STORED" will be displayed briefly.

CURTAIN: Press (+) or (–) to change the curtain color. The following colors can be selected: red, green blue, yellow, magenta, cyan, white and black.

COMPUTER IDENT.: The projector is able to automatically identify the connected type of computer signal. However, if the connected computer signal does not match the known signal standards, automatic identification can be overruled. Press the (+) or (–) button to select AUTOMATIC, VGA 480, VGA 400, VGA 350 or MAC-II.



DATA MENU CONTROL ADJUSTMENTS (CONTINUED)

4.DATA EXIT

As long as the Projector is in the DATA mode, only the DATA MENU items can be selected and adjusted.

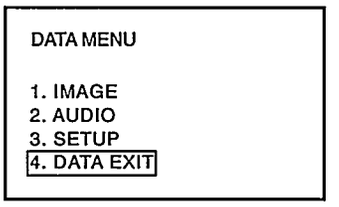
To return to the normal mode, you have to exit the DATA mode first.

BEGIN

1 With the DATA mode selected press the M(enu) on the remote. The DATA MENU appears on the screen.

2 With the DATA MENU selected press 4 for DATA EXIT.

STOP



How to Operate VCRs with the Projector Remote

Your remote control is set to work your Projector and many infrared remote (IR) control VCRs. However, an easy one-time step may be necessary before the remote will work your VCR.

Try this initial check to see if going on to the following section is necessary.

BEGIN

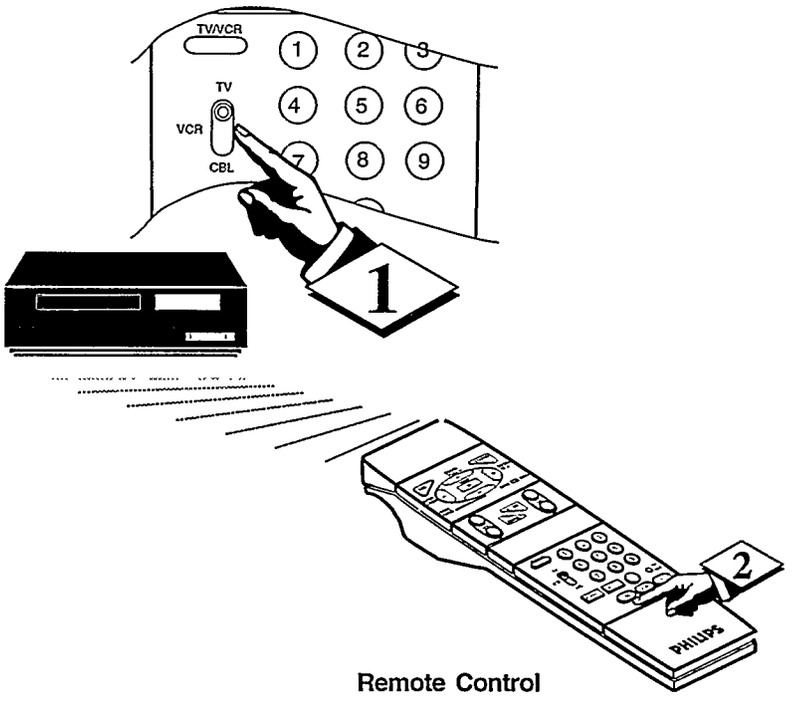
1 Slide the TV-VCR (Video Cassette Recorder)-CBL (Cable) switch on the remote to VCR.

2 Point remote toward VCR and press the VCR POWER button.

3 Does the remote turn the VCR on?

IF YES, STOP and try the other VCR buttons on the remote. If they also work the VCR, then the remote is ready and no further steps are needed.

IF NO, continue.



Remote Control

1 First look up a TWO-DIGIT remote code number (see table alongside) for your brand VCR before going through the simple "1, 2, 3, 4" steps on the following page.

2 If more than one number is listed, you may have to try more than the first two-digit code given in order to locate your VCR's remote control.

(Continued on next page)

Remote Control VCR Chart

VCR BRAND	REMOTE CODE N°	VCR BRAND	REMOTE CODE N°
Akai	24, 25, 36	Multitech	27, 28
Audio Dynamics	14, 21, 29	NEC	14, 21, 29
Broksonic	31	Panasonic	01
Cannon	01	Pentax	02, 03
Capehart	33	Philco	01, 02, 27
Craig	07, 30	Philips	00, 01, 02, 05, 27, 28
Curtis Mathes	01, 42, 43	Quasar	01
Daewoo	33	RCA	03, 04, 32, 42, 43
DBX	14, 21, 29	Realistic	07, 11, 12, 23
Dynatech	27	Samsung	22, 30
Emerson	20, 31, 34, 40	Sanyo	07, 13
Fisher	06, 07, 08	Scott	19
Funai	27, 28	Sears	03, 08, 23
GE	01	Sharp	11, 12
Goldstar	23	Shintom	35
Hitachi	03	Sony	09, 10, 41
Instant Replay	01	Sound Design	27
JC Penney	01, 03, 23, 29	Sylvania	00, 01, 02, 05, 27, 28
JVC	14	Symphonic	27
Kenwood	13, 14	Tatung	14
Lloyds	27	Teac	14, 27
Magnavox	00, 01, 02, 05, 27, 28	Teknika	26, 27
Magnin	30	Thomas	27
Marantz	29	TMK	20
Memorex	01, 07, 23, 27	Toshiba	18, 19
Minolta	03	Video Concepts	28, 29
Mitsubishi	16, 17, 38, 39	Yamaha	14, 28, 29
Montgomery Ward	12	Zenith	15

How to Operate VCRs with the Projector Remote (cont.)

Now that you have looked up the two-digit Remote Code Number for your brand of VCR (on previous page), you are ready to follow the four simple steps below:

Please read through steps 1 - 4 before beginning.

BEGIN

1 Slide the TV-VCR (Video Cassette Recorder)-CBL (Cable) switch to VCR.

2 Press and release the RECORD button, and then press and release the VCR POWER button.

3 Within ten seconds after releasing the VCR POWER button, **ENTER THE TWO DIGIT CODE NUMBER** for the desired VCR (see list).
The remote is now ready to send commands to the VCR.

