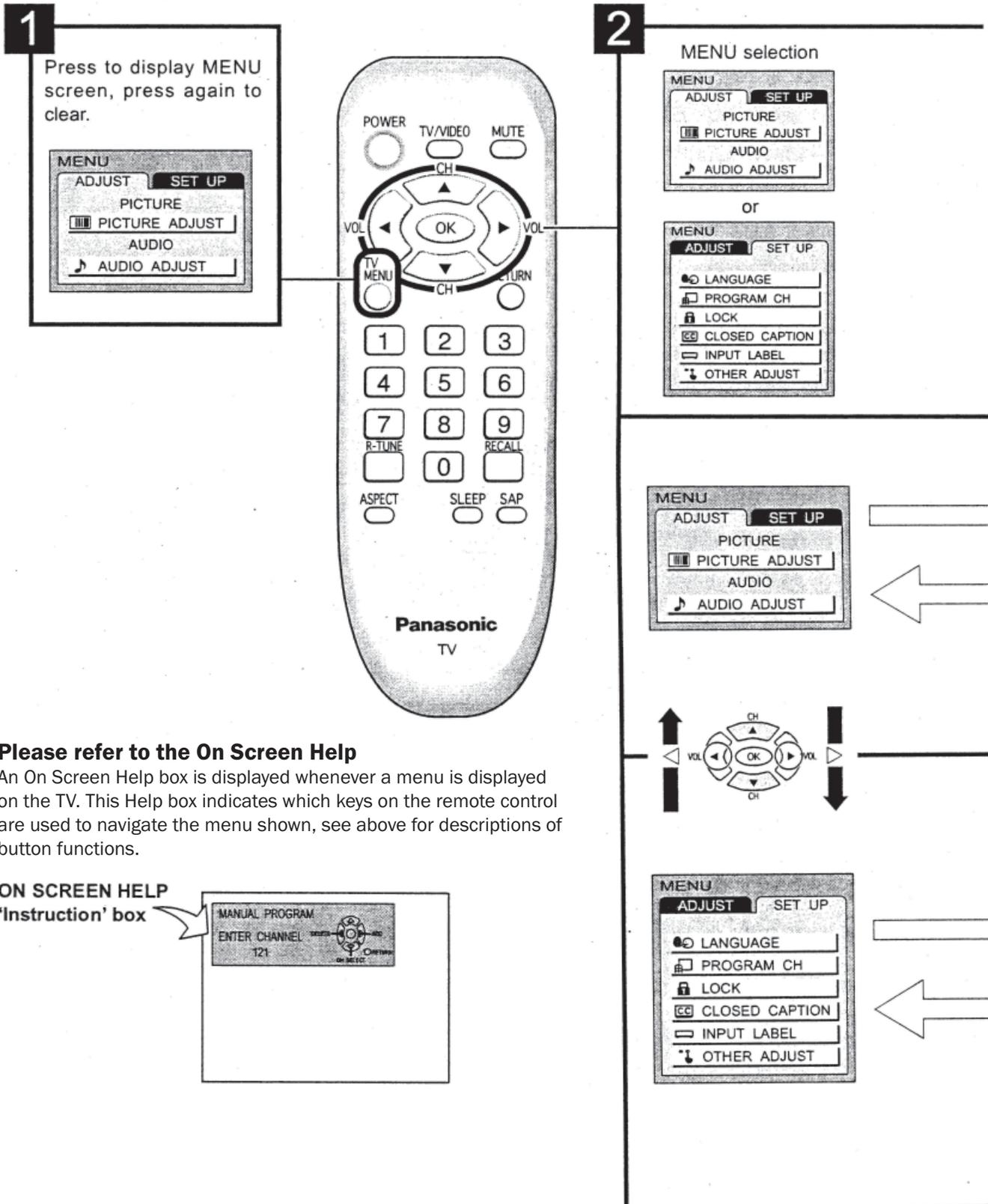# 4-16.3.8 Flow Chart of Menu

All adjustments and setting functions equipped in this set can be made using the menu buttons. The menu screen is composed of 2 menus, the ADJUST menu and the SET UP menu.
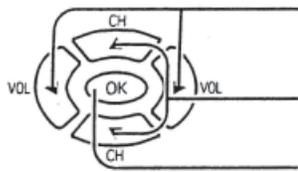

Please refer to the On Screen Help

An On Screen Help box is displayed whenever a menu is displayed on the TV. This Help box indicates which keys on the remote control are used to navigate the menu shown, see above for descriptions of button functions.
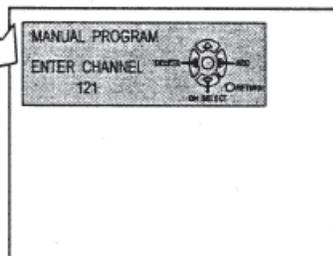
Press to select the desired MENU (ADJUST or SET UP).

Press to select each item.

Press to display each adjustment screen.

Proceed to the adjustment.
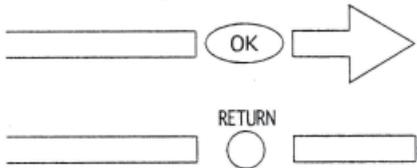
● To return to previous screen :   RETURN   Press to return.

● To end adjustments :   TV MENU   Press to exit from the MENU screen.
This returns the set to the normal viewing condition.

Press to display each adjustment screen.

OK

RETURN

Press the RETURN button to return to previous screen.

TO PICTURE ADJUST menu

PICTURE ADJUST	
	NORMAL
PIC MODE	STANDARD
BACK LIGHT	+30
PICTURE	0
BRIGHTNESS	0
COLOR	0
TINT	0
SHARPNESS	0
AI PICTURE	OFF ON

(See page 20)

TO AUDIO ADJUST menu

AUDIO ADJUST	
	NORMAL
MODE	AUTO
BASS	+5
TREBLE	+2
BALANCE	0
SURROUND	OFF ON
STEREO	SAP MONO

(See page 21)

TO LOCK selection screen

LOCK	
BLOCK PROGRAMS:	U.S. MOVIES
STATUS	OFF ON
↳	CHANGE SETTING
ENTER CODE FIRST	_ _ _ _

(See page 22 - 25)

Press to display each adjustment screen.

OK
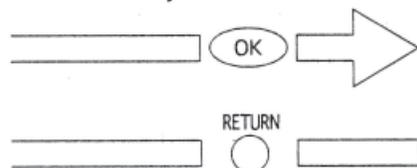
RETURN

Press the RETURN button to return to previous screen.

TO LANGUAGE

LANGUAGE	
LANGUAGE	◀ ENGLISH ▶

Allows you to select the language used for On Screen Displays.

→ ENGLISH ↔ FRANÇAIS ←
→ ESPAÑOL ←

TO CLOSED CAPTION

CLOSED CAPTION	
CC ON MUTE	◀ NO ▶
CC MODE	OFF

(See page 26)

TO PROGRAM CHANNELS

PROGRAM CHANNELS	
MODE	TV CABLE
AUTO PROGRAM	
MANUAL PROGRAM	

(See page 18,19)

TO INPUT LABEL selection screen

INPUT LABEL	
VIDEO1	◀ VIDEO1 ▶
VIDEO2	VIDEO2
COMPONENT	COMPONENT

(See page 27)

TO OTHER ADJUST screen

OTHER ADJUST	
3D Y/C FILTER	OFF ON
COLOR MATRIX	SD HD

[for TC-17LA1 and TC-20LA1]

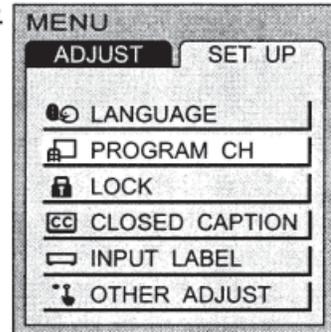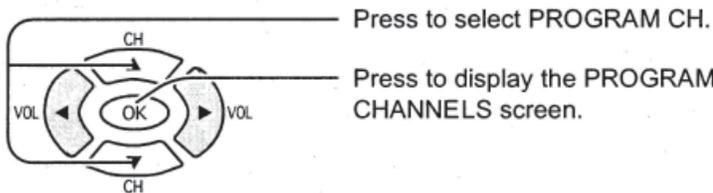| OTHER ADJUST	
COLOR MATRIX	SD HD

[for TC-14LA1]

(See page 27)

4-16.3.9 Tuning Channels (Automatic channel programming)

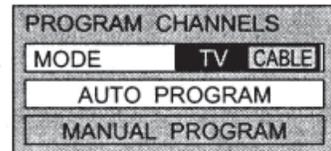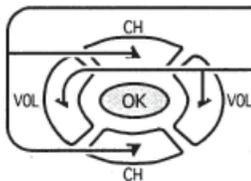### Automatically scans all TV channels and stores them in memory.

1 Turn the Power on and press the TV/VIDEO button to display the TV channel.

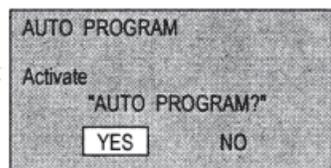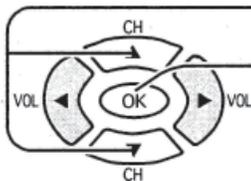**2** Press the MENU button to display the MENU screen and select SET UP.

Press to select PROGRAM CH.

Press to display the PROGRAM CHANNELS screen.

MENU
ADJUST | SET UP
📹 LANGUAGE
🗄 PROGRAM CH
🔒 LOCK
cc CLOSED CAPTION
▭ INPUT LABEL
🕯 OTHER ADJUST

3 Press to select MODE.

Press to select TV or CABLE.

PROGRAM CHANNELS
MODE | TV CABLE
AUTO PROGRAM
MANUAL PROGRAM

4 Press to select AUTO PROGRAM.

Press to display the confirmation screen.

AUTO PROGRAM
Activate
"AUTO PROGRAM?"
YES | NO

5 Press to select YES.

Press to select NO.

If YES selection press to run AUTO PROGRAM.

AUTO PROGRAM
In "AUTO PROGRAM"
CHANNEL | 59
▮▮▮▮▮▮----------
MENU ○ STOP
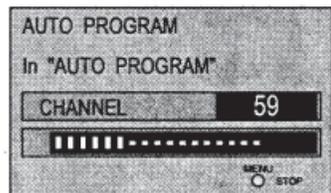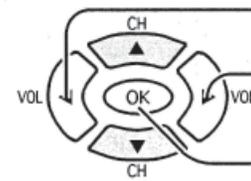
Channels will automatically advance until all channels have been scanned. Channel numbers with a video signal present will be stored in the Channel Scan Memory.

TV MENU

Press to exit from the MENU screen.
This returns the set to the normal viewing condition.

NOTES:
- *When buttons are pressed with AUTO PROGRAM running, the TV set will return to normal viewing. (Channels searched up to this point are added.)*
- *After AUTO PROGRAM is finished, the lowest channel number added will be received.*
- *When there are no receivable channels, channel 69 is displayed for TV and channel 125 is displayed for cable TV.*

BLUE BIRD
Coachworks®

4-16.3.10 Tuning Channels (Manual channel programming)
Use this setting when changing setting of receiving channels or changing the channel display.

Turn the TV on and select the broadcast channel. Follow the steps on the previous page to display the PROGRAM CHANNELS screen.

1　Press to select MANUAL PROGRAM.

PROGRAM CHANNELS
MODE　　　TV CABLE
AUTO PROGRAM
MANUAL PROGRAM
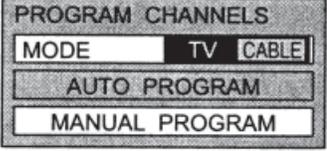
　Press to display the MANUAL PROGRAM screen.

MANUAL PROGRAM
ENTER CHANNEL DELETE ADD
121
CH SELECT RETURN

Adding or deleting channels
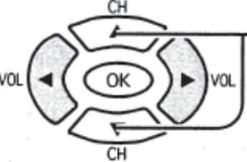
2　Press to select channel (or number keys).

MANUAL PROGRAM
ENTER CHANNEL DELETE ADD
121
CH SELECT RETURN
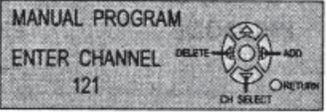
3　Press to add channels to memory (Channel number turns blue).

　Press to delete channels from memory (Channel number turns yellow).

4　Repeat steps 2 and 3 to continue adding or deleting channels.

TV MENU
　Press to exit from the MENU screen.
This returns the set to the normal viewing condition.

4-16.3.11 Picture Adjustments

1   Press the MENU button to display the MENU screen and select ADJUST.
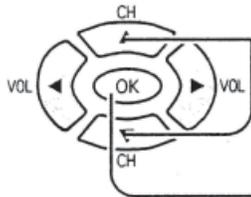
     Press to select PICTURE ADJUST.

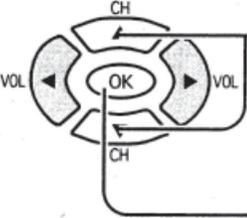   Press to display the PICTURE ADJUST screen.

2   Press to select the menu to adjust.

     Select the desired level by looking at the picture behind the menu.
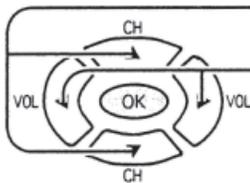
     NORMAL is displayed at default.
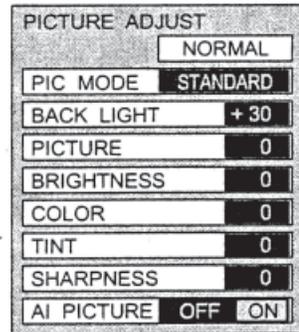
PIC MODE   PICTURE MODE is stored for TV, VIDEO1, VIDEO2 and COMPONENT individually.

STANDARD ⟷ CINEMA ⟷ VIVID
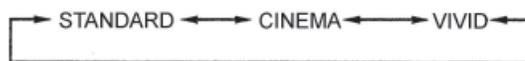
MODE	Function
STANDARD	Displays standard image.
CINEMA	Ideal for watching movings in a dark room.
VIVID	Displays a clear screen with contrast of light and dark.

BACK LIGHT, PICTURE, BRIGHTNESS, COLOR, TINT, SHARPNESS, AI PICTURE
You can change the level of each item (BACK LIGHT, PICTURE, BRIGHTNESS, COLOR, TINT, SHARPNESS and AI PICTURE) for each MENU (STANDARD, CINEMA, and VIVID) according to your personal preference.
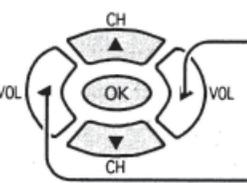
MODE	Function
BACKLIGHT	Luminance of the back light is adjusted.
PICTURE	Selects proper brightness and density for the room.
BRIGHTNESS	Adjusts for easier viewing of dark pictures such as night scenes.
COLOR	Adjusts the level of color.
TINT	Adjusts for flesh tone color.
SHARPNESS	Adjusts the degree of sharpness.
AI PICTURE	Displays black and white colors more clearly when turned ON.
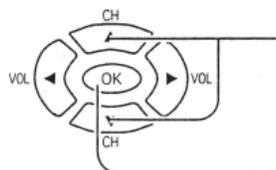
To reset to standard setting.   Press to Select NORMALIZE.

     Press OK.

BLUE BIRD

Coachworks
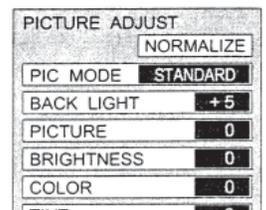
4-16.3.12 Audio Adjustments

1 Press the MENU button to display the MENU screen and select ADJUST.
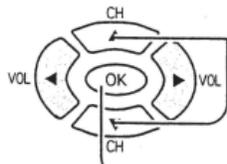
Press to select AUDIO ADJUST.

Press to display the AUDIO ADJUST screen.
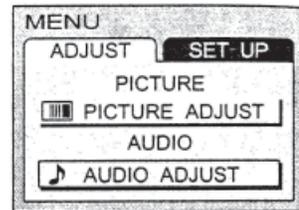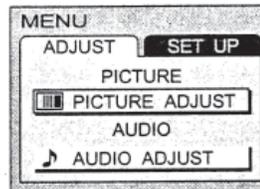
2 Press to select the menu to adjust.
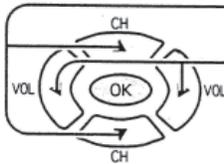
Select the desired level by listening to the sound.

NORMAL is displayed at default.

MODE AUTO ← → STANDARD ←
                MUSIC ← → DYNAMIC ←
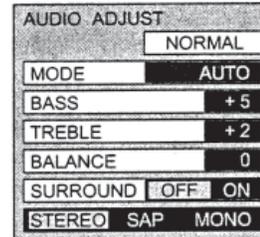
MODE	Function
AUTO	Automatically adjusts quiet sound and loud sound for ease of listening.
STANDARD	Emits the original sound.
DYNAMIC	Gives contrast to sound.
MUSIC	For programs consisting mainly of music. Enhances high sounds (around 4 kHz).

BASS, TREBLE, BALANCE, SURROUND

You can change the level of each item (BASS, TREBLE, BALANCE and SURROUND) for each MODE (AUTO, STANDARD, DYNAMIC and MUSIC) according to your personal preference.

MODE	Function
BASE	Adjusts low sounds
TREBLE	Adjusts high sounds
BALANCE	Adjusts left and right volume
SURROUND	To enjoy a concert hall effect, turn SURROUND to ON when stereo is playing.

Selecting STEREO/SAP/MONO   STEREO ← → SAP ← → MONO

MODE	Function
STEREO	Two channel Audio reception
SAP	Second Audio Programming (*typically used for bilungual audio.*)
MONO	Use when stereo signal is weak

Note:

Red display   : With signal
White display   : No signal
White display   : MONO
To reset to standard setting: See previous section.

4-16.3.13 Customizing the Video Input Labels
Display for each VIDEO INPUT can be changed to match with the connected device (VCR, DVD Player, etc.).

1 Press the MENU button to display the MENU screen and select SET UP.

— Press to select INPUT LABEL.

— Press to display the INPUT LABEL screen.

2 — Press to select the VIDEO INPUT.

→VIDEO1←→VIDEO2←→COMPONENT←

— Press to change the INPUT LABEL.

→VIDEO1 (VIDEO2 or COMPONENT)←→VCR←
↳[BLANK]←→DTV←→DVD←→GAME←→LD←

MENU
ADJUST / SET UP
LANGUAGE
PROGRAM CH
LOCK
CLOSED CAPTION
INPUT LABEL
OTHER ADJUST

INPUT LABEL
VIDEO1 ◄ VIDEO1 ►
VIDEO2 VIDEO2
COMPONENT COMPONENT
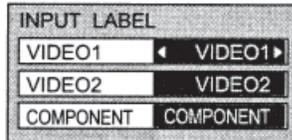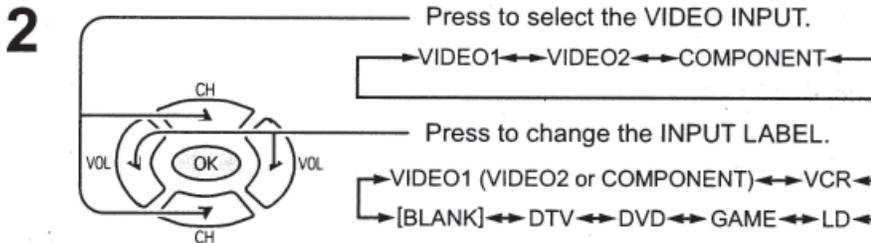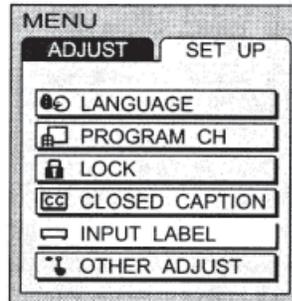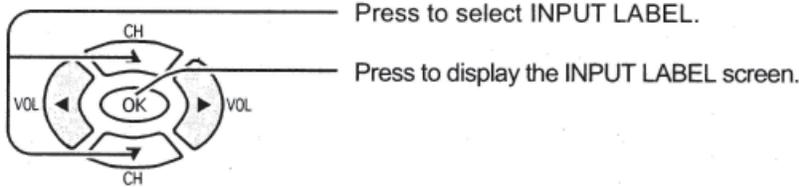
4-16.3.14 3D Y/C Filter/Color Matrix

1 Press the MENU button to display the MENU screen and select SET UP.

2 — Press to select OTHER ADJUST.

— Press to display the OTHER ADJUST screen.

3 — Press to select 3D Y/C FILTER / COLOR MATRIX.

[3D Y/C FILTER]
Press to select ON or OFF.

[COLOR MATRIX]
Press to select SD or HD.
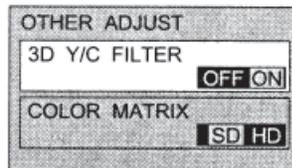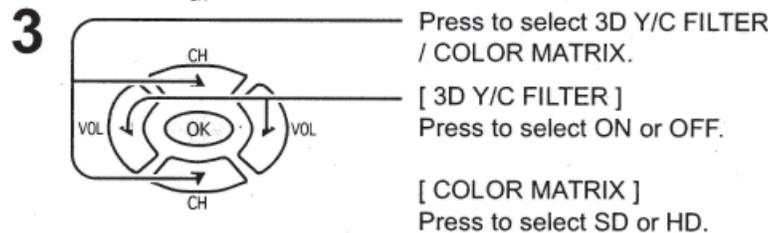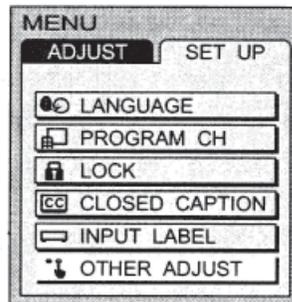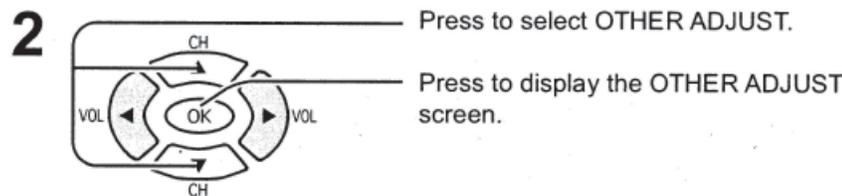
SD : When the input signal is a normal TV system (NTSC).
HD : When the input signal is a High-Definition system (ATSC).

MENU
ADJUST / SET UP
LANGUAGE
PROGRAM CH
LOCK
CLOSED CAPTION
INPUT LABEL
OTHER ADJUST

OTHER ADJUST
3D Y/C FILTER
OFF ON
COLOR MATRIX
SD HD

[for TC-17LA1 and TC-20LA1]

OTHER ADJUST
COLOR MATRIX
SD HD
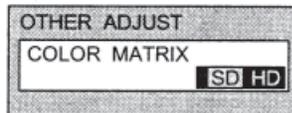
[for TC-14LA1]

NOTE: 3D Y/C FILTER is not available for TC-14LA1.

Item	Mode	Explanation
3D Y/C FILTER [for TC-17LA1 and TC-20LA1]	ON ↔ OFF	Minimizes noise and cross color in the picture. Not available for COMPONENT VIDEO.
COLOR MATRIX	SD ↔ HD	Displays input signals (480p signals) in a natural color. Automatically adjusts color parameters for HD (high definition) and SD (standard definition).

BLUE BIRD
Coachworks

4-16.3.15 Aspect Controls

The TV will allow you to enjoy viewing the picture at its maximum size, including wide screen cinema format picture.
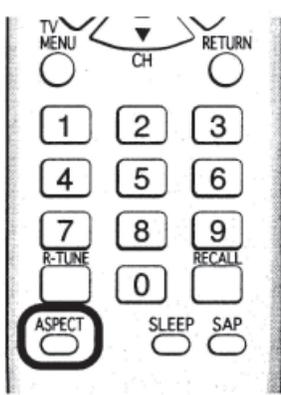
ASPECT Button
The aspect mode changes each time the ASPECT button is pressed.

4 : 3 ⟶ 16 : 9
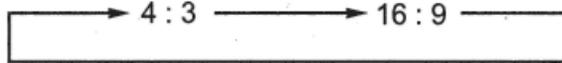
NOTES:
- In TV mode, the aspect mode is set to 4:3, and ASPECT controls are not available.
- The ASPECT mode settings are stored for VIDEO1, VIDEO2 and COMPONENT individually.

Mode	Picture	Explanation
4:3		4:3 mode will display a 4:3 picture at its standard 4:3 size without any stretching.
16 : 9		16:9 mode will display 16:9 aspect ratio picture. Bars can be seen at the top and bottom of the image.

4-16.3.16 Troubleshooting

Before requesting service for this LCD TV, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation. If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, consult your dealer for instructions.

Troubleshooting Chart

Symptom	Cause and Possible Remedy	Reference Section
Power supply does not go on	Is power supply plug unplugged from the outlet? If power will not go on with the remote control, is the power supply of the TV "off"?	- Power On/Off
Remote control cannot be operated	Is battery exhausted, or is battery polarity wrong? Is the remote control receiver illuminated with strong light from a fluorescent lamp, etc.? Are you using the special-purpose remote control for this equipment? (The unit will not operate with another remote control.)	Remote Control Battery Installation - -
Image shakes, or image is unclear	Is there deterioration, breakage or disconnection of the antenna or antenna wire? Is this antenna wire connected correctly?	- Antenna/Cable Connection

Troubleshooting Chart - Continued

Symptom	Cause and Possible Remedy	Reference Section
There are spots on the picture, or the screen shakes	Is the system affected (by radio wave interference or induced electromagnetic waves) by external sources (automobiles or trains, high-voltage wires, neon, motors, magnetized steel frame, or iron rain shutters, etc.)? ►Turn off the power supply, and try changing the equipment setup location. If that has no effect, separate magnet-proofing will be required.	-
The image appears doubled or tripled	Is the antenna direction shifted? Are reflected electromagnetic waves being received from mountains or buildings?	-
A color pattern appears, or colors disappear	Is the equipment being affected by another TV (electromagnetic interference)? ►Changing the TV setup location may lead to improvement.	-
The channel number disappears from the screen	Has the RECALL button been pressed? ►Press the "RECALL button" again. If the system is switched to external input and there is no external signal video, the number will disappear.	Basic Controls
When the image is not stable, the screen turns completely white for a moment	This occurs when the signal driving the liquid crystal is lost, and is not a malfunction.	-
The screen goes dark momentarily when the channel is changed.	The screen is darkened for a moment to conceal noise generated when changing channels.	-
The TV makes a hissing noise occasionally	If the screen and audio are not abnormal, this sound is caused by slight expansion and contraction of the cabinet due to changes in room temperature. It has no effect on performance.	-
The screen display shakes with video input	When input is switched to "video input", this may occur if there is no signal at the video/audio input terminal.	How to Connect the Input Terminals
A black band appears momentarily when selecting channels with video	This is due to noise generated when changing channels.	-
Both edges of the screen, or columns or window frames, appear bent	They may appear bent due to the received channel or some DVD software. This is not a malfunction.	-
The image from the connected equipment does not appear	Are plugs securely inserted into each terminal? ►Securely insert plugs all the way.	How to Connect the Input Terminals
The main unit is hot to the touch	The main unit radiates heat, so some parts of the console reach a high temperature. This is not a problem for performance or quality. Set up at a location with good ventilation. Do not cover the ventilation holes of the console with a tablecloth, etc., and do not place on top of other equipment (like a video deck).	-

4-16.3.19 Specifications

	TC-14LA1	TC-17LA1	TC-20LA1
Power Source	AC 120 V, 60 Hz		
Power Consumption	Average use: 48W Stand-by condition: 0.6W TV set DC 15 V, 2.8 A max.	Average use: 60W Stand-by condition: 0.8W TV set DC 15 V, 3.6 A max.	Average use: 67W Stand-by condition: 0.8W TV set DC 15 V, 3.8 A max.
LCD	14-inch (356 mm), 4 : 3 aspect ratio LCD panel	17-inch (432 mm), 4 : 3 aspect ratio LCD panel	20-inch (510 mm), 4 : 3 aspect ratio LCD panel
Screen Size	11.23" (285.1 mm) (W) x 8.42" (213.8 mm) (H)	13.53" (343.7 mm) (W) x 10.30" (261.6 mm) (H)	16.06" (408.0 mm) (W) x 12.05" (306.0 mm) (H)
Channel Capability	VHF-12 : UHF-56 : Cable - 125		
Sound			
Speaker	$\varnothing$ 4 cm, 2pcs, 16Ω		
Headphones	M3 (3.5 mm) Jack x 1		
Features	--------------- CLOSED CAPTION	3D Y/C Digital Comb Filter V-Chip	
Operating Conditions	Temperature: 41°F - 95°F (5°C - 35°C) Humidity: 5% - 90% RH (non-condensing)		
Connection Terminals			
INPUT	VIDEO (RCA PIN Type x 1) x 2 1.0 Vp-p (75 Ω) S-VIDEO (MINI DIN 4 pin x 1) x 2 Y : 1 Vp-p (75 Ω), C : 0.286 Vp-p (75 Ω) AUDIO L-R (RCA PIN Type x 2) x 2 0.5 Vrms		
COMPONENT VIDEO INPUT	Y 1.0 Vp-p (including synchronization) P_B/P_R ±0.35 Vp-p AUDIO L-R (RCA PIN Type x 2) x 2 0.5 Vrms		
Dimensions (WxHxD)			
Including TV Stand	14.37" (365 mm) x 14.34" (364.2 mm) x 8.46" (215 mm)	16.69" (424 mm) x 16.35" (415.2 mm) x 8.46" (215 mm)	19.45" (494 mm) x 18.17" (461.4 mm) x 10.04" (255 mm)
TV Set Only	14.37" (365 mm) x 13.01" (330.5 mm) x 2.51" (63.7 mm)	16.69" (424 mm) x 15.02" (381.5 mm) x 2.52" (64.1 mm)	19.45" (494 mm) x 16.63" (422.3 mm) x 3.21" (81.5 mm)
Mass (Weight)	9.701 lb (4.4 kg) Net	11.46 lb. (5.2 kg) Net	15.87 lb. (7.2 kg) Net

NOTE: Design and Specifications are subject to change without notice. Weight and Dimensions shown are approximate.

4-16.4 Panasonic DVD/VCR Deck

A dual DVD/VCR deck is supplied with your coach. Below you will find basic instructions for operating and maintaining your system.

4-16.4.1 Important Safeguards and Precautions

FOR YOUR SAFETY, READ AND RETAIN ALL SAFETY AND OPERATING INSTRUCTIONS. HEED ALL WARNINGS IN THIS MANUAL AND ON THE UNIT.

4-16.4.2 Installation

POWER SOURCE CAUTION: Operate only from a power source indicated on the unit or in this manual. If necessary, have your Electric Utility Service Company or Video Products Dealer verify the power source in your coach.

POLARIZED OR GROUNDING PLUG

As a safety feature, this product comes with either a polarized power cord plug (one blade is wider than the other), or a three-wire grounding type plug.

POLARIZED PLUG CAUTION: This plug will only fit into an outlet one way. If you cannot fully insert the plug, try reversing it. If it still will not fit, have an electrician install the proper wall outlet. Do not defeat the safety feature by tampering with the plug.

GROUNDING PLUG CAUTION: This plug will only fit into a three-hole grounding outlet. If necessary, have an electrician install the proper outlet. Do not defeat the safety feature by tampering with the plug.

POWER CORD

Make sure power cords are routed so that they are not likely to have anything rest on them, roll over them, or be in the way of walking traffic. If an extension cord is used, make sure it also has either a polarized or grounded plug and that the cords can be securely connected.

Frayed cords, damaged plugs, and damaged or cracked wire insulation are hazardous and should be replaced by a qualified service technician. Overloaded outlets and extension cords are fire hazards and should be avoided.

DO NOT BLOCK VENTILATION HOLES

Ventilation openings in the cabinet release heat generated during operation. If they are blocked, heat build-up inside the unit can cause failures that may result in a fire hazard or heat damage to cassettes or discs.

For protection, follow these rules:

    a.   Never cover ventilation slots or the unit while in use, or operate the unit when placed on a bed, sofa, rug, or other soft surface.

    b.   Avoid built-in installation, such as a book case or rack, unless proper ventilation is provided.

PLACEMENT: AVOID EXTREMELY HOT LOCATIONS OR SUDDEN TEMPERATURE CHANGES

Do not place the unit over or near heater or radiator, in direct sunlight, inside closed vehicles, in high temperatures [over 104°F (40°C)], or in over 75% humidity. If the unit is suddenly moved from a cold place to a warm one, moisture may condense in the unit and on the tape causing damage. Never subject the unit to vibration, impact, or place it so that the surface is tilted as internal parts may be seriously damaged.

TO AVOID PERSONAL INJURY

- Do not place unsecured equipment on a sloping surface.

- Do not place this unit on any support that is not firm, level, and adequately strong. The unit could fall causing serious injury to a child or adult and damage to the unit.

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

- Carefully follow all operating instructions and use the manufacturer's recommended accessories when operating this unit or connecting it to any other equipment.

BLUE BIRD
Coachworks®

4-16.4.3 Outdoor Antenna Installation

SAFE ANTENNA AND CABLE CONNECTION

If an outside antenna or cable system is connected to the equipment, be sure the antenna or cable system is grounded so as to provide some protection against built up static charges and voltage surges. Section 810 of the National Electrical Code, ANSI/NFPA 70 (in Canada, part 1 of the Canadian Electrical Code) provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes and requirements for the grounding electrode.
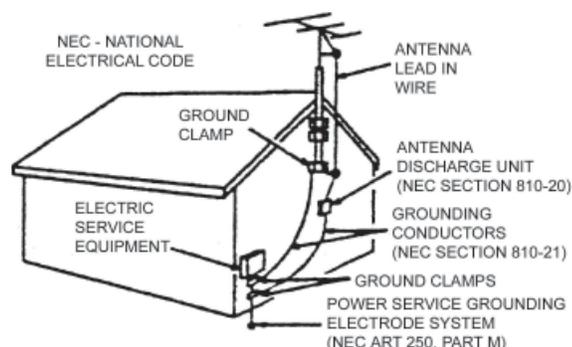
KEEP ANTENNA CLEAR OF HIGH VOLTAGE POWER LINES OR CIRCUITS

An outside antenna system should be located well away from power lines, electric light or power circuits and where it will never come into contact with these power sources if it should happen to fall. When installing an outside antenna, extreme care should be taken to avoid touching power lines, circuits or other power sources as this could be fatal. Because of the hazards involved, antenna installation should be left to a professional.

4-16.4.4 Using the Unit

If the unit has been in storage or moved to a new location, refer first to the INSTALLATION section of these safeguards.

KEEP THE UNIT AWAY FROM WATER OR MOISTURE OF ANY KIND.

IF EQUIPMENT IS EXPOSED TO RAIN, MOISTURE, OR STRONG IMPACT, unplug the unit and have it inspected by a qualified service technician before use.

DURING AN ELECTRICAL STORM

During a lightning storm, whether indoors or outdoors, or before leaving the unit unused for extended periods of time, disconnect all equipment from the power source as well as the antenna and cable system.

WHEN THE UNIT IS PLUGGED IN

- Never expose the unit to rain or water. DO NOT OPERATE if liquid has been spilled into the unit. Immediately unplug the unit, and have it inspected by a service technician. Fire and shock hazards can result from electrical shorts caused by liquid contact inside.

- Never drop or push any object through openings in the unit. Some internal parts carry hazardous voltages and contact can cause electric shock or fire hazard. Do not put any foreign object on the disc tray.

- Avoid placing the unit directly above or below your TV set as this may cause electrical interference. Keep all magnets away from electronic equipment.

USING ACCESSORIES

Use only accessories recommended by the manufacturer to avoid risk of fire, shock, or other hazards.

CLEANING THE UNIT

Unplug the unit. Then, use a clean, dry, chemically untreated cloth to gently remove dust or debris. DO NOT USE cleaning fluids, aerosols, or forced air that could over-spray, or seep into the unit and cause electrical shock. Any substance such as wax, adhesive tape, etc. may mar the cabinet surface. Exposure to greasy, humid, or dusty areas may adversely affect internal parts.

4-16.4.5 Service
DO NOT SERVICE THIS PRODUCT YOURSELF
If, after carefully following the detailed operating instructions, this product does not operate properly, do not attempt to remove covers, or make any adjustments not described in the manual. Unplug the unit and contact a qualified service technician.

IF REPLACEMENT PARTS ARE REQUIRED
Make sure the service technician uses only parts specified by the manufacturer, or those having the same safety characteristics as the original parts. The use of unauthorized substitutes may result in fire, electric shock, or other hazards.

HAVE THE SERVICE TECHNICIAN PERFORM A SAFETY CHECK
After any service or repairs to the unit, request the service technician to conduct a thorough safety check as described in the manufacturer's service literature to ensure that the unit is in safe operating condition.

4-16.4.6 Before Using

LOADING THE BATTERIES
1. Open cover.
2. Insert batteries as marked.
3. Close cover.

Battery Caution: Do not mix old and new batteries. Do not mix alkaline with manganese batteries.
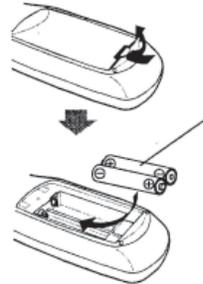
Disc Formats Supported by This DECK
DECK can play back discs bearing any of the following marks:
[Discs Played 8cm (3") or 12cm (5")]

Logo	Disc Type
DVD VIDEO / DVD VIDEO	DVD (DVD-Video)
DVD R R47	DVD-R (DVD-Video formatted discs [finalized])
COMPACT disc DIGITAL VIDEO	Video CD
COMPACT disc DIGITAL AUDIO	CD (CD-DA) CD-R/CD-RW (CD-DA, Video CD formatted discs [finalized])
	WMA, MP3, JPEG

Discs which cannot be played
• DVD with Region No. other than "1" or "ALL"
• DVD of PAL system, DVD-Audio, DVD-RAM, DVD-ROM, DVD-RW, DVD+RW, CD-ROM, CDV, CD-G, CVD, SVCD, SACD, Divx Video Disc and Photo-CD

> **NOTE:**
> • Do not use irregularly shaped discs (e.g. heart-shaped), as these can damage the unit.
> • It may not be possible to play CD-R, CD-RW and DVD-R in all cases due to the type of disc or condition of the recording.

BLUE BIRD
Coachworks

DISC HANDLING

- Handling Precautions
- Sticking a label on the disc may impair DVD-R playback.
- Do not attach sticker to discs. (Do not use discs with exposed adhesive from tape or left over peeled-off stickers.)
- Only hold disc by edges as shown below. Fingerprints, dirt and scratches can cause skipping and distortion.
- Do not write on label side of disc.
- Never use record cleaning sprays, benzene, thinner, static electricity prevention liquids, or any other solvent.
- Do not try to close disc tray when disc is not properly placed.

To clean disc surface

With a soft, damp (water only) cloth, gently wipe from the center hole to the outer edge as shown below.
(Wiping in a circular pattern will scratch the surface.)

If disc is brought from a cold to a warm environment, moisture may form on the disc

Wipe away moisture with a soft, dry, lint-free cloth before using disc.

Improper disc storage

Discs could be damaged if stored or left in areas:

- Exposed to direct sunlight
- That are humid or dusty
- Near heat (i.e. heater, radiator, etc.)

4-16.4.7 Deck and Cassette Information

Head Cleaning

Playing older or damaged tapes may eventually cause video heads to become clogged.

Video Head Clog Sensor - During playback, this screen appears if clogging is detected. To remove screen, press PLAY on the remote or DECK.

```
VIDEO HEADS MAY NEED
CLEANING PLEASE INSERT HEAD
CLEANING CASSETTE OR REFER
TO MANUAL.
END            ;PLAY
```
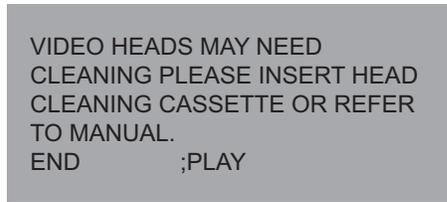
- Use "dry" type head cleaning cassette only. (Part No. NV-TCL30PT is recommended.)
- Follow cleaning tape instructions carefully. Excessive use of tape can shorten head life.
- If head clog symptoms persist, contact your nearest service center by visiting our Web Site www.panasonic.com

4-16.4.8 Prevent Accidental Tape Eraser
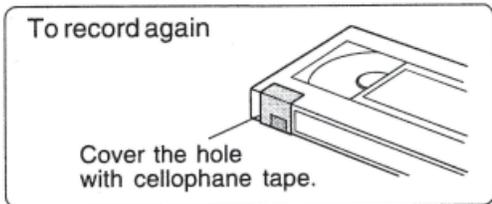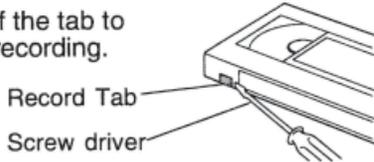
4-16.4.9 Record/Playback Time

Only use tapes with the VHS mark in this DECK.

Tape Speed Setting	Type of Video Cassette		
	T60	T120	T160
SP (Standard Play)	1 Hour	2 Hours	4 Hours 40 Minutes
LP (Long Play)	2 Hours	4 Hours	5 Hours 20 Minutes
SLP (Super Long Play)	3 Hours	6 Hours	8 Hours

4-16.4.10 Cleaning Deck

Use a soft cloth or dusting attachment of a vacuum cleaner to remove dust from the ventilation holes on the back sides and bottom of the cabinet. Plastic surfaces are easily scratched and can be marred by alcohol and various solvents. Avoid excessive use of oil-based furniture polishes since the materials used in the cabinet will accumulate more dust. We recommend using a non-abrasive, antistatic cleaner and polisher.

4-16.4.11 Features for a Quality Picture (VCR)

Digital Auto Picture
Automatically controls the video output signal for less noise depending on the tape condition.

Digital Auto Tracking
Continuously analyzes the signal and adjusts for optimum picture quality.

Manual Tracking Control (to reduce picture noise)
Use during Playback and Slow Motion mode to reduce picture noise. Press CH (TRACKING) ▲/▼ on the remote control or on DECK until the picture clears up. To return to Auto Tracking, press POWER off, then on again a few seconds later.

