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Chapter 1 - Introduction

1.1 - Before Use

Congratulations on your VIZIO L32 32" LCD Television purchase. Thank you for your support of VIZIO and its LCD Television product line. The L32 is a precise electronic product and you should read the following instructions carefully to maximize its performance. It has passed regulatory safety certifications and you can be assured of the highest quality display with the utmost reliability. After you have finished reading the instructions, put them away in a safe place for future reference.

Note: In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

1.2 - Specifications

Panel	32" Color TFT Active Matrix LCD
Resolution	1366 x 768 pixels (WXGA format)
Colors	16.7 million
Display Compatibility	HDTV (720p) Native
Signal Compatibility	480i (SDTV), 480p (EDTV), 720p (HDTV), 1080i (HDTV)
Response Time	12 ms
Brightness	500 cd/m2 typical
Contrast	800:1
Viewing Angle	170° (horizontal), 170° (vertical) for CR>10
Inputs	1 x HDMI, 1 x RF (for internal NTSC tuner), 1 x RGB (Analog), 3 x Composite, 1 x S-Video, 2 x Component , 4 x Audio in (RCA), 1 x Digital Audio in, 1 x RS232, 1 x Serial port (DB9), 1 x PC Audio in (Mini jack), 1 x Headphone
Output	1 x Audio out (RCA)
Features	PiP, POP, Noise Reduction, 3:2 Pull Down, 3D Comb Filter, Progressive Scan, Aspect Ratio conversion, 3D D-interlacer, Gamma Correction, Stereo, MTS and SAP, Closed Caption, V-Chip
Speakers	Built-in 2 x 10 W
Lamp Life	50,000 hours (typical)
Power	
Input	IEC Connector for direct power line connection
Voltage Range	90– 264 VAC at 50/60 Hz
Power Consumption	160 W
Environment Conditions	
Operating	Temperature: 3~35°C, Relative Humidity: 10~90%, Altitude: 0~10,000 ft.
Non-Operating	Temperature: -20~50°C, Relative Humidity: 10~90%, Altitude: 0~40,000 ft.
Dimensions	33.13" (W) x 26.13" (H) x 11" (D) with stand, 33.13" (W) x 25.25" (H) x 5" (D) w/o stand
Net Weight	43.12 lbs w/stand, 34.41 w/o stand
Certifications	UL, C-UL, FCC Class B

1.3 - Opening the Package

- The VIZIO L32 is packaged in a carton together with other standard accessories. Any optional accessories are packed separately in another carton.
- The weight of the LCD display is approximately 44 lbs. Due to the size and weight of the product, it is suggested that it be handled by a minimum of 2 persons.
- Since the glass can be easily scratched or broken, please handle the product gently. Never place the unit on a surface with the glass facing downwards unless it is on protective padding.
- When opening the carton, check that the product is in good condition and that all standard accessories and items are included.
- Save the original box and all packing materials for future shipping needs.

1.4 - Installation

- Please read the user manual carefully before performing the installation.
- The power consumption of the display is approximately 160 watts, significantly higher than a typical television. Please use the power cord designated for the product. When an extension cord is required, use one with the correct power rating. The cord must be grounded and the grounding feature must not be defeated.
- The product should be installed on a flat surface to avoid tipping. Space should be maintained between the back of the product and the wall for proper ventilation. If you would like mount the TV to the wall, please see Section 3.3 - Preparing the LCD for Wall Mounting, page 25, for additional information.
- Avoid installing the product in the kitchen, bathroom or other places with high humidity dust or smoke, so as not to shorten the service life of the electronic components.
- Please ensure the product is installed with the screen in landscape orientation. Any 90° clockwise or counterclockwise installation may induce poor ventilation and successive component damage.

1.5 - Important Safety Guidelines

This product is designed and manufactured to operate within defined design limits, and misuse may result in electric shock or fire. To prevent the product from being damaged, the following rules should be observed for the installation, use and maintenance of the product. Read the following safety instructions before operating the display. Keep these instructions in a safe place for future reference.