4 Point the remote at the VCR. Press the VCR POWER button on the remote to turn the VCR on.

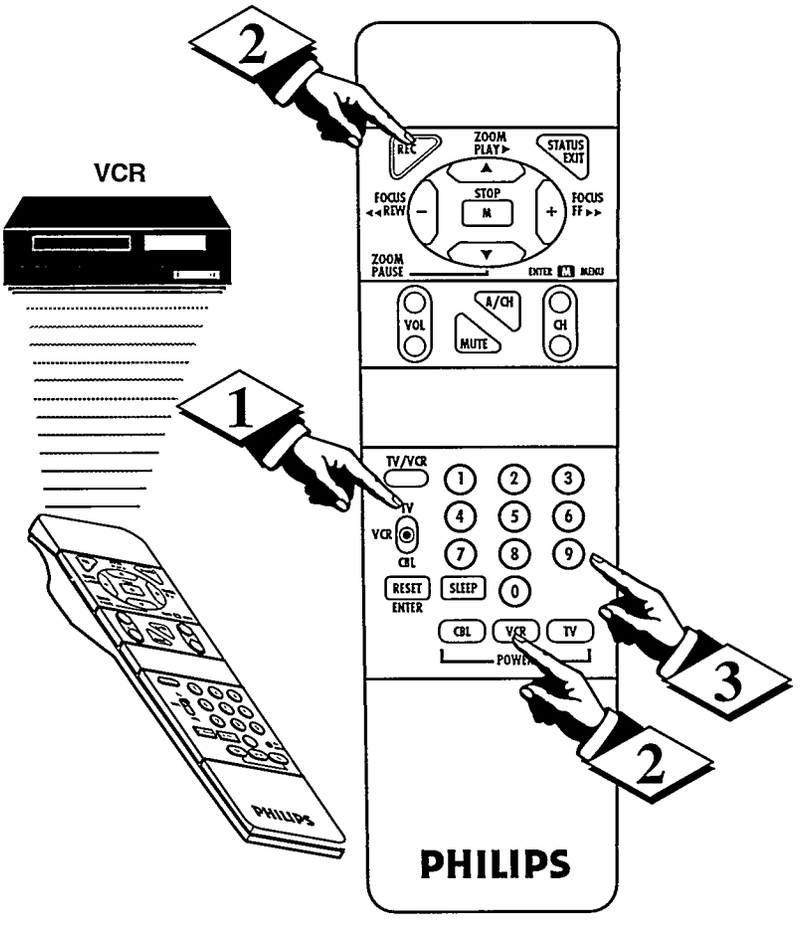
STOP

Try it out. The channel and VCR buttons on the remote should now operate the VCR.

Remember, if this 1, 2, 3, 4 procedure doesn't work the first time, repeat steps using the same remote code number.

IF after a second attempt the remote does not operate your VCR, and there are more code numbers listed for your brand VCR, try the next listed code number.

IF after repeated attempts the code number procedure does not work your VCR, try the "VCR SEARCH" method.



Remote

(Continued on next page)

How To Set Remote to Work your VCR - Search Method

Your Projector remote can be set to work your VCR by what is called the SEARCH method.

IF the "REMOTE CODE" number method shown in the previous section did not set your remote to work your VCR, then follow the five easy steps listed below:

Please read through steps 1 - 5 before beginning.

BEGIN

1 Slide the TV-VCR (Video Cassette Recorder)-CBL (Cable) switch to VCR.

2 Press the POWER button on the VCR to turn VCR on.

3 Stand at least six feet away from the front of the VCR.
Point the remote toward the VCR.
HOLD DOWN the A/CH (Alternate Channel) and VCR POWER buttons at the same time. KEEP HOLDING BUTTONS DOWN.

4 Watch the Channel Indicator to the VCR. Channel Numbers will SCAN UP when the VCR has been identified. This may take up to two minutes.

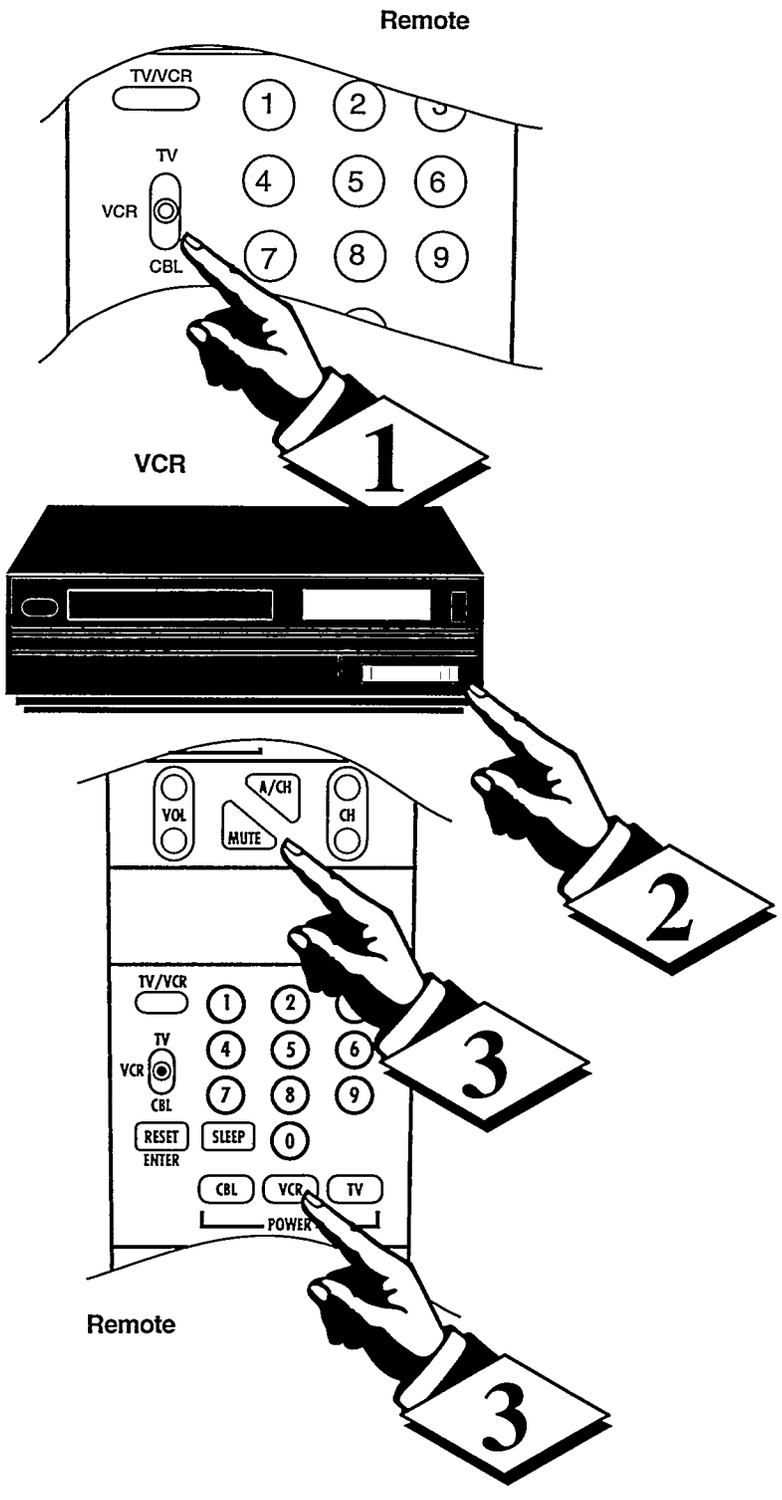
5 Release the A/CH and VCR POWER buttons as soon as channel numbers start to scan up. The VCR code has been identified and the remote is ready to operate the VCR.