V-Lock Control (to reduce picture jitter)
In Still mode, CH (TRACKING) ▲/▼ operate as a V-Lock control

4-16.4.12 Location of Controls

Remote Control

Bold: VCR Function
Italic: DVD Function
Bold Italic: *VCR and DVD Functions*
Normal: Others

EJECT /
OPEN / CLOSE

POWER

NUMBER keys

ACTION

SET

VCR mode

STOP

FAST FORWARD /
SEARCH / SLOW+

REWIND / *SEARCH /*
SLOW~

PAUSE / *STILL*

COMMERCIAL SKIP /
ZERO

INPUT

TV mode

CHANNEL ▲ / ▼
TRACKING / V-LOCK

VOLUME + / −

ADD/DELETE / *CLEAR*

MENU

SELECT
▲▼◄►

DVD mode

PLAY

SKIP►►I
SKIP I◄◄

TITLE

ZOOM

SUB TITLE

Virtual Surround Sound /
ENTER

TAPE POSITION /
VOLUME ADJUST

RETURN / SEARCH

DISPLAY

SPEED

ANGLE

AUDIO (SAP / Hi-Fi)

COUNTER RESET

VCR/TV

RECORD

PROGRAM
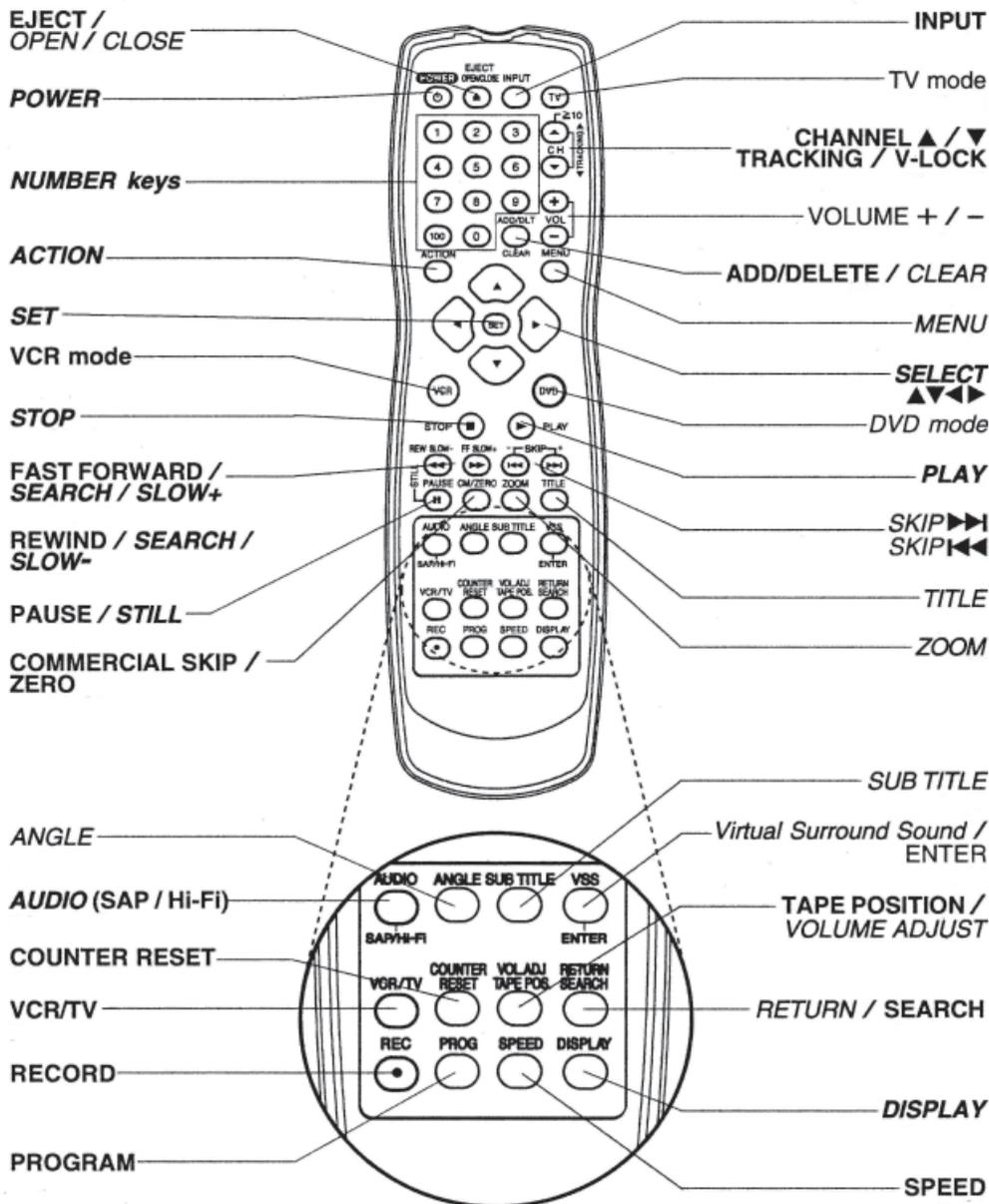
EJECT button: When this button is pressed in VCR mode, the tape is ejected.
This button is inoperative if pressed during recording.
If pressed in DVD mode, the disc tray opens or closes.

Front View of DECK

Bold: VCR Function
Italic: *DVD Function*
Bold Italic: *VCR and DVD Functions*
Normal: Others

STOP/EJECT

FAST FORWARD/SEARCH

PLAY

REWIND/SEARCH

POWER

Cassette
Compartment

Disc Tray

OPEN/CLOSE

If the disc cannot be removed...
First, unplug DECK. Then, prepare a rigid
wire (e.g. an extended paper clip) and,
applying moderate force, insert it straight
into the hole at the base of the tray.
The tray will eject a little. Now, pull the tray
all the way out and remove the disc.

Over 2 inches   Over 2 inches

Audio/Video
Input Connector 2
(LINE 2)

CHANNEL ▲/▼
TRACKING/V-LOCK

REC

Multi Function
Display

Remote
Sensor

PROGRESSIVE

PAUSE

SKIP▶▶I
SKIP I◀◀

PLAY

STOP

Reset All Memory Functions

Use when moving DECK to new location, or if a mistake was made in the Initial
Setup section (return to Factory Setting).
• Make sure a tape is not inserted in the DECK.
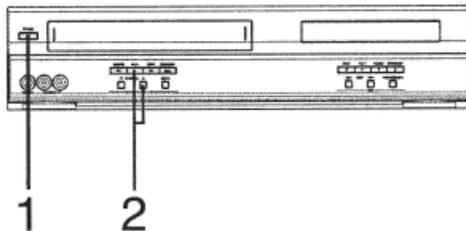
1 Turn DECK Power on.

2 Press and hold both **VCR PLAY**
and **CHANNEL ▲** on the DECK for
more than 5 seconds.
• The power shuts off.

3 Do "Doing Initial Setup (Ready to
Play)"

1   2

BLUE BIRD
Coachworks

Rear View of DECK   Bold: VCR Function   *Italic: DVD Function*
Bold Italic: VCR and DVD Functions

AC Power Plug
• While plugged into an AC outlet, this DECK consumes 4 W of electrical power in off mode.

VHF/UHF Antenna Output Terminal

VHF/UHF Antenna Input Terminal

Component Video Output Connector (Y, P$_B$, P$_R$) (DVD Only)

Video Output Connector   ***Video Input Connector***

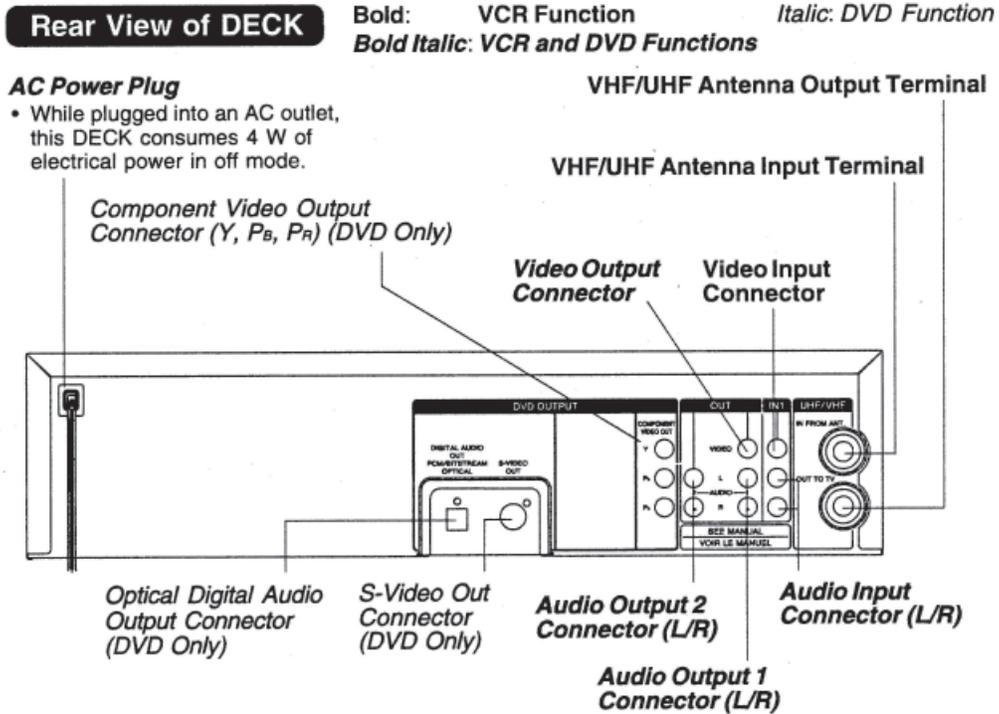*Optical Digital Audio Output Connector (DVD Only)*   *S-Video Out Connector (DVD Only)*   ***Audio Output 2 Connector (L/R)***   ***Audio Input Connector (L/R)***

Audio Output 1 Connector (L/R)

The following table shows the status of the output jacks when in VCR or DVD mode.

	Video Output Audio Out 1 Audio Out 2	Component Video Output	S-Video Out
VCR	YES	N/A	N/A
DVD	YES	YES	

NOTE: PROG functions on the remote are not available when using Component Video Output and S-VIDEO OUT. Please set TV to either RF INPUT or VIDEO INPUT, and then press PROG.

To enjoy PROGRESSIVE SCAN video

1. Connect Component Video Output to the component video input terminals of a television.

2. When the PROGRESSIVE button is pressed, the ON lamp lights up and the PROGRESSIVE SCAN signal is output from the Component Video Output Connector.

NOTES:

• The PROGRESSIVE button can be operated when the DECK is in DVD function mode.

• The Screen may shift off-center when using progressive output. Please adjust the screen position if this occurs.

• The DECK outputs video signals (not PROGRESSIVE SCAN) from the "VIDEO OUT" and "S-VIDEO OUT" terminals when the ON lamp is lit.

4-16.4.13 Displays (On Screen & Multi Function)

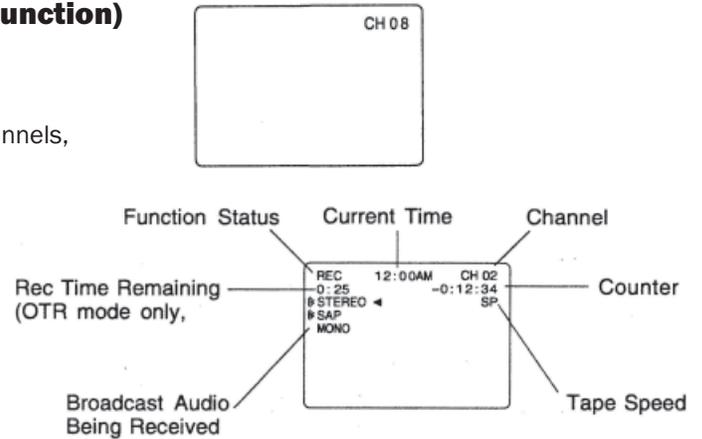## On Screen Displays (VCR)

Function and Channel Displays
When a function button is pressed, e.g. PLAY, or you change channels, a 5-second display appears.
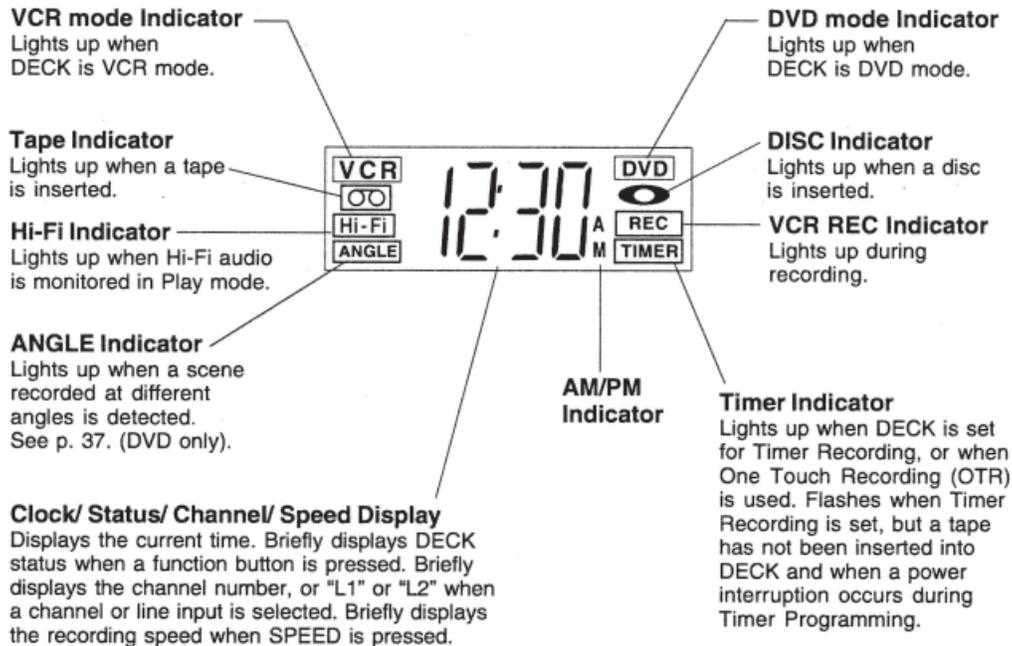
Blank Tape/No Video Signal Indications
Whenever a blank section of a tape comes up in Play mode, or when the selected channel has no broadcast signal with Weak Signal Display Feature set to OFF, the TV screen will turn solid blue.

VCR Status and Clock Displays
To display or remove overlay at right,
→ press DISPLAY.

4-16.4.14 Multi Function Display

VCR mode Indicator
Lights up when DECK is VCR mode.

Tape Indicator
Lights up when a tape is inserted.

Hi-Fi Indicator
Lights up when Hi-Fi audio is monitored in Play mode.

ANGLE Indicator
Lights up when a scene recorded at different angles is detected. See p. 37. (DVD only).

Clock/ Status/ Channel/ Speed Display
Displays the current time. Briefly displays DECK status when a function button is pressed. Briefly displays the channel number, or "L1" or "L2" when a channel or line input is selected. Briefly displays the recording speed when SPEED is pressed.

DVD mode Indicator
Lights up when DECK is DVD mode.

DISC Indicator
Lights up when a disc is inserted.

VCR REC Indicator
Lights up during recording.

AM/PM Indicator

Timer Indicator
Lights up when DECK is set for Timer Recording, or when One Touch Recording (OTR) is used. Flashes when Timer Recording is set, but a tape has not been inserted into DECK and when a power interruption occurs during Timer Programming.

BLUE BIRD
Coachworks®

4-16.4.15 Connections

Basic Connections

- If your TV has AUDIO and VIDEO IN terminals, connect them to DECK for higher quality picture and sound.
- You can enjoy stereo sound even if your TV is not stereo by connecting a stereo amplifier to DECK.
- Connect DECK and TV with an RF Coaxial Cable (A) (supplied) or an AV Cable (B) (not supplied) as shown in the figure below.

→ DSS Receiver → DECK → TV   → DECK→TV   → Cable Box →DECK → TV
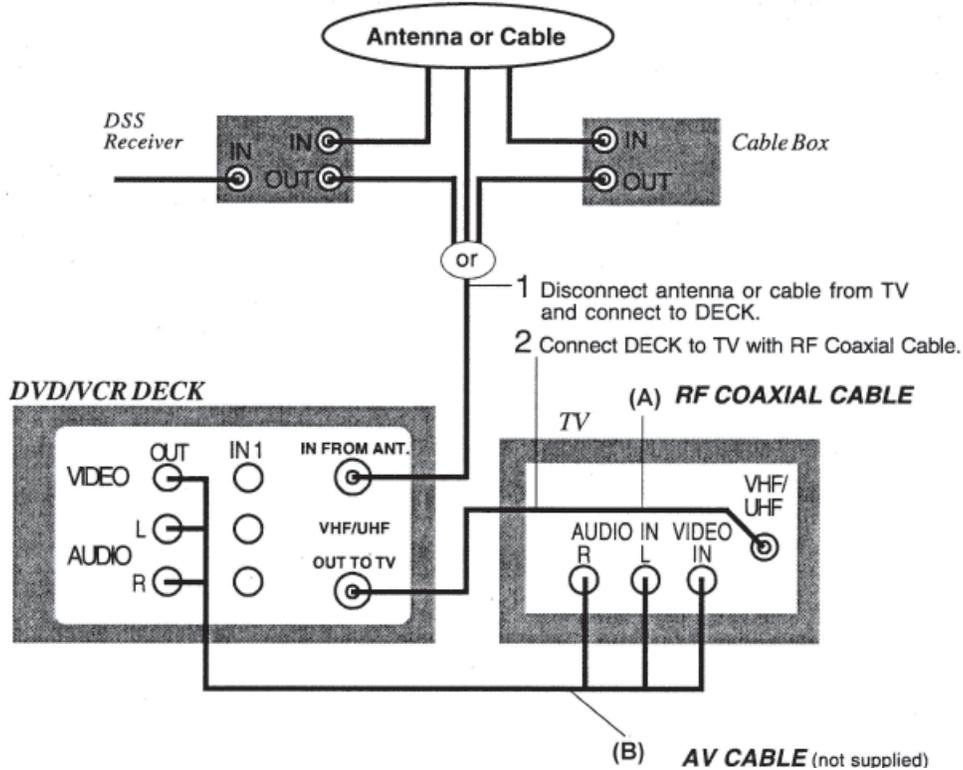
> **WARNING!!** When using "Nut Type" RF coaxial cables, tighten with fingers only. Over tightening may damage terminals.

> **NOTE TO CABLE SYSTEM INSTALLER** This reminder is provided to call the CABLE system installer's attention to Article 820-40 of the NEC in USA (and to the Canadian Electrical Code in Canada) that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

4-16.4.16 Other Connections

With a Cable Box (DECK → Cable Box → TV)
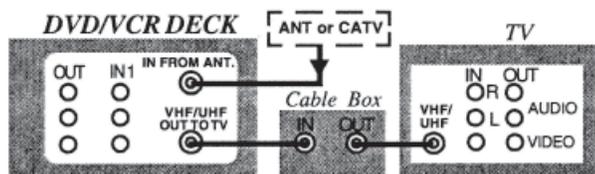
You Can	You Cannot
• view any (including scrambled channel.) • use Remote Control to select channels without using Multi-brand control feature.	· record scrambled channels.

Connect with Two Cable Boxes
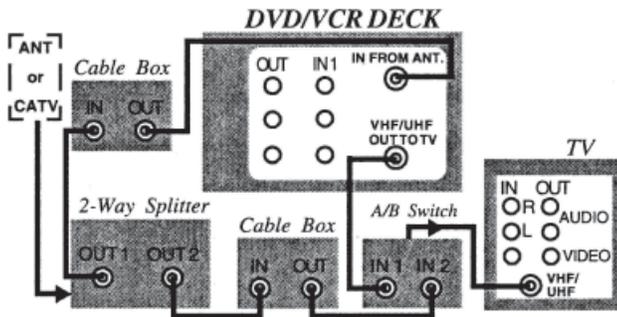
| You Can	You Cannot
• record and view both scrambled and unscrambled channels if additional equipment is added.	• view a channel other than the one selected for any type of recording.
This connection requires: two converter boxes, and A/B switch, and a 2-way splitter.	• do a Timer recording of a channel unless you select it on the Cable Box.

4-16.4.17 Connections for DVD Only (enjoying higher picture quality)

1. Connect AUDIO OUT2 (L, R) to the AUDIO IN (L,R) of the TV. (audio input for COMPONENT or S-VIDEO mode).

2. If your TV has COMPONENT VIDEO INPUT, connect to COMPONENT VIDEO OUT. If your TV does not have COMPONENT VIDEO INPUT but has S-VIDEO INPUT, connect to S-VIDEO OUT.

3. When in DVD mode, set your TV to either COMPONENT VIDEO IN or S-VIDEO IN.

> **NOTES:**
>
> • You can watch DVDs through the S-VIDEO or COMPONENT VIDEO, VHF/UHF OUT TO TV, and VIDEO OUT connections to your TV. The VCR and TUNER pictures are available only from the VIDEO OUT and VHF/UHF OUT TO TV connections to your TV.
>
> • PROG functions on the remote are not available when using S-VIDEO OUT and COMPONENT PROGRESSIVE mode. Consult your TV operating instructions.
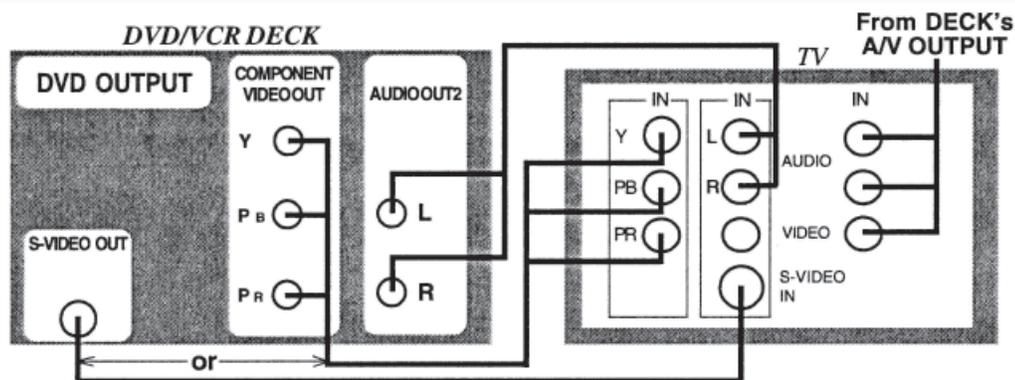
4-16.4.18 Audio Connections

☑ Ready Checklist

☐ Turn down the volume, then turn DECK, as well as other equipment to be connected, off before proceeding with connection.

☐ Do not block ventilation holes of any of the equipment and arrange them so that air can circulate freely.

☐ Read through the instructions before connecting other equipment.

☐ Ensure that you observe the color coding when connecting audio and video cables.

Connecting Amplifier (2ch stereo system) [Analog connection]
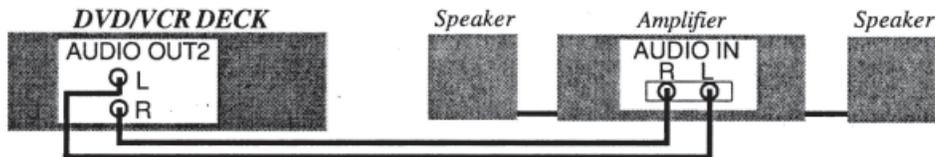
Enjoying digital audio output from the digital audio output connector
Notes on audio output from the optical digital audio output connector

Disc	Sound recording format	Optical digital audio output from connector
DVD	Dolby Digital	Dolby Digital bitstream (1-5.1 ch) or PCM (48 kHz sampling/16 bit only)*1
	Linear PCM (48/96 kHz 16/20/24 bit)	Linear PCM (2ch) (48 kHz sampling/16 bit only)*2
	DTS	Bitstream or PCM (48 kHz sampling/16 bit only)*1
Video CD	MPEG 1	PCM (44.1 kHz sampling)
CD	Linear PCM	Linear PCM (44.1 kHz sampling)
MP3	MP3	Linear PCM (it depends on the MP3 file)
WMA	WMA	Linear PCM (It depends on the WMA file)

*1 The type of audio output from the connector can be selected by the Settings for DVD Operation.
*2 Sound having 96 kHz sampling is converted into 48 kHz sampling when it is output from the DECK's optical digital audio output connector.

For your reference:

- Dolby Digital is a digital sound compression technique developed by the Dolby Laboratories Licensing Corporation. Supporting 5.1-channel surround sound, as well as stereo (2-channel) sound, this technique enables a large quantity of sound data to be efficiently recorded on a disc.

- Linear PCM is a signal recording format used in CDs. While CDs are recorded in 44.1 kHz/16 bit, DVDs are recorded in 48 kHz/16 bit up to 96 kHz/24 bit.

- If you have a Dolby Pro Logic Surround decoder, you will obtain the full benefit of Pro Logic from the same DVD movies that provide full 5.1 channel Dolby Digital soundtracks, as well as from titles with the Dolby Surround mark. For information on Panasonic or Technics Dolby Pro Logic Surround Sound Decoders please contact your local dealer.

Connecting Amplifier (5.1 ch Surround System) [Digital Connection] DECK → Dolby Digital Decoder → Amplifier→ Speaker

<div align="center">Or</div>

DECK → DTS (digital theater systems) Decoder → Amplifier → Speaker

When DVDs recorded in Dolby Digital or DTS are played, Dolby Digital bitstream or DTS bitstream is output from the DECK OPTICAL digital audio output connector. When DECK is connected to a Dolby Digital decoder or DTS decoder, you can enjoy theater-quality audio in your home. [An optical digital audio cable (optional) is required when an optional Dolby Digital decoder or DTS decoder is used.]
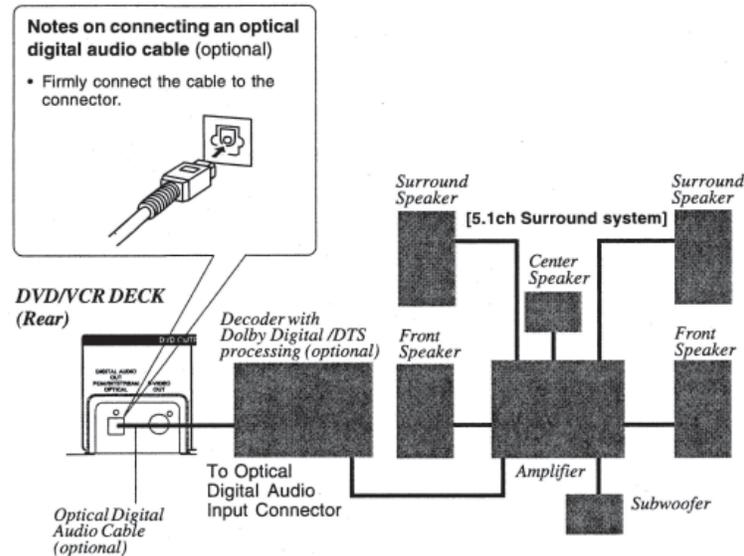
CAUTION!!   For optical digital audio output connector:

• When connecting an amplifier (with an Optical Digital Input Connector) which does not contain the Dolby Digital or DTS decoder, be sure to select "PCM" at "Dolby Digital" and "PCM" at "dts" of the Settings for DVD Operation "AUDIO OUTPUT" Otherwise, any attempt to play DVDs may cause such a high level of noise that it may be harmful to your ears and damage your speakers.

• When a Dolby Digital/DTS decoder is connected, please select "Bitstream" at "dts" or "Dolby Digital" of the Settings for DVD Operation "AUDIO OUTPUT". If "PCM" is selected, there will be stereo sound.

• Video CDs and CDs can be played as usual.

NOTE: Some DTS decoders which do not support DVD-DTS interface may not work properly with DECK.

4-16.4.19 Initial Setup for Basic Connections (Ready to Play)

Before Doing Initial Setup

1. Turn TV on.

2. See connections (A) RF Coaxial Cable Connection and (B) AV Cable Connection
   <RF Coaxial Cable Connection>
   Set TV to channel 3.
   <AV Cable Connection>
   Set TV to VIDEO

3. [DECK → TV]
   • Go to "Doing Initial Setup (Ready to Play)"

   [Cable Box → DECK → TV], [DSS → DECK → TV]

   • Turn on Cable Box and set it to your Public Broadcasting Station (PBS) channel in your time zone.
   • If you use a DSS Receiver, it must be turned off.

BLUE BIRD
Coachworks®

4-16.4.20 Doing Initial Setup (Ready to Play)

1. Press VCR on remote for VCR mode.
2. Plug DECK Power Cord into AC wall outlet. DECK comes on and auto channel and clock set starts.
   - If screen below does not appear, check DECK-TV connection and, if TV is tuned to channel 3, try switching it to channel 4.
   - To change VCR's output channel, please refer to "*VCR's Output Channel*"
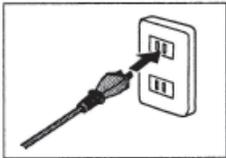
Plugging the AC Power Plug Into an AC Outlet

NOTES:
- Function buttons are inoperative during Initial Setup.
- To remove a cassette during Auto Set, press EJECT on the remote or STOP/EJECT twice on the DECK. In this case, settings must be made manually.
- Depending on conditions, Auto Clock Set may take longer than 30 minutes. If so, press STOP to stop setup and perform settings manually.

IMPORTANT: If a remote control button does not work when pressed, press the VCR button on the remote and try the button again.
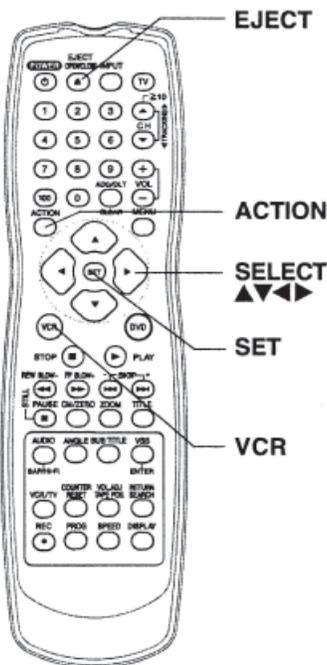
3. Settings are made automatically. When setup is done, this screen appears.

```
6/ 8/2003 SUN   2:20PM
                 DST :ON
  SETTING : CH 10

  AUTO CLOCK SET

    COMPLETED
```
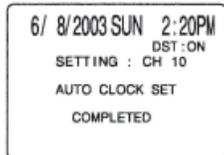
If "AUTO CLOCK SET IS INCOMPLETE" appears, manually set clock.

```
AUTO CLOCK SET IS
INCOMPLETE

PLEASE SET CLOCK BY
PRESSING ACTION KEY
```
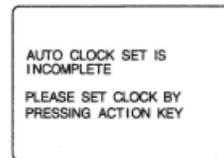
4-16.4.21 Manual Clock Set

If Auto Clock Set was incomplete.

1. Press ACTION* on remote to display CLOCK screen
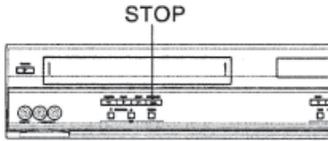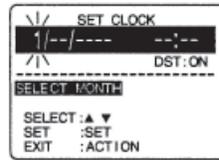
2. Press ▲ ▼ to select the month and SET to set. In the same manner, select and set the date, year, time, and DST (Daylight Saving Time).
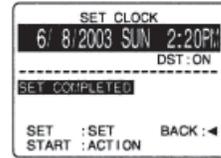
3. Press ACTION to start clock and exit.

4-16.4.22 Reset Language, Channels, Clock

1. Press ACTION* to display MENU.
   - PROGRAM functions are not available when using COMPONENT Video Output and S-VIDEO OUT. Please set TV to either RF INPUT or VIDEO INPUT, and then press PROGRAM.
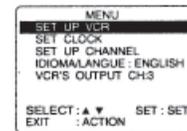
3. Channels
   1) Press ▲ ▼ to select "SET UP CHANNEL," and press SET.
   2) Press ▲ ▼ to select "ANTENNA," then press SET to set your antenna system ("TV" or "CABLE")
   3) Press ▲ ▼ to select "AUTO SET," then press SET.
      - If you use a Cable Box, set it to the PBS channel in your time zone.
         - After Channel Auto Set is finished, Auto Clock Set will be performed.
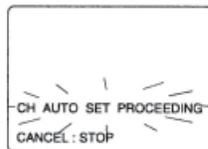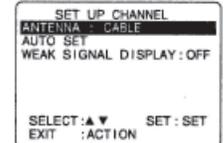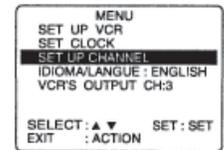
4. Clock
   1) Press ▲ ▼ to select "SET CLOCK," and press SET.
   2) Press ▲ ▼ to select "MANUAL," and press SET. (For Auto Clock Set, select "AUTO CLOCK SET.")
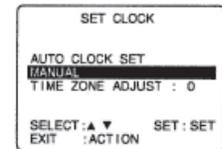
("TIME ZONE ADJUST" appears only when auto clock is set.)
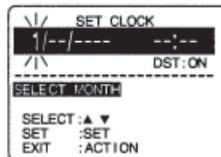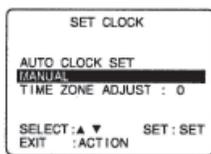
   3) Press ▲ ▼ and ▲ to select, then set the date, time, and DST (Daylight Saving Time).
   4) Press ACTION to start Clock and exit this mode.

4-16.4.23 VCR's Output Channel

IMPORTANT: If a remote control button does not work when pressed, press the VCR button on the remote and try the button again.

1. Time Zone Adjust
   (Only when Auto Clock is set.)

   1) Press ▲▼ to select "SET CLOCK," and press SET.

```
           MENU
   SET UP VCR
   SET CLOCK
   SET UP CHANNEL
   IDIOMA/LANGUE : ENGLISH
   VCR'S OUTPUT CH:3

   SELECT : ▲ ▼    SET : SET
   EXIT      : ACTION
```

POWER

CH ▲/▼

NUMBER keys

ADD/DLT

SELECT ▲▼◄►

SET

VCR
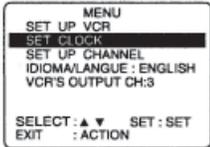
ACTION

   2) Press ▲▼ to select "TIME ZONE ADJUST," and press SET to subtract or add hour(s) as necessary.

   3) Press ACTION twice.
      • "TIME ZONE ADJUST" returns to "0" if clock is set manually.

```
       SET CLOCK

   AUTO CLOCK SET
   MANUAL
   TIME ZONE ADJUST :  0

   SELECT : ▲ ▼       SET : SET
   EXIT      : ACTION
```
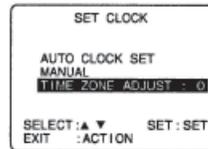
2. VCR's Output Channel

   1) Press ▲▼ to select "VCR'S OUTPUT CH.," and press SET.

   2) Press SET.

```
           MENU
   SET UP VCR
   SET CLOCK
   SET UP CHANNEL
   IDIOMA/LANGUE : ENGLISH
   VCR'S OUTPUT CH:4

   SELECT : ▲ ▼       SET : SET
   EXIT      : ACTION
```

Add or Delete a Channel

To add channel:
Select channel with **NUMBER keys** and **press ADD/DLT**.

```
   CHANNEL 08 ADDED
```

```
   IF YOU PRESS ACTION
   KEY, VCR'S OUTPUT CH
   SWITCHES TO CH 4.
```

```
   PLEASE TUNE YOUR TV TO
   CH 4.
```

3) Press ACTION

↓ After 3 seconds
To Make Corrections, repeat step 1) ~ 3).

```
           MENU
   SET UP VCR
   SET CLOCK
   SET UP CHANNEL
   IDIOMA/LANGUE : ENGLISH
   VCR'S OUTPUT CH:3

   SELECT : ▲ ▼       SET : SET
   EXIT      : ACTION
```

To delete channel:
Select channel with **CH ▲/▼** or **NUMBER keys** and **press ADD/DLT**.

```
   CHANNEL 08 DELETED
```

DST (Daylight Saving Time)

DECK auto adjusts clock for DST. (p. 17.)

Spring (First Sunday in April)
DST:ON ➔ Sets clock ahead one hour.

Autumn (Last Sunday in October)
DST:ON ➔ Turns clock back one hour.

• If your area does not observe Daylight Saving Time, select DST:OFF.

• Keep these time changes in mind when programming DECK for timer recordings.

4-16.4.24 Playback/Record on a Tape

☑ Ready Checklist
☐   All connections are made.
☐   TV and DECK are plugged in.
☐   TV is on and turned to CH 3, 4 or VIDEO.
☐   Remote is in VCR mode. (Press VCR.)

Playback a Tape
1.   Insert a Tape.
   - Deck power comes on. If auto VCR/TV is set to "OFF," press VCR/TV on the remote to be VCR mode.

2.   Press PLAY* to play a tape.
   - If tape has no rec. tab auto play begins.

<div style="border:1px solid black; display:inline-block; padding:4px 12px;">**Special Features During Play**</div>

Forward/Reverse Scene Search
→ Press FF/SLOW+ or REW/SLOW-.
→ Press PLAY to release.
After search has begun, each additional press of FF or REW changes speed as shown bleow.
[SLP] : Approx. 21X ↔ Approx. 9X
[LP]   : Approx.   9X ↔ Approx. 7X
[SP]   : Approx.   7X ↔ Approx. 3X
If at 21X, 9X, or 7X speed the picture is interrupted, change speed speed to 9X, 7X, or 3X.

> 📌 **NOTES:**
> - Picture interruption may occur with some TVs.
> - FF and REW search speed may vary depending on current tape position.

- Still (Freeze) Picture
   - → Press PAUSE/STILL.
   - → Press PLAY to release.

- Frame by Frame Picture
   - → Press PAUSE/STILL in Still mode.
   - → Press PLAY to release.

- Slow Motion Picture
   - → Press FF/SLOW+ (increase speed) or REW/SLOW- (decrease speed) in Still mode..
   - → Press PLAY to release.

3.   Press STOP to stop a tape.
- Press REW/SLOW- or FF/SLOW+ in Stop mode to rewind or fast forward a tape.
- Press EJECT on remote, or STOP/EJECT on DECK to eject a tape.

> 📌 **NOTES:**
> - These features work best in SP or SLP mode.
> - The sound will be muted.
> - To reduce picture noise, see "*Manual Tracking Control*"
> - After DECK is in Still or Slow mode for 3 minutes, it will switch to Stop mode automatically to protect the tape and the video head.

<div style="background:#cccccc; padding:8px;">**!!IMPORTANT: If a remote control button does not work when pressed, press the VCR button on the remote and try the button again.**</div>
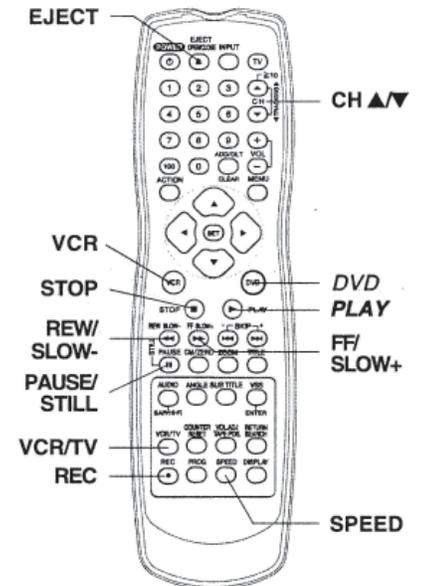
Playback using DECK buttons

2 Press PLAY.   1 Insert a tape.

Multi Function Display

■ Press STOP/EJECT to stop and/ or eject a tape.

Record on a Tape

1. Insert a tape with a record tab
   - DECK power comes on. If Auto VCR/TV is set to "OFF," press VCR/TV on the remote to be VCR mode.
2. Press CH ▲ ▼, or NUMBER keys to select the channel.
   - For "LINE" input, see *Connection in Copying Your Tapes (Dubbing)* found later in this manual.
   - If channel is over 100, press 100 key then press the remaining 2 digits.
3. Press SPEED to select the record speed.
   - SP = Standard Play   LP = Long Play
   - SLP = Super Long Play
   - Speed appears on-screen and on Multi Function Display.
4. Press REC to start recording. (The VCR REC indicator lights up on Multi-Function Display),
   - To edit out unwanted scenes, press PAUSE/STILL to pause, and again to resume recording.
   - You cannot view another channel during recording.
5. Press STOP to stop recording
■ One Touch Recording (recording in progress),
   → Press REC repeatedly to set the recording length
   → (30 min. ~ 4 hours).
   - DECK shuts off after the preset record length.
■ Record One Station, Watch Another,
   → press VCR/TV on the remote (change to TV mode),
   → select channels at TV (recording continues).
■ Select Channels at DECK (in STOP or REC. PAUSE mode),
   → press VCR/TV on the remote (change to TV mode),
   → select channels at DECK.
■ Play a disc while recording a tape.
   → insert a disc during recording,
   → press DVD, and then press PLAY.

Normal Rec → 0:30 → 1:00 → 1:30 → 2:00 → 3:00 → 4:00

Record using DECK buttons

1 Insert a tape.
2 Select Channel.
4 Press REC to start Recording.
Multi Function Display
■ Press STOP/EJECT to stop.
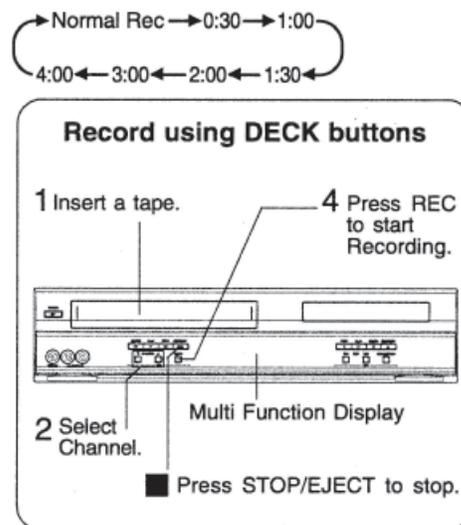
✎ **NOTES:**
- It is not possible to record from DVD/Video CD/CD to VHS tape using DECK.
- Watching one channel and recording another is not possible when using Cable Box or DSS Receiver.
- After 5 minutes in Pause mode, DECK stops to protect a tape and video heads.

This video recorder, equipped with HQ (High Quality) system, is compatible with existing VHS equipment. Only use tapes with the **VHS** mark. Only tapes tested and inspected for use in 2, 4, 6, and 8 hour machines are recommended.

✎ **NOTE:** Remove loose or peeling labels from tapes to prevent tape jam.

4-16.4.25 Basic DVD Operation

☑ Ready Checklist

☐ All connections are made.

☐ DECK is plugged in.