- To avoid the risk of electric shock or component damage, switch off the power before connecting other components to the L32 LCD TV.
- Unplug the power cord before cleaning the L32 LCD TV. A damp cloth is sufficient for cleaning the L32 LCD TV. Do not use a liquid or a spray cleaner for cleaning the product. Do not use abrasive cleaners.
- Always use the accessories recommended by the manufacturer to insure compatibility.
- When moving the L32 LCD TV from an area of low temperature to an area of high temperature, condensation may form on the housing. Do not turn on the L32 LCD TV immediately after this to avoid causing fire, electric shock or component damage.
- Do not place the L32 LCD TV on an unstable cart, stand, or table. If the L32 LCD TV falls, it can injure a person and cause serious damage to the appliance. Use only a cart or stand recommended by the manufacturer or sold with the L32 LCD TV.
- A distance of at least 3 feet should be maintained between the L32 LCD TV and any heat source, i.e. radiator, heater, oven, amplifier etc.   Do not install the product close to smoke. Operating the product close to smoke or moisture may cause fire or electric shock.
- Slots and openings in the back and bottom of the cabinet are provided for ventilation. To ensure reliable operation of the L32 LCD TV and to protect it from overheating, be sure these openings are not blocked or covered. Do not place the L32 LCD TV in a bookcase or cabinet unless proper ventilation is provided.
- Never push any object into the slot on the L32 LCD TV cabinet. Do not place any objects on the top of the product. It could short circuit parts causing a fire or electric shock. Never spill liquids on the L32 LCD TV.
- The L32 LCD TV should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- The power cable must be replaced when using different voltage from that specified in the User Manual. For more information, contact your dealer.
- The L32 LCD TV is equipped with a three-pronged grounded plug, a plug with a third (grounding) pin. This plug will fit only into a grounded power outlet as a safety feature. If your outlet does not accommodate the three-wire plug, have an electrician install the correct outlet, or use an adapter to ground the appliance safely. Do not defeat the safety purpose of the grounded plug.
- Do not overload power strips and extension cords. Overloading can result in fire or electric shock.
- The wall socket shall be installed near the equipment and shall be easily accessible.
- Only the marked power source can be used for the product. Any power source other than the specified one may cause fire or electric shock.
- Do not touch the power cord during lightning. To avoid electric shock, avoid handling the power cord during electrical storms.
- Unplug the unit during a lightening storm or when it will not be used for long period of time. This will protect the L32 LCD TV from damage due to power surges.
- Do not attempt to repair or service the product yourself. Opening or removing the back cover may expose you to high voltages, the risk of electric shock, and other hazards. If repair is required, please contact your dealer and refer all servicing to qualified service personnel.
- Keep the product away from moisture. Do not expose this appliance to rain or moisture. If water penetrates into the product, unplug the power cord and contact your dealer. Continuous use in this case may result in fire or electric shock.
- Do not use the product if any abnormality occurs. If any smoke or odor becomes apparent, unplug the power cord and contact your dealer immediately. Do not try to repair the product yourself.
- Avoid using dropped or damaged appliances. If the product is dropped and the housing is damaged, the internal components may function abnormally. Unplug the power cord immediately and contact your dealer for repair. Continued use of the product may cause fire or electric shock.
- Do not install the product in an area with heavy dust or high humidity. Operating the product in environments with heavy dust or high humidity may cause fire or electric shock.
- Hold the power connector when removing the power cable. Pulling the power cable itself may damage the wires inside the cable and cause fire or electric shock. When the product will not be used for an extended period of time, unplug the power connector.
- To avoid risk of electric shock, do not touch the connector with wet hands.
- Insert batteries in accordance with instructions while using the remote control. Incorrect polarities may cause damage and leakage of the batteries, operator injury and contamination the remote control.
- If any of the following occurs please contact the dealer:
  o The power connector fails or frays.
  o Liquid sprays or any object drops into the L32 LCD TV.
  o The Display is exposed to rain or other moisture.
  o The Display is dropped or damaged in any way.
  o The performance of the Display changes substantially.
- Operating environment: Temperature: 5°C ~ 35°C, Humidity: 10% to 90% non-condensing, Altitude: 0~10,000 ft.

1.6 - Television Antenna Connection Protection

External Television Antenna Grounding
If an outside antenna or cable system is to be connected to the LCD TV, make sure that the antenna or cable system is electrically grounded to provide some protection against voltage surges and static charges.