STOP

Remember. A minute or two can seem very long, but the code should be located within two minutes.

Don't scan more than five channels (in SEARCH mode) or the two minute search cycle will have to be repeated.

If no channel change happens within two minutes, repeat steps 1-5. Should a channel change still not occur, the remote will not operate the desired VCR.



How to Operate Cable Converters with the Projector Remote

Your remote control is set to work your Projector and many infrared remote (IR) control Cable Converters. However, an easy one-time step may be necessary before the remote will work your Converter.

Try this initial check to see if going on to the following section is necessary.

BEGIN

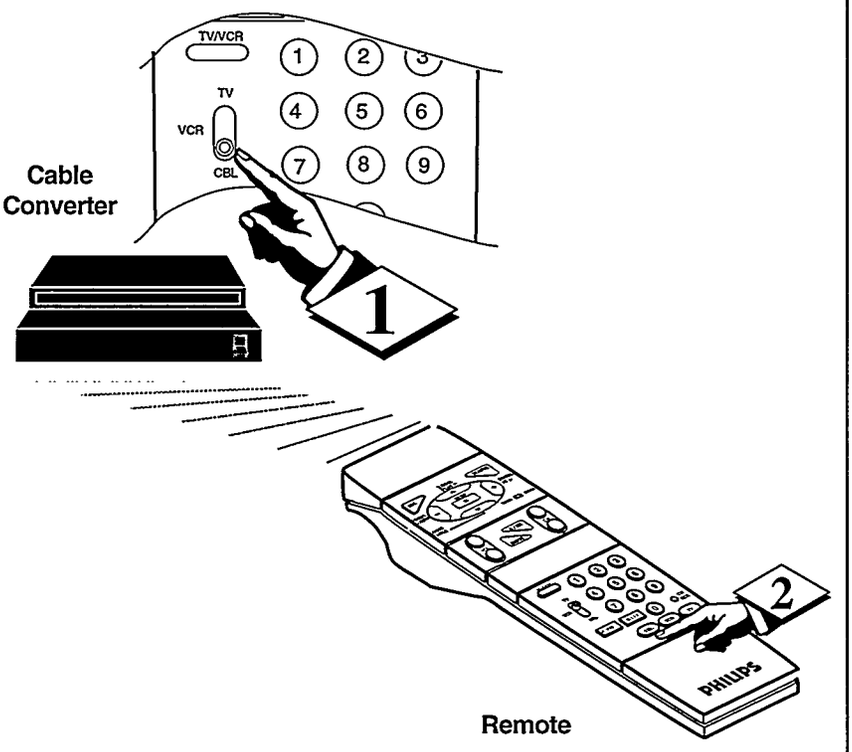
1 Slide the TV-VCR (Video Cassette Recorder)-CBL (Cable) switch on the remote to CBL.

2 Point remote toward Cable Converter and press the CBL POWER button.

3 Does the remote turn the Converter on?

IF YES, STOP and try the CH(annel) ▲ (UP) ▼ (DOWN) and number buttons on the remote. If they also work the Converter, then the remote is ready and no further steps are needed.

IF NO, continue.



1 First look up a TWO-DIGIT remote code number (see table alongside) for your brand Converter before going through the simple "1, 2, 3, 4" steps on the following page.

2 If more than one number is listed, you may have to try more than the first two-digit code given in order to locate your Converter's remote control.

Remote Control Cable Converter Code Chart

CONVERTER BRAND	REMOTE CODE N°
Archer	28
Diamond	23
Hamlin	15, 15
Hitachi	25
Jerrold	01, 02, 03, 04, 05, 30
Macom	29
Magnavox	17, 26, 31
Oak	26
Oak Sigma	06
Panasonic	18, 35
Magnavox	19, 20, 21, 24, 26
Pioneer	09, 32
Rembrant	33
Regency	10, 11
Scientific Atlanta	08, 22
Sheritech	34
Sylvania	16
Texscan	16
Tocom	12, 13
Universal	36
Viewstar Philips	26
Zenith	07

(Continued on next page)

How to Operate Cable Converters with the Projector Remote

Now that you have looked up the two-digit Remote Code Number for your brand of Cable Converter (on previous page), you are ready to follow the four simple steps below.

Please read through steps 1 - 4 before beginning.

BEGIN

1 Slide the TV-VCR (Video Cassette Recorder)-CBL (Cable) switch to CBL.

2 Press and release the RECORD button, and then press and release the CBL (Cable) POWER button.

3 Within ten seconds after releasing the CBL POWER button, ENTER THE TWO DIGIT CODE NUMBER for the desired Converter (see list).
The remote is now ready to send commands to the Converter.