☐ If DECK is connected to an audio amplifier, turn the stereo system's power on.
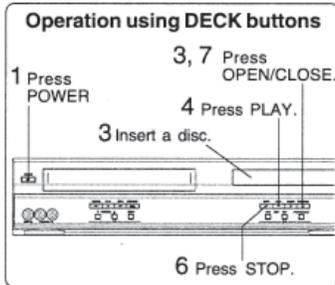
1. Press POWER* on the remote or DECK.
2. Press DVD to select DVD mode.
   • If a disc is already inserted, go to step 4. (Depending on the disc, playback may start automatically.)
3. Press OPEN/CLOSE, and then place a disc into the disc tray.
   • Hold disc by its edge only with printed side up and use guides to place into tray. Use 1 3"(8 cm) or 2 5"(12 cm) disc.
4. Press PLAY to start playing. Disc tray closes automatically.
   • You may also close tray by pressing OPEN/CLOSE.
   • Data reading time differs with each disc.
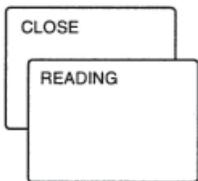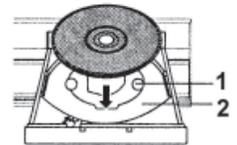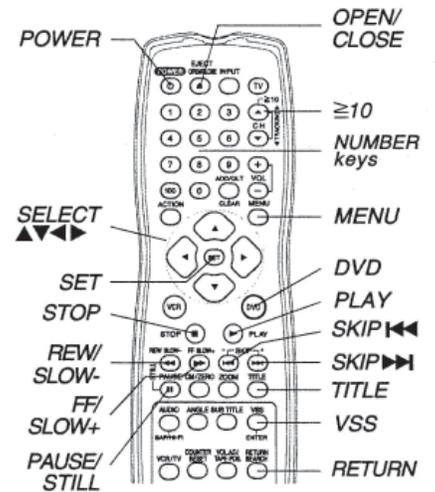
If an interactive DVD*1 or a Video CD with playback control*2 is used and TITLE MENU appears, go to step 5.
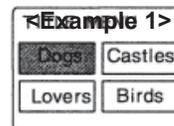
5. Press ▲ ▼ ◄ ► or NUMBER keys (see below) to select title, and press SET or PLAY to start playing.

• "Pressing SET or PLAY" is not necessary when using NUMBER keys.
Using NUMBER keys starts playing automatically. The number of available title varies with each disc.

<Input Example>	1 digit number	1 ••• 1
	2 digit number	12 •••≥ 10 1 2
	3 digit number	123 ••• 100 1 2 3

<Example 2>

Press SKIP ►►I of I◄◄ to go to next or previous menu screen.

• SKIP function not available with all discs. Please refer to disc jacket for operation information.

To return to menu (play stops)

Press TITLE, MENU or RETURN. (DVD)

Press RETURN. (Video CD)

1. Press STOP to stop playing.
2. Press OPEN/CLOSE to eject the disc.

*1 Interactive DVD. . .May include multiple camera angles, stores, etc.

*2 Video CD with playback control. . .Particular scenes or information can be interactively selected from a menu that appears on the screen.

■ Forward/Reverse Scene Search Press FF/SLOW+ or REW/SLOW- during play.
Press PLAY to release.
- Starting forward/reverse search during play started from menu on Video CDs may recall menu.
- Search speed, slow at first, increases with each additional press of the button up to 5 levels.

■ Forward/Reverse Chapter/Track Skip Press SKIP ▶▶| or |◀◀ SKIP during play. Each press skips a chapter (DVD) or track (Video CD/CD).
- Pressing |◀◀ SKIP once midway through a chapter/track returns to the start of that chapter/track. Each additional press skips back one chapter/track.
- Pressing SKIP ▶▶| or |◀◀ during play started from menu on Video CDs may recall menu.
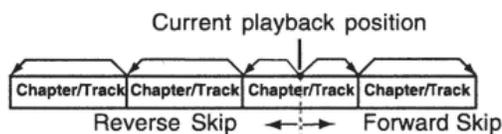
■ Still Picture or Pause
Press PAUSE/STILL during play.
Press PLAY to release.
- DVD/Video CD : DECK will enter still picture mode.
- CD : DECK will enter pause mode.

■ Frame by Frame Picture (DVD/Video CD)
Press PAUSE/STILL in still mode.
Press PLAY to release.
- Each press advances picture one frame.
- Hold button down for consecutive frame advance.
- Whether pictures are advanced by "FRAME" or "FIELD" is selected automatically.

■ Slow Motion Picture (DVD/Video CD)
Press FF/SLOW+ or REW/SLOW- In still mode.
Press PLAY to release.
- Slow motion speed, slow at first, is increased with each additional press of the button up to 5 levels.
- Reverse slow motion is not available for Video CDs.

4-16.4.27 Auto-Power Off Function

Power turns off after DECK has been in Stop mode (DVD) for about 5 minutes.
- When Ø appears on the screen while a button is being operated, it means that the corresponding operation is prohibited by DECK or the disc.

4-16.3.28 V.S.S. (Virtual Surround Sound)

- Enjoy a surround-like effect if you are using two front speakers only. The effect is broadened and sound seems to come from virtual speakers on either side if the disc has surround signals recorded on it.
- Press VSS in DVD mode.
- The Surround sound effects can be changed by pressing VSS repeatedly as shown by the figure below.
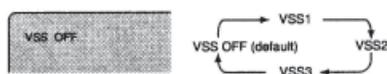
🖈 **NOTES:**
- Surround sound effects is available in DVD mode only.
- Turn off the surround effects on the other equipment.
- V.S.S. will not work, or will have less effect, with some discs.
- Turn V.S.S. off if it causes distortion.
- Surround will only come from the two front speakers if V.S.S. is on.

4-16.4.28 Resume Function

DECK memorizes the point where STOP is pressed (STOP ► is displayed on screen). **Press PLAY** to resume play from this point. Pressing STOP again or opening the tray cancels RESUME, however, RESUME is not canceled when power is turned off and on.

RESUME works only with discs for which elapsed play time is displayed during play.

4-16.4.29 Enjoy Video CDs featuring playback control without using menus (Video CDs only)

1. Do steps 1-4 (Basic DVD Operation). When menu appears, press STOP.
2. Press NUMBER keys to select desired track (play begins).
    - Check disc for track numbers.
    - Press "1" to start at beginning of disc.

To Resume Menu use,
Press STOP and **press PLAY**, then the menu will be displayed. Now, go to step 5 (Basic DVD Operation).

📌   **NOTES:**
- Please read the disc jacket for operation information.
- If a single sided disc is placed in upside down, "THIS TYPE OF DISC CANNOT BE PLAYED. PLEASE INSERT A DIFFERENT DISC" is displayed.
- Remove disc and press DECK POWER off when not in use.
- Disc continues to rotate with menu displayed even after play is done.
- Press STOP to clear menu display when finished with menu.

4-16.4.30 Timer Recording

☑ **Ready Checklist**
- ☐ All connections are made.
- ☐ TV and DECK are plugged in.
- ☐ Clock set correctly.
- ☐ Tape has rec.tab.
- ☐ Remote is in VCR mode. (Press VCR.)
- ☐ Sufficient tape remaining for recording time.
    1. Press PROG* to display Program

1) To set record DATE, press ▲ ▼ to select: 1-31 = one time, or DAILY = MON~FRI, or WEEKLY = same time each week and press SET.
    - See selection order left.
2) To set remaining items, press ▲ ▼ to select and press SET to set START/STOP times, CH (channel) or LINE input, and tape speed (SP, LP, SLP).

Press PROG to end programming.

3. To Enter More Programs, press ▲ ▼ to select and press SET to set an unused program number, and then repeat step 2.

Or

Press PROG to exit.
- The "Timer" Indicator lights up on DECK.
- You can use Timer Recording with the power on or off.
- "TIMER REC WILL START SOON" appears on-screen for 2 minutes before Timer Recording starts. If DECK is in DVD mode, no message appears, but the VCR REC Indicator, the VCR mode indicator and "REC" will flash on Multi Function Display.

BLUE BIRD
Coachworks®
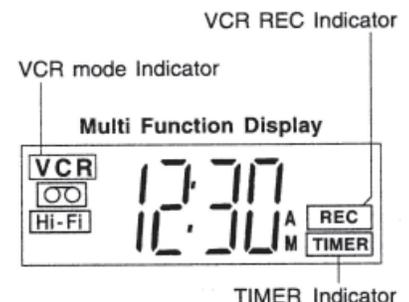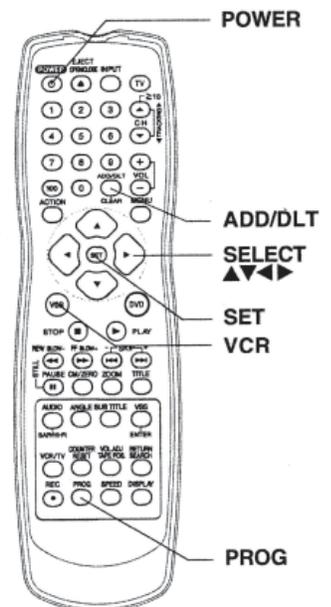
4-16.4.31 Review, Replace or Clear Program Contents:

(Recording is not in progress)

1. Press PROG to display Program List.

DT	START	STOP	CH	SPD
--	-- : --	-- : --	--	--
8	10:00P	12:00P	02	SP
10	8:00P	9:00P	10	SP
SU	9:00P	10:00P	L1	LP
				▼

```
CANCEL  : ADD/DLT
SELECT  1-8 : ▲▼
ENTER   : SET
EXIT    : PROG
```
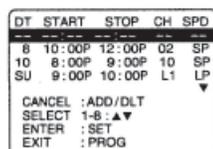
2. Press ▲ ▼ to select number and press SET to display.

3. **To Replace program**. . .Repeat Step 2 (previous section) to set new programs.

Or

To Clear Program. . .Press ADD/DLT.

4. **Press PROG** to end the programming.

To Cancel a Timer
Recording in Progress. . .
Hold down STOP in VCR mode for a few seconds to cancel the Timer Recording.
(The "TIMER" Indicator goes out on Multi-Function Display.)
•   Any future daily or weekly recording will be performed as programmed.

```
DATE I/ START    STOP    CH
7 SUN  9:00A 12:00A  08
TODAY\               SP
------------------------------
SELECT START DATE

SELECT  : ▲▼
SET     : SET    BACK : ◄
END     : PROG
```
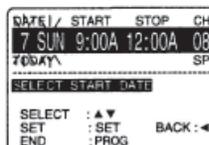
📌   **NOTES:**

•   If you are using a Cable Box, the VCR's channel for Timer Recording must be set to the Cable Box input channel and Cable Box must be manually set to the desired channel. Cable Box power must be left on.

•   2 minutes before Timer Recording is performed, "PLEASE -PREPARE FOR TIMER REC" appears and Timer Indicator flashes. Be sure a cassette with record tab is loaded and DECK is in Stop mode.

•   If a power interruption occurs while programming the timer, the timer program(s) may be canceled. If "TIMER PROGRAMS WERE LOST DUE TO POWER INTERRUPTION" appears on-screen, please re-enter the timer programs.

•   If the start time for Timer Recording comes up during recording and playing back, Timer Recording will not be performed.

Important Notes When Using DSS Receiver
•   When recording programs via DSS Receiver, DSS Receiver must be left on.
•   When recording programs via an antenna or cable, DSS Receiver must be turned off.

4-16.4.32 MTS Broadcast/VHS Hi-Fi Stereo System

Connection

Make the Audio/Video Connection as shown in Connection section found previously in this manual.

• You can use TV connected to a Stereo amplifier and speakers instead of Stereo TV.

4-16.4.33 Receivable Broadcast Types

The following are possible audio broadcast types and on-screen displays.

The signal being received is indicated with an "(((" mark while the selected audio mode is indicated with an arrow.

To display the broadcast signal being received,

→ press DISPLAY*.

MTS Stereo and SAP Broadcast

Multi-channel Television Sound Stereo (main language) and Secondary Audio Program (sub language) broadcasts are being received simultaneously. Select STEREO or SAP audio mode.

MTS Stereo Broadcast

Multi-channel Television Sound Stereo broadcast. Select STEREO audio mode.

• If stereo broadcast is weak and display flickers, select MONO audio mode for possible better results.

SAP Broadcast

Secondary Audio Program (sub language) broadcast. Select SAP audio mode for the sub language.

MONO Broadcast

Normal monaural sound broadcast.
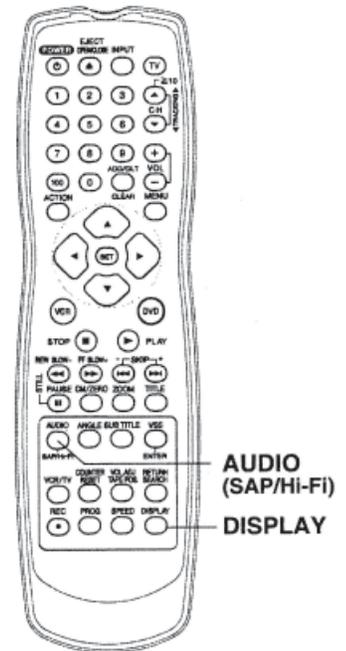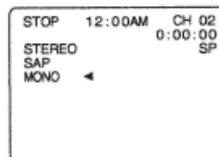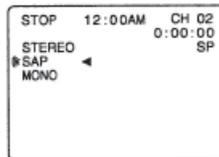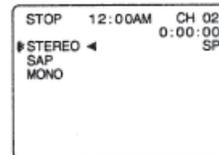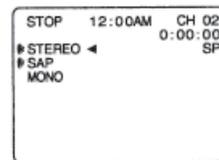
Equipped with dbx®-TV Noise Reduction for true MTS reproduction. dbx®-TV Noise Reduction is required for good stereo separation and audio fidelity. dbx® is a registered trademark, and is licensed by dbx® Technology Licensing.

4-16.4.34 Audio Mode for Recording

1. **Press AUDIO (SAP/Hi-Fi)** to display audio mode.
   (Display disappears after 5 seconds.)

2. **Press AUDIO (SAP/Hi-Fi)** repeatedly to select desired mode.
   • Refer to *"Receivable Broadcast Types"* in previous section.
   • Arrow indicates selection.

3. **Make a recording.**
   See *Playback/Record on a Tape* Section found earlier in manual.
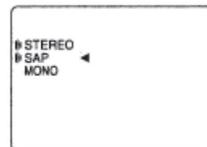
4-16.4.35 Audio Mode for Playback

1. Start playback.

See *Playback/Record on a Tape* section found earlier in manual.

2. Press AUDIO (SAP/Hi-Fi) to display audio mode.

3. Press AUDIO (SAP/Hi-Fi) repeatedly to select desired mode.

```
HIFI:L/R ◄
HIFI:L
HIFI:R
NORMAL
```
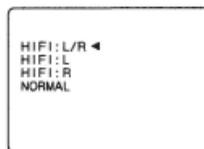
1. Select "HIFI (L/R" or "HIFI (L)" or "HIFI (R)" to listen to stereo recordings in stereo sound. Select "NORMAL" for monaural sound.

2. Display disappears after 5 seconds.

3. Arrow indicates selection.

NOTES:

• Only tapes recorded in Hi-Fi stereo will playback with true stereo sound. Standard stereo tapes will playback in monaural sound.

• To listen to Hi-Fi stereo playback, the DECK AUDIO (L/R) jacks must be connected to a stereo TV or an external stereo amplifier and speakers.

• If tracking is adjusted during playback, Hi-Fi audio may revert to normal audio.

• Hi-Fi and normal audio playback volume level may differ.

4-16.4.36 Multi-Brand Control Feature

Multi-Brand Control Setup

The Remote Control can be set to control some TV functions.

1. Find your TV Brand Code Number on the chart found later in this section.

2. Set up for TV control,

   →hold down TV button,

   →enter code with NUMBER keys.

   • If code number is 100 or greater,

   →e.g., press 1 - 0 - 2 for 102.

3. Confirm code entry,

   →Press POWER to turn selected unit on or off.

   • See table on following page for controllable functions in each mode.
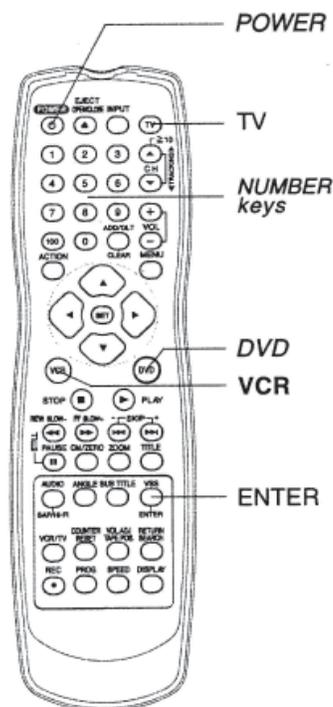
NOTES:

• Repeat setup after remote battery replacement.

• Remote will not control every TV made by the manufacturer listed. If you get no response, your particular unit cannot be controlled. There are NO additional codes for the products listed. If your product is not listed, then the remote is not compatible with that product.

4-16.4.37 Using Multi-Brand Control

After remote is set up, you can select VCR, DVD, or TV for the desired function.

Press VCR, DVD, or **TV** on the remote.

(Table below shows available remote buttons for each mode.)

Mode \ Input	DVD/VCR	TV
DVD/VCR	All	VOL +/-
TV	EJECT/OPEN/CLOSE*, DISPLAY, PLAY, STOP, FF/SLOW+, REW/SLOW-VCR/TV, PAUSE/STILL, SKIP, AUDIO, CM/ZERO, TAPE POSITION, COUNTER RESET, SPEED REC	POWER, INPUT, NUMBER keys, ENTER, CH ▲ / ▼, VOL +/-

Bold: VCR Function Italic: DVD Function
Bold Italic: VCR and DVD Functions
Normal: TV

NOTES:
- Not all functions listed may be controllable.
- In TV mode, it may be necessary to press ENTER after pressing NUMBER keys for channel selection.

TV Brand Code Numbers

Brand	Code	Brand	Code	Brand	Code
Panasonic	01, 02	Sylvania	05	JVC	11
Quasar	01, 02	Sharp	06, 07	Hitachi	12
RCA	03	Sony	08	Mitsubishi	07, 13
GE	03	Toshiba	09	Samsung	14
Zenith	04	Sanyo	10	Gold Star	15, 16, 17
Magnavox	05	Fisher	10		

IMPORTANT NOTES:
- *Some manufacturers use several codes for one brand. If the first code entered fails, try the next one listed.*
- *Some TV brands require you to turn on the power manually.*

4-16.4.38 Tape Operation

Search System

For each recording, an invisible index mark is placed on the tape. A program index and information are also included for timer recordings. These marks are used to access or scan recordings.

INDEX SEARCH

```
INDEX SEARCH
ENTER INDEX NUMBER :1
USING 1- 9 KEYS
FORWARD SEARCH :FF
REVERSE SEARCH :REW
NEXT   :SEARCH
EXIT   :STOP
```

1. **Press SEARCH*** to display SEARCH in Stop or Play mode, and then **press NUMBER keys** to select recording number.
   - To calculate number, see below.
   Press FF/SLOW+ or REW/SLOW- on the remote to start search.

2. Play begins at search end.

To search forward or back 1 index, **press FF/SLOW+** or **REW/SLOW-** on the remote while screen left is displayed (10 sec.).
- To cancel, **press PLAY or STOP**.

```
INDEX SEARCH



FORWARD SEARCH : FF
REVERSE SEARCH : REW
```

BLUE BIRD
Coachworks

■ To Calculate Index Number

Example 1:

To go to rec. 2 from rec. 4, enter 3 and press REW.
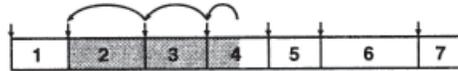
Example 2:

To go to rec. 6 from rec. 2, enter 4 and press FF.

NOTES:

↓ Indicates start points of each recording.

If Index Search is started very close to an index mark, that index mark may not be counted in the search.

PROGRAM END SEARCH

Locates end point of recording for continuity.

1. **Press SEARCH** twice to display SEARCH in Stop or Play mode.
2. **Press FF/SLOW+** on the remote to start PROGRAM END SEARCH.
   - To cancel, press PLAY or STOP.

```
PROGRAM END SEARCH

SEARCH START : FF

EXIT    :SEARCH
```
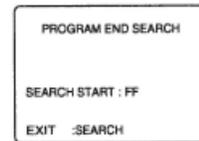
Examples of **Program End Search.**
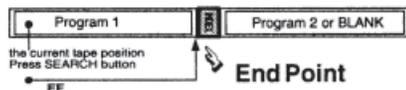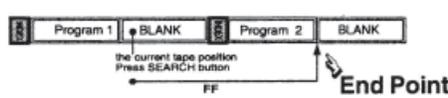
Fig. 1   Fig. 2   Fig. 3
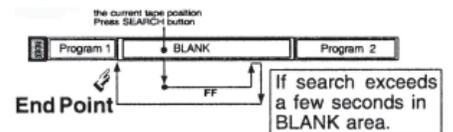
Upon locating end point,

→ Search continues 7 sec. past end point,

→ Tape rewinds to 10 sec. before end point,

→ Tape plays to end point and stops.

NOTE: If Program End Search is started very close to an index mark, that mark may be skipped over.

AUTO OPERATION FUNCTIONS

■ Auto Play

Insert a tape → Power comes on, → Play starts if there is no record tab

■ Auto Rewind

Play

Fast Forward   } → Tape end → Rewind

NUMBER keys

STOP
PLAY
REW/SLOW-
FF/SLOW+
CM/ZERO

SEARCH

■ Play Auto Eject

(Repeat Play must be off)

Play → Tape end → Rewind

→ Tape ejects if set some programs.

COMMERCIAL SKIP

VCR fast forwards (skips) over 1-3 minutes of recorded tape.

■ Press CM/ZERO in Play mode.

- The skip time can be changed by pressing CM/ZERO repeatedly as shown by the figure below.

- No indication appears on-screen.

```
PLAY
  ↓
1st Press → 1 min Skip
  ↓
2nd Press → 2 min Skip
  ↓
3rd Press → 3 min Skip
```
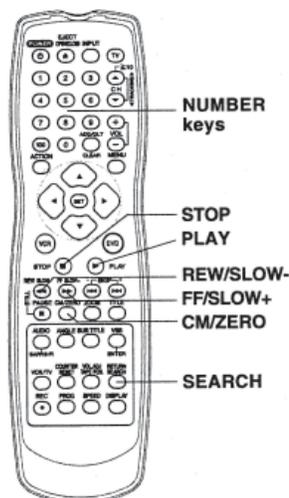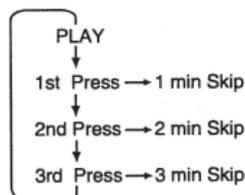
REPEAT PLAY

Set to playback a recording over and over.

1. **Press ACTION** * to display MENU.
2. **Press ▲ ▼** to select "SET UP VCR," and **press SET**.
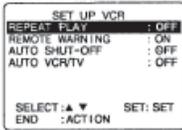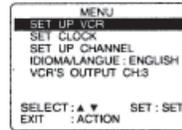
3. **Press ▲ , ▼** to select "REPEAT PLAY," and **press SET** to set "ON" or "OFF."
   • Play repeats at tape end or if unrecorded portion over 30 sec. is detected.
4. **Press ACTION** twice to return to normal screen.

> ✎ **NOTE:** For repeat play in DVD mode, see "*DVD Operation Using On-Screen Displays*" section.

ZERO SEARCH

To quickly return to a specified tape location.
1. Press **DISPLAY** during play to display Counter.
2. Press **COUNTER RESET** at desired position to reset to "0:00:00".
3. Continue to record, playback etc.
4. Press STOP.
5. Press CM/ZERO in Stop mode to start Zero Search.
   • DECK will go into FF or REW mode and stop at the last point the Counter was set to 0:00:00.
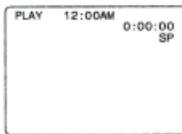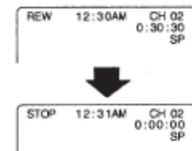
VCR/TV Selector Feature

The VCR/TV selection can be set to auto or manual.
1. **Press ACTION** to display MENU.
2. **Press ▲ ▼** to select "SET UP VCR," and press SET.
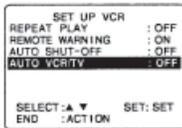
3. **Press ▲ ▼** to select "AUTO VCR/TV," and press SET to set "ON" or "OFF."
   • Off (Manual): You select "VCR" or "TV" mode using the VCR/TV button on the remote.
   • ON (Auto): "VCR" mode is automatically set when VCR is turned on, or in Play mode.
4. **Press ACTION** to return to normal screen.

> ✎ **NOTE:** For more on VCR/TV selection, see "*Record One Station, Watch Another*" and "*Select Channels at DECK*" sections found earlier in manual.

4-16.4.39 Special VCR Features

IMPORTANT: If a remote control button does not work when pressed, press the VCR button on the remote and try the button again.

VCR Lock Feature

When set to ON, all operations except for timer record and tape eject are prohibited. Useful for households with small children.
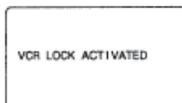
To turn on, hold down REC on DECK in Stop mode with no tape inserted for 7 seconds, (Please ignore "NO CASSETTE" warning.)

To turn off, repeat above.
• VCR Lock cancels in 24 hours if clock is set.
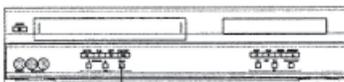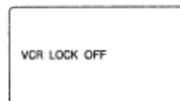
Weak Signal Display Feature

When "ON," picture is displayed regardless of signal strength.

1. **Press ACTION** to display MENU.

2. **Press ▲ ▼** to select "SET UP CHANNEL," and **press SET**.

3. **Press ▲ ▼** to select "WEAK SIGNAL DISPLAY," and **press SET** to press "ON" or "OFF."
   - ON: Picture is displayed regardless of signal condition, and may not always be clearly visible.
   - OFF: Screen turns solid blue when signal is weak or non-existent.
   - Selecting ON has no effect on connected equipment with blue back feature.

4. Press ACTION twice to return to normal screen.

Auto Shut-Off Feature

The power shuts off at a preset time.

1. **Press ACTION** to display MENU.

2. **Press ▲ ▼** to select "SET UP VCR," and **press SET**.

3. Press ▲ ▼ to select "AUTO SHUT-OFF." Press SET repeatedly to change shutoff time as shown below.

OFF → 2 Hours → 4 Hours → 6 Hours → OFF

4. Press ACTION twice to return to normal screen.
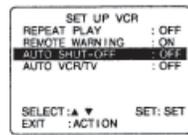
> **NOTE:** The shut-off countdown will not function during Play or Record.

Remote Warning Feature

If Multi-brand feature is used, and this feature is set to on, a warning appears whenever an invalid key is pressed in TV mode.

1. Press ACTION* to display MENU.

2. Press ▲ ▼ to select "SET UP VCR," and press SET.

3. Press ▲ ▼ to select "REMOTE WARNING," and press SET to set "ON" or "OFF."
   - If "OFF," remote warning will not appear when invalid key is pressed.

4. Press ACTION twice to return to normal screen
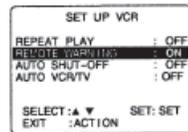
> *IMPORTANT: If a remote control button does not work when pressed, press the VCR button on the remote and try the button again.*

SELECT ▲▼◄►
SET
ZOOM
SUB TITLE
ANGLE
AUDIO

INPUT
ACTION
SELECT ▲▼◄►
SET
STOP
PAUSE/ STILL
Tape Position
REC
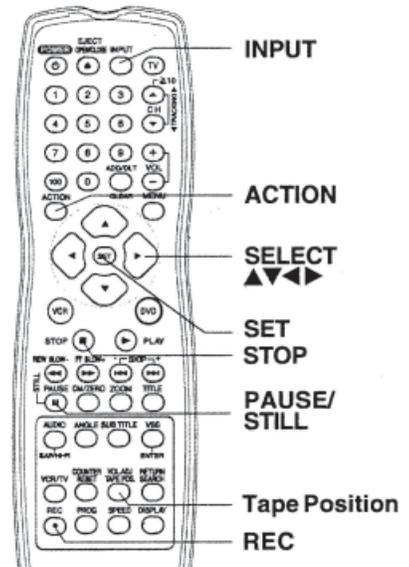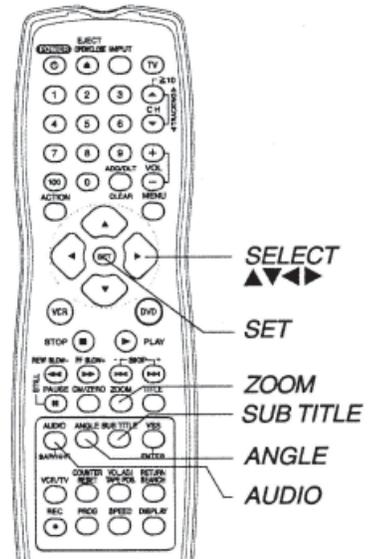
Tape Position and Tape Status Feature
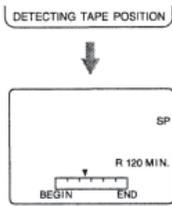
To find out the present tape position and amount of tape remaining. Tape position is displayed for VHS-C type Cassettes, tapes under 30 minutes long, and some other tapes, but the position is not correct.

1. Press TAPE POS. to detect current tape position.

   - "DETECTING TAPE POSITION" is displayed only when a cassette is first inserted, and it takes several seconds for correct tape position to appear.
   - The present tape position indication and amount of tape remaining (according to tape speed) is displayed.
   - Tape remaining time display may not be precise.

2. Press TAPE POS. to return to normal screen.

> **NOTE:** This function cannot display exact amount of tape remaining for tapes 30 minutes or less, or for tapes over 120 minutes in length.

4-16.4.40 Copying Your Tapes (Dubbing)

Connection
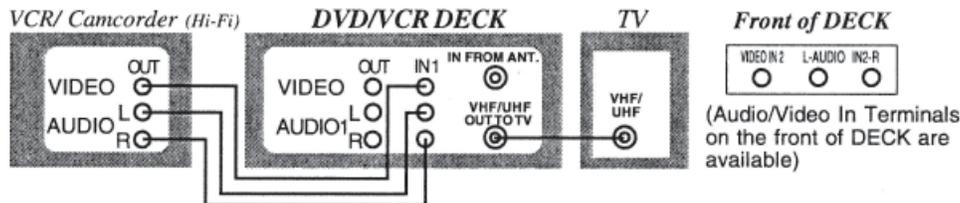
1. Connect VIDEO OUT terminal on Playing VCR to VIDEO IN terminal on DECK. To monitor the dubbing, also connect TV as shown.

2. Connect "L" and "R" AUDIO OUT terminals on Playing VCR to "L" and "R" AUDIO IN terminals on DECK. In place of Playing VCR, you can use other equipment such as a Camcorder. Simply connect the unit's Audio/Video outputs to DECK.

Playing (Source) VCR	Recording (Editing) DECK
1 Insert a pre-recorded tape.	Insert a blank tape with record tab.
2	Press INPUT to set DECK Input mode to LINE for Video Input (See "*Selecting the Input Mode*" below)
3 Press PLAY, then PAUSE/STILL immediately to enter PLAY/PAUSE mode.	Press REC, then PAUSE/STILL immediately to enter REC/PAUSE mode.
The operation of steps 4 and 5 must be done on the playing and recording VCRs at the same time.	
4 Press PLAY to start dubbing. Playing VCR starts playback.	Press PAUSE/STILL to start dubbing. DECK starts recording.
5 Press STOP to stop dubbing.	Press STOP to stop dubbing.

■ To Monitor Dubbing on TV

1. Turn TV on and tune to the Recording VCR channel (CH 3 or CH 4).
2. If Auto VCR/TV is set to "OFF", press VCR/TV on the remote to be VCR mode.

> **NOTE:** Dubbing tapes protected with Copy Guard will result in poor quality recordings.

■ Selecting the Input Mode

Method 1: Press INPUT repeatedly. Channel Number ↔ LINE1 ↔ LINE2

Method 2: Press CH ▲/▼. Display will change as below.

Press ▼ →1↔2↔3← (CABLE) (TV) Press ▲
↳LINE2↔LINE1↔125 or 69↵
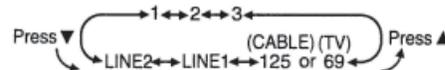
- "L1" or "L2" lights up on Multi-Function Display (about 4 seconds) when LINE1 or LINE2 is selected.
- LINE1: For rear audio/video connection.
- LINE2: For front audio/video connection.

CAUTION!!

- Unauthorized exchanging and/or copying of copyrighted recordings may be copyright infringement
- Please note that some tapes cannot be dubbed on DECK. Also, it is not possible to dub DVD/Video CD/CD to VHS tapes using DECK.

4-16.4.41 Disc Operation

Subtitle Language (DVD Only)

You can select a different subtitle language (if offered) than the one set at the Settings for DVD Operation. See "*Settings for DVD Operation*" found later in manual.

1. **Press** *SUB TITLE** in Play mode to display the subtitle selection on-screen.

   - Display disappears after 5 seconds.
   - When no subtitles are offered, "-" will be displayed instead of the language number.

2. **Press** ▲▼ to select a language.
3. **Press** ▲▼ to select "ON" or "OFF."

Subtitle language being played back (see Subtitle Language chart on right)

> **NOTES:**
> - If after several presses of the button the language does not change, language selection is not offered on the disc.
> - When disc is removed, subtitles revert to initial setting language. If the initial language is not recorded on the disc, the disc's priority language will appear.

[Subtitle Language]
[Audio sound track language]

ENG	English
FRA	French
DEU	German
ITA	Italian
ESP	Spanish
NLD	Dutch
SVE	Swedish
NOR	Norwegian
DAN	Danish
POR	Portuguese
RUS	Russian
JPN	Japanese
CHI	Chinese
KOR	Korean
MAL	Malay
VIE	Vietnamese
THA	Thai
*	Other

Change the No. by **pressing** ▲▼, and **press** *SET.*

Audio Soundtrack Language (DVD only)

You can change the audio soundtrack language, selected at the Settings for DVD Operation, to a different language if available. See *"Settings for DVD Operation"* later in manual.

(This operation works only with discs on which multiple audio soundtrack languages are recorded.)
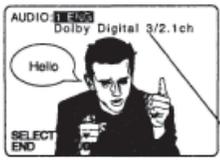
1. **Press** *AUDIO* in Play mode to display the audio selection on-screen.
   - Display disappears after 5 seconds.

   Audio attribute 1 type, sampling frequency, bit No. of the disc or number of speaker channel.

2. **Press ▲ ▼** to select desired language.

   Audio soundtrack language being played back (see chart, at right).

[Audio attribute 1 type, sampling frequency, bit No. of the disc (see *"Settings for DVD Operation"* section, later in manual.)]

LCPM	96 kHz or 48 kHz	16bit	Linear PCM disc
		20 bit	
		24 bit	
Dolby Digital	1 ch - 5.1 ch		Dolby Digital Disc
DTS	1 ch - 5.1 ch		DTS disc

NOTES:
- If, after several presses of the AUDIO button the language does not change, language selection is not offered on the disc.
- When disc is removed, language reverts to initial setting. If this language is not recorded on the disc, the language recorded will be heard.

IMPORTANT: If a remote control button does not work when pressed, press the DVD button on the remote and try the button again.

When ⊘ appears on the screen while a button is being operated, it means that the corresponding operation is prohibited by DECK or the disc.
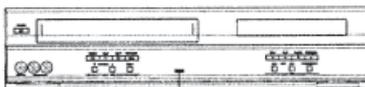
ANGLE Indicator

NOTES:
- The ANGLE indicator lights up on DECK when a scene recorded at different angles is detected.
- The angle number can be set beforehand so that the angle is switched whenever the ANGLE indicator lights up.

BLUE BIRD
Coachworks

SELECT
▲▼◄►

SET

ZOOM

SUB TITLE

ANGLE

AUDIO
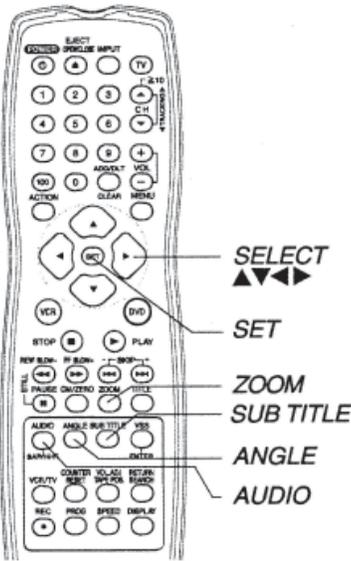
> **📌 NOTES:**
> - The subtitle cannot be enlarged nor can its position be changed.
> - The picture zoom feature does not work with a Video CD.
> - During picture zoom, "ZOOM1" or "ZOOM2" appears on-screen for 5 seconds.
> - Zooming, on some discs, may result in poor picture quality, or may not operate at all.

Multiple Angle Viewing (DVD Only)

DVDs may contain scenes shot from multiple camera angles allowing the same scene to be viewed at different angles. You can view these angles, if available, using the ANGLE button.
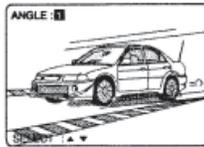
1. Press ANGLE in Play mode to display the angle selection on-screen.
   - Display disappears after 5 seconds.
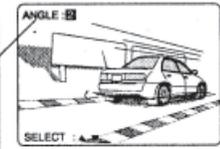
2. Press ▲ ▼ to select the desired angle.

   Number of angle being played back.

Vocal Selection for Karaoke Discs (DVD/Video CD)
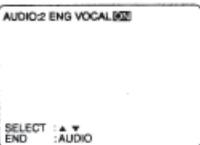
1. Press AUDIO in Play mode to display the audio screen.
2. Press ▲ ▼ (or ◄►) to select as shown below, and press ▲ (or ▼) to set. (DVD only).
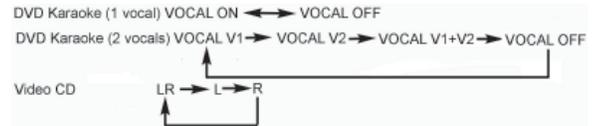
Picture Zoom (DVD Only)

You can enlarge specific portions of a picture and select the zoom ratio using the ZOOM button during DVD playback.

Press ZOOM repeatedly to change display as follows.
- You can enlarge the center portion of the image to one of 2 magnifications.

Use the ▲, ▼, ◄ and ► buttons to move the position up, down, left and right.

Title Menu (DVD Only)

Some DVDs have more than one title, e.g. movies. If the disc offers a title menu, you can select the desired title number. (Operation may vary according to the disc.)
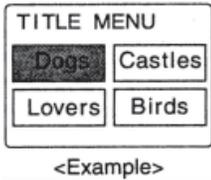
1. **Press** *TITLE* * in Play mode to display the title screen.

2. **Press** ▲ ▼ ◄ ► or *NUMBER keys* to select a title, and **press SET** or *PLAY* to start playing.
   - "Pressing SET or PLAY" is not necessary when using NUMBER keys.
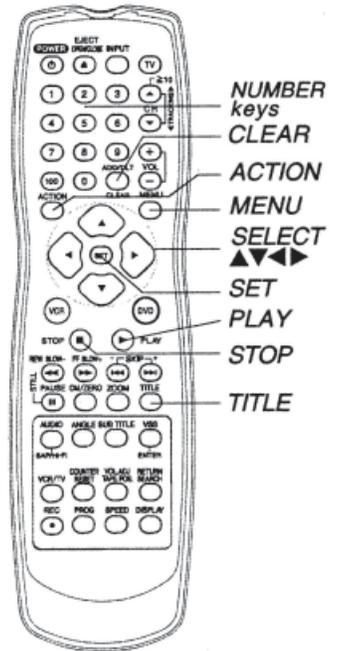
DVD Menu (DVD Only)

DVDs may offer a special menu. This menu may include guides to unique contents, audio/subtitle languages, etc. Although contents and operation may vary, the following steps show basic steps for using the menu.
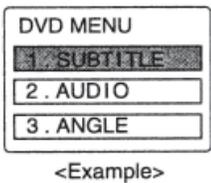
1. **Press** *MENU* in Play mode to display DVD MENU.
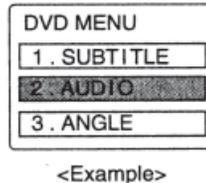
2. Press ▲ ▼ ◄ ► or NUMBER keys to select an item, and press SET or PLAY to perform.
   - "Pressing SET or PLAY" is not necessary when using NUMBER keys.

Repeat step 2 if there is more than one menu.

Program Play (Video CD/CD only)

You can program specific tracks and order of play.

1. **Press** *ACTION* to display DVD MAIN MENU.

2. **Press** ▲ ▼ to select "PLAY MODE," and **press SET** to display.
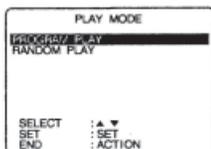
3. **Press** ▲ ▼ to select "PROGRAM PLAY," and **press SET** to display.

4. Press ▲ ▼ ◄ ► to select a track number (Track numbers on disc are displayed.), and press SET.
   - Repeat step 4 to select another track.
   - The selected track is added on the right side.
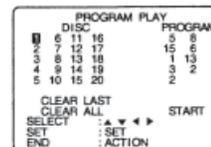
5. **Press** ▲ ▼ ◄ ► to select "START," and **press SET** to start play of programs in the sequence selected.

    • To cancel, **press STOP** during play, then **press CLEAR.**

📌   **NOTES:**

• Up to 15 tracks can be programmed.

• "◄" or "►" (depending on disc) indicates additional PROGRAM PLAY screen. Press ▲ ▼ ◄ ► for next or previous screen.

• To clear the last program one by one Press ▲ ▼ ◄ ► move to "CLEAR LAST" and press SET. (Pressing CLEAR on remote control also clears last program.)

• To clear all programs press ▲ ▼ ◄ ► move to "CLEAR ALL" and press SET. (Programs are also cleared when the power is turned off or the disc is removed.)

☑ Ready Checklist
☐ DECK is in DVD mode, press DVD.
☐ Video CD or CD is inserted.

Program Repeat Play (Video CD/CD only)

1. Follow steps 1 through 5 on this page.
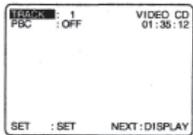
2. **Press DISPLAY** to display Disc Information screen. (Disc Information Screen)

3. **Press DISPLAY** to display DECK Information screen.
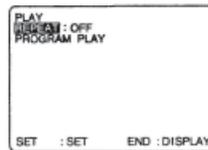
4. **Press SET** to enter Select mode. Cursor move to "OFF." (DECK Information Screen)
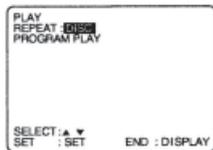
5. **Press** ▲ ▼ to select "DISC." (DECK Information Screen)

6. **Press SET** to set mode. Cursor move to "REPEAT." To cancel, select "REPEAT : OFF" in step 5, then **press SET**.