4 Point the remote at the Converter. Press the CBL POWER button on the remote to turn the Converter on.

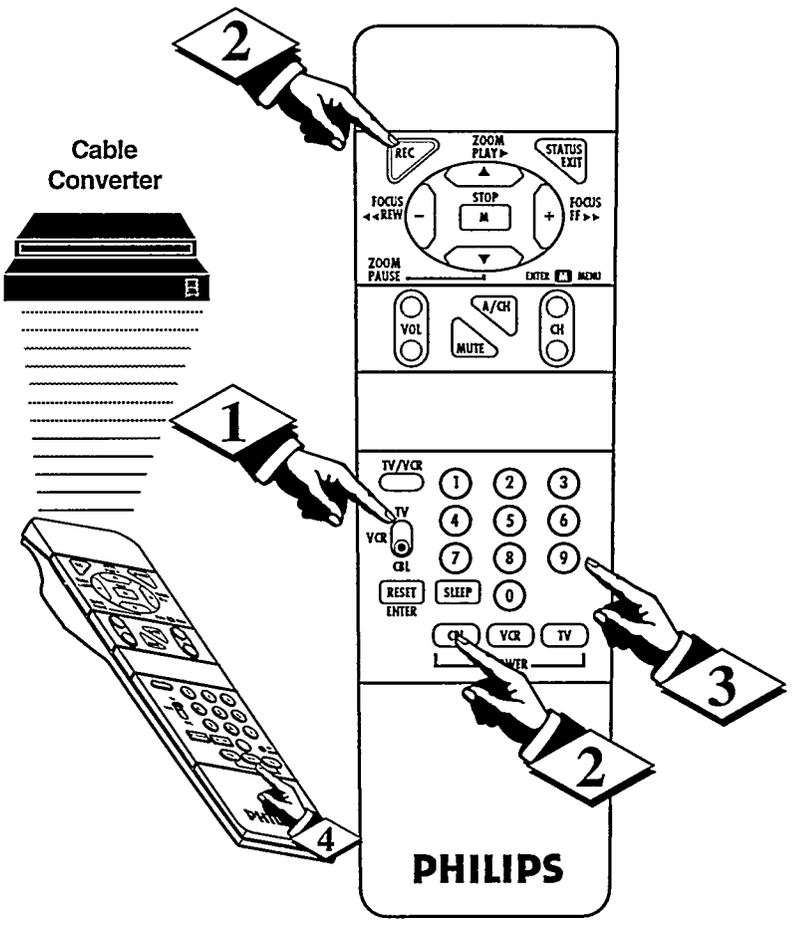
STOP

Try it out. The channel and POWER buttons on the remote should now operate the Converter.

Remember, if this 1, 2, 3, 4 procedure doesn't work the first time, repeat steps using the same remote code number.

IF after a second attempt the remote does not operate your Converter, and there are more code numbers listed for your brand Converter, try the next listed code number.

IF after repeated attempts the code number procedure does not work your Converter, try the "CONVERTER SEARCH" method.



Remote

(Continued on next page)

How To Set Remote to Work your Cable Converter - Search

Your Projector remote can be set to work your Cable Converter by what is called the SEARCH method.

IF the "REMOTE CODE" number method shown in the previous section did not set your remote to work your Converter, then follow the five easy steps listed below:

Please read through steps 1 - 5 before beginning.

BEGIN

1 Slide the TV-VCR (Video Cassette Recorder)-CBL (Cable) switch to CBL.

2 Press the POWER button on the Converter to turn Converter ON.

3 Stand at least six feet away from the front of the Converter.
Point the remote toward the Converter. HOLD DOWN the A/CH (Alternate Channel) and CBL POWER buttons at the same time. KEEP HOLDING BUTTONS DOWN.

4 Watch the Channel Indicator on the Converter. Channel Numbers will SCAN UP when the Converter has been identified. This may take up to two minutes.

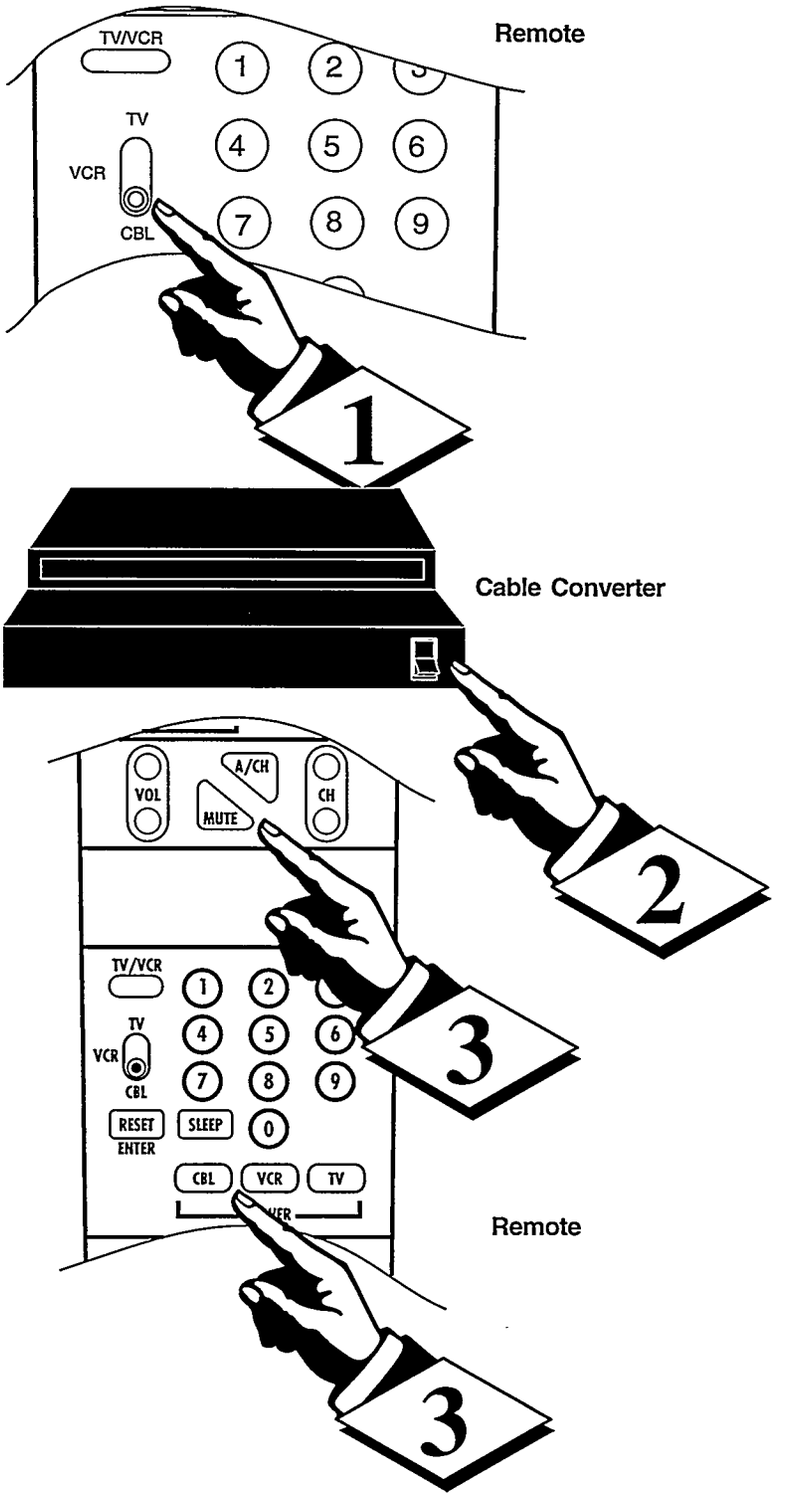
5 Release the A/CH and CBL POWER buttons as soon as channel numbers start to scan up. The Converter code has been identified and the remote is ready to operate the Converter.

STOP

Remember. A minute or two can seem very long, but the code should be located within two minutes.

Don't scan more than five channels (in SEARCH mode) or the two minute search cycle will have to be repeated.

If no channel change happens within two minutes, repeat steps 1-5. Should a channel change still not occur, the remote will not operate the desired Converter.



TIMER

Have you ever forgotten to turn off the Projector and found it the next day with a test pattern screeching in your ears? Well, your Projector can save you all that trouble by automatically turning itself off.

BEGIN

1 Press the TIMER button on the remote.

"TIMER - 0:00" appears on screen.

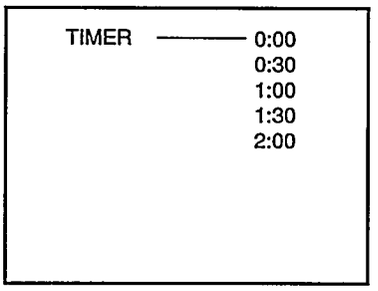
2 Press the TIMER button repeatedly to select the amount of time before the Projector will turn OFF.

3 Press the STATUS/EXIT button to clear the screen.

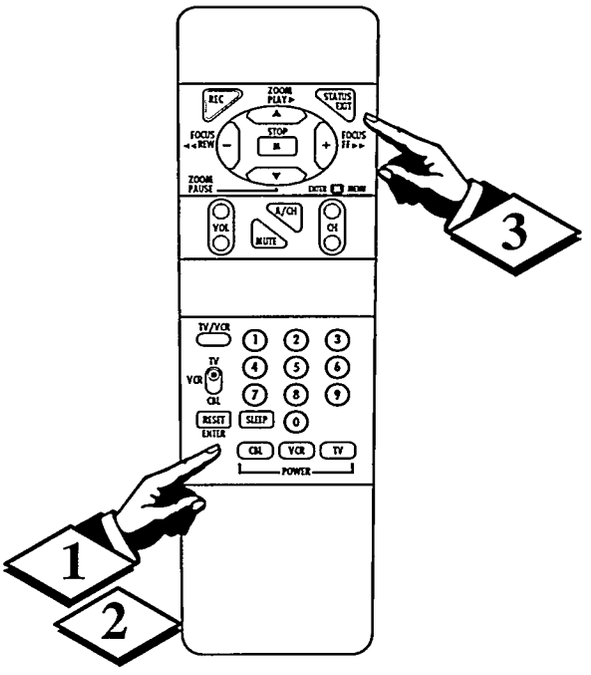
STOP

Remember. If you ever want to see how many minutes are left before the Projector shuts off, reselect the TIMER display.

If you ever want to stop a TIMER setting, reset the timer to 0:00 (or you could just turn the Projector off and then back on to cancel a setting).



TIMER Screen



Remote

REMOTE CONTROL OPERATION - CURTAIN

CLOSING/OPENING THE CURTAIN

You can use the curtain control to blank the displayed computer picture. The screen will be blanked in the color selected (See page 44). This option can be useful when there is a waiting time between changing computer screens.

The Projector must be in the DATA mode (See page 29).

BEGIN

1 With the DATA mode activated, press button A/CH on the remote.

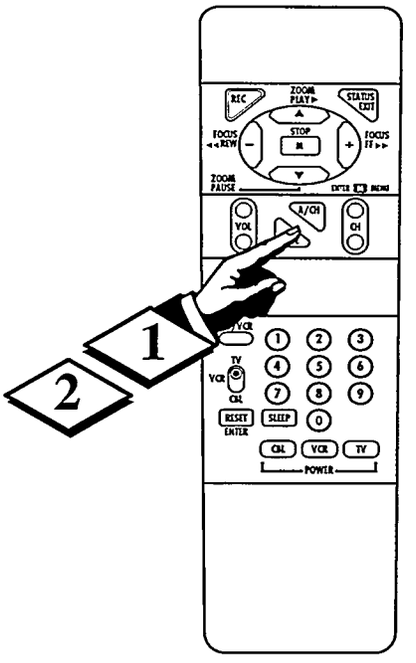
The screen is blanked and the curtain is closed in the selected color.

2 Press the button A/CH again (or any other button on the remote) to open the curtain again.

STOP

Remember, the curtain function cannot be used if a source other than DATA has been selected.

If the curtain is closed, the color can be changed by pressing the CH up/down button.



Remote

REPLACING THE LAMP

The lamp used as the light source in your Projector will eventually have to be replaced. Shortly after 2,000 hours of viewing, you will see a warning display on your screen:

FOR BEST PERFORMANCE
PLEASE REPLACE LAMP.
RESET OPERATING HOURS TIMER

When you see this warning, the lamp should be replaced as soon as possible to restore brightness and to avoid sudden burn-out.

Remember. A spare lamp can be stored in a special compartment concealed behind the front grille. It is advisable to purchase a spare lamp. This will minimize possible loss of viewing time.

BEGIN

1 Switch off your Projector and unplug the power line.

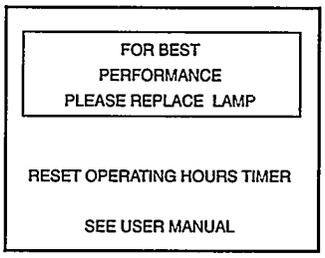
2 Wait for the lamp to cool. THIS IS IMPORTANT. In operation the lamp runs very hot. You can burn yourself severely if you handle the lamp when it is hot.

3 Press the grille catch on the side of the Projector to release the front grille. Lift the grille completely off.

4 Pull off the lamp base connector. Take the spare lamp out of the compartment or box and remove the plastic bag. Hold the lamp by its base, using your right hand; DO NOT TOUCH THE GLASS.