Random Play (Video CD/CD Only)

☑ Ready Checklist
☐ DECK is in DVD mode, press DVD.
Tracks are played in a random order.

1. **Press ACTION*** to display DVD MAIN MENU.

2. **Press** ▲ ▼ to select "PLAY MODE," and **press SET** to display.

3. **Press** ▲ ▼ to select "RANDOM PLAY," and press SET to begin random play.
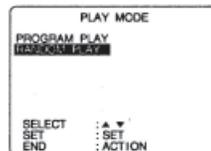
• To cancel, press STOP during play, then press CLEAR.
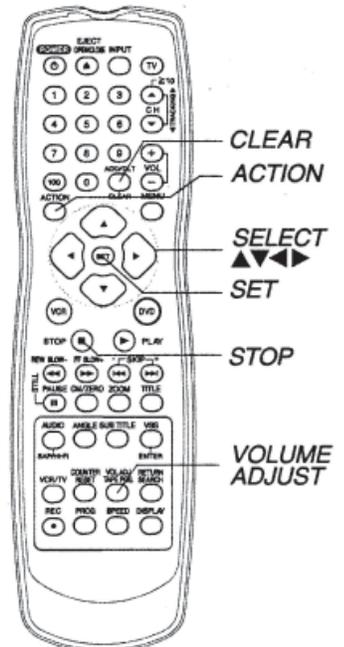
CLEAR
ACTION
SELECT ▲▼◄►
SET
STOP
VOLUME ADJUST

IMPORTANT: If a remote control button does not work when pressed, press the DVD button on the remote and try the button again.

BLUE BIRD
Coachworks®

Setting the VOLUME ADJUST

Some DVDs are recorded in lower average volume level. For these DVD, this DECK can be set so that the average volume is increased.

Press *VOL.ADJ* repeatedly to change "ON" ↔ "OFF."
"ON" or "OFF" lights up on Multi Function Display (for about 3 seconds) when press VOL.ADJ.

	VOLUME ADJUST "OFF"	VOLUME ADJUST "ON"
Some DVD [Volume level is low]	Volume is the original level.	Volume level is increased when played back.

- "ON" is set. . .When a DVD is played back, the average volume is increased.
- "OFF" is set. . .The volume level recorded on the disc is played back just as it is.

NOTES:
- When audio equipment is connected, setting the Sound Output level to "OFF" is recommended.
- If the sound becomes abnormal while playing a disc, set the Sound Output level to "OFF."

4-16.4.42 DVD Operation Using On-Screen Displays

When DISPLAY is pressed, On-Screen Displays show disc information (title/chapter/track number, elapsed playing time) and DECK information (repeat play, play mode).

1. **Press *DISPLAY*** in Play or Stop mode to display "On-Screen Displays."
   - Each **press** of ***DISPLAY*** changes the on-screen display as follows. (See *"Detailed Descriptions of Each On-Screen Display"* found later in manual.)

NOTE: DISPLAY button does not function while DVD TITLE MENU is displayed.
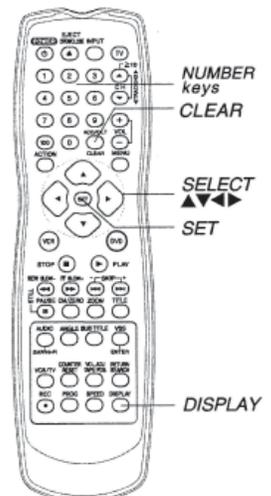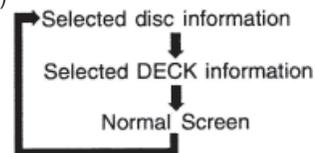
☑ Ready Checklist
□ DECK is in DVD mode, press DVD.

2. **Press ▲ ▼** (or ◀ ▶) to select an item, and **press *SET***.

3. **Press ▲ ▼** or ***NUMBER* keys** to select the setting, and **press *SET.***
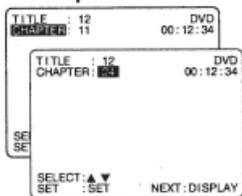
- When numbers are displayed (e.g. title number), NUMBER keys are also available.
- If the number entered is not on the disc, the entry will have no effect. Re-enter the correct number.
- For more details, refer to the disc operation information.

To return to normal screen, press CLEAR or DISPLAY repeatedly.
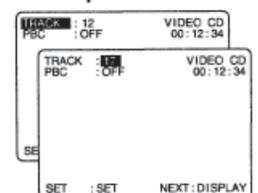
NOTES:
- When DISPLAY button is pressed during playback of a Video CD with Playback control NUMBER keys are not available on the displayed screen. In this case, press DISPLAY again to remove the displayed screen.
- When ⃠ appears on the screen while a button is being operated, it means that the corresponding operation is prohibited by DECK or the disc.


BLUE BIRD
Coachworks

Detailed Descriptions of Each On-Screen Display

■ Disc Information Screen (for DVD)

1. TITLE No.
- Select "TITLE", and press SET*.
- Change the No. by pressing ▲▼ or NUMBER keys, and press SET.

2. CHAPTER No.
- Select "CHAPTER", and press SET.
- Change the No. by pressing ▲▼ or NUMBER keys, and press SET.

3. Disc Currently being played

4. Elapsed playing time
The screen may be changed by selecting the elapsed time.
- Select the elapsed playing time ("xx:xx:xx"), and press SET.
- Change the elapsed time by pressing NUMBER keys. Hours → Minutes → Seconds are entered in order. If the time entered is not on the disc, the entry will have no effect. Re-enter the correct time. e.g., press
- This function does not work with some discs.

0 - 1 - 2 - 3 - 4 - 5 for 01 : 23 : 45.
Hour Minutes Seconds
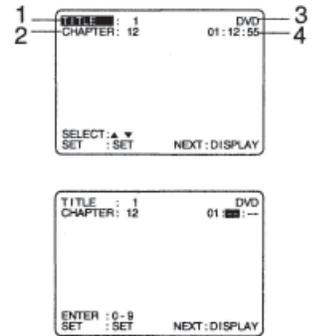
If SET is pressed while making entries, unit returns to the condition before entries were made.

■ **Disc Information Screen (for Video CD/CD)**

A. TRACK No.
- Select "TRACK", and **press SET**.
- Change the No. by **pressing** ▲▼ or *NUMBER keys*, and **press SET**.

B. Playback control ON/OFF
[Video CD with playback control only]
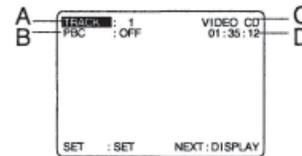
ON	Video CD menu play is displayed.
OFF	Video CD menu play is not displayed.

C. Disc currently being played

Video CD	CD

D. Elapsed playing time

✒ **NOTES:**
- Track No. and the elapsed playing time are not displayed during play started from menu of Video CDs with playback control.
- When ⊘ appears on the screen while a button is being operated, it means that the corresponding operation is prohibited by DECK or the disc.

DECK Information Screen (for DECK)

a. Repeat Play

- Select "REPEAT", and **press** *SET*.
- Change the desired mode during play by **pressing** ▲▼; and **press** *SET*

DVD	REPEAT CHAPTER	REPEAT TITLE	REPEAT OFF
Video CD/CD	REPEAT TRACK	REPEAT DISC	REPEAT OFF
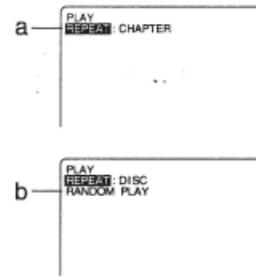
b. Play mode [Video CD/CD only] see *"Program Play (Video CD/CD Only"* section found earlier in manual.

PROGRAM PLAY	program play
RANDOM PLAY	random play
- - - -	normal play

For your reference
CHAPTER/TITLE REPEAT PLAY (DVD)   TRACK/DISC REPEAT PLAY (Video CD/CD
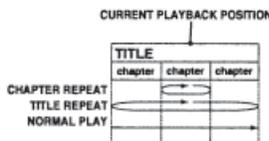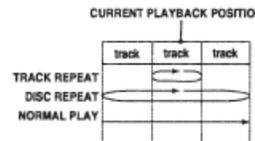
> **NOTE:** For repeat play in VCR mode, see *"Repeat Play"* section found earlier in manual.

4-16.4.43 MP3/WMA/JPEG Playback Operation

This unit can play MP3/WMA/JPEG format CD-R or CD-RW recorded for personal use on a PC, etc. Some discs may not play due to the condition of the recording.

1. Press POWER on the remote or DECK.

2. Press OPEN/CLOSE, then place an MP3/WMA/JPEG disc into the disc tray. Press OPEN/CLOSE to close.

3.
   - MP3/WMA/JPEG menu is displayed.
   - Playback starts automatically (except JPEG files).
   - CD directory is displayed.

4.
   - **Select file** (During STOP mode)
     1) **Press** ▲▼ to select an MP3/WMA file (▲/▼).
        → MP3/WMA Playback
     2) **Press** ▲▼ to select a JPEG file (📷).
        → JPEG Playback
     3) **Press** *SKIP* ▶▶| (next) or |◀◀ *SKIP* (previous) to skip a file/folder page (7 files) in the File area.
   - **Select folder** (During STOP mode)
     1) Press ▲▼ to select a folder (📁).
     2) Press SET to display files/folders contained in the folder.
   - **Select Parent Folder** (During STOP mode)
     1) Press ▲▼ to select a folder (📁).
     2) Press SET to make changes to the previous directory display.
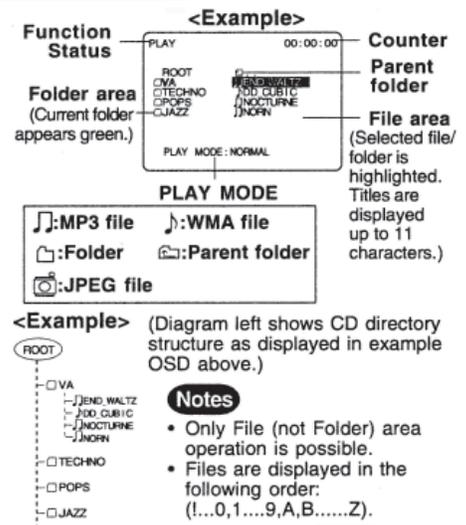
5. **Press** *ACTION* to return the DVD MAIN MENU. (→ **Press** *ACTION* again to return the MP3/WMA/JPEG MENU.)

MP3/WMA Playback

Follow steps 1-3 found previously.

a. Press ▲ ▼ to select an MP3/WMA file (·/ ♪). (During STOP mode)

b. Press SET or PLAY to start playback

■ Forward/Reverse Search
Press *FF/SLOW*+ or *REW/SLOW*- during play.
Press *PLAY* to release.
• Search speed, slow at first, increases with each additional press of the button up to 5 levels.

■ Forward/Reverse Track Skip
Press SKIP ▶▶| or |◀◀ SKIP during play.
Each press skips a track.
• If pressed within first 3 seconds of playback, skips to the previous track. If over 3 seconds, returns to top of track. (|◀◀ SKIP only.)
• Put DECK in Stop mode before performing folder/file selection. (*see step 4*)

■ Pause
Press *PAUSE* during play. Press *PLAY* to release.

c. Press *STOP* to stop play.

d. Press *OPEN/CLOSE* to eject the disc. The MP3/WMA/JPEG MENU is closed automatically.

> ✎ **NOTE:** Copyright protected files and files containing errors cannot be played back. The DECK skips to the next file.

■ Select PLAY MODE [MP3/WMA Playback] (During STOP mode)

1) **Press** ◀ ▶ to move cursor to PLAY MODE.
2) **Press** ▲ ▼ to select the desired PLAY MODE (see chart at right).

JPEG Playback
You can play back JPEG images.
Displayable Image Size: 32x32~7680x7680 pixels

> ✎ **NOTE:** Some JPEG formats may not be played back.

Follow steps 1-3 on previous page.

1. **Press** ▲ ▼ to select a JPEG file (📷).
2. **Press** *SET* or *PLAY*. Selected JPEG file is displayed.

[JPEG Playback Screen]

<Example>
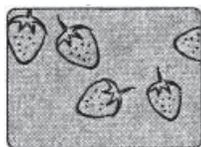
■ **Returned on the MP3/MWA/JPEG MENU**
→ **Press** *STOP*.
■ **Next/Previous Search**
→ **Press** *SKIP* ▶▶| or |◀◀ *SKIP*.
■ **Start Slide-show** → **Press** *FF/SLOW+* or *REW/SLOW-*

■ **Enlarging an image** → **Press** *ZOOM*.
■ **Rotating an image** → **Press** *ANGLE*.

3. **Press** *STOP* to return the MP3/WMA/JPEG MENU.

[PLAY MODE]

NORMAL:
All MP3/WMA files are selected and played back one time only.
SINGLE REPEAT:
The selected MP3/WMA file is played back repeatedly.
FOLDER REPEAT:
The MP3/WMA files contained in the selected folder are played back repeatedly. However, folders below the selected folder are not played back.
DISC REPEAT:
All MP3/WMA files are played back repeatedly.

IMPORTANT HINT: If a remote control button does not work when pressed, press the DVD button on the remote and try the button again.

JPEG Slide-Show

(During JPEG Playback.)

JPEG files are displayed automatically (about every 3 seconds) as a slide-show.

1.   Press *FF/SLOW+* **or** *REW/SLOW-*

<Example>
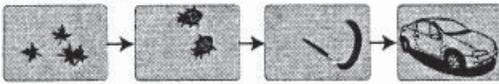
Image changes every 3 seconds.

■ Cancel slide show

→ **Press** *STOP* to return the MP3/WMA/JPEG MENU.

■ Still picture

→ **Press** *STILL* (only SLIDE).

→ **Press** *PLAY* to release.

■ Forward/Reverse File Skip

→ Press SKIP ►►| or |◄◄ SKIP.
   Each press skips a file.

2.   Press ACTION to return the DVD MAIN MENU.

■ Select PLAY MODE [JPEG Slide-show]
   (During STOP mode)

   1)   Press ◄ ► to move cursor to PLAY MODE.

   2)   Press ▲ ▼ to select the desired PLAY MODE

<Example>
Operation can be done when files are in order, such as in the diagram below.

ROOT

01 PIC

REW/SLOW-

FF/SLOW+

☐ PHOTO
   AAA
   DDD
   TTT
   UUU
   VVV
   WWW
   ZZZ

REW/SLOW-

FF/SLOW+

☐ TECHNO

[PLAY MODE]

NORMAL:
All JPEG files are selected and played back one time only.
SINGLE REPEAT:
The selected JPEG file is played back repeatedly.
FOLDER REPEAT:
The JPEG files contained in the selected folder are played back repeatedly. However, folders below the selected folder are not played back
DISC REPEAT:
All JPEG files are played back repeatedly.

ACTION

STOP
REW/SLOW-
FF/SLOW+
STILL

SELECT ▲▼◄►
SET
PLAY
SKIP ►►|
SKIP |◄◄
ZOOM
ANGLE

JPEG Zoom

(During JPEG Playback)

You can enlarge specific portions of a JPEG picture and select the zoom ratio using the ZOOM button on the remote during JPEG Playback screen.

Set Zoom size

Press *ZOOM* repeatedly to change display as follows.

→ **Press** *STOP* to return the MP3/WMA/JPEG MENU.

•   You can enlarge the center portion of the image to one of 2 magnifications.

•   Operation can be done during Rotation (see *Rotation* next page).

X 1.0 (ORIGINAL)   X 1.5 (ZOOM 1)   X 2.0 (ZOOM 2)
1st press   2nd press
3rd press

JPEG Rotation

(During JPEG Playback)
You can rotate a JPEG picture using the ANGLE button on the remote during JPEG Playback screen. (The JPEG picture will be rotated 90° clockwise.)

Set rotation

Press ANGLE repeatedly to change display as below.

→Press STOP to return the MP3/WMA/JPEG MENU

• Operation can be done during Zoom (above).

• The vertical/horizontal ratio of rotated JPEG images may vary when they are displayed.
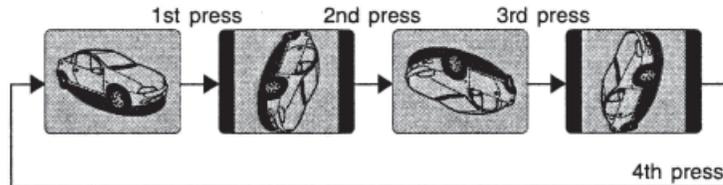
MPEG Layer-3 audio decoding technology licensed from Fraunhofer IIS and Thomson multimedia.

Windows Media, and the Windows logo are trademarks, or registered trademarks of Microsoft Corporation in the United States and/or other countries. WMA is a compression format developed by Microsoft Corporation. It achieves the same sound quality as MP3 with a file size that is smaller than that of MP3.

4-16.4.44 DVD Lock Feature

IMPORTANT: If a remote control button does not work when pressed, press the DVD button on the remote and try the button again.

You can prevent playback of DVDs of a specific rating level which may be unsuitable for children.
Some DVDs are encoded with a rating level. If the disc rating is higher (stricter) than the one you preset, playback will be prohibited.

4-16.4.44.1 DVD Lock (DVD Only)

A 4-digit code must be entered to view a blocked program or change rating settings.

1. **Press ACTION*** to display DVD MAIN MENU.

2. **Press ▲ ▼** to select "PARENTAL LOCK," and **press SET** to display.

3. 1) **Press NUMBER keys** to enter your secret code.
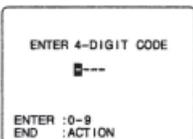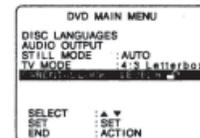
   2) Enter same secret code again for confirmation.

   3) **Press SET** to display.
      • Step 2) not necessary when changing rating or secret code.
      • Take care that you are not observed entering the secret code.

To Make Corrections Press ◄ repeatedly to move the cursor. **Press NUMBER keys** to make the correction.
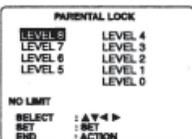
4. **Press ▲ ▼ ◄ ►** to select rating level, and **press SET** to select "LOCKED" OR "UNLOCKED."

LEVEL 0 : LOCK ALL, Playback of all DVDs, CDs, Video CDs, MP3, WMA and JPEG is prohibited.

LEVEL 1 : mature theme DVDs

LEVEL 2 : DVDs expressly for children can be played back.

LEVEL 3 to 7 : DVDs for general audiences/children can be played back. (DVDs with mature content are prohibited.)

LEVEL 8 : NO LIMIT: (Factory preset) All DVDs can be played back.

☑ **Ready Checklist**
☐ DECK is in DVD mode, press DVD.

CAUTION!!
Discs not encoded with rating level will play even if the jacket states it is for mature audiences. For these discs, the DVD Lock Ratings will not work.

<When DVD Lock is activated>
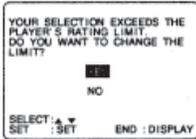
After DVD Lock is set and a blocked DVD is played, the above message will appear. The message may differ depending on the disc.

To continue viewing a blocked program for now, Press ▲ ▼ to select "YES" and SET. Then, enter your 4 digit secret code (see step 3 found previously). When "NO" is selected, blocked programs cannot be viewed.

<When blocked programs>
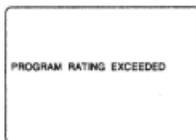
Change your secrete code
•   You will need your current code. Do step 1-2 above. Enter current secret code. Press CLEAR to clear the code. Do step 4 to enter new code

📌   **NOTE:** DO NOT forget your secret code.

4-16.4.45 Settings for DVD Operation

1. Press ACTION to display DVD MAIN MENU.
2. Press ▲ ▼ to select an item, and press SET.

DISC LANGUAGES (See *Disc Languages* section to follow). All languages offered on the disc can be set. If the language not offered is set, the original disc language will be selected.

AUDIO OUTPUT (See *Audio Output* section to follow). You can set the audio output that comes from the digital audio output terminal.

STILL MODE (See *Still Mode* section to follow). To select "FIELD" (Field still) or "FRAME" (Frame still) to prevent jitter or make small text or fine patterns clearly visible in a still picture. When "AUTO" is set "FIELD" or "FRAME" is selected automatically.

TV MODE (See *TV Mode* section to follow). To select whether the video material for a wide-screen will be played back in the Pan & Scan style, Letterbox style, or 16 : 9 style.

4-16.4.45.1 Disc Languages (DVD Only)

To select and set the language of the audio soundtrack, subtitles, or title/DVD menus for all discs to be played.
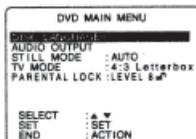
3. **Press ▲ ▼** to select "DISC LANGUAGES," and press SET to display screen.
4. **Press ▲ ▼** to select an item, and **press SET** repeatedly for desired language. See "AUDIO" selections following.
5. **Press *ACTION*** to re-display DVD MAIN MENU and go to step 2 to setup another item. Or, **press *ACTION*** twice to exit.
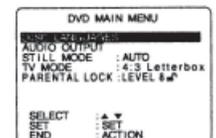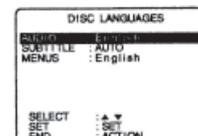
Once initial settings are done, they remain in memory (even after power off) until changed. This means DECK will operate under the same conditions (especially DVDs) each time.

BLUE BIRD
Coachworks®

☑ Ready Checklist
☐ DECK is in DVD mode, press DVD.
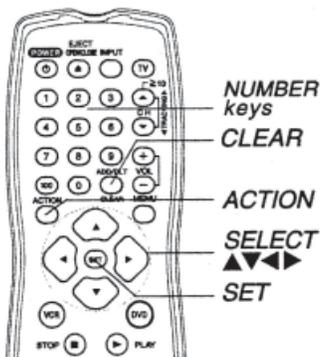
"AUDIO" selections (Factory preset: English) To select the audio soundtrack language, **English/Spanish/French/Japanese Original:** Original disc language **OTHER ****:** Other language selection*1

"SUBTITLE" selections (Factory preset: AUTO) To select the subtitle language.

AUTO: Same language selected for "AUDIO"

- If language set for "AUDIO" is used in playback, subtitles will not appear.
- If another language is used during playback, the subtitles will appear in the language selected at "AUDIO" setup.

English/Spanish/French/Japanese OTHER **:** Other language selection*1

"MENUS" selections (factory preset: English) To select the language used in title menus or DVD menus. **English/Spanish/ French/Japanese OTHER ****:** Other language selection*1

To enter OTHER ** code number, Press *NUMBER keys*** (Please refer to *language codes* found later in manual). To make corrections, **press ◄** repeatedly to delete language code number, and correct.

*1If the selected language is not offered, the original disc language is selected.

4-16.4.45.2 Audio Output

Select the digital output to be output from the optical digital audio output connector of DECK.

1. **Press *ACTION*** to display DVD MAIN MENU.
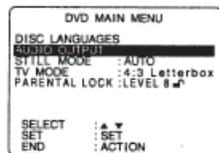
2. Press ▲ ▼ to select "AUDIO OUTPUT," and press SET to display screen.

3. Press ▲ ▼ to select an item, and press SET repeatedly for output. (See below).
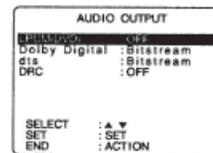
■ "LPCM (DVD)" selections

OFF: Linear PCM of less than 48 kHz/16 bit is output. When playing DVDs recorded in linear PCM of over 48 kHz/20 bit, no digital audio is output. (Factory preset).

PCM: When playing DVDs recorded in linear PCM of 48 kHz/20 bit/24 bit or more, digital audio converted to 44.1 kHz/16 bit or 48 kHz/16 bit is output. (Digital output of PCM audio is restricted to 48 kHz/16 bit or below for copyright protection.)

■ "Dolby Digital" selections

Bitstream: Dolby Digital bitstream (1 ch-5.1ch) is output (Factory preset)

PCM: When you have connected a amplifier that doesn't have a built-in Dolby Digital decoder.

■ "DTS" selections

Bitstream: DTS bitstream is output. (Factory preset)

PCM: When you have connected a amplifier that doesn't have a built-in DTS decoder.

■ "DRC (Dynamic Range Compression)" selections

OFF: Normal audio range is selected (Factory preset)

ON: For dynamic sound even at low volume, this is useful for late-night listening. [Dolby Digital DVDs only].

4. **Press *ACTION*** to redisplay DVD MAIN MENU and go to step 2 to setup another item. Or, **press *ACTION*** twice to exit.

☑ Ready Checklist

☐ DECK is in DVD mode, press DVD.

Type of amplifier to be connected	Recommended Setting		
	LPCM (DVD)	Dolby Digital	DTS
No amplifier is connected	- - - - -	- - - - -	- - - - -
AV amplifier (with digital audio input connector) without Dolby Digital/DTS decoder	PCM	PCM*[1]	PCM*[1]
AV amplifier including Dolby Digital decoder	PCM	Bitstream	PCM
AV amplifier including Dolby Digital/DTS decoder	PCM	Bitstream	Bitstream*[2]

• Make settings according to amplifier connected to optical audio output as shown in above table.

*[1] When connecting an amplifier (with an optical digital input connector) which does not contain the Dolby Digital or DTS decoder, be sure to select "PCM". If "Bitstream" is selected, starting DVD play may cause such a high level of noise as to be harmful to your ears and damage the speakers.

*[2] When a DTS decoder is connected, please select "Bitstream" in"dts".

4-16.4.45.3 Still Mode

Set to reduce jitter in a displayed still picture or a motion picture.

1. **Press** *ACTION* to display DVD MAIN MENU.

2. **Press** ▲ ▼ to select "STILL MODE," and **press** *SET* repeatedly for mode. (See below.)

AUTO: "FIELD" (Field still) or "FRAME" (Frame still) is automatically selected during the still mode. (Factory preset)

FIELD: "FIELD" (Field still) is always selected. This setting will reduce jitter when compared with "AUTO" on some discs.

FRAME: "FRAME" (Frame still) is always selected. Some texts and fine patterns will be seen clearly when compared with "AUTO" on some discs.

3. **Press** *ACTION* to exit this mode.

4-16.4.45.4 TV Mode

Set the screen display style for wide-screen video material playback.

1. **Press** *ACTION* to display DVD MAIN MENU.
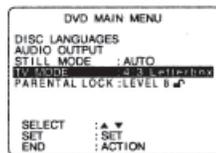
2. **Press** ▲ ▼ to select "TV MODE," and **press** *SET* repeatedly for mode. (See below.)

4:3 Pan & Scan (Factory preset): Wide-screen video data is played in Pan & Scan style (left and right of screen is trimmed.)

• Video data not formatted in Pan & Scan will play in letterbox style.

4:3 Letterbox: Wide-screen video data is played in Letterbox style (top and bottom of screen has black margin).

16:9: Set "16:9" when using Wide-screen TV.

3. **Press** *ACTION* to exit this mode.

Example:

Pan & Scan (Factory Preset)   **Letterbox**

BLUE BIRD
Coachworks®
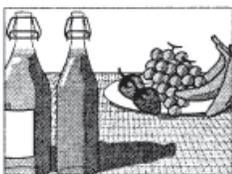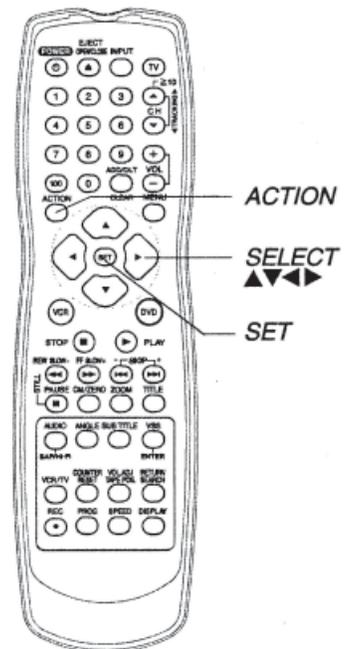
4-16.4.46 Language Code List

Enter the appropriate code number for the initial settings "AUDIO", "SUBTITLE" and/or "MENUS"

Code	Language	Code	Language	Code	Language	Code	Language
6565	Afar	7079	Faroese	7678	Lingala	8375	Slovak
6566	Abkhazian	7082	French	7679	Laothian	8376	Solvenian
6570	Afrikaans	7089	Frisian	7684	Lithuanian	8377	Samoan
6577	Ameharic	7165	Irish	7686	Latvian, Lettish	8378	Shona
6582	Arabic	7168	Scots Gaelic	7771	Malagasy	8379	Somali
6583	Assamese	7176	Galician	7773	Maori	8381	Albanian
6588	Aymara	7178	Guarani	7775	Macedonian	8382	Serbian
6590	Azerbaijani	7185	Gujarati	7776	Malayalam	8385	Sundanese
6665	Bashkir	7265	Hausa	7778	Mongolian	8386	Swedish
6669	Byelorussian	7273	Hindi	7779	Moldavian	8387	Swahili
6671	Bulgarian	7282	Croatian	7782	Marathi	8465	Tamil
6672	Bihari	7285	Hungarian	7783	Malay	8469	Teluga
6678	Bengali; Bangla	7289	Armenian	7784	Maltese	8471	Tajik
6679	Tibeton	7365	Interlingua	7789	Burmese	8472	Thai
6682	Breton	7378	Indonesian	7865	Nauru	8473	Tigrinya
6765	Catalan	7383	Icelandic	7869	Nepali	8475	Turkmen
6779	Corsican	7384	Italian	7876	Dutch	8476	Tagalog
6783	Czech	7387	Hebrew	7879	Norwegian	8479	Tonga
6789	Welsh	7465	Japanese	7982	Oriya	8482	Turkish
6865	Danish	7473	Yiddish	8065	Panjabi	8484	Tatar
6869	German	7487	Javanese	8076	Polish	8487	Twi
6890	Bhutani	7565	Georgian	8083	Pashto, Pushto	8575	Ukranian
6976	Greek	7575	Kazakh	8084	Portuguese	8582	Urdu
6978	English	7576	Greenlandic	8185	Quechua	8590	Uzbek
6979	Esperanto	7577	Cambodian	8277	Raeto-Romance	8673	Vietnamese
6983	Spanish	7578	Kannada	8279	Romanian	8679	Volapük
6984	Estonian	7579	Korean	8285	Russian	8779	Wolof
6985	Basque	7583	Kashmiri	8365	Sanskrit	8872	Xhosa
7065	Persian	7585	Kurdish	8368	Sindhi	8979	Yoruba
7073	Finnish	7589	Kirghiz	8372	Serbo-Croatian	9072	Chinese
7074	Fiji	7665	Latin	8373	Singhalese	9085	Zulu

4-16-4.47 Warning and Instruction Displays

These displays will alert you to a missed operation or provide further instructions.

OSD	Caution	Section
PLEASE SET CLOCK BY PRESSING ACTION KEY	If you attempt to set or review a Timer Recording and the Clock is not set. . .	Timer Recording
PLEASE PREPARE FOR TIMER REC	If DECK is not in Stop mode or a cassette with record tab is not inserted 2 minutes before a Timer Recording is about to begin. . .	Timer Recording
CHECK CASSETTE RECORD TAB	If you press REC on the remote control or DECK, and a cassette is inserted with no record tab. .	Deck and Cassette Information
NO CASSETTE	If you press PLAY, FF, REW, or REC on the remote control or DECK without a cassette inserted. . .	Playback/record on a Tape
TO CANCEL TIMER REC HOLD DOWN STOP KEY FOR APPROX 3 SEC	If you press STOP or POWER during a Timer Recording. . .(visible in VCR mode only)	Review, Replace or Clear Program Contents
VIDEO HEADS MAY NEED CLEANING PLEASE INSERT HEAD CLEANING CASSETTE OR REFER TO MANUAL END :PLAY	If head cleaning becomes necessary while playing back a tape. . .	Deck and Cassette Information
VCR LOCK ACTIVATED	If you press a function button other than STOP/ EJECT or POWER while DECK is in VCR Lock mode. . .	Special VCR Features
REMOTE CONTROL IS SET TO TV MODE USE VCR : VCR KEY USE DVD : DVD KEY	If you press an invalid key on the remote while in TV mode. . .	Multi-Brand Control Feature Special VCR Features
PLEASE CHECK THE DISC, FOR STAINS OR SCRATCHES ON DISC	If you press PLAY, and DECK reads data from a stained or scratched disc in DVD mode.	Before Using
THIS DISC MAY NOT BE PLAYED IN YOUR REGION	Playback of a disc with different region number was attempted. Only discs marked region "1", "ALL", or those that include "1" are playable on this DECK.	Safety Precautions
THIS TYPE OF DISC CANNOT BE PLAYED, PLEASE INSERT A DIFFERENT DISC	An unusable disc is inerted in the DECK.	Before Using
CANNOT PLAY THIS FILE	This file format cannot be played. (Appears during MP3/WMA/JPEG file playback)	MP3/WMA/JPEG Playback Operation
THIS FILE IS PROTECTED	This file is copyright protected and cannot be played back. (Playback is prohibited.)	MP3/WMA/JPEG Playback Operation
IT IS PROHIBITED TO COPY DVD/ VIDEO CD/CD TO VHS	If you press REC in DVD mode. . .	Playback/record on a Tape

BLUE BIRD
Coachworks

4-16.4.48 Before Requesting Service

Check the following points if you are having trouble with your deck.

Power	Correction
No power. . .	• Completely insert Power Plug into an AC outlet. • Set POWER button to on. • Make sure power source is active.
Power turns itself off. . .	• Auto power-off (shutoff) occurs after about 5 min. in DVD mode with no operation, or if there is no broadcast signal in TV or Playback mode. Turn the power back on. (Refer to sections "Auto-Power Off Function" and "Auto-Shut-Off Feature".)

Recording & Playback	Correction
TV program cannot be recorded. . .	• Check connections between DECK, external antenna, and TV. • Check channel selections. • Make sure your antenna system (CABLE or TV) is correctly set. (Refer to section "*Reset Language, Channels, Clock*".) • Make sure cassette record tab is intact.
Timer recording cannot be performed. .	• Confirm that clock is set to current time and date. • Make sure Cable/DSS box (if used) is left on and tuned to channel to be recorded. • Set recording start/stop times correctly. (See section "*Timer Recording*".) • Timer recording may not be performed or continued if a power interruption occurs before or during a Timer Recording, even after power is restored.
There is no playback picture, or the playback picture is noisy or contains streaks. . .	• Select channel 3 or 4 on TV to match VCR output channel (3 or 4) (See section "*Initial Setup for Basic Connections (Ready to Play)*"). • Set VCR/TV selector to "VCR." • Adjust TRACKING control in either direction. (See "*Features for a Quality Picture (VCR)*" section.) • Try Head Cleaning. (See "*Features for a Quality Picture (VCR)*" section.)
During special effects playback, picture may contain some vertical jitter when using a TV with an Automatic Vertical Hold Control. . .	• Set TV's Vertical Hold Control to MANUAL, then adjust.
DECK cannot be controlled. . .	• Make sure DECK power is on. • Check Remote batteries. • Make sure VCR LOCK is set to off. (See section "*VCR Lock Feature*".) • Make sure Remote is in proper mode. (See section "*Multi-Brand Control Feature*".) • Make sure Timer Recording is not in progress.

Remote Control	Correction
DECK cannot be remote controlled. . .	• Make sure DECK power is on. • Make sure Remote is in VCR mode. • Aim Remote Control directly at remote sensor on DECK. • Avoid any object blocking signal path. • Check Remote batteries. • Exposing DECK remote sensor to direct fluorescent our outdoor light may cause signal interference.
PROG buttons do not respond. . .	• PROG functions are not available in COMPONENT Video Output and S-VIDEO OUT. Set TV to either RF IN or VIDEO IN. (See section "*Location of Controls*".) • Check Remote batteries. • Press VCR or DVD button for DVD/VCR mode. (See section "*Multi-Brand Control Feature*").

Check the following points if you are having trouble with your DECK.

DVD/Video CD/CD	Correction
Play fails to start even when PLAY is pressed. . .	• This DECK cannot play discs other than DVDs, Video CDs and CDs. • The disc may be dirty and require cleaning.
Play starts but then stops immediately. . .	• Be sure disc is installed with label side up.
Picture is distorted during rapid advance or rapid reverse. . .	• The picture will be somewhat distorted at times: this is normal.
No Forward/Reverse Scene Search play. . .	• Some discs may have sections which prohibit Forward/Reverse Scene Search. (See section "Basic DVD Operation".)
Play does not start even when title is selected. . .	• Confirm the "DVD LOCK" setting. (See section "DVD Lock Feature".)
Audio soundtrack and/or subtitle language is not the one selected at the initial settings. . .	• If the audio soundtrack and/or subtitle language selected at DVD initial settings does not exist on the disc, it will not be accessible
No subtitles. . .	• Subtitles appear only when available on disc. • "OFF" is selected at the changing subtitle language. Select "ON" at the "Subtitle Languages" section (See section "Subtlte Language (DVD Only)".) to display the subtitles.
Alternative audio soundtrack (or subtitle) language cannot be selected. . .	• Alternative language cannot be selected with discs which do not contain more than one language. • For some discs, alternative language cannot be selected with the AUDIO or SUB TITLE button. Try selecting it from the DVD MAIN MENU if available.
Angle cannot be changed. . .	• This function is dependent on software availability. Even if disc has multiple angles, they may be recorded for specific scenes only (ANGLE indicator on DECK lights up). (See section "*Multiple Angle Viewing (DVD only).*"
Miscellaneous	**Correction**
Programs cannot be viewed on TV. . .	• Make sure TV is set to output of DECK. • Check connections between DECK, external antenna, and TV. • Set VCR/TV selector to "TV." (See section "*Playback/Record a Tape*".) • Make sure proper signal source is selected.
Video cassette cannot be inserted. . .	• Insert the cassette with window side up; record tab facing you.
Video cassette ejects when a recording is started or the power is turned off for timer recording. . .	• Make sure cassette record tab is intact.
In Stop mode, the motor (CYLINDER) continues to rotate. . .	• To enable Quick play mechanism, the cylinder will rotate for about 3 minutes. This reduces response time from Stop to Play mode.
The disc cannot be removed. . .	• First, unplug DECK. Then, prepare a rigid wire (e.g. an extended paper clip) and, applying moderate force, insert it straight into the hole at the base of the tray. The tray will eject a little. Now, pull the tray all the way out and remove the disc.

If you cannot resolve the problem, please call the Customer Call Center for product assistance at 1-800-211-PANA (7262).

Or to locate an authorized service center, please call toll free 1-800-211-PANA (7262).

Or send e-mail to: consumerproducts@panasonic.com

BLUE BIRD
Coachworks®

4-16.5 Panasonic AV Control Receiver

The 450 LXi comes with a Panasonic AV Control Receiver, basic operating and maintenance instructions can be found in this section. Any questions not covered in this manual may be answered by calling 1-800-211-PANA (7262) or http://www.panasonic.com.
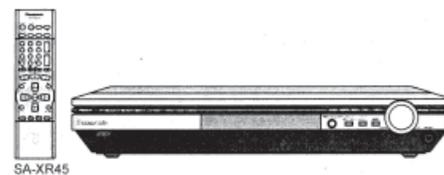
4-16.5.1 Important Safety Instructions

Read these operating instructions carefully before using the unit. Follow the safety instructions on the unit and the applicable safety instructions listed below. Keep these operating instructions handy for future reference.

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with dry cloth.
7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11) Only use attachments/accessories specified by the manufacturer.
12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13) Unplug this apparatus during lightning storms or when unused for long periods of time.
14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

CAUTION!! **THE FOLLOWING ONLY APPLIES IN THE U.S.A.**

The equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a ciruit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any unauthorized changes or modifications to this equipment would void the user's authority to operate this device.

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.

LISTENING CAUTION: Selecting fine audio equipment such as this unit is only the start of your musical enjoyment. Now it's time to consider how you can maximize the fun and excitement your equipment offers. This manufacturer and the Electronic Industries Association's Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion - and, most importantly, without affecting your sensitive hearing.

We recommend that you avoid prolonged exposure to excessive noise.

Sound can be deceiving. Over time your hearing "comfort level" adapts to higher volumes of sound. So what sounds "normal" can actually be loud and harmful to your hearing.

Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

To establish a safe level:

• Start your volume control at a low setting.
• Slowly increase the sound until you can hear it comfortably and clearly, and without distortion.

Once you have established a comfortable sound level:

• Set the dial and leave it there.

Taking a minute to do this now will help to prevent hearing damage or loss in the future. After all, we want you listening for a lifetime.

> **WARNING!!**   **To reduce the risk of fire, electric shock or product damage, do not expose this apparatus to rain, moisture, dripping or splashing and ensure that no objects filled with liquids, such as vases, will be placed on the apparatus.**

> **CAUTION!!**   Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure the unit is well ventilated. To prevent risk of electric shock or fire hazard due to overheating, ensure that curtains and any other materials do not obstruct the ventilation vents.

4-16.5.2 The Remote Control

(R6, AA, UM-3)
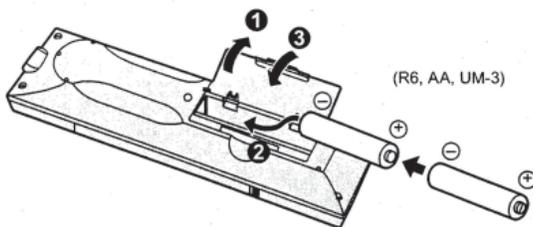
Batteries
• Insert so the poles (+ and -) match those in the remote control.
• Do not use rechargeable type batteries

7 meters (23 feet)

30° 30°

Transmission window

Use

Aim at the sensor, avoiding obstacles, at a maximum range of 7m (23 feet) directly in front of the unit.

• Keep the transmission window and the unit's sensor free from dust.
• Operation can be affected by strong light sources, such as direct sunlight, and the glass doors on cabinets.

BLUE BIRD
Coachworks®
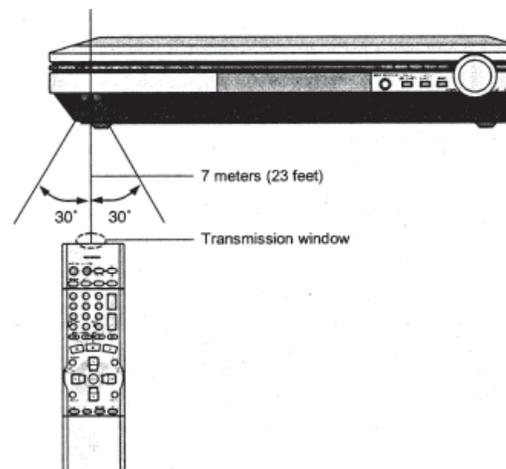
How to Open the Remote Control
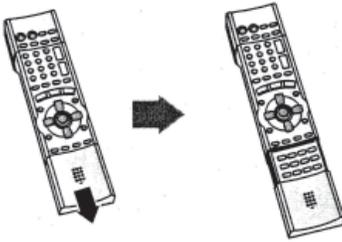
Placement of Speakers
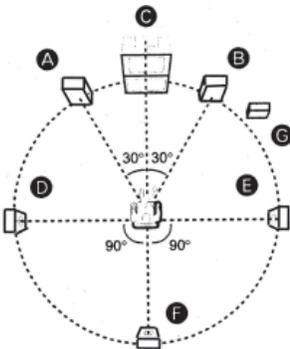
The front, center, and surround speakers should be placed at approximately the same distance from the seating area. The angles in the diagram are approximate.