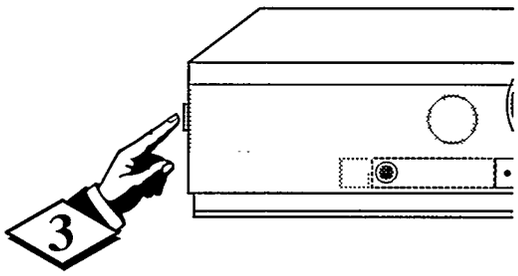
5 Using the thumb and forefinger of your left hand, press the lamp spring clips together and swing the clip assembly up and over to the right. Lift out the old lamp and discard it by putting it in the trash can. DO NOT put it in a fire.
If you see broken glass inside the Projector do not continue. Call your serviceman who will take the required action.

6 Insert the new lamp, making sure that the flat part of the base is positioned as shown in the diagram.

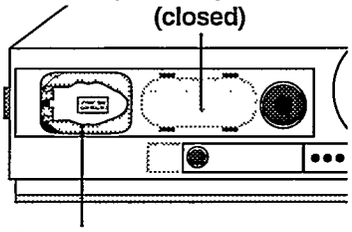


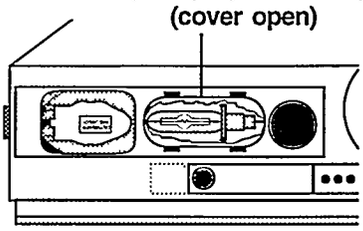
LAMP Screen

Front of Projector



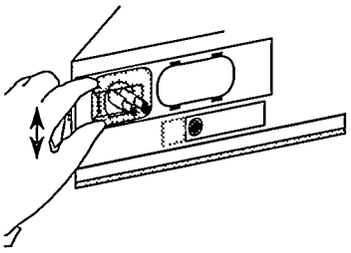
4

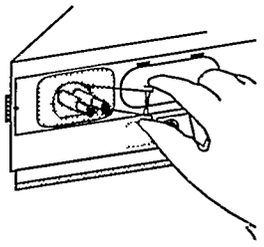




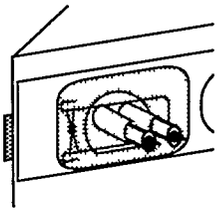
Projection lamp base connector

5





6



(Continued on next page)

REPLACING THE LAMP (CONTINUED)

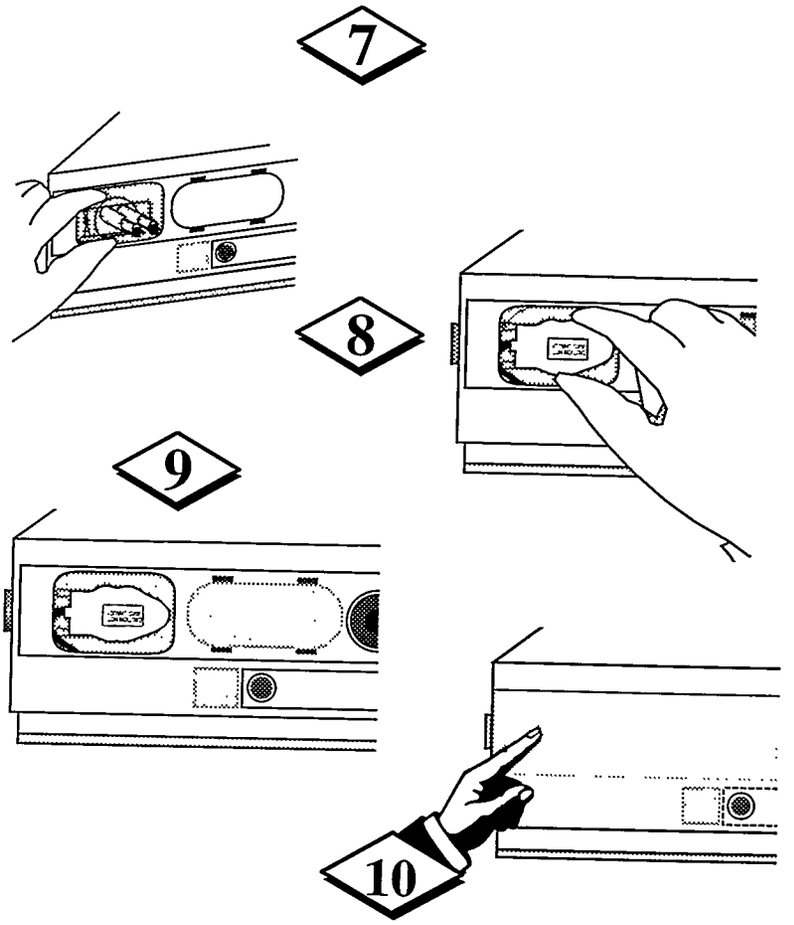
7 Hold the spring clips between the thumb and forefinger of your left hand and swing the assembly back into position over the lamp base. Press the clips together, push down and release them so they lock into position.

8 Push the lamp connector onto its base until you feel a slight 'click'. Make sure the cable fits between the spring clips as shown in the diagram.

9 Replace the spare lamp cover.

10 Press the front grille back into position making sure that the front left side latch clicks firmly into its slot.

11 Plug in the power line and press the ON switch.



OPERATING HOURS TIMER

After replacing the lamp, you must reset the operating hours timer.

BEGIN

1 Press MENU (or M button on the remote) to show MAIN MENU.

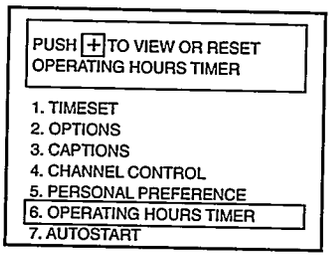
2 Press 5 on the remote to select FEATURES (on the MAIN Menu).

3 Press 6 on the remote to select OPERATING HOURS TIMER .
Press 2 on the remote to select RESET OPERATING HOURS.

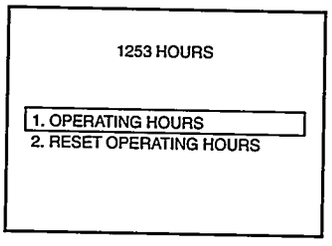
4 Press + to reset OPERATING HOURS.