Front Speakers (A left B right)

Place speakers on the left and right of the TV at seated ear height so that there is good coherency between the picture and sound.

Center Speaker (C)

Place underneath or above the center of the TV. Aim the speaker at the seating area.

Surround Speakers (D left E right)

Place on the side of or slightly behind the seating area, about one meter (3 feet) higher than ear level.

Surround Back Speaker (F)

Place behind the seating area, about one meter (3 feet) higher than ear level.

Subwoofer (G)

The subwoofer can be placed in any position as long as it is at a reasonable distance from the TV.

NOTE: Some experimentation can yield the smoothest low frequency performed. Placement near a corner can increase the apparent output level, but can result in unnatural bass.

Speaker Cable

4-16.5.3 Speaker Connections

Peripheral equipment and cables sold separately unless otherwise indicated.

Connecting Speakers

Turn off the receiver before connecting the speakers.
Other connections are possible depending on your speaker system.
See your speaker system's operating instructions for details.
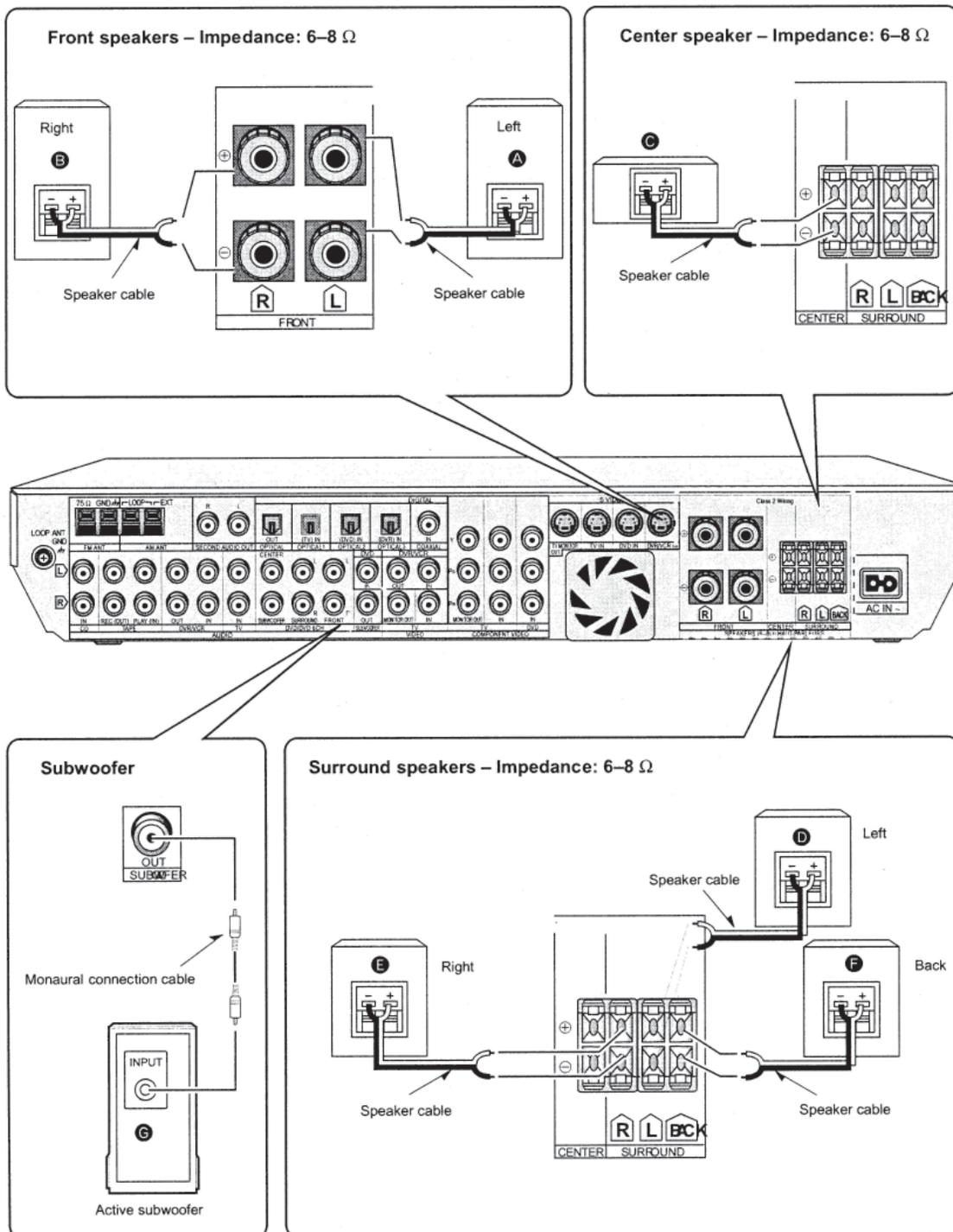
4-16.5.4 Equipment Connections
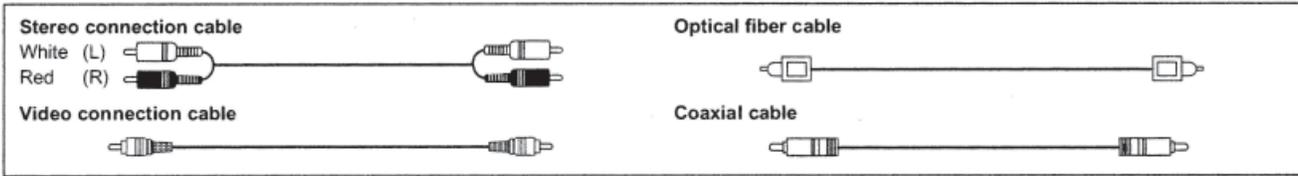
Turn off all components before making any connections. To connect equipment, refer to the appropriate operating instructions.

NOTES:

- Do not bend the optical fiber cable.
- Use digital connection to enjoy Dolby Digital or DTS (refer to *Basic Operations* section later in manual.)
- Use analog connection to enjoy sources that cannot be decoded on this unit, to record analog sources and to output through SECOND AUDIO OUT (SA-XR45) (Sections Using the Second Audio Out Terminal, Basic Operations and Other Settings).

Changing the Digital Input Settings

You can change the input settings for the digital terminals if necessary. Note the equipment you have connected to the terminals, then change the settings. (refer to sections *D-Input and Digital Input* found later in manual.)

TV and DVD Player
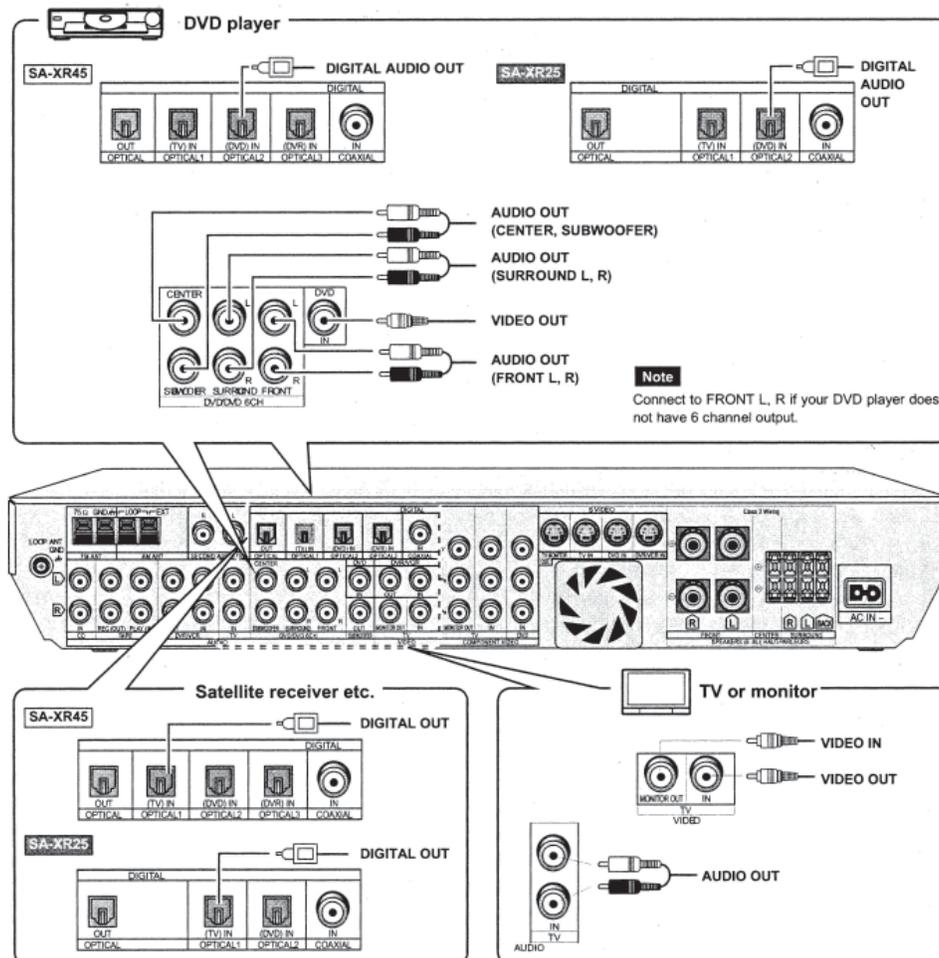
Other Audio Visual Equipment

Antennas

FM indoor antenna (included)
Fix the other end of the antenna where reception is best.

Adhesive tape

AM loop antenna (included)

Red

White

Black

FM outdoor antenna
● Disconnect the FM indoor antenna.
● The antenna should be installed by a competent technician.
● Twist the coaxial cable's shield braid firmly and connect it to the GND terminal.

FM outdoor antenna

75 Ω coaxial cable

20 mm (25/32")

Shield braid

10 mm (3/8")

Core wire

Keep the antenna cord away from tape decks, DVD players, and other cords.

Using the Second Audio Out Terminal

Use SECOND AUDIO OUT to connect a stereo amplifier in another room. Choose whether to output the audio of the source playing on this unit or audio from another source (See *"SECOND-A" or "Second Audio Output"* sections.)

Stereo amplifier

AUDIO IN
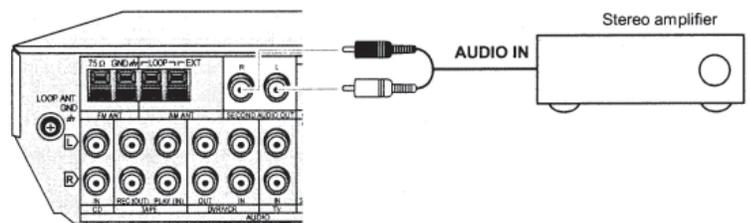
NOTES:

• Connect the source to analog terminals. You cannot output sources connected only to the digital terminals.

• When you connect DVD 6CH input, only sound from the front left and right channels is output.

Other Video Connections
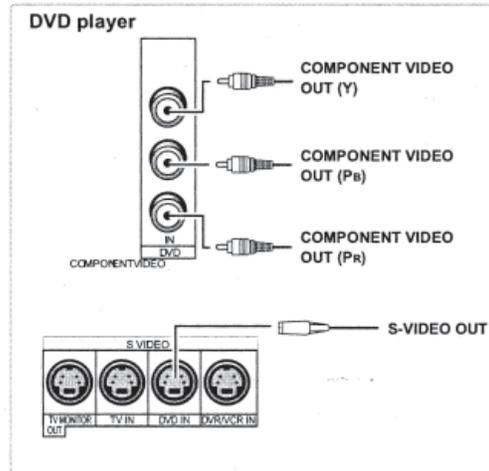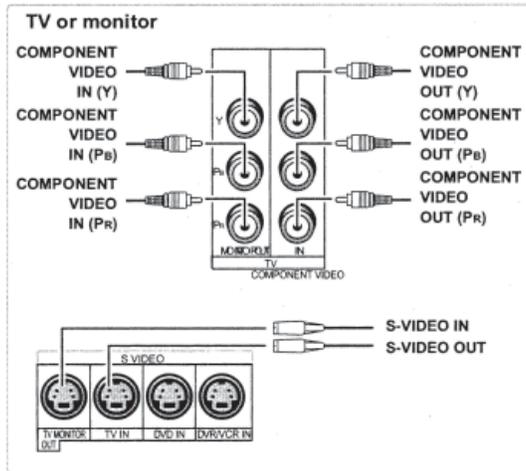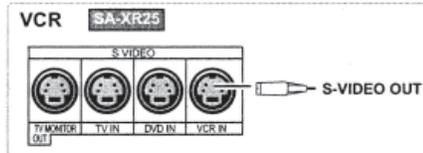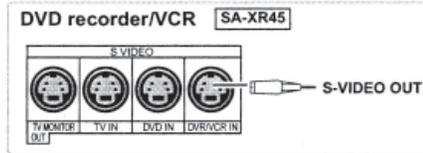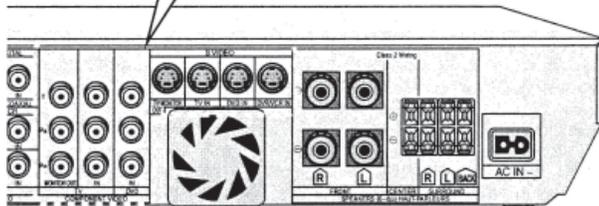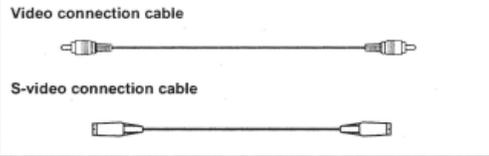
Connecting the AC Power Supply Cord and Other Information
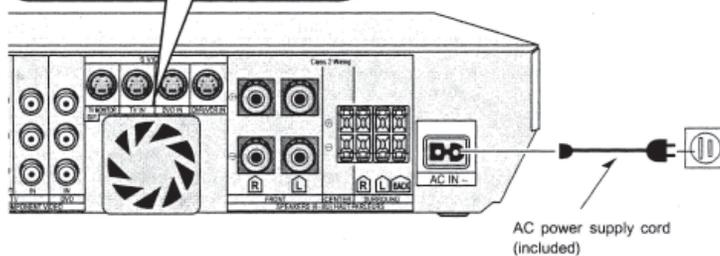
CAUTION!! To prevent electric shock match wide blade of plug to wide slot, fully insert.

Connect this cord after all other cables and cords

Household AC outlet (AC 120 V/60 Hz)

NOTE: The included AC power supply cord is for use with this unit only. Do not use it with other equipment.

Conserving Power

The unit consumes 1W even when it is turned off with
[Power ⏻]. To save power when the unit is not
to be used for a long time, unplug it from the household AC outlet.
If the unit is left unplugged for longer than a few weeks, all settings will revert to the factory settings. The settings will have to
be reset if this occurs.

4-16.5.5 Settings

SA-XR45 also has an On Screen Display Mode for settings 1 to 4 (See *"Settings On Screen Display Mode"* later in manual.)
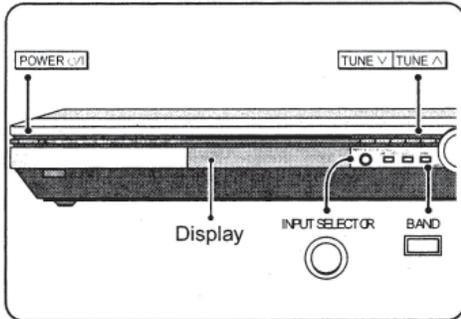
1 SPEAKERS

2 DISTANCE

Set the size to suit your speakers

LARGE: For speakers that can reproduce a full sound range, particularly the bass range below 100 Hz.

SMALL: For speakers that cannot adequately reproduce the bass range. This setting is sufficient for most speakers if you are using a subwoofer.

NONE: For speakers you haven't connected (center or surround).

The factory settings are: SMALL

For the surround back (SUR BACK) and subwoofer (SUB-WFR), select YES if you have connected one (factory setting), or NO if you have not.

Enter the distance of the front, center and surround speakers from the seating position

Change the distance so that the sound from all the speakers (except for the subwoofer) reaches you at the same time.
You can select distances between 3 and 30 feet at one-foot intervals.
The factory settings are:
   FRONT and CENTER: 10 FEET
   SURROUND and SUR BACK:
                                    5 FEET
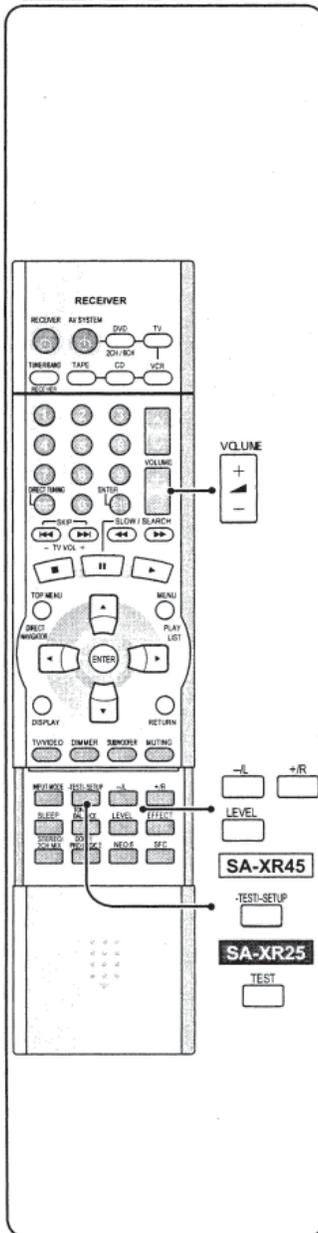
POWER ⏻/|

Switch on

Enter the setting mode.

INPUT SELECTOR

BAND

Press at the same time

INPUT SELECTOR

Select **"SPEAKERS"**.

SPEAKERS

Select **"DISTANCE"**.

DISTANCE

BAND

Select the speaker.

FRONT

FRONT, CENTER, SURROUND, SUR BACK, SUB-WFR

Select the speaker.

FRONT

FRONT, CENTER, SURROUND, SUR BACK

Repeat. ▲   Repeat. ▲

Change the setting.

SMALL

NONE, SMALL, LARGE
NO, YES

Change the setting.

10 FEET

3 FEET ·········· 30 FEET

TUNE ∨ **TUNE** ∧

INPUT SELECTOR

Exit the setting mode.

BAND

Press at the same time

Display   INPUT SELECTOR   BAND

RECEIVER

SA-XR45
-TEST/-SETUP

SA-XR25
TEST

VOLUME
+
–

LEVEL

Change the settings to suit your equipment to the environment in which you are using it. Before making any changes, read the descriptions of the settings, note the factory settings and ranges, and refer to the equipment's instructions.

❸ **FILTER**

❹ **D-INPUT**
Digital input

❺ **Adjusting speaker output level**

Change the cut-off for bass output from the front speakers

If you set the front speakers to "SMALL", the filter is set to 100 Hz. Raise the cut-off if the bass from the front speakers is unsatisfactory so that this bass is output through the subwoofer.
You can raise the cut-off from 100 Hz to either 150 Hz or 200 Hz.

Change these settings to suit the connections you have made to the optical (OPT) and coaxial (COAX) digital input terminals, so that the correct source is selected when you press [INPUT SELECTOR].
The factory settings are:

SA-XR45		SA-XR25	
TV:	OPT 1	TV:	OPT 1
DVD:	OPT 2	DVD:	OPT 2
DVR:	OPT 3	CD:	COAX
CD:	COAX		

Adjust the level of the other speakers based on the output of the front speakers. (Speakers set as "NONE" or "NO" are skipped. Adjust the volume of the front speakers with [VOLUME].)

C (center), RS (right surround), SB (surround back) and LS (left surround) can be adjusted between –10 dB and +10 dB, with 0 being the level of the front speakers. Adjust center, surround and surround back output to the same apparent level of the front speakers.

For SW (subwoofer), you can select "– – –" so there is no output, "MIN" for minimum output, a level between 1 and 19, or "MAX" for maximum output.
Adjust subwoofer output so it is balanced with the front speakers. Subwoofer output is easily influenced by the source. You can also change its level while playing something for better effect (➡ page 18).

SETUP

Select "FILTER".
FILTER

Select "D-INPUT".
D-INPUT

Output the signal.

SA-XR45
-TEST/-SETUP

SA-XR25
TEST

TEST   L

Two seconds each.
L → C → R → RS → SB → LS → SW

Select the input position.
TV ← OPT 1

SA-XR45	TV, DVD, DVR, CD
SA-XR25	TV, DVD, CD

VOLUME
+
–

Adjust the main volume.

Change the setting.

100

100, 150, 200

Change the setting.

OPT 1

SA-XR45	OPT 1, OPT 2, OPT 3, COAX
SA-XR25	OPT 1, OPT 2, COAX

Repeat.

LEVEL

Select the speaker channel.

C   0dB

C, RS, SB, LS, SW

Repeat.

–/L   +/R

Adjust the level.

C   +4dB

–10 dB ———— +10 dB
– – –, MIN, 1 ———— 19, MAX

COMPLETE

Stop the test signal.

SA-XR45
-TEST/-SETUP

SA-XR25
TEST

4-16.5.6 Settings On Screen Display Mode

- Use the on screen display to change the settings to suit your equipment to the environment in which you are using it. Turn on the television and select the video input for this unit.

- Before making any changes, read the descriptions of the settings, note the factory settings and ranges, and refer to the equipment's instructions.

To exit On Screen Display Mode
Select "Exit from SETUP" in the main menu.

> A/D Attenuation
> Second Audio Output
> **Exit from SETUP**

Or

Press [RETURN] until the setup menu disappears.

For Your Reference
- To return to the main menu: Select "Return" or Press [RETURN]
- Follow Step #5 Adjusting Speaker Output Level found previously to adjust speaker output level.

---
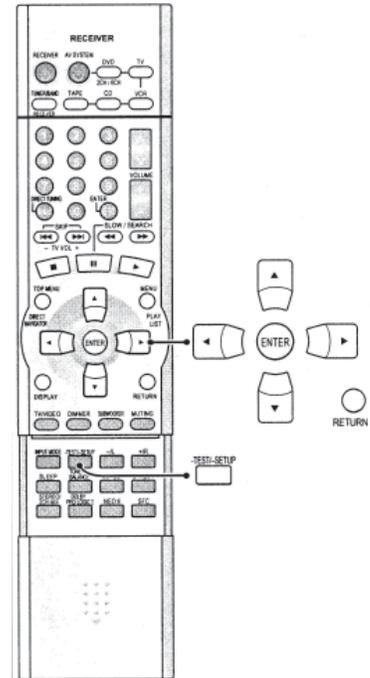
❶ Speaker Size

Set the size to suit your speakers

LARGE: For speakers that can reproduce a full sound range, particularly the bass range below 100 Hz.

SMALL: For speakers that cannot adequately reproduce the bass range. This setting is sufficient for most speakers if you are using a subwoofer.

NONE: For speakers you haven't connected (center or surround).

The factory settings are: SMALL

For the surround back (Surr Back) and subwoofer (Subwoofer), select YES if you have connected one (factory setting), or NO if you have not.

Enter the setup menu.

Press and hold

SETUP   ▲ ☑ ENTER

Select the speaker.

SETUP   ▲ ☑ ENTER

Front   [SMALL]
Center   [SMALL]
Surround   [SMALL]
Surr Back   [YES]
Subwoofer   [YES]

Repeat.

Change the setting.

SETUP   ◄ ☑ ENTER

Front   [SMALL]
Center   [SMALL]
Surround   [SMALL]
Surr Back   [YES]
Subwoofer   [YES]

Exit the setup menu.

Or   Or

Continue making other settings.

Center   [SMALL]
Surround   [SMALL]
Surr Back   [YES]
Subwoofer   [YES]

Other Setups
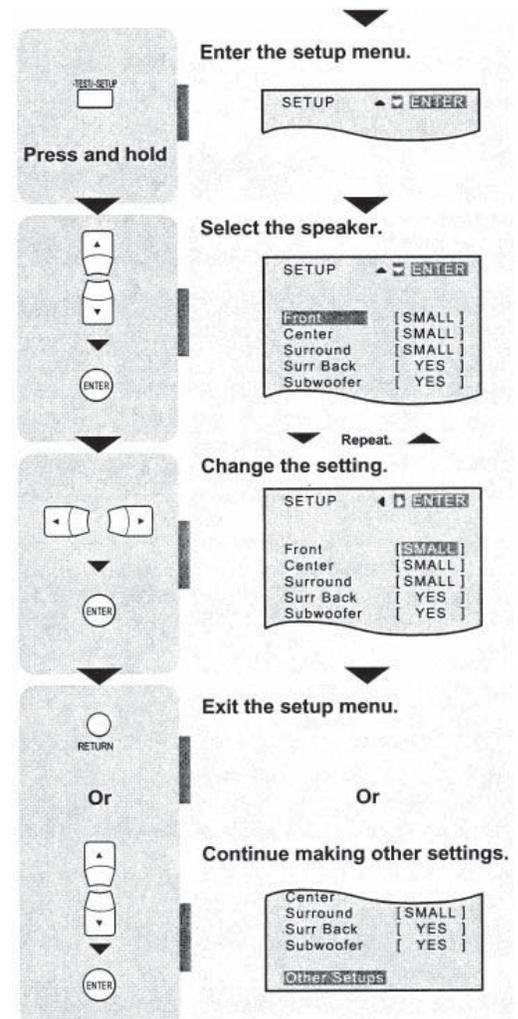
❷ Speaker Distance

Enter the distance of the front, center and surround speakers from the seating position.

Change the distance so that the sound from all the speakers (except for the subwoofer) reaches you at the same time. You can select distances between 3 and 30 feet at one-foot intervals.

The factory settings are:

Front and Center: 10 FEET

Surround and Surr Back: 5 FEET

❸ Filter Frequency

Change the cut-off bass for output from the front speakers.

If you set the front speakrs to "SMALL", the filter is set to 100 Hz. Raise the cut-off if the bass from the front speakers is unsatisfactory so bass is output through the subwoofer.

You can raise the cut-off from 100 Hz to either 150 Hz or 200 Hz.

❹ Digital Input

Change these settings to suit the connections you have made to the optical (OPT) and coaxial (COAX) digital input terminals, so that the correct source is selected when you press [INPUT SELECTOR].

CD:	
COAX	TV:
OPT1	DVD:
OPT2	DVR:
OPT3	

TEST·SETUP Press and hold → **Enter the setup menu.**

SETUP ▲ ▼ ENTER

Select "Other Setups".

Center
Surround   [SMALL]
Surr Back   [YES]
Subwoofer   [YES]

Other Setups

Select "Speaker Distance".

SETUP   ▲ ▼ ENTER

Speaker Size
Speaker Distance
Filter Frequency
D-Range Compression
Digital Input

Select "Filter Frequency".

SETUP   ▲ ▼ ENTER

Speaker Size
Speaker Distance
Filter Frequency
D-Range Compression
Digital Input

Select "Digital Input".

SETUP   ▲ ▼ ENTER

Speaker Size
Speaker Distance
Filter Frequency
D-Range Compression
Digital Input

Select the speaker.

SPEAKER ▲ ▼ ENTER
DISTANCE

Front   [10] feet
Center   [10] feet
Surround   [5] feet
Surr Back   [5] feet

Select the input position.

DIGITAL   ▲ ▼ ENTER
INPUT

CD   [COAX]
TV   [OPT1]
DVD   [OPT2]
DVR   [OPT3]

Repeat.

Change the setting.

SPEAKER ◄ ► ENTER
DISTANCE

Front   [10] feet
Center   [10] feet
Surround   [5] feet
Surr Back   [5] feet

Change the setting.

FILTER   ◄ ► ENTER
FREQUENCY

[100]   [150]   [200]

Returns to the main menu.

Repeat.

Change the setting.

DIGITAL   ◄ ► ENTER
INPUT

CD   [COAX]
TV   [OPT1]
DVD   [OPT2]
DVR   [OPT3]

Return to the main menu.

Return

Return to the main menu.

Return

BLUE BIRD
Coachworks®

4-16.5.7 Basic Operations

1 Switch on. POWER

2 Select input.

INPUT SELECTOR

SA-XR45 TUNER → CD → TV → DVD
          ┌ TAPE ← DVR/VCR ┘

SA-XR25 TUNER → CD → TV → DVD
          └ TAPE ← VCR ←

3 Start play of the source.

The unit sets the sound mode to suit the input signal.

4 Adjust the volume.

When you finish listening be sure to reduce the volume and press [POWER ☉/|] to switch the unit to standby.

Notes on Digital Input

This unit can decode the following signals:

- Dolby Digital, including Dolby Digital Surround EX
- DTS, including DTS-ES or DTS 96/24 (SA-XR45)
- PCM, including PCM with sampling frequencies of 192, 176.4 (SA-XR45, OPTICAL2), 96 or 88.2 kHz.

It cannot decode:

- Other digital signals, such as MPEG
- Dolby Digital RF signals from a laser disc player

Notes on Sound Modes

When input is Dolby Digital or DTS:

- You cannot use SFC

When input is PCM with sampling frequencies of 192, 176.4 (SA-XR45, OPTICAL2), 96, or 88.2 kHz:

- You cannot add surround effects with Dolby Pro Logic II, NEO:6 or SFC.

When you have selected "NONE" for both the center and surround speakers:

- You cannot use Dolby Pro Logic II, NEO:6, or SFC.

Sound Modes
The unit sets the sound mode to suit the signal.

Adding Surround Effects to Stereo Sources

Using Dolby Pro Logic II
Dolby Pro Logic II processor works not only on sources recorded with Dolby Surround, but also on any stereo source. The following modes are available when using Dolby Pro Logic II.
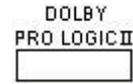
MOVIE
Use this mode when playing movie software, especially videotapes, recorded in Dolby Surround.

MUSIC
Adds surround effects to stereo sources.

PANORAMA
Sound is spread out more so you feel like you are surrounded by music.

You can adjust the effect of MUSIC and PANORAMA with the center width and dimension controls.

Center Width Control - C-WDTH
This adjustment helps you realize a more natural sound image when listening to music. Move sound out into the front speakers to improve the overall front image, or add sound to the center speaker to fix the center image. You can choose a level between 0 (the center speaker is dominant) and 7 (center sound is spread out). The default level is 3.

1. **Press [EFFECT] to select "C-WDTH"**
2. **Press [-L] or [+/R] to adjust the effect.**

Dimension Control - DIMEN
You can make up for differences in the output level of the front and surround speakers. You can choose a level between -3 and +3 - increases the level to move sound to the front speakers, decrease to move it to the surround speakers. The default level is 0.

1. **Press [EFFECT] to select "DIMEN"**
2. **Press [-L] or [+/R] to adjust the effect.**

Using NEO:6
Use NEO:6 to play 2-channel sources through multi-channels. The following modes are available when playing 2-channel sources.

CINEMA
Use this mode when playing movie software.

MUSIC
Adds surround effects to stereo sources.

Notes on using NEO:6
You cannot select the above modes when the "DTS" or ▌▌ DIGITAL" indicator is on.

You can adjust the effect of MUSIC with the center image control.

Center Image Control - C-IMG
This adjustment helps you realize a more natural sound image when listening to music. Move sound out into the front speakers to improve the overall front image, or add sound to the center speaker to fix the center image. You can choose a level between 0 (the center speaker is dominant) and 5 (center sound is spread out). The default level is 3.

1. **Press [EFFECT] to select "C-IMG".**
2. **Press [-L] or [+/R] to adjust the effect.**

Using the Sound Field Control (SFC)

Enjoy an enhanced sound experience with greater presence and spread by using these SFC modes with PCM or analog stereo sources.

Choose from the following modes.

HALL

Imparts the reflection and spread of a large concert hall.

CLUB

Conveys the exciting and intimate atmosphere of a jazz club.

LIVE

Brings you up close for "live" stage performance and smoother vocals.

THEATER

Recreates natural sound ambience and direction.

SIM SURR (Simulated Surround)

Heightens the sensation of expanded space with stereo sources, and augments monaural sources.

PARTY

This mode uses the front and surround speakers so that sound is in stereo regardless of the direction you're facing.

You can adjust the sound field by adjusting the level of the speakers and the delay time of the surround speakers. These adjustments can be made for each SFC mode.

To adjust the speaker level

Press [LEVEL] to select the speaker channel.
Each time you press the button:

C ——→ RS ——→ LS ——— SW
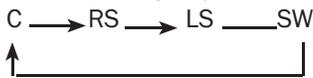
Sound does not come from the surround back speaker.
Speakers set as "NONE" or "NO" or skipped.

1. Press [-L] or [+/R] to adjust the level.
   C, RS, and LS: -10 dB to +10 dB
   SW: ---(off) ←——→ MN ←——→ 1-19 ←——→ MAX
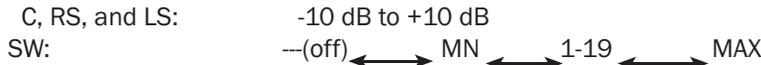
To adjust the delay time

1. Press [EFFECT].

2. Press [-L] or [+/R] to change the delay time.
   Delay time can be set at 10-millisecond (ms) intervals between 10 and 100 ms.
   The factory setting is 50 ms for each mode.

Dolby Pro Logic II, NEO:6 and SFC modes remain in effect until you change them.

To return to stereo sound - Press [STEREO/2CH MIX].

Enhanced Surround Mode

This mode uses the surround back speaker to create a realistic sound field. It is especially effective when playing DTS-ES and Dolby Digital Surround EX, but can be used with other DTS and Dolby Digital sources, as well as Dolby Pro Logic II and NEO:6. This mode engages automatically if the disc has a recognition signal for DTS-ES or Dolby Digital Surround EX (you can still turn the mode off).

Listening to Multi-Channel Sources in Stereo

When surround sources are played in this mode, the sounds intended for the other speaker channels are played through the front speakers.

The 2CH MIX mode remains in effect until you change input mode or turn off the unit.

To return to surround sound - Press [STEREO/2CH MIX].

If the unit does not automatically recognize Dolby Digital Surround EX or DTS-ES and output is 5.1 channels:

Press [ENHANCED SURROUND] to switch the mode on manually. Sound will now come from the surround back speaker.

For your reference

In rare cases, the unit may have trouble recognizing the digital signals on discs.

- With the PCM signals on CDs, this may cause the beginning of a track to be cut off. Engage the PCM FIX mode if this occurs.
- With DTS, the signals may not be recognized at all. Engage the DTS FIX mode if this occurs.

While the input source is selected:

1. Press [INPUT MODE] to select "DIGITAL"

2. Press and hold [INPUT MODE] for four seconds.

The current mode is displayed. Press again to change the mode.
Each time you press the button:

AUTO ⟶ PCM FIX ⟶ DTS FIX

When a FIX mode is on, the unit cannot process other signals. This may cause noise to be output. Select "AUTO" if this occurs.

The mode returns to AUTO when you switch the unit to standby.

- **When DTS FIX mode is on**

You cannot use ENHANCED SURROUND.

DTS-ES and DTS 96/24 (SA-XR45) are played as normal DTS (i.e., there is no output from the surround back speaker.)

4-16.5.7 Control Guide

Main Unit

[▌▌ DIGITAL EX, ▌▌ DIGITAL, ▌▌ PL II, DTS 96/24, DTS-ES, DTS, NEO:6] (SA-XR45)

[▌▌ DIGITAL EX, ▌▌ DIGITAL, ▌▌ PL II, DTS-ES, DTS, NEO:6] (SA-XR25)

Light to indicate the source's input signal and decoding format used.

▌▌ **DIGITAL EX:** Dolby Digital Surround EX sources

▌▌ **DIGITAL:** Dolby Digital Sources

▌▌ **PLII:** Dolby Pro Logic II decoder is being used

DTS 96/24: DTS 96/24 sources (SA-XR45)

DTS-ES: DTS-ES discrete or matrix sources

DTS: DTS sources

NEO:6: NEO:6 matrix decoder is being used

[**POWER** ⏻]

Press to switch the unit from on to standby mode or vice versa.

In standby mode, the unit is still consuming a small amount of power.

Standby indicator [⏻]

When the unit is connected to the AC main supply, this indicator lights up in standby mode and goes out when the unit is turned on.

Remote control signal sensor
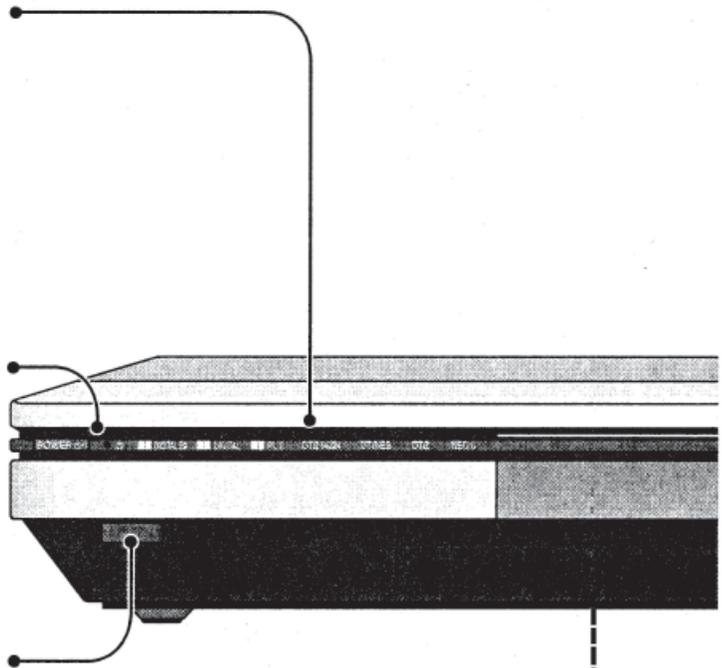
Display

[**SLEEP**] Sleep timer indicator.

[**M** , **TUNED, ST, MONO**]

Radio indicators

M : Flashes or lights during presetting.

TUNED: A station is tuned.

ST: A stereo FM broadcast is tuned.

MONO: You have switched to monaural mode with [FM MODE] to improve reception.

General Display

Shows the input mode, radio frequency, and other general information.

[kHz, MHz]

Frequency unit indicators

kHz: AM, or PCM sampling frequency

MHz: FM

[FM MODE]

If reception is poor in FM, press so "MONO" appears to switch to monaural mode.

[MEMORY]

For presetting radio stations.

[PRESET]

Press to allow preset station selection with [TUNE, V, Λ].

[TUNE, V, Λ]

For tuning the radio and selecting preset stations.
Press and hold until the frequency starts scrolling to start automatic tuning. Tuning stops when a station is found.

[VOLUME]

Volume control.

[PHONES]

Headphone Jack
Plug type: 6.3mm (1/4") stereo
- Avoid listening for prolonged periods of time to prevent hearing damage.
- The STEREO/2CH MIX mode is engaged when you connect headphones and you cannot select any of the other sound modes.

[BAND]

For switching between FM and AM.

[ENHANCED SURROUND]

For turning on the enhanced surround mode.

[MULTI-SOURCE DIGITAL RE-MASTER] (SA-XR45)

For selecting a re-master mode. The button lights while a re-master mode is on.

[INPUT SELECTOR]

For selecting input.

[DIGITAL]

Lights when digital input is selected

[L, C, R, LS, SB, RS, S, LFE]

Program format indicators Show the channels contained in the digital input signal. They do not light when input is analog. L: Front left channel; C: Center channel; R: Front right channel; LS: Surround left channel; SB: Surround back channel; RS: Surround right channel; S: If the surround channel is monaural. LFE (Low Frequency Effects): Deep-bass effect.

[2CH MIX, ENHANCED , SURROUND, SFC] 2CH MIX:

Appears when you are playing a multi-channel source in 2CH MIX mode
ENHANCED Appears when enhanced surround mode is on.

SURROUND: Appears when you are using Dolby Pro Logic II, NEO:6 or enhanced surround mode SFC: Appears when you are using an SFC mode

---

For your reference
- When playing video sources connected to DVR/VCR (SA-XR45) or VCR (SA-XR-25) The picture remains on the screen even if you select TAPE, CD or TUNER.

Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

Manufactured under license from Digital Theater Systems, Inc. US Pat. No. 5,451,942, 5,956,674, 5,974,380, 5,978,762 and other world-wide patents issued and pending. "DTS", "DTS-ES Extended Surround" and "Neo:6" are trademarks of Digital Theater Systems, Inc. Copyright 1996, 2000 Digital Theater Systems, Inc. All rights reserved.

REMOTE CONTROL

Buttons not explained on this page are used only to operate other equipment. Refer to the separate *Remote Control Operation Guide* for details.

[⏻, RECEIVER]
Standby/on button.

[1, 2, 3, 4, 5, 6, 7, 8, 9, 0]
To enter radio frequencies and channels.
[≧10, ENTER]
To enter two digit channels.

[DISC, DIRECT TUNING]
To enable selection of radio stations by frequency.

[▲, ▼, ◄, ►, ENTER, RETURN]
To operate the on screen menus.
([SA-XR45])

[DIMMER]
For dimming the unit's display and turning off the panel light.

[INPUT MODE]
For selecting AUTO, ANALOG or DIGITAL.

[SLEEP]
To start the sleep timer.

[STEREO/2CH MIX]
For selecting STEREO or 2CH MIX mode.
[DOLBY PRO LOGIC Ⅱ]
For selecting a Dolby Pro Logic Ⅱ mode: MOVIE, MUSIC or PANORAMA.
[NEO:6]
For selecting a NEO:6 mode: CINEMA or MUSIC.
[SFC]
For selecting SFC modes.

RECEIVER

RECEIVER AV SYSTEM
DVD TV
2CH / 6CH
TUNER/BAND TAPE CD VCR
RECEIVER
VOLUME
DIRECT TUNING ENTER
SKIP SLOW / SEARCH
– TV VOL +
TOP MENU MENU
DIRECT NAVIGATOR PLAY
ENTER
DISPLAY RETURN
TV/VIDEO DIMMER SUBWOOFER MUTING
INPUT MODE -TEST/–SETUP –/L +/R
SLEEP TONE/BALANCE LEVEL EFFECT
STEREO/2CH MIX DOLBY PRO LOGIC Ⅱ NEO:6 SFC

[DVD 2CH/6CH, TV, TUNER/BAND RECEIVER, TAPE, CD, VCR] ([SA-XR45])
[DVD 2CH/6CH, TV, TUNER/BAND, TAPE, CD, VCR] ([SA-XR25])
Input mode and remote control mode buttons.
DVD 2CH/6CH: For switching between 6-channel and 2-channel DVD input.

These buttons light when you press other buttons to indicate the current remote control mode. ([SA-XR45])

[∧, CH, ∨]
For selecting preset radio channels.

[+, –, VOLUME]
To adjust the volume.

[SUBWOOFER]
For selecting subwoofer level.
Adjust the level in 5 steps:
SW MIN, SW 5, SW 10, SW 15, and SW MAX.
Select SW – – – to stop output.

[MUTING]
To mute the volume.

[-TEST/–SETUP] ([SA-XR45])
To start the speaker test signal or enter the setup menu.
[TEST] ([SA-XR25])
To start the speaker test signal.
[TONE/BALANCE]
To adjust the bass, treble and front speaker balance.
[LEVEL]
Use when adjusting speaker level.
[EFFECT]
Use when adjusting Dolby Pro Logic Ⅱ, NEO:6 or SFC effects.
[–/L, +/R]
First select SLEEP, EFFECT, LEVEL, TONE or BALANCE, then press [–/L] or [+/R] to adjust.

For your reference

- **When DVD 6CH input is on**

Speaker settings are ineffective. Change the settings on the DVD player if necessary.

- **When using the subwoofer**

You cannot adjust subwoofer level if DVD 6CH INPUT is selected.
Sound can be distorted if you raise the volume while subwoofer level is high. Reduce subwoofer level if this occurs.

- **When muting is on**

Muting is also canceled when the unit is turned off.

4-16.5.8 The Radio

Manual Tuning
You can tune radio stations manually by selecting the station's frequency.
1. Press [INPUT SELECTOR] to select "TUNER".
2. Press [BAND] to select "FM" or "AM".
3. Press [TUNE V or Λ] to select the frequency.
   Tuning intervals: FM - 0.2 MHz
                          AM - 10 kHz

Improving Reception
• FM Mode - You can improve FM reception by switching reception to monaural. Press [FM MODE]. "MONO" lights. Press [FM MODE] again to cancel.

For Your Reference - DVD players can interfere with radio reception. Turn the DVD player off or move it further away from the antennas if this occurs.

Direct Tuning *(on the remote control)*
1. Press [TUNER/BAND RECEIVER]. (SA-XR45)
2. Press [TUNER/BAND]. (SA-XR25)
   The band changes each time you press the button.
3. Press [DISC, DIRECT TUNING].
4. Press the numbered buttons to enter the frequency.
   e.g. To select 107.9 MHz, press [1] → [0] → [7] → [9]
   Tuning intervals: FM - 0.1 MHz
                      AM - 10 kHz
   • If you do not press a button while the cursor is flashing, the display returns to the frequency being received.
   • If the frequency has not been input correctly, "ERROR" will be displayed.

Automatic Presetting
1. Tune to "FM 87.9 MHz".
2. Press and hold [MEMORY].
   The FM stations the unit can receive are preset in channels 1 to 30.
3. Tune to "AM 530 kHz".
4. Press and hold [MEMORY].
   The AM stations the unit can receive are preset in channels 21 to 30. (FM stations are replaced if any were preset in these channels.)

During automatic presetting, the memory indicator (**M**) flashes and the frequency scrolls. The memory indicator and channel numbers are displayed for a second when a station is preset. The last station to be preset is displayed when presetting finishes.

For Your Reference - Even if the power supply cord is disconnected from the household AC outlet, the stations remain in memory for approximately two weeks.

BLUE BIRD
Coachworks

Manual Presetting

Preset the stations one at a time.

1. Tune to the station.
2. Press [MEMORY].
3. Press [TUNE V or Λ] to select a channel.
4. Press [MEMORY].

For Your Reference - FM stations can also be preset in the MONO mode.

Selecting Channels

1. Press [PRESET].
   The channel number flashes for about 5 seconds.
2. Press [TUNE V or Λ].
   Hold down the buttons to change channels faster.

On the Remote Control

Press [Λ, CH, V].
Or
Press the numbered buttons.

> For channels 1 to 9, press the corresponding number.
> For channels 10 or over, press [≥ 10, ENTER], then the two digits.
> E.g. To select channel 21: [≥10, ENTER] → [2] → [1]

4-16.5.9 Other Settings
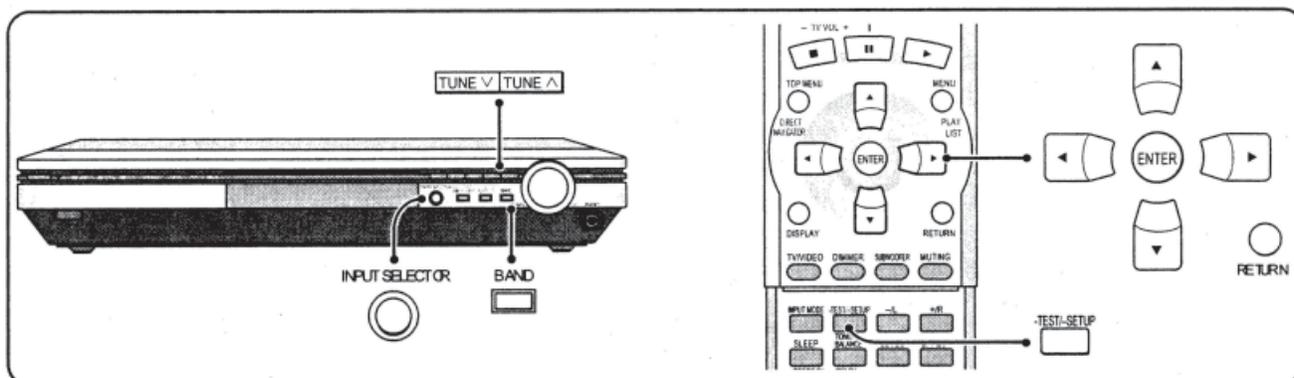
On the Main Unit

A. DR COMP - Dynamic Range Compression
    Change this setting to listen to software recorded with Dolby Digital at low volume (such as late at night) and maintain audio clarity. It reduces the peak level in loud scenes without affecting the sound field.
    OFF: The software is played with the original dynamic range (factory setting).
    STANDARD: The level recommended by the producer of the software for household viewing.
    MAX: The maximum allowable compression (recommended for night viewing).

B. A/D ATT - A/D Attenuator
    Turn the A/D attenuator on if "OVERFLOW" lights frequently when using 2-channel analog input or DVD 6CH input.
    The factory setting is OFF.

C. SECOND - A - Section Audio Output (SA-XR45)
    Select the source to output from SECOND AUDIO OUT.
    The factory setting is SOURCE (the source playing on this unit is output).

CHANGING THE SETTINGS

1. Press [INPUT SELECTOR] and [BAND] at the same time to enter the setting mode.
2. Press [INPUT SELECTOR] to select the item you want to change.
3. Change the settings.

     A.   DR COMP
         Press [TUNE V or Λ] to select "OFF", "STANDARD" or "MAX".

     B.   A/D ATT
         Press [TUNE V or Λ] to select "OFF" or "ON".

     C.   SECOND-A (SA-XR45)
         Press [TUNE V or Λ] to select "SOURCE", "CD", "TV", "DVD, "DVD/VCR" or "TAPE".
         • To listen to the radio, select SOURCE and tune to the station.

4. Press [INPUT SELECTOR] and [BAND] at the same time to exit the setting mode.

On Screen Display Mode SA-XR45

     A.   D-Range Compression - Dynamic Range Compression
         Change this setting to listen to software recorded with Dolby Digital at low volume (such as late at night) and maintain audio clarity. It reduces the peak level in loud scenes without affecting the sound field.
         OFF: The software is played with the original dynamic range (factory setting).
         STANDARD: The level recommended by the producer of the software for household viewing.
         MAX: The maximum allowable compression (recommended for night viewing).

     B.   A/D Attenuation
         Turn the A/D attenuator on if "OVERFLOW" lights frequently when using 2-channel analog input or DVD 6CH input. The factory setting is OFF.

     C.   Section Audio Output
         Select the source to output from SECOND AUDIO OUT. The factory setting is SOURCE (the source playing on this unit is output).

CHANGING THE SETTINGS

1. Press and hold [-TEST/-SETUP] to enter the setup menu.
2. Press [▲] or [▼] to select "Other Setups".
3. Press [ENTER].
4. Press [▲] or [▼] to select the item you want to change.
5. Press [ENTER].
6. Change the settings.

     A.   D-Range Compression
         Press [◄] or [►] to select "OFF", "STANDARD" or "MAX".

     B.   A/D Attenuation
         Press [◄] or [►] to select "OFF" or "ON".

     C.   Second Audio Output
         Press [◄] or [►] to select the "SOURCE", "CD", "TV", "DVD", "DVD/VCR" or "TAPE".
         • To listen to the radio, select SOURCE and tune to the station.

7. Press [ENTER].
8. Press [▲] or [▼] to select "Exit from SETUP".
9. Press [ENTER].

For Your Reference

• To exit On Screen Display mode
   Press [RETURN] until the setup menu disappears.

• To return to the main menu
   Press [RETURN].

4-16.5.10 Other Functions

Input Mode

This unit automatically detects whether input is digital or analog, but you can fix the input mode.

Press [INPUT MODE] to select "AUTO", "ANALOG" or "DIGITAL".

Balance

You can adjust the balance of the front speakers.

1. Press [TONE/BALANCE] to select "BALANCE".

2. Press [-/L] or [+/R] to adjust.

Tone

You can adjust the level of the bass and treble.

1. Press [TONE/BALANCE] to select "BASS" or "TREBLE".

2. Press [-/L] or [+/R] to adjust bass/treble.
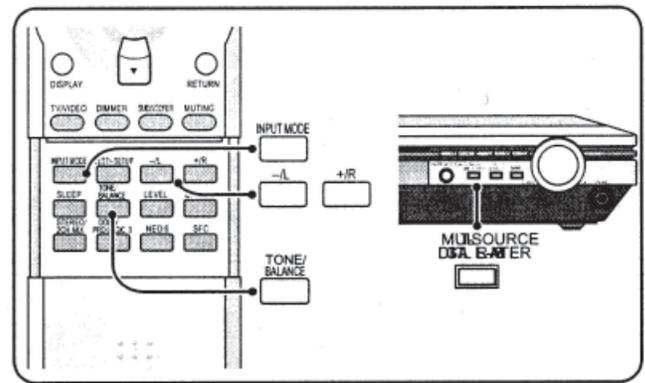
For Your Reference

*   To adjust the tone
    The STEREO mode must be on and input must be either analog or PCM signals. You cannot adjust the tone if DVD 6CH is selected.

Re-Master

This original Panasonic feature boosts the frequencies of the higher harmonics that are lost during recording due to compression.

Press [MULTI-SOURCE DIGITAL RE-MASTER] to select "EFFECT 1", "EFFECT 2", "EFFECT 3" or "EFFECT 4".

When Re-master is on, the current level appears, then each time you press the button:

EFFECT 1: for fast tracks (pop and rock)

EFFECT 2: for tracks with a variety of tempos (jazz)

EFFECT 3: for slow tracks (classical)

EFFECT 4: for compressed audio signals

OFF: the re-master processing is off.

4-16.5.11 Making a Recording

Recording on Other Equipment

You can record to a tape deck connected to TAPE REC (OUT), a VCR connected to VCR OUT (SA-XR25), a DVD recorder/VCR connected to DVR/VCR OUT (SA-XR45), or digital recording equipment connected to DIGITAL OPTICAL OUT.

See the recording unit's operating instructions for details on how to prepare it for recording.

1. Press [INPUT SELECTOR] to select the source to be recorded.

2. Begin recording
    Follow your recording unit's operating instructions.

3. Start the source to be recorded.
    Follow your equipment's operating instructions.
    *   With a tape deck, you can record any analog source except TAPE.
    *   With a VCR, you can record any analog source except VCR (SA-XR25).
    *   With a DVD recorder/VCR, you can record any analog source except DVR/VCR (SA-XR45).
    *   With digital recording equipment, you can record any digital source without copy protection.
    *   When you select DVD 6CH INPUT mode, only sound from the front left and right channel is recorded.
    *   Some sources do not allow digital recording. Connect through the analog terminals and select "ANALOG" input.
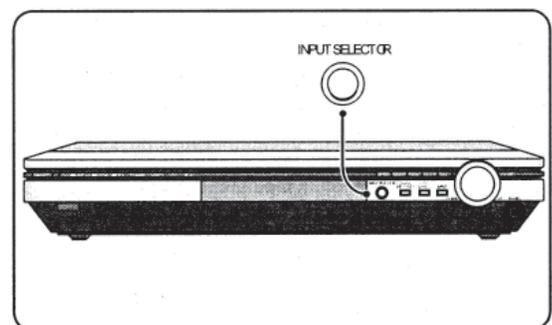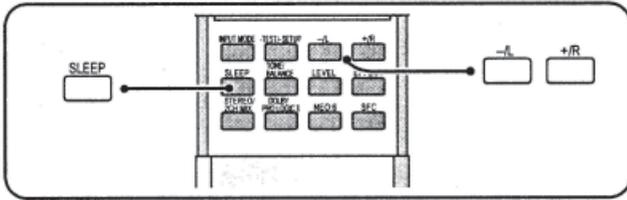
4-16.5.12 Sleep Timer

The SLEEP timer can turn the unit off after a set time. It does not control any other components.

1. Press [SLEEP].

    SLEEP → OFF

2. Within 5 seconds
    Press [-/L] or [+/R] to select the required time.
    The display change as follows:
     30 ↔ 60 ↔ 90 ↔ 120 (in minutes)

To Check the Setting

Press [SLEEP] once.
* The time remaining appears.

To Change a Setting

Repeat the procedure from the beginning.

4-16.5.13 Troubleshooting Guide

Before requesting service, make the checks in the following chart. If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem:

In the U.S.A. contact Panasonic Customer Call Center at 1-800-211-7262, or email consumerproducts@panasonic.com, or web site (http://www.panasonic.com).

In Canada, contact Panasonic Canada Inc. Customer Care Centre at 905-624-5505, or web site (www.panasonic.ca), or an authorized Service Centre close to you.

BLUE BIRD
Coachworks®

COMMON PROBLEMS

No Power	• Ensure the power cord is connected.
No Sound.	• Turn the volume up. • Check connections to speakers and other equipment. • Select the correct source. • Change the D-INPUT (or Digital input) setting to suit the type of connection you have made. • Check that the digital signals can be decoded by this unit. • Turn PCM FIX or DTS FIX off.
Sound stops. "F 76", "OVERLOAD" or "FAN LOCK" appears on the display for about a second and then it turns off.	• Determine and correct the cause, then switch the unit on. **Causes include:** - Shorting (bare wires touching) of positive and negative speaker wires. - Using speakers with an impedance lower than that rated for this unit. - Straining of the speakers through excessive volume or power. - Using the unit in a hot environment without proper ventilation. Consult your dealer if the problem occurs again after switching the unit on.
"F 70" appears on the display.	• Turn the unit off, disconnect the AC power supply cord, and consult your dealer.

SOUND MODES

Sound is not heard from the center, surround, or subwoofer speakers.	• Ensure the SPEAKERS (or Speaker Size) settings for your speakers are correct. • Turn 2CH MIX off. • The source may be stereo. Change the sound mode.
Surround is not heard from the surround back speaker.	• Ensure the SPEAKERS (or Speaker Size) settings for your speakers are correct. • Turn ENHANCED SURROUND on.
Cannot use Dolby Pro Logic II, NEO:6 or SFC	• Turn DVD 6CH INPUT off. • You cannot use Dolby Pro Logic II, NEO:6 or SFC when input is PCM with sampling frequencies of 192, 176.4 (SA-XR45, OPTICAL2), 96, OR 88.2 kHz.

RADIO

The radio cannot be tuned in or there is a lot of noise and interference.	• Connect the appropriate antenna. (You may need an outdoor antenna or one with more elements.) • Adjust the position of the FM or AM antenna. • Reduce the treble. • Turn off nearby televisions, video decks, DVD players, and satellite receivers. • Separate the antenna from other cables, cords, and appliances.
The radio cannot be tuned in or there is a lot of noise and interference.	• Try changing the A/D ATT (or A/D attenuation) setting. This may change the volume, but noise will also reduce.

4-16.5.14 The Reset Function
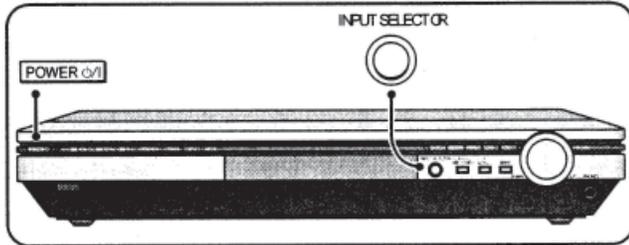
While the unit is on

While pressing and holding [INPUT SELECTOR] press [POWER].

"RESET" appears on the display.

The operation settings for the unit will be initialized to the settings made at the time of shipment. However, any preset radio stations will not be erased.

4-16.5.15 Maintenance

IF THE SURFACES ARE DIRTY

To clean this unit, wipe with a soft, dry cloth.

• Never use alcohol, paint thinner or benzene to clean this unit.

• Before using chemically heated cloth, read the instructions that came with the cloth carefully.

4-16.6 DirectTV Digital Satellite Receiver

The 450 LXi has a Direct TV Digital Satellite Receiver installed in the front area of the coach. An additional rear unit may be purchased as an option. Basic operating and maintenance instructions are as follows:

4-16.6.1 Important Safety Instructions

For your safety and protection, read all instructions completely before you attempt to install or use your satellite system. In particular, read this safety section carefully. Keep this safety information where you can refer to it if necessary.

Heed Cautions - All cautions on the product and in the operating instructions should be adhered to.

Follow Instructions - All operating and use instructions should be followed.

THESE CAUTIONS AND SYMBOLS APPEAR ON THE BACK OF THE RECEIVER

WARNING or CAUTION

Double insulated systems are protected by additional board clearances and creepage, so that the unit will not be a safety hazard to the end-user.

CAUTION

RISK OF ELECTRICAL SHOCK
DO NOT OPEN

BLUE BIRD
Coachworks
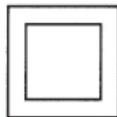
IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions handy.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

4-16.6.2 Installation

Polarization - This DIRECT TV Receiver is equipped with a plug that will fit into the power outlet only one way. Do not modify the plug defeating this feature. If the plug does not fit, contact your electrician to replace your outlet. To prevent electric shock, do not use this plug with an extension cord or outlet unless you can fully insert the blades without blade exposure.

Power Sources - Operate this DIRECT TV Receiver only from the type of power source indicated on the marking label. If you are not sure of the type of power supply, consult your dealer or local power company.

Power-Cord Protection - Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Overloading - Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electrical shock.

Ventilation - Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

The openings should never be blocked by placing the product on a bed, sofa, rug, or similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided and the manufacturer's instructions have been adhered to.

For electrical safety, power line operated equipment or accessories connected to this unit should bear the UL listing mark and should not be modified so as to defeat the safety features. This will help avoid any potential hazard from electrical shock or fire. If in doubt, contact qualified service personnel.

Heat - Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Accessories - To avoid personal injury or damage to the DIRECT TV Receiver, do not place the DIRECT TV Receiver on any unstable cart, stand, table, or bracket. Any mounting of the product should follow the manufacturer's instructions.

Attachments - Do not use attachments unless recommended by DIRECT TV as they may cause hazards.

Satellite Dish Antenna Grounding - The outdoor satellite dish antenna used to receive satellite signals and the cable used to connect the satellite dish antenna to the indoor receiving unit are required to comply with local installation codes and the appropriate sections of the National Electric Code (NEC) and in particular Article 810-15, which covers proper installation and grounding of television receiving equipment, as well as to Article 820-33, which specifies that the satellite dish antenna cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical. These codes require proper grounding of the metal structure of the outdoor satellite dish antenna and grounding of the connecting cable at a point where it enters the house (or other building). If you are having a professional installer perform the installation, the installer must observe installation codes. This manual contains instructions on how to make the installation in compliance with the NEC. If additional local installation codes apply, contact local inspection authorities.

Examples of Antenna Grounding according to the National Electrical Code instructions contained in "Radio and Television Equipment".
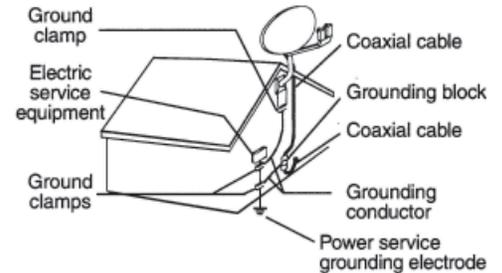
> 📌 **NOTE:** The DIRECT TV Receiver shall be grounded through the satellite/local antenna cable before plugging into the telephone jack, and it must remain grounded thereafter.

Water and Moisture - **WARNING!** To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.

Lightning - For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet, disconnect the antenna and cable system, and disconnect it from the telephone line. This will prevent damage to the product due to lightning and power-line surges.

Television Antenna Information - Installing an outdoor antenna can be hazardous and should be left to a professional antenna installer. Do not locate the outside antenna system in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, take extreme care to keep from touching such power lines or circuits, as contact with them might be fatal. If an outside antenna is connected to the DIRECT TV Receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. This DIRECT TV Receiver is equipped with a plug that will fit into the power outlet only one way. Do not modify the plug defeating this feature. If the plug does not fit, contact your electrician to replace your outlet. To prevent electric shock, do not use this plug with an extension cord or outlet unless you can fully insert the blades without blade exposure. Section 810 of the NEC, NFPA No. 70 1987, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of the grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Power Lines - Extreme care must be taken when installing and adjusting or maintaining the outdoor antenna and connecting cable, especially in the vicinity of overhead power lines, electric lights, or power circuits. When installing the outdoor antenna or cable, extreme care should be taken to keep from touching or approaching such power lines or circuits, as contact with them might be fatal.

Cleaning - Unplug this receiver from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use only a damp cloth for cleaning.

Object and Liquid Entry - Never push objects of any kind into this DIRECT TV Receiver through openings as they may touch dangerous voltages or "short out" parts that could result in a fire or electric shock. Never spill liquid of any kind on the receiver. No objects filled with liquids, such as vases, shall be placed on the apparatus.

4-16.6.3 Service

Servicing - Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. There are no user serviceable parts inside. Refer all servicing to qualified service personnel.

Conditions Requiring Service - Unplug the DIRECT TV Receiver from the wall outlet and refer servicing to qualified personnel under the following conditions.

- When the power supply cord or plug has been damaged.
- If liquid has been spilled on, or objects have fallen into, the DIRECT TV Receiver or it has been exposed to water.
- If the DIRECT TV Receiver does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions. Other adjustments may result in damage and will often require extensive work by a qualified technician to restore the DIRECT TV Receiver to its normal operation.
- If the DIRECT TV Receiver has been dropped or the cabinet has been damaged.
- When the DIRECT TV Receiver exhibits a distinct change in performance.

Replacement Parts - When replacement parts are required, have the technician verify that the replacements being used have the same safety characteristics as the original parts.

Use of replacement parts specified by the manufacturer can prevent fire, electric shock, or other hazards.

Safety Check - Upon completion of any service or repairs to this DIRECT TV Receiver, ask the service technician to perform safety checks recommended by the manufacturer to determine that the 1 DIRECT TV Receiver is in safe operating condition.

Multi-satellite capable if used with a DIRECT TV Multi-Satellite Dish Antenna, not included.

Your DIRECT TV Receiver is able to receive upgrades or modifications to some of its features and functions. These modifications will occur automatically, usually at times when the receiver would likely be turned off. If your receiver is on when an upgrade or modification is sent, you may experience a disruption in reception for a minute or two. Your reception should return to normal after the modification is complete. Your receiver must be plugged in to receive any upgrades. Do not unplug your receiver while an upgrade is in progress. Please consult the Upgrade menu to find a schedule of upgrades or modifications planned by DIRECT TV.

With this receiver (GAEB0A, GCEB0A) and the proper satellite dish antenna, you may be able to subscribe to local channels from DIRECT TV in certain areas. Additional equipment may be required in some markets. Check with your retailer or visit DIRECTTV.com for information on availability of local channels from DIRECTTV in your area.

4-16.6.4 Setup Overview

At this point, you should have:

- Mounted the DIRECT TV satellite antenna and pointed it in the general direction of the satellite.
- Grounded the antenna as described in your antenna installation instructions.
- Attached RG-6 coaxial cable(s) to the antenna LNB connector(s).
- Routed the other end of the antenna cable to the back of your DIRECT TV Receiver.
- Place the DIRECT TV Receiver accessible to a telephone modular jack.

Ensure that you have completed these procedures, then continue to the next page to begin installing the DIRECT TV Receiver.

> **NOTE:** In most cases, the Direct TV System will be installed when you take delivery of the coach. These instructions and the instructions following are only in case something happens and the receiver and satellite need to be re-installed at some point in time.

4-16.6.5 Attach the Antenna Cable

You can configure your system several ways, depending on what additional components (such as a VCR, DVD player, or A/V receiver) you select. For now, however, use the simplest configuration to check your antenna and cabling.

• Ensure that the DIRECT TV® Receiver is not plugged into an electrical outlet.

• Attach the RG-6 coaxial antenna cable to the SATELLITE IN connector on the back of the DIRECT TV Receiver. Refer to the appropriate figure below and on the next page.
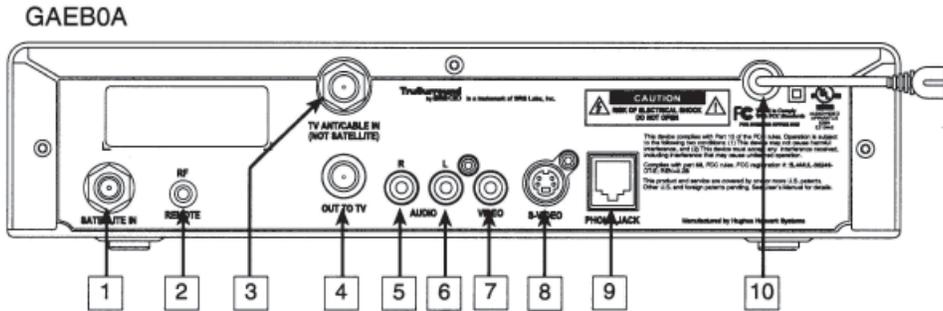
Rear panel connections - DIRECT TV Receiver model GAEB0A

1	SATELLITE IN connector	6	AUDIO OUTPUT (L) jack
2	RF REMOTE antenna jack	7	VIDEO OUTPUT jack
3	TV ANTENNA/CABLE IN connector	8	S-VIDEO jack
4	OUT TO TV connector	9	TELEPHONE JACK
5	AUDIO OUTPUT (R) jack	10	AC POWER CORD
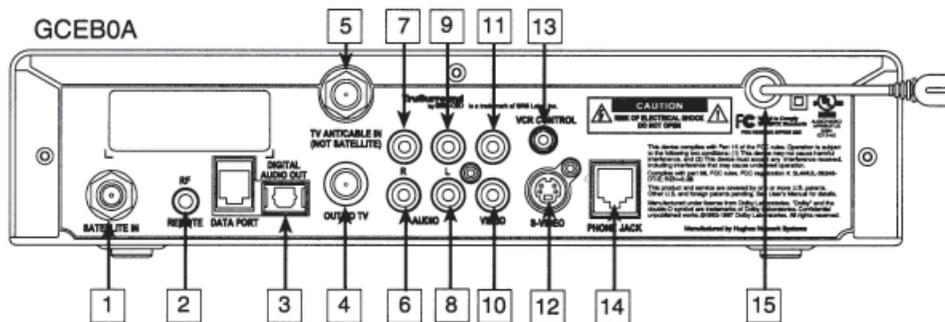
Rear panel connections - DIRECT TV Receiver model GCEB0A

4-16.6.6 Connect Your TV

Depending on your TV, you can connect it to the receiver in one of three ways:

• S-Video cable (best picture quality) or

• Video cable (very good picture quality) or

• Coaxial cable (good picture quality)

In addition to your video connection, use a set of audio cables (L/R) to provide stereo sound. If your TV does not have audio jacks, you will hear monophonic audio. This is acceptable for the procedures described in the next section.

BLUE BIRD
Coachworks

To connect your TV to the DIRECT TV® Receiver:

1. Select the appropriate connection:

If your TV has an S-Video jack -

• Use an S-Video cable (not supplied) to connect the DIRECT TV Receiver's S-VIDEO jack to the TV's S-VIDEO jack.

• Use audio cables to connect the DIRECT TV Receiver 's AUDIO jacks to the TV's AUDIO IN jacks.

If your TV has RCA-type A/V connectors -

• Connect the DIRECT TV Receiver's AUDIO and VIDEO jacks to the TV's A/V IN jacks.

• If your TV has only one AUDIO IN jack, connect the receiver's AUDIO L jack to the TV AUDIO IN jack.

If your TV only has an RF (coaxial) connector

1	SATELLITE IN connector	9	AUDIO OUTPUT (L) jack
2	RF REMOTE antenna jack	10	VIDEO OUTPUT jack
3	DIGITAL AUDIO OUTPUT optical jack	11	VIDEO OUTPUT jack
4	OUT TO TV connector	12	S-VIDEO jack
5	TV ANTENNA/CABLE IN connector	13	VCR CONTROL cable jack
6	AUDIO OUTPUT (R) jack	14	TELEPHONE JACK
7	AUDIO OUTPUT (R) jack	15	AC POWER CORD
8	AUDIO OUTPUT (L) jack		

TV only coaxial

• Connect the DIRECT TV Receiver's OUT TO TV connector to the TV's VHF/UHF IN or RF IN jack.
2. Connect one end of the telephone line cord provided into the DIRECT TV Receiver's PHONE JACK.
3. Connect the other end into a modular telephone outlet.
4. Plug the TV into an electrical outlet.
5. Plug the DIRECT TV Receiver power cord into an electrical outlet. If the front panel Power indicator does not illuminate, press the POWER button.

Onscreen Menu Icons

These icons appear in on screen menus and are used throughout this manual:

Toggle or Step - Press SELECT to toggle (switch) a setting from "ON" to "OFF" or step through the available choices each time you press SELECT.

List of Options - Menu button will display a list of choices in a pop-up menu when you press SELECT.

Series of Boxes - Multiple screen will appear in a series requesting you to enter numbers and/or letters for the particular feature when you press SELECT.

4-16.6.7 Determine Antenna Angles

This section explains how to determine the proper antenna position. Expressed in degrees of azimuth (horizontal) and elevation (vertical). Use the receiver front panel controls shown below to complete this procedure.
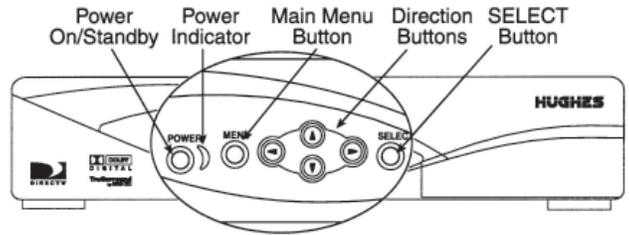
1. Press the front panel MENU button to display the MAIN MENU below.

2. Use the ▼ button to highlight the System Setup tab.
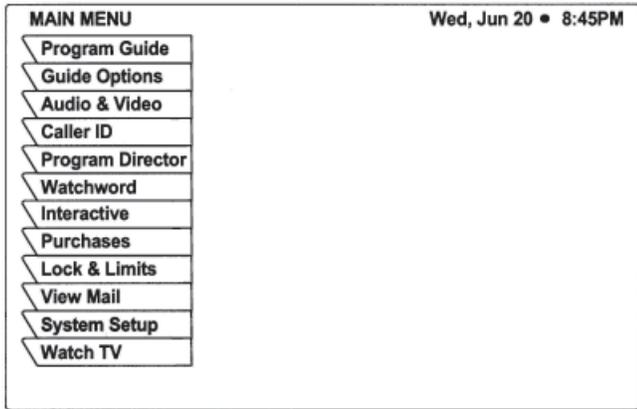
Tilt angle also appears if you have selected an Oval Antenna from the Dish Type menu.

3. Press the front panel SELECT button.

4. The INSTALL menu allows you to determine the correct antenna position using your 5-digit ZIP code. Enter your ZIP code and press SELECT.

    The correct azimuth and elevation angles appear as shown below.

5. Use these values to properly align your dish antenna.
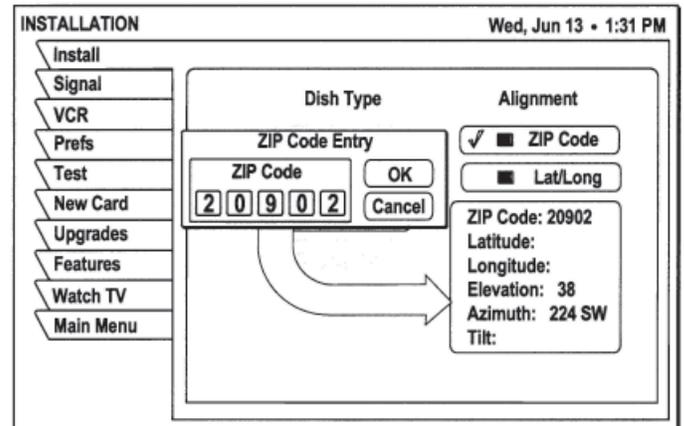
4-16.6.8 Testing Your System

When you have aligned your dish antenna to the azimuth and elevation angles shown on the install pane:

1. Highlight the Signal tab.

2. Use the ▶ button to highlight the Source pull-down menu

3. Signal quality is indicated by a scale at the bottom of the pane and with an audible indication. The frequency and tempo of the tone increase with signal strength.

BLUE BIRD
Coachworks
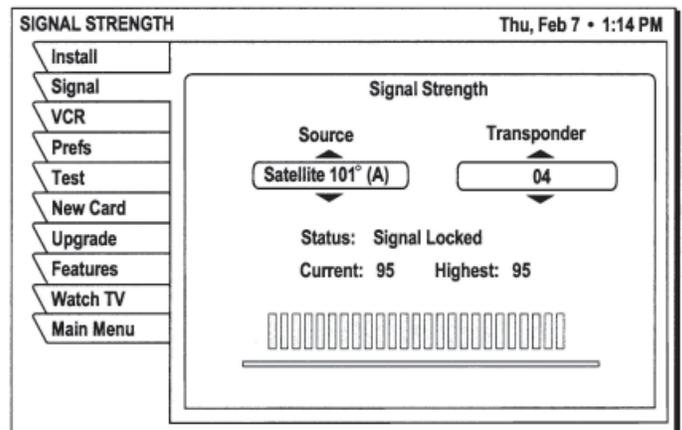
4. Highlight the Transponder pull-down menu.

5. You may need to select another transponder to achieve the highest signal indication.

6. Select the transponder providing the best signal.

7. Use the ▼ button to highlight the Test tab.

8. Highlight Begin Test and press the SELECT button.

Results appear within a few seconds and should resemble those in the figure. If your test results are much different from those shown in the figures, or you receive no signal indication, refer to *Installation pane* found a little later in this section.
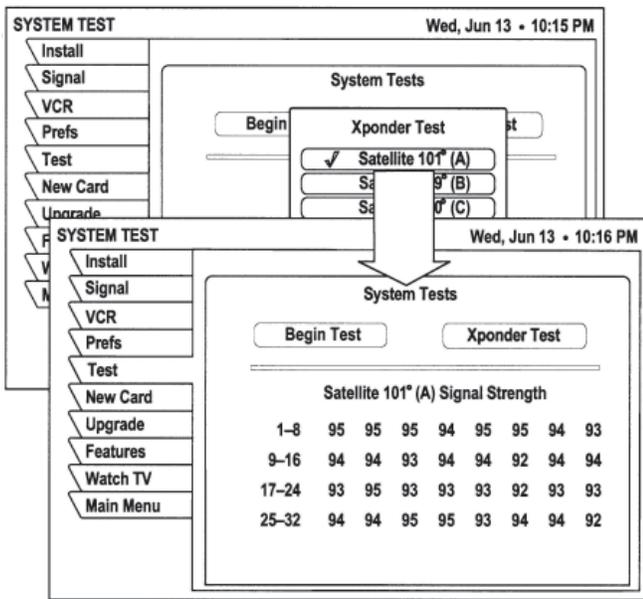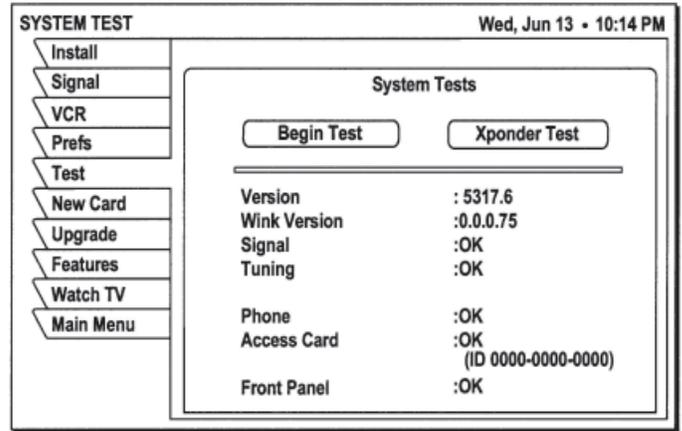
To perform the Transponder test:

1. Move the highlight to the *Xponder Test* pull-down menu.

2. Press the SELECT button.

3. Press SELECT again to test the first selection on the pop-up menu.

Your results will differ slightly from those shown, depending on your geographic location and specific installation. However, if your results are very different from these examples (i.e., rows of zeros or single-digit numbers):

• Highlight the install tab on the INSTALLATION menu. Verify your settings.

• Re-enter your ZIP code if necessary to verify you have used the correct antenna pointing parameters for your location.

• Check your cable connections.

• Ensure the DIRECT TV® Receiver is connected to a module telephone jack.

Once you have successfully obtained a signal and your test results resemble those shown in the figures, call DIRECT TV (or your subscription service provider) to activate service if you have not done so already.
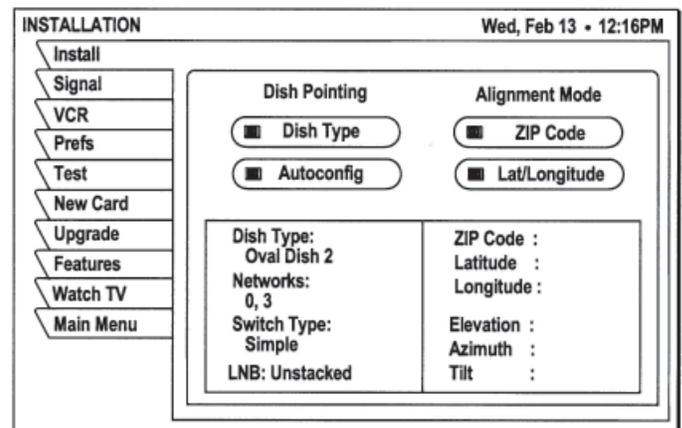
Installation pane

4-16.6.9 Adding System Components

You can configure your DIRECT TV Receiver several ways depending on the additional audio/video components you want to use.

This section explains how to:
- Connect a terrestrial (broadcast) TV antenna.
- Connect the optional RF remote control antenna.
- Connect and set-up a VCR.
- Integrate the DIRECT TV Receiver into your existing audio or A/V system.

4-16.6.10 Connecting Components

At this point, you should have:
- Verified that your system is operating properly.
- Connected your DIRECT TV Receiver to your TV.
- Unplugged all components from electrical outlets.

Connecting a Terrestrial Antenna
You can connect a terrestrial (broadcast) TV antenna to your DIRECT TV Receiver by connecting it to the DIRECT TV Receiver's TV ANT/CABLE IN jack (refer to the figures in *Attach the Antenna Cable* section found earlier in manual). The remote control INPUT button allows you to switch between DIRECT TV programming and input from the terrestrial antenna.

Connecting a Terrestrial Antenna
You can connect a terrestrial (broadcast) TV antenna to your DIRECT TV Receiver by connecting it to the DIRECT TV Receiver's TV ANT/CABLE IN jack. The remote control INPUT button allows you to switch between DIRECT TV programming and input from the terrestrial antenna.

Connecting the RF Remote Control Antenna
The DIRECT TV Receiver uses an optional RF (radio frequency) remote control antenna that allows you to control your receiver from other rooms in your house.

1. Slide the antenna into the base as shown. No tools are required.

2. Plug the RF remote control cable into the RF REMOTE connector on the DIRECT TV Receiver rear panel.

3. Extend the cable and place the antenna in the desired location.

To achieve the best operating range from the remote control, position the antenna as high and as far away from metal objects as possible.
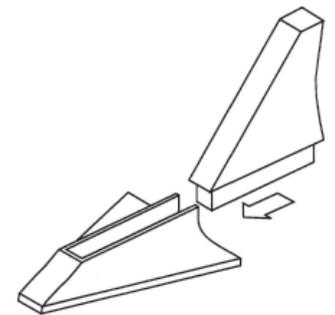
Assembling the optional RF antenna

4-16.6.11 Connecting a VCR

Follow these instructions to connect your TV and VCR to the DIRECT TV Receiver. Connect the satellite antenna RG-6 coaxial cable to the DIRECT TV Receiver's SATELLITE IN jack.

1. Depending on your VCR, select the appropriate connection to the DIRECT TV Receiver:
   If your VCR has A/V connectors -
   - Connect the DIRECT TV Receiver's AUDIO and VIDEO jacks to the VCR's A/V IN jacks.

   If your VCR only has an RF (coaxial) connector -
   - Connect the DIRECT TV Receiver's OUT TO TV connector to the VCR's VHF/UHF IN or RF IN jack.
   - If your VCR has only one AUDIO IN jack, connect the receiver's lower (mono) AUDIO L jack to the VCR's AUDIO IN jack.

2. Depending on your TV and VCR, select the appropriate method to the connect the VCR to the TV:
   If your TV and VCR have A/V connector -
   - Connect the DIRECT TV Receiver's AUDIO and VIDEO jacks to the TV's A/V IN jacks.

   If your TV or VCR only has an RF (coaxial) jack -
   - Connect the VCR's VHF/UHF OUT jack t the TV's VHF/UHF IN jack.