5 You will see the operating hours screen with 0000 HRS.

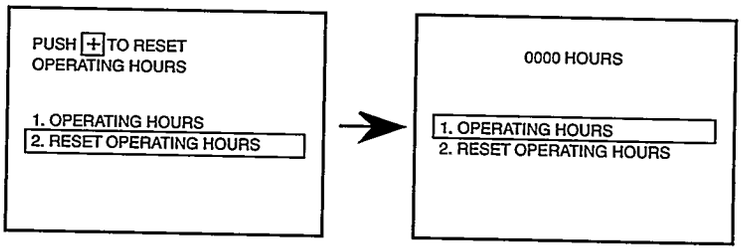
6 Press the STATUS/EXIT button to return to normal viewing.



FEATURES Screen



OPERATING HOURS TIMER MENU Screen



TIPS IF SOMETHING ISN'T WORKING

Please make these simple checks before calling for service. These tips can save you time and money since charges for Projector installation and adjustment of customer controls are not covered under your warranty.

This Projector is equipped with protective circuitry that shuts the Projector OFF in case of moderate power surges. Should this occur turn the Projector back ON by pressing the POWER ON/STAND BY button, or unplug and then replug the power cord at the AC outlet.
This feature is not designed to prevent damage due to high voltage, such as lightning, which is not covered by your warranty.

NO POWER

Check the Projector power cord. Unplug the Projector, wait 2 minutes, then reinsert plug into outlet and push POWER button again.
Check main power switch on back of Projector.
Check if the front grill is mounted properly.

NO PICTURE

Check antenna connections on the rear of the Projector. Are they properly secured to the antenna plug on the V Projector?
Check the CABLE/NORMAL display for correct position.
Check INPUT display for correct position. Using the VCR/AUX position without a signal source will result in a blank screen.

NO SOUND

Check the VOLUME buttons.
Check the MUTE button on the remote control.
Check the INT.(ERNAL)/EXT.(ERNAL) speaker switch on the rear of the Projector. EXT. position cuts sound of the Projector's internal speakers off.

REMOTE DOES NOT WORK

Check battery.
Clean the remote and the remote sensor window on the Projector .
Check the TV/VCR/CBL switch on the remote for correct position.
For example: the switch must be in the TV position to send commands to the Projector.

TV DISPLAYS WRONG CHANNEL

Repeat channel selection.
Add desired channel numbers (CHANNEL DISPLAY) into memory.
Check CABLE/NORMAL display for correct position.

YOU CAN'T 'ESCAPE' FROM A MENU

Press STATUS/EXIT on the remote control. If that doesn't work, press the POWER OFF switch on the back of the Projector and immediately SWITCH ON again.

WRONG MENU APPEARS

If the DATA menu appears, go to page 45 for instructions on how to exit DATA mode.
If the MAIN menu appears, go to page 29 for instructions on how to enter and control DATA mode adjustments.

THE ERROR LED BLINKS ALL THE TIME and MESSAGE "REPLACE PROJECTION LAMP"

The lamp needs changing.
Go to page 54 for instructions on how to do this.

THE ERROR LED AND ONE OR TWO OTHER LEDS BLINKS ALL THE TIME (See page 5)

There is a problem inside the set.
Don't try to fix it yourself; call your dealer for help.
Maybe the set 'ran' too hot. Check if ventilation slots are blocked.

SET DOES NOT START IMMEDIATELY

If you try to restart the set a short time after switching it off, it is possible that the lamp does not turn on immediately. In this situation the POWER button light blinks. The set will restart automatically within a few minutes.
If the set does not restart within 2 minutes, it will switch off and the error LED starts blinking. Wait until the blinking has stopped and switch on the set again.
If the set does not start within 2 minutes, replace the lamp.
If the set still does not start, please contact your dealer.

Technical Specification

Optical display system
Projector using metal halide gas discharge projection lamp source in an optical system with three liquid crystal panels and a combination of folding and dichroic mirrors.

Liquid Crystal Panels
Panel size: 2.8 inch diagonally
Display system: transmission type liquid crystal panels
Drive system: TFD-R (Thin Film Diode-reset) active matrix

LCD resolution
640 lines, 480 columns

Color
16.8 million colors

Horizontal scan rate
15.6, 31.4 - 36 kHz
(video, VGA, MAC-II)

Lens
F = 4.5, zoom lens with
range f = 150 to 300 mm
Image size (mid-range magnification)
40 inch wide at 13 feet from screen
140 inch wide at 43 feet from screen

Lamp
Metal halide gas discharge lamp
MHD 200

Type of tuning
Frequency synthesis

Method of tuning
Programmable scan on set: scan plus direct access from remote control
Broadcast tuning range
Channels 2 to 13 and 14 to 69

Cable tuning range
122 channels
2 to 13, A-1, A-2, A-6 to A-8, A to I, J to W, W+1 to W+82

Remote Control
IR with a TV/VCR/Cable switch and buttons for cable power, VCR power, TV power, mute, volume up and down, channel up and down, alternate channel, TV/VCR, record, play, stop, pause, fast forward/rewind, sleep, reset (per. pref. set.), status/exit, -, +, menu, zoom -, zoom +, focus -, focus +, 10-digit keypad

Inputs
One RF, two S-video, two composite video and one RGB/composite video and 15 pin Sub-D data graphic.

Outputs
Selected source - S-video (loop from AUX 1 or 3), video and stereo audio, no video output from RGB.

External speaker connections
Stereo - spring-loaded clips

Internal audio amplifier
2 x 10 watts for external speakers
1 x 10 watts for internal speaker

Internal speaker
One 3 1/3 inch

Audio frequency response
Speaker connectors 40 Hz to 16 kHz,
line out 40 Hz to 16 kHz.

Special features
MTS stereo TV tuner closed captioning, 1/4-inch headphone jack, five personal preference menu settings for picture and audio, front panel inputs, mirror button for adjusting picture for front projection, rear projection or via mirror systems, remote control of zoom and focus.

Rated voltage
100 to 140 V AC

Rated frequency
60 Hz

Power consumption
300 W average, 350 W peak

Working temperature
41°F to 95°F (5°C to 35°C)

Casing
Metal

External dimensions
8 x 22 x 15 inches (200 x 554 x 390 mm)

Weight
Approx 48 lbs (22 kg)

Accessories included
Remote Control
Battery (9v)
Lens cap
Users manual
Safety Tips leaflet
Warranty
RF connector extension
VGA cable

Balun * An antenna adapter device used to match the end plug of an outdoor or indoor antenna wire to the Antenna input terminal on a Television or VCR.

Cable Converter Box* Device for receiving and decoding Cable TV signals.

Channel Reminder * Places the channel number for the currently viewed TV program on the Projector screen. Channel number will remain on the screen until the Reminder feature is turned OFF.