3. Plug the TV, VCR, and DIRECT TV Receiver power cords into an electrical outlet.

BLUE BIRD
Coachworks

Connect the VCR Control Cable - (Model GCEBOA only) the DIRECT TV Receiver can control your VCR for unattended recording, using the VCR Control Cable provided

1. Plug the VCR control cable into the rear panel VCR CONTROL jack.

2. Temporarily position the other end over the VCR's remote control sensor (normally a small dark plastic window on the VCR front panel).

The remote control sensor may be labeled or identified in your VCR manual. If it is not identified, scan the front of the VCR with your VCR remote control:

3. Hold the VCR remote control about ½-inch (1.3 cm) from the front left side.

4. Slowly move the remote control to the right as shown in the figure.

5. Repeatedly press the remote control's power key on and off.
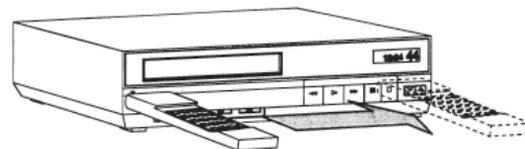
Scanning for the VCR remote control sensor

6. When your VCR responds to your pressing the remote control power, note the position. Temporarily tape the emitter to the position you marked until you verify that it works properly.
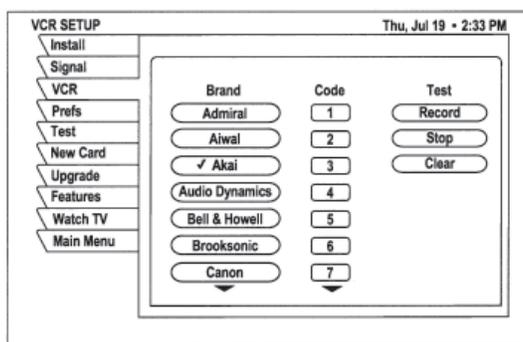
VCR SETUP menu pane

7. Test the VCR control feature as described below.

8. Remove the temporary mounting tape. Attach the emitter permanently with peel-and-stick backing. This will not interfere with normal VCR operation. The VCR SETUP menu provides the settings to allow the DIRECT TV® Receiver to communicate with your VCR.

9. Scroll through the VCR brands using the ⊕ joystick ▲ and ▼ buttons. If you cannot find the correct code listed for your VCR brand, try related brands that use the same code. Also, your VCR may respond to multiple codes.

10. Use the remote control SELECT button to try each code.

11. Alternate between this procedure and testing the code.

Test the VCR (Record/Stop) - This Record/Stop test verifies the specified brand and code that controls your VCR. Before starting the test:

• Turn the VCR power on.

• Verify the VCR Control Cable is properly connected.

• Insert a recordable videotape into the VCR.

Use the DIRECT TV Receiver front panel controls, rather than the remote control, to test the codes.

Test the VCR record and stop commands. If either command does not function, try other codes shown for your VCR brand. If you are unsuccessful after trying all available codes, recheck your VCR Control Cable connections and IR emitter placement.

NOTE: Signals coming from the remote control at the same time as signals coming from the VCR Control cable may provide unreliable test results.

NOTE:

4-16.6.12 Connecting a Home Entertainment System

You can integrate the DIRECT TV® Receiver into your entertainment system to take advantage of enhanced audio and video capability. Follow these instructions to connect your DIRECT TV Receiver.

> **NOTE:** The A/V receiver must be turned on in order to send the video signal to your TV.

- To connect the DIRECT TV Receiver to your audio system, use A/V cables to connect the satellite receiver to the audio receiver's AUDIO IN jacks.

- Dolby Digital - With the GCEB0A model, you can enjoy programs that contain a Dolby Digital sound track. We recommend that you listen in surround sound for maximum enjoyment of these programs. You can connect the stereo outputs of the GCEB0A to a receiver that contains a Dolby Surround Pro Logic decoder. This will provide you with three audio channels in the front and a mono surround channel.

- To take full advantage of Dolby Digital programming, connect the GCEB0A digital audio output to an external 5.1-channel Dolby Digital decoder or receiver. This provides you with three front channels, two independent surround channels, and a sub-woofer channel.

1. Connect the satellite antenna RG-6 coaxial cable to the DIRECT TV Receiver's SATELLITE IN jack.

2. Connect the DIRECT TV Receiver's A/V jacks to the VCR and A/V receiver's A/V jacks.

3. AUX, optical connection, and digital output connections - If your audio receiver has coaxial or optical digital connectors, connect the appropriate type of cable to the DIRECT TV Receiver's DIGITAL AUDIO OUT for two-channel digital stereo. If your A/V receiver is also capable of decoding Dolby Digital, use this connection in order to listen in full 5.1-channel surround sound. Additional audio information begins on Adjusting Audio and Video section found later in manual.

4. Connect the VCR's A/V OUT jacks to a pair of the A/V receiver's A/V IN jacks.

5. Connect the A/V receiver's MONITOR OUT jack to the TV's VIDEO IN jack.

6. Plug the components into an electrical outlet.

> **NOTE:** If you have connected a VCR to your entertainment system in a way that routes the satellite receiver's signal to your VCR before it reaches the TV, you may see a distorted picture if you try to record a copy-protected program. A Can't Tape symbol in the screen banner identifies these programs. If this occurs, simply stop recording and the picture will automatically correct itself.

4-16.6.13 Using the Remote Control

This section explains how to:

• Use the HMRC-8 and HMRC-9 remote control functions.

• Install and replace the remote control batteries.

• Program the remote to work with your system components.

• Access interactive programming features.

Power
Turns satellite receiver power on/off(standby).
Turns selected component power on/off.

Component control
Selects the component that you want to control.
Buttons illuminate to indicate the component
that the remote control is set to operate.

Receiver control group
Most frequently used functions
are grouped together (see below).

Channel (CH) up/down
Moves to next or previous channel during viewing.
Display next program guide page (Grid guide only).

Previous channel
Toggle between the current channel and
the last channel watched.

Director group
One-touch navigation to setup menus for audio, video,
program guide and WatchWord searches.

Numeric keypad

Reserved for future upgrade

Input
Change video input source
(CATV, terrestrial antenna, or other video device).

VCR control
Performs VCR control functions

Backlight
Turn on keypad backlight

Interactive guide
Access interactive
features

Main menu
View the Main Menu

Information
View information
about a program

Program guide
View the list of available programming

TurboTune
View the TurboTune guide

Favorites
View listings of your preferred programming

Clear
Cancel the on-screen function
and return to previous activity

Select/Move/OneLine guide
Press to select an on-screen option,
Press the arrows to move the screen highlight,
Press to view the OneLine Guide (if no menu option)

HRMC-9 Remote Control Function Quick Reference

Power
Turns satellite receiver power on/off(standby).
Turns selected component power on/off.

Component control
Selects the component that you want to control.
Buttons illuminate to indicate the component
that the remote control is set to operate.

Receiver control group
Most frequently used functions
are grouped together (see below).

Channel (CH) up/down
Moves to next or previous channel during viewing.
Display next program guide page (Grid guide only).

Previous channel
Toggle between the current channel and
the last channel watched.

Director group
One-touch navigation to setup menus for audio, video,
program guide and WatchWord searches.

Numeric keypad

Reserved for future upgrade

Input
Change video input source
(CATV, terrestrial antenna, or other video device).

VCR control
Performs VCR control functions

Program guide
View the list of available programming

TurboTune
View the TurboTune guide

Interactive guide
Access interactive
features

Favorites
View listings of your preferred programming

Main menu
View the Main Menu

Clear
Cancel the on-screen function
and return to previous activity

Information
View information
about the currently
selected program

Select/Move/OneLine guide
Press to select an on-screen option,
Press the arrows to move the screen highlight,
Press to view the OneLine Guide (if no menu option)

HMRC-8 Remote Control Function Quick Reference

The DIRECT TV® Receiver front panel buttons can provide the basic controls needed to access major DIRECT TV System features. However, using the remote control simplifies accessing the basic system functions, enhances your system's capabilities, and provides convenient shortcuts to extended features. Additionally, most remote control buttons can also control other home entertainment system components.

4-16.6.14 Remote Control Functions

The joystick is the most versatile (and most used) remote control feature. Using only the joystick, you can perform virtually all on-screen functions including:

- Selecting a highlighted screen menu item.
- Moving the screen highlight (or cursor) up, down, left and right.
- Jumping directly to the OneLine™ Guide.
- Changing channels using the OneLine Guide.

Use the joystick to move up, down, left, or right through the on-screen displays. This 🜨 icon appears throughout this manual to instruct you to use the joystick to navigate through on-screen menus and guides. SELECT means press the joystick in the center to activate or choose a highlighted menu option.

Press the joystick up or down to display the OneLine guide while you are watching a program. When the OneLine guide appears, press the joystick up or down to step to the next higher- or lower-numbered channel.

Press the GUIDE button to display the current program guide. Press it a second time (while a program title is highlighted) to display the Guide Options menu.

Press the INFO button to display a brief description about the program you are viewing. For more details, press it again to display the Information Banner. The INFO button provides scheduling information (and pay per view purchase information) about the program highlighted in the program guide. See *Using Program Guides* section for more information.

Use the CHANNEL (CH) button to move up or down to the next available channel in the OneLine Guide or scroll through a page of program guide selection.

Press the CLEAR button to exit from any on-screen guide, remove banners, or terminate an action.

The INPUT button allows you to select programming from additional program sources connected to the satellite receiver such as a DVD player, VCRs, or a terrestrial TV antenna signal. Repeatedly press INPUT to cycle through each available input source in your system.

Press the SAT component select button to control the DIRECT TV™® Receiver. The other component select buttons indicate the devices they control. You can program the AUX button to control another digital device such as an audio CD player.

The DIRECTOR buttons provide convenient shortcuts to find programming and adjust system features to suite your personal preferences.

Installing Remote Control Batteries - To install or replace the remote control batteries:

1. Locate the battery compartment on the back of the remote control.
2. Remove the battery compartment cover.
3. Insert two "AAA" size batteries as shown, observing the correct polarity.
4. Replace the battery compartment cover.
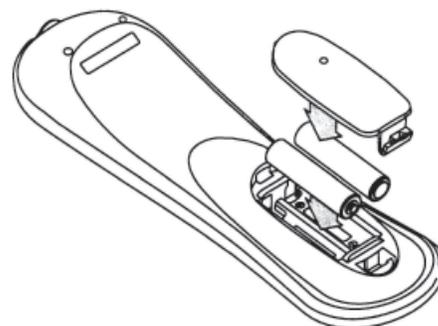
Installing batteries in the remote control

4-16.6.15 Programming the Remote Control

You can operate your TV, VCR, and Audio/Video receiver using your HRMC-8 or HMRC-9 remote control. Use the Code Scanning or Code Entry method to program the remote control. Code scanning may be more time-consuming, but you don't need to know manufacturer's control codes. Using the Code entry method may be quicker, but you'll need to know the correct manufacturer's control codes for each component you want to operate.

1. Aim your remote control at the component you want to use.
2. Hold down the desired device button (TV, for example).
3. Press the MUTE button for one second.
4. Release both buttons together.
5. The device button (in this example, the TV button) glows and remains lit. If the button does not light, repeat the previous steps.
6. Use one of the two programming methods described above.

Code Scanning - To use this method:

1. Repeatedly tap the top part of the CHANNEL (CH) button.
2. Continue to step through the codes until the component turns off, indicating you have found the correct component code. If you accidentally pass a code that responds or realize you may not have been aiming the remote control at the component, tap the lower part of the CHANNEL (CH) button to step backward through the codes.
3. Press the remote control POWER button to verify the proper code by turning the device on and off.
4. Press the device button (in this example, TV) again to lock in the code.

Code Entry - To use this method:

1. Find the three-digit code or codes for the type and brand of the component you want to control (in this example, TV). Refer to *Appendix B - Manufacturers Device Control Codes* for assistance.
2. If several codes are listed, you may have to try some or all of them. After entering a code, press the remote control's POWER button to test it. The correct code turns the device on and off.
3. Press the device (DVD, VCR, AUX, TV, SAT) button again to lock the code.

4-16.6.16 Using DIRECT TV INTERACTIVE™ *powered by Wink Communications®*

DIRECT TV INTERACTIVE™ powered by Wink Communications® is a free, easy-to-use service that allows you to interact with the television shows and advertisements. When the blinking ⓘ symbol appears in the upper left part of your screen, you know that the program you're watching has been enhanced with DIRECT TV INTERACTIVE.

Simply press ⓘ button on your remote control. You can use your remote control to access up-to-the-minute sports scores, news and weather, get program trivia, respond to offers during commercials, and purchase products, all while watching TV.
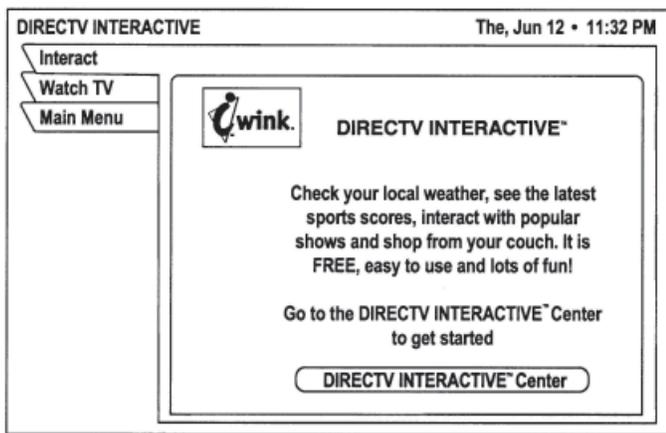
Select the DIRECT TV INTERACTIVE Center menu bar, then follow the simple directions provided on the subsequent screens.

4-16-6.17 Using the Menus

The section covers:

- How to find the menus you need to perform common tasks.
- Using the Program Director.
- How to purchase pay per view events.
- How to set and modify preferences.

The table below lists the MAIN MENU tabs, their submenus, and what they do.

Menu function overview

Main Menu Tab	Screens *(see section)*	If you want to:
Program Guide	*Program Guide*	• View and modify the program guide.

Guide Options	*Theme*
	Times
	Favorites List
	Set Options
	Set Turbo
		• Change the name of a program list.
		• Change the period of time shown in the program guide
		• Create/edit up to four channel lists (Fav. A, Fav. B, Fav. C, Family)
		• Create a program listing that contains selected channels
		• Guide Options:
		  - Guide style (grid or Logo)
		  - Picture in guide, zoom (on or off)
		  - Multi-Color guide (on or off)
		  - Channel Sort (numeric or alpha)
		  - Filters (temporary or persistent)
		  - Reset options to the default selections
		  - Set and edit TurboTune guide channels

Audio & Video	*Audio Adjustment* *Video Adjustment*	• Set Default Audio language • Set Alternate Audio language • Set left/right audio balance • Select 4:3 or 16:9 screen ratio • Center menus on your monitor (up/down and right/left)
Caller ID	*Caller ID*	• See the names and telephone numbers of recent callers
Program Director	*Schedule*	• Automatically tune to programs for viewing or taping
WatchWord	*Setup* *Results*	• Search for programming using specific words • Display search results
Interactive	*DIRECT TV* *INTERACTIVE™*	• Access interactive programming features
Purchases	*Upcoming & Past* *Purchases*	• View a list of scheduled pay per view events • Display recently purchased pay per view events
Locks & Limits	*Lock* *Fav Setup* *Rating* *Limits*	• Lock and unlock the system • Set viewing times and maximum viewing hours • Create/edit up to four channel lists (Fav. A, Fav. B, Fav. C, Family) • Set maximum program rating allowed for viewing • Select programming content to be shown in the program guide
View Mail	*Mail*	• Read messages from DIRECT TV
System Setup	*Install* *Signal* *VCR* *Prefs* *Test* *New Card* *Upgrade* *Features*	• Determine proper antenna azimuth and elevation setting • Test signal reception • Setup VCR for unattended recording • Test system operation • Prepare a new access card • Display upgrade status and history • Display current receiver features

4-16.6.18 Purchasing Pay Per View (PPV)

Select the Purchases menu tab to display lists of recently viewed and advance purchased pay per view events. You can choose **PAST PURCHASES** and **UPCOMING PURCHASES**. The event channel, title, start date and time, and cost is shown for each purchase.

The **PAST PURCHASES** pane shows recent pay per view events charged to your account. You cannot remove listed events. The list does not show:

- Events purchased, but later cancelled.
- Purchased, cancelable events to which the DIRECT TV® Receiver never tuned.
- Events ordered by calling DIRECT TV.

The UPCOMING PURCHASES pane displays:

- PPV events you have purchased but not yet viewed.
- PPV events purchased but never viewed.
- Events ordered by calling DIRECT TV do not appear on this list. For additional information about a specific event, highlight the event and press the INFO key.

To purchase a pay per view event:

1. Highlight the Buy menu pane option
2. Press SELECT
3. Press SELECT again to confirm your purchase.

> ✎ **NOTE:** If you are not authorized for purchases using your DIRECT TV® Receiver, contact DIRECT TV for assistance.

Canceling Purchases - You may cancel some events after purchasing them. You can usually cancel unviewed purchases, however some events cannot be cancelled. If the Cancel Purchase button appears, you can clear the purchase. If this button is unavailable, part of the event has probably already been viewed, and you must accept the purchase.

To cancel a Pay Per View Event:

1. Highlight the event you want to cancel.
2. Press CLEAR on the remote control.
3. Use the pop-up menu panel to cancel the purchase.

Pay per view purchases list
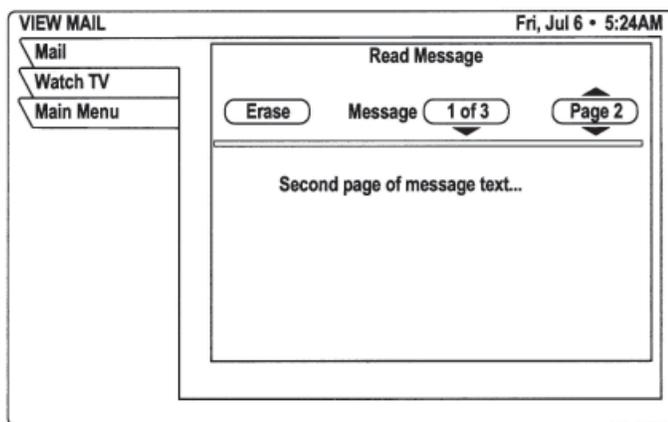
4-16.6.19 Viewing Mail

DIRECT TV uses the **MAIL** feature to send you important information, inform you of special events, and tell you about special offers. When you receive a new message, a New Mail icon appears at the top of all menus until you read the message. Highlight and SELECT the **View Mail** tab from the **MAIN MENU**.

Message - Cycle through multiple messages, SELECT the Messages button. Use the ⊕ joystick to navigate messages.

Page - Use the CHANNEL (CH) button to cycle through multi-page message.

Erase - Permanently remove a message. Messages are automatically deleted as they become outdated or if space is needed for newer incoming messages.

VIEW MAIL menu pane

4-16.6.20 Using Caller ID

Your DIRECT TV® Receiver shows you the name, time, and telephone number of recent calls on your TV as shown in the figure below.
Highlight and SELECT the Caller ID tab from the MAIN MENU.
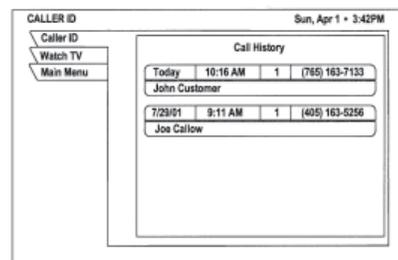
> **NOTE:** You must subscribe to Caller ID from your local telephone company to use this feature.

Call history screen

4-16.6.21 Using the Program Director
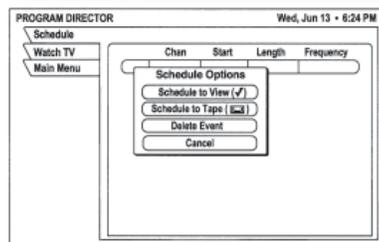
The PROGRAM DIRECTOR Schedule pane popup menu

You can program up to 32 events in advance for viewing or unattended recording. The PROGRAM DIRECTOR will tune to a program at a specific date and time, or tune on a repeating basis. As shown below, you can:

- Schedule programs for viewing (✓)
- Schedule programs for taping (◻)
- Select Cancel from the menu if you decide not to schedule anything.

To schedule or edit an event - The Schedule pane displays up to seven previously scheduled events at a time. If more than seven events are already scheduled, use the ⊕ joystick to scroll down to view the additional events. Small arrows at the top or bottom of the list indicate that there are additional events.

> **NOTE:** You can schedule events up to eleven months in advance.

To schedule a program:

1. Highlight an upcoming program in the program guide and press SELECT.
   Press SELECT again to cycle through the next available option.

   If you choose a scheduling option, the DIRECT TV® Receiver will turn on (if necessary) and tune to the specified channel at the chosen date and time.

2. If you chose Schedule to Tape and you have set up your VCR the DIRECT TV Receiver will record the event. For unattended recording:
   – Attach the VCR Control Cable and set up your VCR.
   – Set your VCR for the correct DIRECT TV Receiver output: RF (channel 3 / 4) or A/V (phono or S-Video).
   – Insert a blank videotape and leave the VCR turned on.

> **NOTE:** To clear a scheduled event: Select Delete Event.

Use the   joystick to specify AM or PM (or N for noon, or M for midnight)

3. Use the same procedure to set the program length in hours and minutes.

4. Use the   joystick to advance to the Frequency column.

5. Specify when, or how often, the event occurs: Today, Tomorrow, Every Mon, Every Tue, Every Wed, Every Thu, Every Fri, Every Sat, Every Sun, Everyday, Mon-Fri, or "/" (specify a date).

> **NOTE:** If you specify a date, use the month/day format. The year is set automatically.

After setting the Frequency, use the joystick to advance.

7. Review your settings and choose OK, or choose Cancel to delete the edits.

To cancel a program scheduled for viewing or taping:

Find the upcoming program in the program guide you wish to cancel and press SELECT until the check mark (✓) or videotape icon (◻) disappears.

If the program is currently airing, you must delete the event from the Schedule menu pane accessed from the PROGRAM DIRECTOR.

4-16.6.22 Setting Guide Preferences

Highlight and SELECT the Guide Options tab from the MAIN MENU. The Options screen (shown at right) allows you to customize operation to best suit your needs.
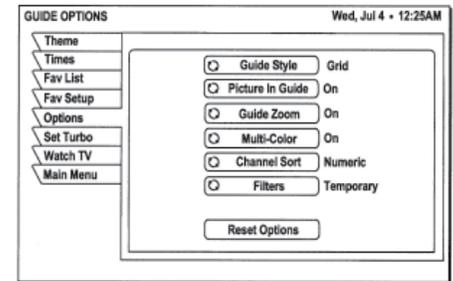
Selecting guide options

4-16.6.23 Adjusting Audio and Video
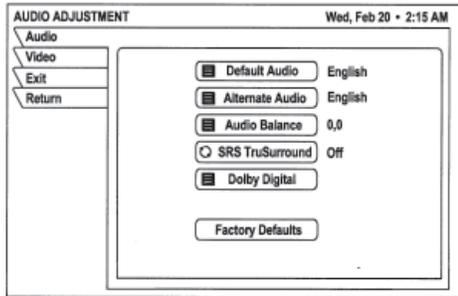
From the **MAIN MENU**, highlight and SELECT the **Audio & Video** tab. From the **AUDIO ADJUSTMENT** menu pane, you can change:

- Default Audio and Alternate Audio
- Audio Left/Right Balance
- TruSurround® Audio Processing
- Dolby Digital Output

Setting Default and Alternate Audio - Your DIRECT TV® Receiver supports alternate audio services. The [ALT. AUDIO] icon appears below the Information Banner or program guide date and time to indicate alternate audio is available for a particular program.

1. Press the remote control INPUT button to access these services.
2. Highlight the desired language.
3. Press SELECT.

Occasionally, an audio track may be offered that is not being broadcast, in which case the audio will not change or you will not hear any audio. Change channels to restore the audio track to the one specified on the **AUDIO ADJUSTMENT** menu.
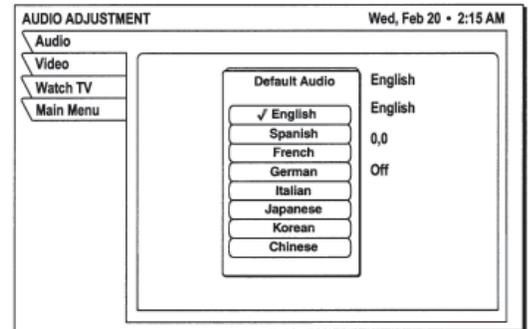
Setting the default audio language

Using Dolby Digital Audio (model GCEBOA only) Select the Dolby Digital audio, then use the CHANNEL (CH) button to step through the audio tracks for the current program. For programs that are offered in Dolby Digital, the double-D symbol ([DD]) appears with the audio track title.

Adjusting Audio Balance - To adjust the left/right audio balance, highlight and SELECT Audio Balance.

Use the ⊕ joystick to increase or decrease balance settings in the pop-up menu.

BLUE BIRD
Coachworks®
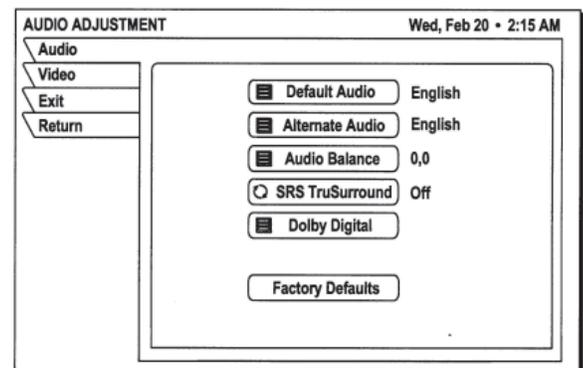
Adjusting the Screen Image - Adjust video display brightness, contrast, and saturation for the best image.
1. Highlight the **Audio & Video** tab from the **MAIN MENU**.
2. Press SELECT.
3. Highlight the *PicturePerfect* menu pane button.
4. Press SELECT.
5. Use the ⊕ joystick to increase/decrease the screen *Brightness, Contrast*, and image *Saturation* settings in the pop-up menu (as shown right).
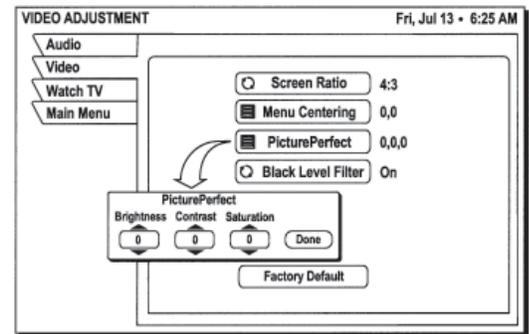
Adjusting screen image controls

4-16.6.24 Using WatchWord™
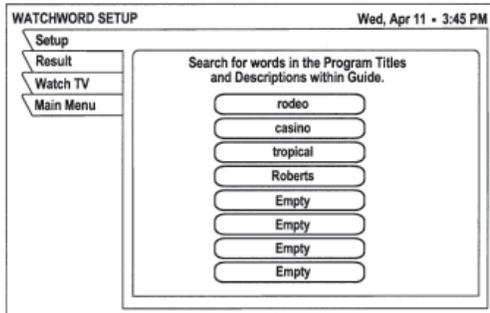
Search word entry list

Using WatchWord to search for specific words used in titles or descriptions. Press the remote control SEARCH button to access the setup pane shown.

You can specify up to eight search words or partial words to identify programming of interest to you. Program titles and guide descriptions containing your search words appear in the Result pane.

Highlight and SELECT one of the eight choices. A pop-up panel appears where you can enter a search word. If you entered "ALIEN," WatchWord might find the movie "Aliens" as well as any program which includes the word "alien" in the description.

Use the pop-up button board to enter search words. You can highlight and SELECT the toggle icon ⟳ on the default button board to change it to a standard keyboard layout, if you desire. Highlight the desired letter using the ⊕ joystick. Press SELECT to enter the letter. Select OK when you are finished entering the desired search words.
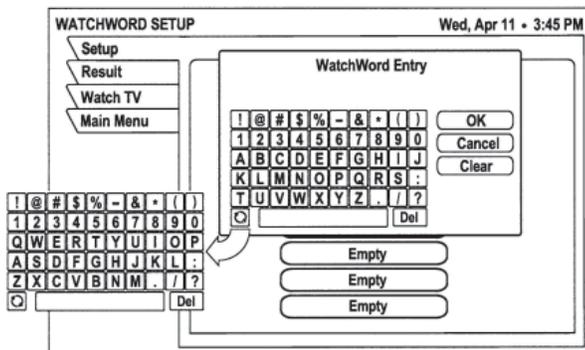
Using the toggle key to switch button board layout

4-16.6.25 Adjusting System Settings

Select the **System** tab from the **MAIN MENU** to access the system functions described in this section.

New Access Card - Highlight the **New Card** tab to set the receiver to use a new DIRECT TV® access card. SELECT the *Prepare new card* menu button and follow the on-screen instructions.

Use the **PREFERENCES** menu pane (*shown in the figure below*) to change the appearance of the on-screen menus and select how your DIRECT TV® Receiver operates with other devices. The **PREFERENCES** pane also allows you to:
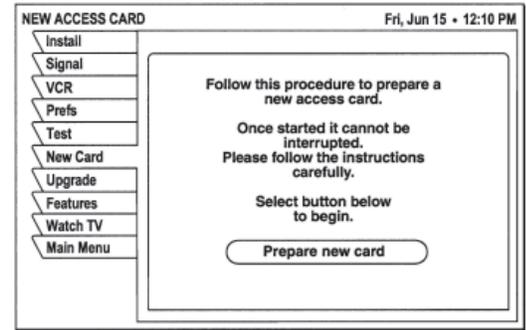
Prepare New Card menu pane
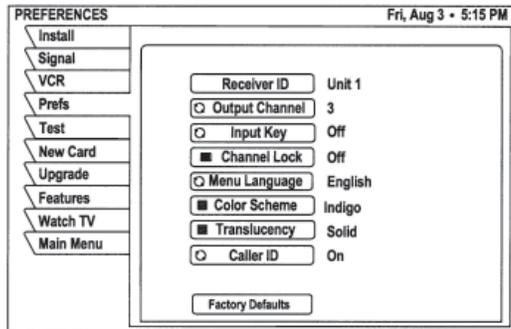
System Preferences menu pane

- Change the receiver ID
- Set the receiver output channel to channel 3 or 4.
- Enable or disable the INPUT button on your remote control.
- Lock the system on a particular channel.
- Select English or Spanish language menus.
- Enable or disable Caller ID on and off.

Change Receiver ID - If you are using:

- Multiple satellite receivers in the same room, or
- Multiple satellite receivers with the RF remote control on one of the receivers.

You may want to change the receiver ID to avoid interference or "cross talk." The remote control receiver ID can be a number from "001" to "008".

If you change receiver IDs, set your remote control to that ID number first. Use this procedure to set the remote control to use a different receiver ID:

1. From the **MAIN MENU**, highlight the **System Setup** menu tab. Press SELECT.
2. Highlight **Prefs** menu tab to display the **PREFERENCES** menu.
3. Highlight **Receiver ID** menu button.
4. Press and hold the remote control SAT button.
5. Press and release the MUTE button.
6. Release the SAT button. It should remain lit. If it does not, repeat steps 4-6.
7. Enter desired number (001 to 008).
8. Press the SAT button to lock in the code.
9. Point the remote control at the receiver. Press SELECT.

The number to the right the highlighted *Receiver ID* menu button will change to the new code. Check that the ID has been successfully set by testing the remote control to see that it controls that satellite receiver.

BLUE BIRD
Coachworks®

Lock a channel	Use the Channel Lock menu button to set the DIRECT TV® Receiver to permanently stay on a specific channel. When you enter a channel number (5-0-0, for example) then select OK, the receiver will always power up on that channel (channel 500 in this example). The receiver will ignore any attempts to change the channel. Set this option to "Off" to permit normal channel selection.
Select menu language	The Menu Language button allows you to display on-screen menus in English (default) or Spanish.
Change color schemes	You may select a menu color combination, or scheme, from these choices: Indigo, Ice, Sky, Forest or Merlot.
Set translucency level	The translucency level of the on-screen display may be set to Solid, Heavy, Medium, or Light.
Caller ID enable/disable	Use the Caller ID menu button to turn the Caller ID feature on and off. Incoming calls will not be displayed on-screen when the Caller ID feature is disabled.
Restore factory default settings	SELECT the Factory Defaults menu button to restore the PREFERENCES options to the original factory settings.
	Antenna, Signal, and Test functions are described in the *Getting Started Section* found earlier in manual

4-16.6.26 Using Program Guides

This section includes:

• The different program guide styles

• Common program guide and menu features

• How to use the OneLine™ Guide

• How to set-up and use the TurboTune™ Guide

4-16-6.27 Selecting a Program Guide Style

Personalize the program guide to show program listings that interest you. You determine how your choices appear onscreen by your guide selection. Available guide styles are:

• Grid with Picture-in-Guide or description

• Logo with Picture-in-Guide or description

Grid Guide

• Easy to see what programs are available at a particular time

• Shows up to 72 hours of current and upcoming programming.

• Picture-in-Guide displays the current program in the upper right corner.

• You can browse five channels of current and future programming at a time.

• Activate ad highlights provide "one-click" access to products and services.

• Programs appear in a row with the channel on which they are broadcast.

• Browse up or down one channel at a time with the joystick when the highlight is in the grid.

• Use the remote control CHANNEL (CH) button to scroll through a full page of guide entries at a time.

• Move the highlight to the right to show future programming.
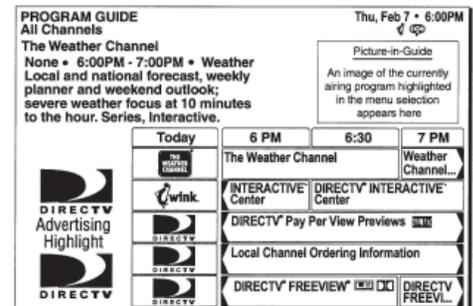
> **NOTE:** Cells with arrows indicate the program started at an earlier time or continues later than can be shown in the selected time period.
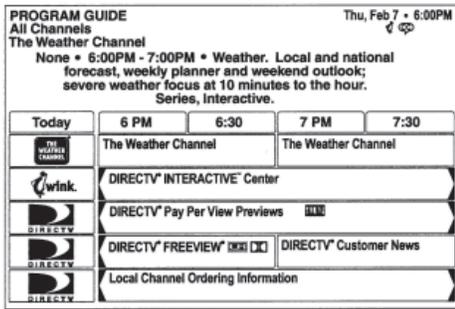
The guide time expands on two hours when active ad highlights are not available. You can also turn the Picture-in-Guide feature off as shown in the figure at left.

> **NOTE:** If a program title cannot entirely fit in the space provided, an ellipsis (...) indicates that a portion of the title is not shown.

To turn off the Picture-In-Guide feature:

1. Press the remote control GUIDE button.
2. Press the GUIDE button again to access the Options menu tab.
3. Highlight the Picture-in-Guide menu button.
4. Press SELECT to toggle the feature off.

> **NOTE:** Press the remote control GUIDE button while the program guide appears on-screen to display the Guide Options menu.

Logo Guide

- Select your favorite channels, rather than selecting specific programs.
- The current program title appears above the logo grid as you highlight each channel. Only current programming is available in the Logo Guide.
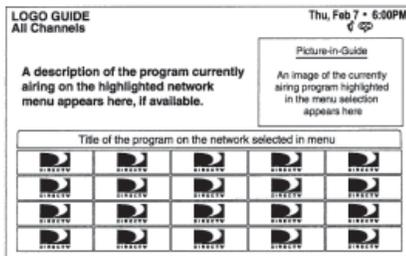
Logo guide with Picture-In-Guide active

- Video of the current program appears in the Picture-in-Guide window as you highlight each channel.

Use the Channel (CH) button to scroll through the guide entries a full page at a time, or use the ⊕ joystick to scroll through the guide entries one at a time.

You can display the most channels per screen by turning off the Picture-in-Guide feature, using the description-only mode.
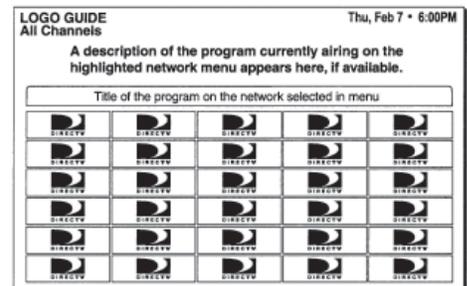
Logo guide with Picture-In-Guide disabled (description-only mode)

To select a guide style:

1. Press the remote control MENU button.
2. Use the ⊕ joystick to highlight and SELECT the **Guide Options** menu tab.
3. From the **Options** menu tab, highlight your selection and press SELECT.
4. Highlight and SELECT the **WatchTV** tab to return to the program you were viewing.

4-16.6.28 Program Guide and Menu Features

Common menu features
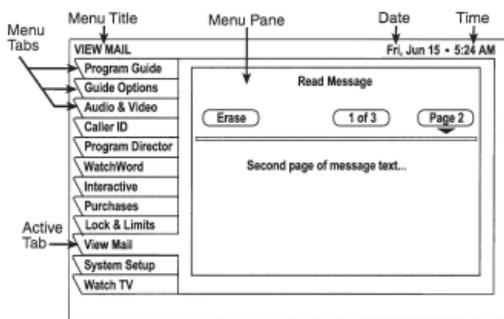
The on-screen guides and menus provide a logical and convenient way to access system features and settings. Every guide and menu contains these elements:

- The guide or menu title
- The day of the week, date, and time appear in the upper right corner
- Menu pane selection tabs

Use the ⊕ joystick to move the highlight from tabs into menu panes.

Below the date and time, small icons indicating the status of the system or details about the currently highlighted program title may appear. These icons also appear in the Channel Banner. See illustration on following page.

Channel Banner Icons

The Channel Banner appears at the top of the screen whenever you use the CHANNEL(CH) button to change channels. Press the remote control INFO button to display the banner at any time.

More detailed information appears in the Info Banner beneath the Channel Banner if you press the INFO buttons a second time. Banners disappear from the screen after a few seconds, but you can remove them from the screen instantly by pressing the CLEAR button on the remote control.

4-16.6.28 The OneLine™ Guide
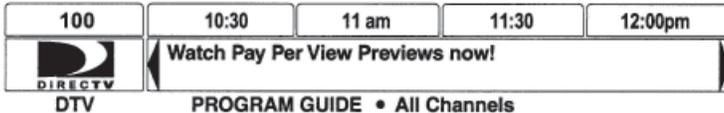
OneLine Guide

The OneLine™ Guide appears across the bottom of your screen when you press the ⊕ joystick up or down while watching TV. You will see the channel call sign and number, titles, and program start and end times as shown at left.

- Use the joystick to scroll to the right to see upcoming program titles.
- Display current or future program information in the Channel Banner by pressing the remote control INFO button.
- Use the⊕joystick to move up or down while using the OneLine Guide to see the next or previous available channel. Press SELECT to tune to the channel.
- You can also enter a channel number using the numeric keypad to display the OneLine Guide for that channel. OneLine content varies according to **FAV LIST** menu selections and other filters.
- Press the CLEAR button on the remote control to instantly remove the guide.

4-16.6.29 Using TurboTune™
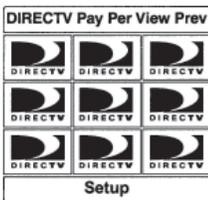
TurboTune Menu

The TurboTune™ feature is a quick guide to nine of your favorite channels.

Press the TURBO button on the remote control to show the TurboTune panel.

Use the ⊕ joystick to highlight the desired channel. The panel header displays the title of the program currently airing on the highlighted channel.

Press SELECT to tune to that channel.

To set TurboTune channels:
- Select Guide Options from the MAIN MENU, then use the Set Turbo menu tab or
- Press the TURBO button on the remote control then SELECT the Setup pane below the TurboTune Menu.
- Highlight an unassigned channel box and press SELECT.
- Enter the desired channel using the⊕joystick, numeric remote control buttons, or the CHANNEL(CH) button.

4-16.6.30 Setting Favorites and Filters

This section includes:
- How to create a channel list
- Renaming a channel list
- Using Auto Set, Add All, and Del All functions
- How to filter the program guide
- How to change guide times

4-16.6.31 Using Favorite Channel Lists

Channel Lists are provided to help you organize the hundreds of available channels into groupings suitable for your household. Each list can contain as many or as few channels as you wish. You can customize these groups several ways. For example, **Fav. A** could be Dad's favorite channels, **Fav. B** could be Mom's favorites, **Fav. C** could be the kids' channels, and **Family** could be all channels that Mom and Dad have deemed appropriate for the entire family.
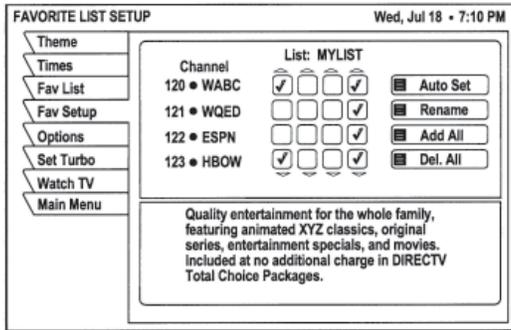
Creating a Channel List

1. Press the remote control **MENU** button.
2. Select the **Guide Options** from the **MAIN MENU**.
3. Use the ⊕joystick to highlight the **Fav Setup** tab.
4. Press SELECT to open the **FAVORITE LIST SETUP** pane shown below.

The four columns of small boxes on the right hand side of the pane are the Tag Boxes. The first three columns are the **Fav. A, Fav. B,** and **Fav. C.** channel lists. The farthest right hand column is the **Family** list.

📌   **NOTE:** If the receiver is locked, only existing Family list channels are accessible. If the Family list has not had channels added to it, no channels can be viewed without first unlocking the receiver. To avoid this inconvenience, create the Family list before locking the receiver. See *Using Access Controls* section later in manual for additional details about controlling system access.