Coaxial Cable * A single solid antenna wire normally matched with a metal plug (F-type) end connector that screws (or pushes) directly onto a 75 Ohm input found on the Television or VCR.

Display * An on-screen message or graphics that help the user operate and adjust his Projector feature controls. See On Screen Displays (OSD).

Direct Audio/Video Inputs/Outputs * Located on the rear of the Projector these connectors (RCA phono type plug) are used for the input or output of audio and video signals.
Designed for use with VCRs (or other accessories) in order to receive higher picture resolution and offer a variety of sound connection options.

Focus* Adjusting the sharpness of the picture by changing the lens setting.

LCD Liquid Crystal Display * A new type of screen display which is used instead of the conventional cathode ray tube. In this Projector , the picture is formed on LCD displays inside the projection unit and then projected onto a screen like a slide or movie. (see How Your Projector Works on page 4)

Menu * An on-screen listing of feature controls shown on the Projection screen that are made available for user adjustments.

Multichannel Television Sound (MTS) * The broadcast standard that allows for stereo sound to be transmitted with the picture. The MTS system actually consists of three audio channels. Two channels are for the stereo (right/left) signals, and a third Separate Audio Program (SAP) channel can be used for bilingual or other broadcast applications.

On Screen Displays (OSD) * Refers to the wording or messages generated by the television (or VCR) to help the user with specific feature controls (control adjustment, programming etc.)

Programming * The procedure of adding or deleting channel numbers into the Projector's memory circuits. In this way the Projector 'remembers' only the locally available or desired channel numbers and skips over any unwanted channel numbers.

Remote Sensor Window * A window or opening on the Projector control panel through which infrared remote control command signals are received.

Separate Audio Program (SAP) * A third audio channel provided for in the Multichannel Television Sound (MTS) broadcast standard. The most frequently proposed use for SAP is the simultaneous bilingual broadcast of TV program material.

Status * Allows the user to quickly confirm what channel number is currently being viewed. Status can also be used to clear the Projector of on screen displays or information (rather than waiting for the displays to 'time out' or automatically disappear from the screen).

S-VHS or S-Video* A higher quality version of the VHS standard for videorecorders and other devices, such as CD-I players.

Twin lead wire * The more commonly used name for the two strand 300 Ohm antenna wire used with many indoor and outdoor antenna systems. In many cases this type of antenna wire requires an additional adapter (or balun) in order to connect to the 75 Ohm input terminals designed into the more recent Televisions and VCRs.

TV Bands* Two possible settings:
Antenna
This consists of two types of frequencies: VHF (Very high Frequency) channels received by the tuner on channels 2 to 13; UHF (Ultra High Frequency) channels received by the tuner on channels 14 to 69.
CATV Cable TV
The second possible setting for TV band tuning. This term means the unit is capable of receiving standard and unscrambled channels on cable without the use of a cable decoder or converter box.

VCR (Video Cassette Recorder)* Device for playing pre-recorded video casssette tapes. Can also be used to record pictures and sound from an external source, such as a cable TV signal.

Zoom* Changing the size of the picture by changing the lens settings.

LIMITED WARRANTY

LIMITED WARRANTY
PROJECTOR
One (1) Year Free Carry-In Service Labor Warranty
Six (6) Month Exchange Warranty Projector Lamp
One (1) Year Exchange Warranty Parts
For purchases outside the U.S., see applicable warranty from country of purchase.
This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Parts and Labor

For one year (six months for the Projector Lamp) after installation, a Philips Factory Service Center (see below) will repair any product defect and replace any defective part without charge to you for parts or labor.

What the Purchaser Must Do

Before you call for service, check your operating instruction booklet. A slight adjustment of the customer controls discussed in your instruction booklet may save you a service call.

How to get Warranty Service

Due to the sophisticated nature of this product warranty service will be provided by a Philips Factory Service Center. If you feel you require warranty service, or need to discuss a problem about your LCD Projector, please contact the Philips Factory Service Center listed below. If it is determined that the Projector needs to be repaired, you will be given a return authorization number. Carefully pack the LCD Projector in secure packaging for safe shipment.

Be sure that you retain the carton and all packing materials from this unit. These materials are specifically designed for shipping this product.

Deliver or ship the Projector freight prepaid and insured to the Factory Service Center.

Philips Factory Service Center
5164 Blazer Parkway
Dublin, OH 43017
(614) 792-1495

YOU MUST PRESENT PROOF OF THE DATE ON WHICH THE LCD PROJECTOR TV WAS FIRST PURCHASED (SALES RECEIPT OR OTHER EVIDENCE) WHEN REQUESTING SERVICE OR REPLACEMENT PART WARRANTY PERFORMANCE.

Also please include a description of the problem when returning product for repair. Following warranty repair, the unit will be returned to you freight prepaid. Be sure to include your complete return address on the outside of the carton.

Warranty Exclusions

Your Warranty Does Not Cover:
Labor charges for Projector installation or set-up, adjustment of customer or preference controls, and installation or repair of antenna systems outside the Projector.
Product repair and/or part replacement because of misuse, accident, unauthorized repair or other cause not within the control of Philips Consumer Electronics Company.
Reception problems caused by signal conditions or cable or antenna systems outside the Projector.
A Projector purchased, used or serviced outside the U.S.A. Puerto Rico and the Virgin Islands.
Incidental or consequential damages resulting from the product. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.

ALL IMPLIED WARRANTIES INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THIS EXPRESS WARRANTY. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

IMPORTANT REMINDER
PLEASE FILL OUT AND MAIL YOUR WARRANTY REGISTRATION CARD PROMPTLY. IT WILL BE EASIER FOR US TO NOTIFY YOU IF IT SHOULD EVER BE REQUIRED.

How to get Warranty Service After the Warranty Expires

Out of warranty service can be obtained under the following arrangements:

- Contact the Philips Factory Service Center at (614) 792-1495 to obtain service.
- Pack your product in a safe carton for shipment.
- Mail the product to the Philips Factory Service Center listed in 'How to Get Warranty Service'. Also include a letter inside the carton describing the problem and listing your name, address and phone number.

Please write your model and Serial numbers below. The numbers are located on the back of your unit. Please remember to have these numbers on hand any time you call.
MODEL NO. _____
SERIAL NO. _____

PHILIPS SERVICE COMPANY
P.O. BOX 555 • JEFFERSON CITY, TENNESSEE 37760
(615) 475-8869

IB 6758-E001