5. Use the ⊕joystick to highlight the tag box that corresponds to the channel number and list that you wish to create or change.
6. Press SELECT to add or remove the check mark, which indicates that the channel in that row is included in the list shown at the top of the column. To help you decide whether to include or exclude a certain channel, the title of the program currently airing on that channel appears at the top of the screen.
7. Scroll up or down to view channels and descriptions. Press SELECT to add channels to your list.
8. When you have added all of the channels you want to your list, use the ⊕ joystick to highlight and SELECT the **Watch TV** tab to resume viewing.
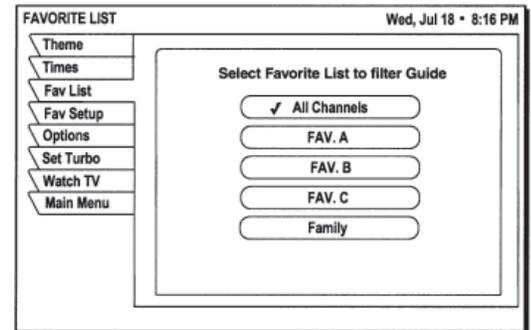
Once you have created your lists, use the remote control FAV button to cycle through them quickly and easily. Each press cycles to next channel list. You can also select a list by highlighting the Fav List tab.

Renaming a Channel List -

1. Highlight the **Rename** button and press SELECT.

    A **Rename List** pop-up menu appears. You can rename the first three lists. You cannot rename the **All** and **Family** lists.
2. Highlight the list you wish to rename and press SELECT. A button board pop-up panel appears.
3. Highlight the desired letter using the ⊕ joystick.
4. Press SELECT to enter the letter.
5. When finished, Select **OK.**

Creating an Auto Set List -

1. SELECT the **Auto Set** button. A pop-up menu appears showing each of the channel lists.
2. Highlight and SELECT a channel list to be programmed.

Once selected, the **Auto Set Progress** pop-up status panel appears. It may take several minutes for the receiver to scan through all of the channels and determine which ones you are authorized to receive. The results of this scan will be stored in the designated channel list.

BLUE BIRD
Coachworks®

> **NOTE:** Auto Set may exclude some channels such as the Music Choice channels or include some pay per view channels. This does not mean that the receiver is faulty. These channels were excluded or included due to the DIRECT TV® Receiver's analysis process. You can manually edit the lists to correct these oversights.

Adding and Removing All Channels

Selecting the **Del All** menu button clears all channels from the list you have chosen. **Add All** has the opposite effect, creating a list of all the channels you are authorized to receive.

4-16.6.32 Filtering the Program Guide

Press the remote control GUIDE button while in a guide. A pop-up menu provides filtering tools and ways to access other guide styles. By combining each of these filter options, you can quickly narrow down channels to those that match your viewing interests.

Using Theme Filters - From the **MAIN MENU**, SELECT the **GUIDE OPTIONS** tab. The **CATEGORY FILTER** menu appears, listing all available program category groups.

After choosing a category (other than All), the drop-down menu is replaced by the Types pop-up menu. This menu allows you to further refine a chosen theme. In addition to All, you can select popular categories that can be quickly selected using the remove control GUIDE button.
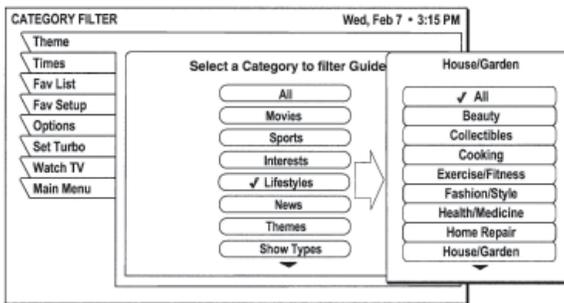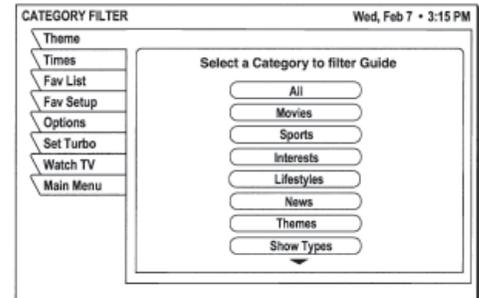
For example, if you select Lifestyles for the category, you can then choose a subcategory such as Beauty, Collectibles, Cooking, Exercises/Fitness, and others as shown in the figure below.

After selecting one of these subcategories, the guide will be further filtered to show only those channels offering programs of the selected category and type.

Selecting Guide Times - Highlight the **Times** menu tab. The **GUIDE TIMES** menu shown below provides easy access to future programming information. Simply select the time you want the guide to begin. After a few seconds, the selected guide appears.

4-16.6.33 Using Access Controls

This section includes:

*   How to lock and unlock the system
*   How to set a maximum ratings limit
*   Setting maximum spending and time limits

Locks & Limits provide settings to help you control the viewing restrictions of DIRECT TV® programming. When accompanied by the channel lists, these limits provide a great degree of control. The DIRECT TV® Receiver must be locked for the TV Timer, Rating and Spending limits to be enforced.

4-16.6.34 Locking & Unlocking the System

When you first receive your satellite system, it will be unlocked; (i.e., no limits or restrictions are in effect). You must lock the system to enforce the limits (spending, ratings, TV timer, and "Family" favorite list).
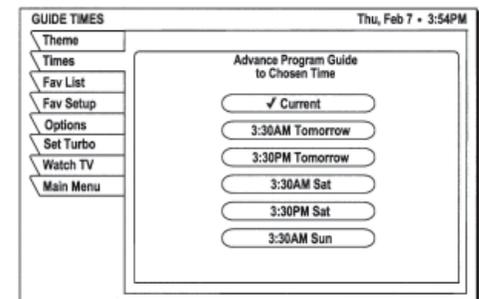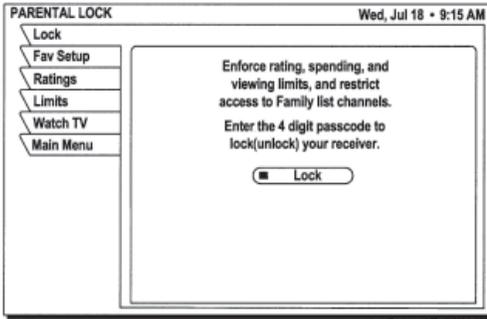
NOTE: Once the DIRECT TV Receiver is locked, only existing Family list channels will be accessible. If the Family list does not contain any channels, no channels can be viewed without first unlocking the receiver. To avoid this, verify the contents of the Family list before locking the receiver.

How to Lock the System - When you SELECT the Lock button, the LOCK SYSTEM pop-up panel appears.
1. Enter a four-digit passcode using the remote control.
2. Highlight and SELECT OK.
3. Enter the code again to confirm.
4. Highlight and SELECT OK.

NOTE: Pressing Cancel will clear the locking process.

Once you select OK, the satellite receiver is locked. You must enter the passcode to unlock it. A lock symbol icon appears at the top of every menu screen to remind you that the system is locked.

NOTE: If you forget your four-digit code, you must call DIRECT TV.
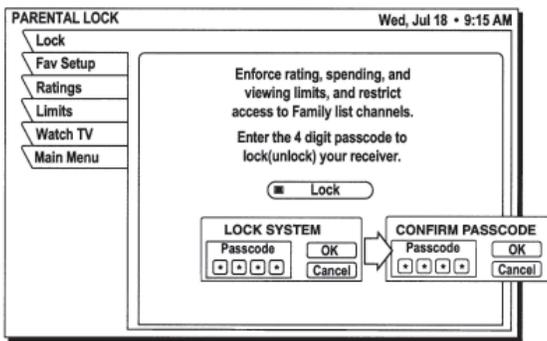
Unlocking the System - To remove the lock and its restrictions:
1. Highlight the **Locks & Limits** tab from the **MAIN MENU**.
2. SELECT the **Unlock** menu button.
3. Enter the code you entered to lock the system.

NOTE: The button used to lock the system is also used to unlock the system.

Once the system is unlocked, **all limits and restrictions are removed!** Choose **Cancel** to keep the lock in effect.

Setting Rating Limits - Program ratings indicate the suitability of a program's content for a given audience.

1. Highlight the Ratings tab.
2. Highlight and SELECT the type of programming content you wish to restrict.

For example, if you select the Violence menu button, a ratings pop-up submenu appears as shown in the following figure.

Highlight and SELECT the highest rating for violent program content you wish to allow. You may choose to **Block All** or **Allow All** instead of setting a specific limit.
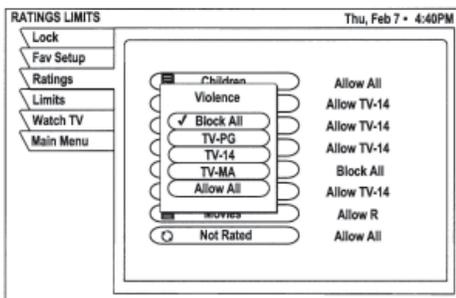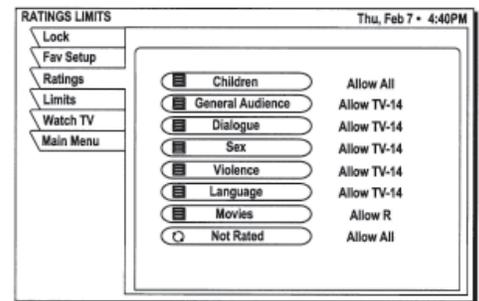
Setting Spending and Time Limits - Highlight the **Limits** tab to set the maximum spending limit. You can set the maximum purchase price on a per-event basis.

To change the displayed limit:

1. Highlight the **Max Spending** button

2. Press SELECT to display the **SPENDING LIMIT** pop-up panel.

Use this menu to set the specific hours and maximum hours the satellite receiver can be used for viewing.

3. Use the number buttons on the remote control to set the limit or use the joystick to increase or decrease each digit.

4. Use the joystick to highlight the digit that you want to change. The maximum limit is $655 per event.

5. Highlight **OK** and press SELECT to confirm the entered amount.

```
SPENDING/VIEWING LIMITS          Wed, Jul 18 • 10:11 AM
Lock
Fav Setup      ( ■  Max Spending )          $5.00
Ratings      ─────────────────────────────────────
Limits       ( Monday )      24:00 Hours allowed
Watch TV     ( Tuesday )     24:00 Hours allowed
Main Menu    ( Wednesday )   24:00 Hours allowed
             ( Thursday )    24:00 Hours allowed
             ( Friday )      24:00 Hours allowed
             ( Saturday )    24:00 Hours allowed
             ( Sunday )      24:00 Hours allowed
                  Total time watched today:  1:12
```
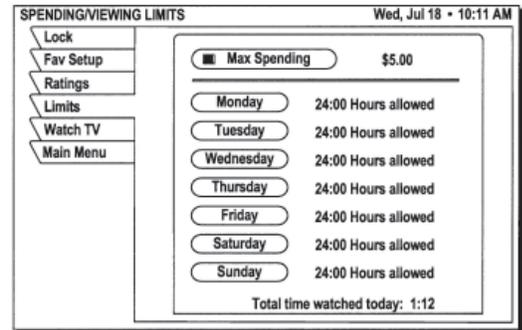
4-16.6.35 Questions and Answers

Questions? Did we leave something out? Below is a list that was compiled consisting of the most common questions and their answers.

Q *I had a signal but now I am getting a message "Searching for satellite signal. To access related utilities, press SELECT." What happened?*

A Rain clouds and snow can affect the satellite signal reception. This loss of signal is temporary. Also check for new growth on trees and bushes that could be blocking the signal. One other possibility is that the wind or someone has moved the satellite dish antenna.

Q *Why can't I control my TV?*

A Before you can control your TV, VCR, or any other device besides your satellite receiver, you must program your remote control to match your different devices. See *Using the Remote Control* section in this manual for specific instructions. If you have already successfully programmed your remote control, try pressing the appropriate key to put your remote in the proper mode. Then try controlling that device. Also, make sure that the batteries in the remote control are good.

Q *My satellite receiver does not respond when I press keys. What's wrong?*

A Most likely, if the front panel keys work but the remote control doesn't work, try pressing the SAT button before trying to control the digital satellite receiver. If that doesn't work, press the SAT and MUTE buttons together and try again. If that doesn't work, or if the front panel buttons don't work either, unplug your digital satellite receiver for 30 seconds, then plug it back in. Your satellite receiver is a computing device. it is susceptible to erratic changes in power and/or signal, just as any other computer, and these sudden changes can cause it to become "confused."

Q *Some channels look good, while others freeze or indicate that no signal is available. What's wrong?*

A The most common causes for this behavior relate to an improperly grounded satellite cable. Check the cable between your digital satellite receiver and the satellite dish antenna. Confirm that RG-6 (not RG-59) cable is used and does not exceed 100 feet in length. Longer cable runs require amplification. This special amplifier is available from your dealer.

Q *How can I watch one channel while recording another?*

A With only one digital satellite receiver, unfortunately, you can't. Each receiver can only decode one channel at a time.

Q *I'm getting a message to call some extension, Why?*

A There are many different reasons for this. If you want to watch the channel that is displaying the message, call DIRECT TV at 1-800-531-5000.

Q *Why don't I have an on-screen offer to purchase pay per view programs?*

A There are three possibilities; your digital satellite receiver must be connected to a phone line and it is not, or DIRECT TV doesn't realize that your phone line is connected or has disabled your ability to make on-screen purchases. Call DIRECT TV at 1-800-531-5000 for assistance.

Q   *Can I receive my local TV programs through my digital satellite receiver?*
A   There are three ways to receive local programming:

1. If you are in an area where local programming is available via satellite and have the proper satellite dish antenna, contact DIRECT TV to arrange for the necessary subscription package.

2. Install a traditional antenna (i.e., roof mounted, attic mounted, rabbit ears).

3. Arrange for basic or "lifeline" cable TV service from your local cable company.

If you select item 1 above, your local programming appears in the program guide like any other channel. For options 2 and 3, connect the local signal to the IN FROM ANTENNA jack on the back of your digital satellite receiver. Use the INPUT key to switch between DIRECT TV® programming and local programming provided on the OUT TO TV connector.

Q   *I don't see Caller ID information appear on screen when I receive a telephone call. What could be wrong?*
A   There are several possible reasons. First, check that the satellite receiver is connected to an active telephone jack. Verify that the Caller ID feature is turned on. Confirm that you subscribe to Caller ID service from your telephone company. Also check that your antenna is properly grounded as shown previously, as this can affect how the Caller ID feature works.

Q   *If I have questions about my satellite system or need to have it serviced, who should I call?*
A   For issues regarding your equipment, contact Hughes Consumer Care Center directly at 1-800-274-8995, or if you prefer, call your dealer first. They are most familiar with your installation and needs. Also, they are likely to be local to you.
If you need assistance with your subscription, such as adding channels, contact DIRECT TV at 1-800-531-5000.

Q   *I think I set an event to record on my VCR, but when I played the tape back nothing was there. What could be wrong?*
A   There are several possible reasons for this. First, check that the VCR was programmed correctly and left turned on and the input matches the output from your digital satellite receiver. Confirm that you were authorized to tape the chosen program.

Q   *Why do I need to connect the satellite receiver to a telephone line?*
A   The telephone connection is used by the satellite receiver report purchase activity to DIRECT TV.

Q   *I picked up my telephone and it was making a hissing and squealing sound. Why?*
A   Your digital satellite receiver was reporting any pay per view activity that may have occurred. This rarely happens and only lasts for a minute or so.

Q   *What if my question isn't answered here?*
A   Call your dealer or Hughes Consumer Care Center at 1-800-274-8995. We will do our very best to answer your questions.

4-16.6.36 Manufacturers Device Control Codes

Use these codes to program your remote control to operate your system components.

BRAND	CODE NUMBER	BRAND	CODE NUMBER
Aiwa	034	MEI	031
Akai	016, 043, 046, 124, 125, 142, 146	Memorex	102, 101, 003, 010, 014, 031, 034, 053, 072, 139, 134
Ampro	072	MGA	045, 046, 059
Anam	031	Minolta	001, 156
Audio Dynamics	012, 023, 039, 043	Mitsubishi	001, 059, 061, 046, 051, 142, 045, 162
Broksonic	035, 037, 044, 129, 152	MTC	034, 040
Canon	028, 031	Multitech	024, 034
Capehart	108	NEC	012, 023, 043, 048, 039
Craig	003, 040, 135	Nordmende	043
Curtis Mathes	031, 041, 156	Optonica	053, 054
Daewoo	117, 119, 005, 116, 007, 010, 065, 108, 110, 112	Panasonic	070, 133, 031, 066, 160, 161
Daytron	108	Pentax	001, 013, 063, 156
Dimensia	156	Philco	031, 034, 067
DBX	012, 023, 039, 043	Philips	031, 067, 034, 101, 054, 071
Dynatech	034, 053	Pilot	101
Electrohome	059	Pioneer	021, 013, 048
Emerson	006, 029, 035, 025, 027, 034, 036, 037, 046, 101, 129, 131, 138, 017, 031, 044, 152, 157, 153	Portland	108
		Quartz	002, 014
Fisher	003, 008, 009, 101	Quasar	070, 133, 160, 161, 031, 066
Funai	034	Radio Shack	123
GE	031, 072, 144, 147, 063, 151, 107, 109, 156, 126	RCA	001, 107, 109, 144, 147, 151, 041, 034, 040, 156, 031, 140
Go Video	040, 132, 136		
Goldstar	101, 123, 012, 001, 114	Realistic	003, 008, 010, 014, 031, 034, 040, 053, 054, 101
Harmon Kardon	012, 045		
Hughes	001	Rico	057, 078
Hitachi	001, 026, 034, 063, 137, 150, 156	Salora	014
Instantreplay	031	Samsung	102, 040, 032, 104, 107, 109, 112, 113, 115, 120, 122, 125, 159
JCL	031		
JCPenney	001, 012, 040, 101, 156, 066	Sansui	043, 048, 135, 022
Jensen	043	Sanyo	003, 010, 102, 007, 014, 134
JVC	048, 050, 043, 130, 060, 012, 031, 150, 055, 158	Scott	017, 037, 044, 129, 131, 112, 159
		Sears	001, 003, 008, 009, 010, 014, 017, 081, 101
Kenwood	014, 034, 047, 048, 023	Sharp	031, 054, 053
Lloyd	034	Shintom	024
LXI	034, 003, 009, 017	Signature	034
Magin	040	Sony	003, 031, 052, 056, 057, 058, 149, 155
Magnavox	067, 031, 034, 041, 068, 154, 160, 064	Soundesign	034
Marantz	067, 069, 031, 012, 023	STS	001
Marta	101	Sylvania	031, 059, 034, 067
Matsui	027, 030	Symphonic	034

Table 1: VCR Brands and Remote Control Codes

BRAND	CODE NUMBER
Tandy	010, 034
Tatung	039, 043, 023
Teac	034, 039, 043, 023
Technics	031, 070
Teknica	031, 019, 034, 101
TMK	006
Toshiba	112, 008, 131, 047, 059, 082, 001, 042
Totevision	040, 101

BRAND	CODE NUMBER
Unitech	40
Vector Research	012
Video Concepts	012, 046, 034, 141
Videosonic	040
Wards	003, 001, 024, 031, 034, 040, 053, 054, 017, 131
Yamaha	012, 043, 034, 039
Zenith	072, 080, 056, 048, 034, 101, 058

Table 1: VCR Brands and Remote Control Codes - Continued

BRAND	CODE NUMBER
Admiral	072, 081, 160, 161
A Mark	112, 143
Akai	070, 146
Amstrad	052
Anam	043, 054, 056, 080, 112
AOC	070, 004, 058, 112
Audiovox	076, 120
Blaupunkt	088
Cairn	206
Candle	070, 002, 003, 004
Capehart	058
CCE	001, 004, 024
Cetronic	043
Citizen	070, 002, 003, 004, 043, 101, 103, 143
Classic	043
Concerto	004
Contec	043, 050, 051
Coronado	143
Craig	043, 054, 191
Crown	043, 143
Curtis Mathes	070, 101, 143, 004
CXC	043
Daewoo	076, 103, 004, 016, 043, 114, 120, 127, 143, 128, 136, 192, 044
Daytron	004, 143
Dynasty	043
Dynatech	062
Electrohome	024, 076, 120, 143
Emerson	004, 005, 028, 043, 047, 048, 050, 051, 076, 120, 143, 151, 153, 154, 155, 070, 096, 191

BRAND	CODE NUMBER
Fisher	007, 057
Fujitsu	198
Funal	028, 043
Futuretech	043
GE	160, 165, 161, 070, 008, 009, 034, 056, 073, 074, 130, 155, 167, 004, 145
Goldstar/LG	004, 106, 110, 112, 119, 127, 143, 193
Gradiente	004, 038, 106
Hall Mark	004
Hitachi	007, 011, 004, 009, 010, 012, 023, 072, 075, 143, 158
Infinity	164
JBL	164
JCPenney	070, 004, 008, 009, 024, 030, 065, 101, 160, 143, 156
Jensen	013
JVC	001, 034, 038, 083, 199
KEC	043
Kenwood	070, 001
Kloss	002, 059
KMC	143
KTV	043, 143, 154, 070
Lodgenet	072
Logik	072
Luxman	004
LXI	007, 015, 052, 081, 160
Magnavox	003, 004, 022, 059, 060, 061, 063, 064, 070, 094, 127, 160, 164
Marantz	070, 164
Matsui	164
Memorex	004, 007, 072
Metz	088

Table 2: Television Brands and Remote Control Codes

BLUE BIRD
Coachworks®

BRAND	CODE NUMBER
MGA	023, 070, 004, 023, 028, 042
Minerva	088
Mitsubishi	004, 023, 040, 043, 028, 146
MTC	070, 004, 062, 101
NAD	015, 025
NEC	070, 040, 016, 056, 024, 130, 134, 019, 004
Nikei	043
Onking	043
Onwa	043
Optonica	019, 081
Orion	201, 202, 203, 204, 205
Panasonic	034, 080, 056, 164
Philco	070, 003, 059, 060, 064, 004, 056, 063, 023, 164
Philips	164, 093, 038, 005, 059, 127, 070, 003, 004
Pioneer	025, 070, 004, 018, 023, 190
Portland	004, 143, 165
Proscan	160, 161, 167, 145, 065
Proton	004, 058, 112, 143, 171, 173
Quasar	034, 056, 080, 164
Radio Shack	004, 019, 043, 127, 143
RCA	160, 161, 156, 165, 070, 004, 023, 024, 056, 074, 153, 167, 145
Realistic	007, 019, 043, 047
Runco	072, 130
Sampo	004, 070, 058, 207
Samsung	101, 004, 050, 089, 105, 160, 127, 143, 133
Sanyo	007, 020, 053, 057, 082
Scott	004, 028, 043, 048, 143
Sears	015, 030, 028, 094, 004, 007, 057, 082,143, 160, 167
Seleco	200

BRAND	CODE NUMBER
Sharp	081, 004, 014, 019, 022, 028, 143
Siemens	88
Signature	72
Sony	001, 085, 126, 166, 079
Soundesign	028, 003, 004, 043
Spectricon	112
SSS	004, 043
Supre Macy	002
Sylvania	003, 044, 059, 060, 063, 064, 070, 127, 160, 164
Symphonics	194, 052
Tandy	081
Tatung	056, 062
Technics	034, 080
Techwood	004
Teknika	002, 003, 004, 024, 028, 043, 072, 101, 143
Telerent	072
Tera	173
TMK	004
Toshiba	015, 030, 007, 040, 062,101
Universal	008, 009
Video Concepts	146
Vidtech	004
Wards	004, 019, 064, 008, 009, 028, 060, 061, 063, 072, 074, 143, 164, 165
Westinghouse	076, 120
Yamaha	004, 070
York	004
Yupiteru	043
Zenith	072, 073, 095, 103
Zonda	112

Table 2: Television Brands and Remote Control Codes - Continued

BRAND	CODE NUMBER
Adcom	146, 149, 227, 244
AMC	083, 084
Arcam	100
Audio File	093, 098
Audio Technica	221
Aiwa	111, 114, 117, 156, 170, 199, 203, 219, 231, 241, 254
Akal	181, 233
Anam	180
Bose	064, 137, 219
B & K	150, 152
Carver	013, 098, 107, 126, 129, 160, 163, 220, 245, 249
Clarion	151, 169
Denon	101, 133, 191, 202, 208, 246, 247
Enlightened Audio	078, 153
Fisher	107, 129, 157, 163, 176
Fosgate Audionics	228, 248
GE	216, 123
Harmon Kardon	073, 195, 248, 249
Haitai	119
Hitachi	088
JCPenney	109, 154, 178
Jensen	099
Jerrold	141
JVC	112, 198, 252
Kenwood	096, 104, 119, 125, 148, 151, 163, 171, 173, 242
Krell	223
Lexicon	215, 250
Luxman	066, 120, 205, 229
LXI	123, 177
Magnavox	126, 162, 185, 186, 224, 228
Marantz	074, 105, 126, 128, 139, 155, 162, 186, 232
McIntosh	251
Mondial	069, 225

BRAND	CODE NUMBER
MCS	108, 178
Mitsubishi	253
Meridian	013, 067
NAD	128
Nakamichi	072, 212, 234, 235
Niles	236
Onkyo	094, 115, 116, 209, 211, 255
Optimus	121, 125, 140, 181
Panasonic	131, 144, 187, 200
Parasound	085, 086, 090
Philips	136, 186, 126, 197
Pioneer	093, 132, 138, 210, 165, 189, 195, 201, 081, 230
Quasar	131, 187
RCA	109, 213, 166
Realistic	103, 122, 123, 124, 172, 174, 177, 179, 180, 194
Rotel	204, 218, 239
Sansui	196, 214, 126, 139, 075, 197
Sanyo	157, 129
Samsung	068
Scott	180, 190
Sharp	096, 125, 151, 161, 169, 182, 193
Sherwood	089, 127
Sony	097, 117, 147, 183, 200, 253, 237, 238, 188, 192
Soundstream	197
Starcom	141
Symphonic	124
Teac	102, 159, 180, 062
Technics	131, 184, 187, 200, 202, 208, 165
Toshiba	175
Wards	163
Yamaha	092, 120, 166, 240, 125, 169, 216
Zenith	222, 061

Table 3: AUX Audio Brands and Remote Control Codes

BRAND	CODE NUMBER
Hamlin	015, 017, 022
Jerrold/G.I.	010, 021, 025
Oak	008, 016, 023
Pioneer	007, 026, 027

BRAND	CODE NUMBER
Scientific Atlanta	002, 006, 013
TOCOM	003
Zenith	004

Table 4: AUX-CATV Brands and Remote Control Codes

BRAND	CODE NUMBER
Alpine	009
Apex Digital	076
Denon	030, 226
GE	035, 036
Goldstar, LG	028, 041
Harmon Kardon	217
Hitachi	011
JVC	031
Magnavox	038, 042, 008
Marantz	006, 007
Mitsubishi	032
NAD	077

BRAND	CODE NUMBER
Onkyo	207
Panasonic	003, 039
Philips	038, 042, 006, 007
Pioneer	034, 005, 010
Proscan	035, 036
RCA	035, 036
Samsung	029, 040
Sharp	004
Sony	037
Toshiba	038, 001
Yamaha	039, 079
Zenith	028, 041

Table 5: DVD Player Brands and Remote Control Codes

BRAND	CODE NUMBER
California Audio	047
Denon	043, 044
Fisher	047
Kenwood	060
Magnavox	048, 057
Mitsubishi	057
NAD	057
Optimus	049
Panasonic	047, 051, 054
Philips	048
Pioneer	055, 057

BRAND	CODE NUMBER
Quasar	047
Radio Shack	056
RCA	046
Realistic	049
Runco	058
Sanyo	052
Sharp	060
Sony	050, 053
Technics	047, 051, 054
Toshiba	060
Yamaha	045, 059

Table 6: DVD-Laser Disc Player Brands and Remote Control Codes

4-16.7 AV System General Information

4-16.7.1 Front A/V System

To watch cable without amp;
1. Turn on monitor and change channels via monitor .

To watch terrestrial antenna without amp;
1. Turn on monitor and change channels via monitor .

To watch satellite without amp;
1. Turn on monitor set to channel 4.
2. Turn on SATELLITE system and change channels via SATELLITE system.

To watch cable with amp;
1. Turn on monitor set to input 1.
2. Turn on AMP set to VCR.
3. Turn on VCR and change channels via VCR.

To watch terrestrial antenna with amp;
1. Turn on monitor set to input 1.
2. Turn on AMP set to VCR.
3. Turn on VCR and change channels via VCR.

To watch satellite with amp;
1. Turn on monitor set to input 1.
2. Turn on AMP set to TV.
3. Turn on SATELLITE and change channels via SATELLITE.

To watch VCR tape without amp;
1. Turn on monitor set to channel 4.
2. Turn on VCR play tape.

To watch VCR tape with amp;
1. Turn on monitor set to input 1.
2. Turn on AMP set to VCR.
3. Turn on VCR play tape.

To watch DVD without amp;
1. Turn on monitor set to channel 4.
2. Turn on DVD play disc.

To watch DVD with amp;
1. Turn on monitor set to input 1.
2. Turn on AMP set to DVD.
3. Turn on DVD play disc.

To listen to CD;
1. Turn on AMP set to DVD.
2. Turn on DVD play CD.

4-16.7.2 Rear A/V System

To watch cable without amp;
1. Turn on monitor and change channels via monitor .

To watch terrestrial antenna without amp;
1. Turn on monitor and change channels via monitor .

To watch satellite without amp;
1. Turn on monitor set to channel 4.
2. Turn on SATELLITE and change channels via SATELLITE.

To watch cable with amp;
1. Turn on monitor set to input 2.
2. Turn on AMP set to AUX.
3. Turn on VCR and change channels via VCR.

To watch terrestrial antenna with amp;
1. Turn on monitor set to input 2.
2. Turn on AMP set to AUX.
3. Turn on VCR and change channels via VCR.

To watch satellite with amp;
1. Turn on monitor set to input 2.
2. Turn on AMP set to AUX.
3. Turn on VCR set to input 1.
4. Turn on SATELLITE and change channels via SATELLITE.

To watch VCR tape without amp;
1. Turn on monitor set to channel 4.
2. Turn on VCR play tape.

To watch VCR tape with amp;
1. Turn on monitor set to input 1.
2. Turn on AMP set to AUX.
3. Turn on VCR play tape.

To watch DVD without amp;
1. Not Available.

To watch DVD with amp;
1. Turn on monitor set to input 2.
2. Turn on AMP play DVD.

To listen to CD;
1. Turn on AMP play CD.

BLUE BIRD
Coachworks

NOTES:

4-17 Electronic Step

4-17.1 Description and Operation

The coach is equipped with a single electronic step that automatically extends when motor home door is open and also has a switch just inside the door that enables the step as well.

The control unit is essentially a current sensor as well as a switching device. When the motor assembly moves the step tread moves to its extended position, or stops moving because of an obstruction such as a curb or the binding of a damaged or bent step frame, the motor draws a larger amount of current. The control unit "senses" the larger current draw and shuts off power to the motor.

All control units are equipped with an "ignition override system". This system is designed so that the coach cannot be driven with the step in the extended position, unless there is faulty wiring in which case, see notes below on how to handle this. When the step is locked in the extended position, the door is closed, and the ignition is turned on, the ignition override system will engage causing the step to automatically retract.

The "Last Out" feature is another safety feature designed to extend the step when the door is opened for the first time after the coach ignition is turned off, even if the power switch is turned off. When the ignition is switched on, the function of the power switch is disabled and the step will always extend when the door is opened and retract when the door is closed.

> **NOTE:** Follow the instructions in this manual carefully. Failure to do so may result in damage to the step control, the motor and/or the coach wiring. Such damage may also result in voiding the warranty.

4-17.1.1 Operating the Step

1. After the installation is complete and with the entrance door open, turn the power switch on.

> **NOTE:** Some steps are not equipped with a power switch. They are activated only with a door switch.

2. Close the door. The step should retract and lock in the "up" position.
3. Open the door. The step should extend and lock in the "down" position with the understep light on.

> **NOTE:** The understep light is not available on all step models.

4. If your step is equipped with a power switch, turn it off. The step should remain in the extended position with the understep light off when the door is closed. Turning off the power with the step retracted will hold the step in a retracted position as well.
5. With the power switch off, the step extended, and the entrance door closed, turn on the coach ignition. The ignition override system will go into effect and the step will automatically retract.
6. Turn the coach ignition off and open the door. The step will extend and lock in the "down" position. This is the "Last Out" feature.
7. The "Last Out" feature is only operative the first time the door is opened after the coach ignition is turned off.

When the coach ignition is on, the step will always activate with the door movement, regardless of the power switch position.

BLUE BIRD
Coachworks

4-17.1.1 In case of "Ignition Override System Failure"

> **NOTE:** If the yellow wire from the four-way connector is not connected to an ignition power source, the ignition safety system will be inoperative and the step will remain in the extended position. In this case, the power switch must be turned on for the step to retract.

WARNING!! If the coach is driven with the step in the extended position, there is the possibility of causing major damage to both the step and the coach.

4-17.1.2 In case of "Last Out Failure"

> **NOTE:** If the yellow wire from the four-way connector is not connected to an ignition power source, the "Last Out" feature will not operate.

Always remember. . .

BE SAFE. ALWAYS LOOK BEFORE YOU STEP OUT OF YOUR COACH. AND ALWAYS CHECK THE STEP BEFORE DRIVING AWAY. A FEW MINUTES NOW CAN SAVE COSTLY REPAIRS LATER ON.

4-17.2 Maintenance and Lubrication

Clean all dust, salt, and road grime from the step before lubricating. Lubricate all moving parts (bearings, pivot points, slides, clevis pin, and drive linkage ball) every 30 days with a good quality moisture and heat resistant penetrating grease. KwikLube™ Spray Grease is specially formulated to lubricate Kwikee Electric Steps and is recommended for lubricating all moving parts. Refer to the figures below for lubrication locations.

> **NOTE:** Silicone lubricants and WD-40 are not recommended as they have a tendency to evaporate and dry the mating surfaces, which leave them vulnerable to the elements.
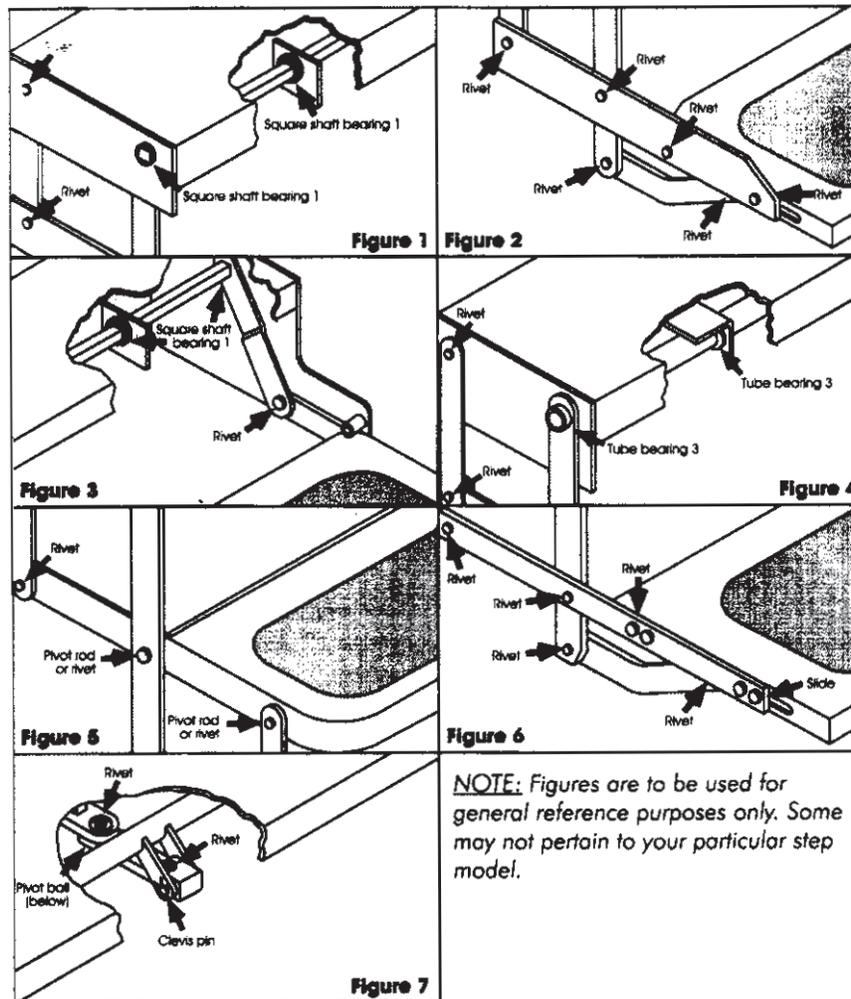
1. **Figures 1 & 3** – square shaft bearing – lubricate around outside and under head of bearing.

2. **Figure 4** – on step models equipped with plastic cover, this cover will have to be removed to lubricate center bearings. Lubricate bearings under cover every 90 days.

3. **Figure 4** – Lubricate around the bushing-in-bushings.

4. Maintain clean, dry electrical connections at the two-way and four-way connectors and any butt connections leading from the four-connector to the coach. A small dab of di-electric grease at the connections and replacing corroded butt connections with heat shrink type crimp style automotive connectors will help maintain a good electrical source for the step.

BLUE BIRD
Coachworks®

✎ NOTES:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

4-18 Electronic Shades
4-18.1 Automatic Shade Operation

The Spyder Controls Blind Control Module (BCM) is designed to control the motion of the electric window coverings in the coach. The BCM controls the window shades either individually or all at once in one direction. For control of blinds all at once refer to 4-20.1.3 To Operate Shade Switch Panels All At Once section found after section below.

4-18.1.2 Operating Shade Switch Panels
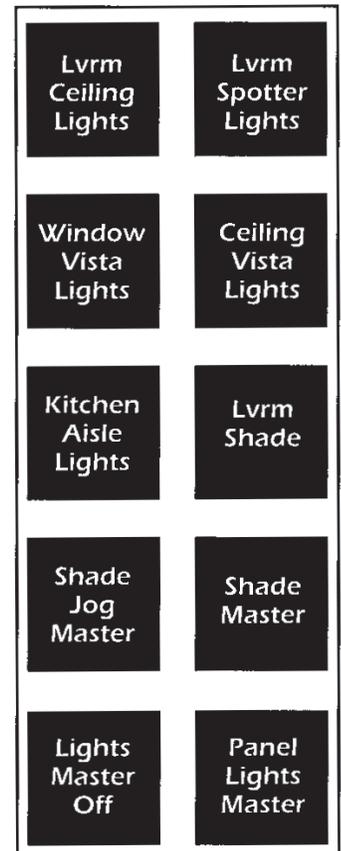
Individually

There is a single button to control each window shade (or set of shades) and each button is labeled to indicate the window shade that it operates. For instance, to operate the living room shade use the Lvrm Shade button. To operate the shades using the switch panels follow procedure below:

- OPEN - Quick push or "tap" of individual shade button, will move the shade in that area, down.

- STOP - Quick push or "tap" of same button, when shade is moving will stop shade in motion

- CLOSE - prolonged push (1 second) of same button, will move shade up.

> 🖎   **NOTE:** When the shade is activated the control module will run for 15 seconds or unless the shade button is tapped, in this case it will stop. If the shade is half-way down or up the module still runs its 15 second cycle, even if the shade has stopped moving. The reason for this is due to a built in limit switch inside the shade which disables the shade motor unless polarity is reversed. As a result of this, the module may still be running even if the shade has stopped moving.
>
> Usually, if the shade has stopped, and the button is tapped again to resume movement, and nothing happens a quick tap of the button again will start a new 15 second time cycle and shade will then begin to move.

Lvrm Ceiling Lights	Lvrm Spotter Lights
Window Vista Lights	Ceiling Vista Lights
Kitchen Aisle Lights	Lvrm Shade
Shade Jog Master	Shade Master
Lights Master Off	Panel Lights Master

Sample of panel with shade controls. Buttons may vary according to model of coach ordered. Buttons work the same.

4-18.1.3 To Operate Shade Switch Panels All At Once

The Shade Master button allows the shades to simultaneously open or close all at the same time.
- OPEN - Quick push or "tap" of shade master button, moves the shades down all at once.
- STOP - Quick push or "tap" of that same button, will stop all shades in motion.
- CLOSE - prolonged push (1 second) of same button, will move shades up all at once.

4-18.1.4 To Jog Shades to a Certain Position

The Shade Jog Master button allows the shades to be moved down in increments till the desired length of shade. To operate this button, hold down until shade is at desired length. This will move down in increments until the button is released.

BLUE BIRD
Coachworks®

NOTES:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

4-19 Stabilizing System

Your motorhome is equipped with a "Big Foot" Hydraulic Stabilizing System from Quadra Manufacturing, Inc. The Stabilizing System is compact and requires very little bay space which increases your cargo carrying capacity. This system is designed to be used in conjunction with the Hadley Air Leveling system in Section 4-5. The Air Leveling System is the primary leveling system; the hydraulic jacks are designed to stabilize a level coach - each of the four hydraulic jacks extend until it senses the ground. In an emergency situation, the hydraulic jacks can be used to manually level the coach as long as the jacks are operated in pairs as discussed in this Stabilizing Section.

4-19.1 Operating Instructions for Automatic Control Panel with Manual Option:

1. Turn Power Switch On

> **NOTE:** Immediately upon power initialization the system will enter a 30-second self-diagnostic mode, indicated by the Directional LEDs and the Level Indicator flashing. Upon completion of this mode, one or two Directional LEDs will be lit with one flashing. A lit LED indicates the end and/or side of the vehicle that is low. If the vehicle is in a level position, only the Level Light will flash.

2. Select Auto or Manual Mode by pressing the corresponding touch pad.

    If Auto Mode was selected, proceed to *"Automatic Mode"* Step 3.

    If Manual Mode was selected, turn to *"Extending Stabilizers Individually"*

AUTOMATIC MODE:

3. WAIT WHILE WATCHING THE PANEL.

The system will lower both legs at the lowest end of the vehicle. When the first leg reaches the ground it will cause the system to sense motion and stop. Next, each leg will be lowered individually confirming ground contact by causing the system to sense motion. The system will then repeat the process for the other end of the vehicle.

4. WAIT WHILE WATCHING THE PANEL

The system will repeat Step 3 for the other end of the vehicle then stabilize the vehicle in all other directions. Completion of this process is indicated by illumination of the Level Light.

4-19.1.1 Retracting Stabilizers while in Automatic Mode

IMPORTANT! After the stabilizers are retracted make a visual check to be sure all legs are retracted before moving the unit!

Determine if the power to the Control Panel was left on or turned off, and proceed as follows:

If the Control Panel Power Was Turned On: Press the Retract Pad and release. All legs will automatically retract and cause the All-Up LED to light.

If the Control Panel Power Was Turned Off: Turn power on and wait for the system to go through a 30-second self-diagnostic mode, indicated by the Directional LEDs and the Level Indicator flashing. Press the Retract Pad and hold in until all stabilizers are completely retracted as indicated by the All-Up LED being lit.

BLUE BIRD
Coachworks®