Article 810 of the National Electrical Code, ANSI/NFPSA 70, provides information with regard 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 of the grounding electrode.
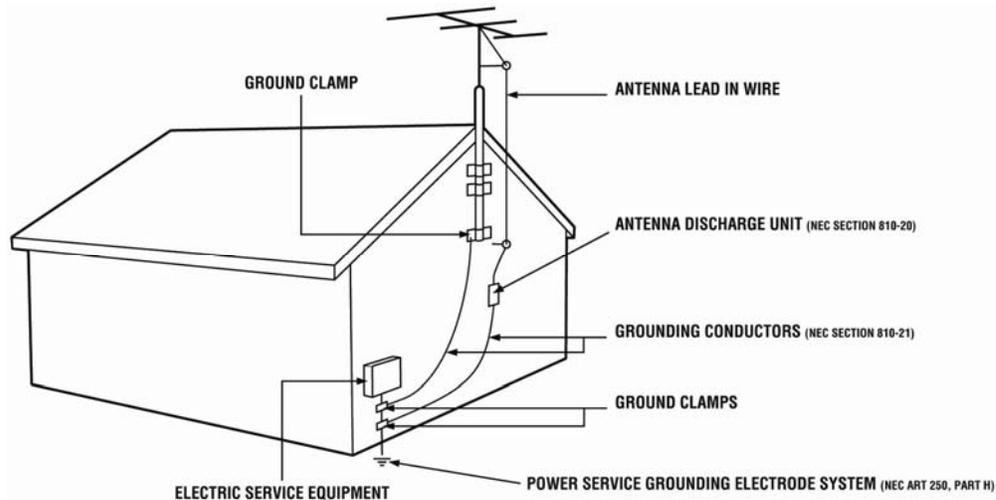
Lightning Protection
For added protection of the LCD TV during a lightning storm or when it is left unattended or unused for long periods of time, unplug the LCD TV from the wall outlet and disconnect the antenna or cable system.

Power Lines
Do not locate the antenna near overhead light or power circuits, or where it could fall into such power lines or circuits.

1.7 - Package Contents

VIZIO L32 LCD TV

VIZIO Universal Remote Control

Audio Video Cable (yellow, red and white connectors)

Power Cord

This User Guide

Quick Set Up Guide

Registration Card

Warranty Documentation

VIP Services Brochure

IMPORTANT: We recommend saving the original box in the case you need it for future shipping or moving.

Note: Your product may also include various other accessories depending on region of purchase. Additionally, the product image is for illustration purposes only. Final product may differ from the above.

Additional VIZIO Certified Accessories for the VIZIO L32 are sold separately:

Wall Mounts

High Definition Cables

Extra or replacement Remote

VIZIO also offers Installation Services and Extended Warranty Services for your VIZIO L32.

To purchase or inquire about accessories and services for your VIZIO product, visit our web site at www.vizioce.com or call us toll free at 1-888-VIZIOCE (888-849-4623).

1.8 - Front Panel Controls
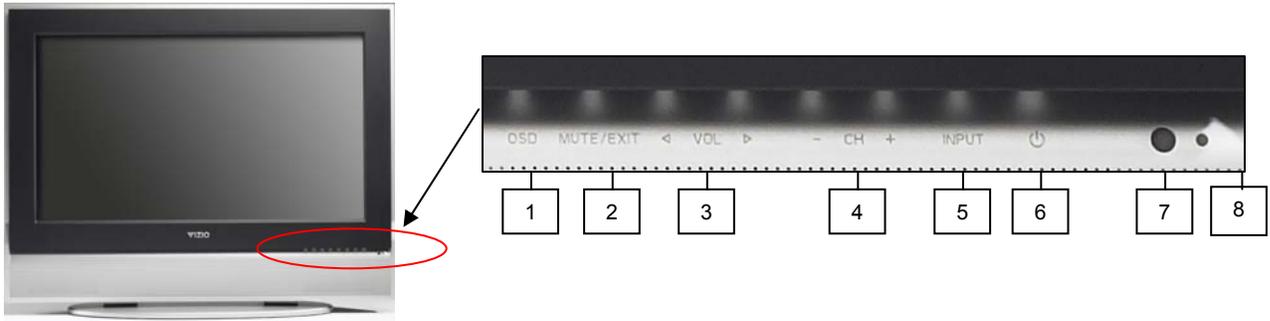
1. **OSD** – This button opens the OSD menu.

2. **Mute/Exit** – This button allows the user to turn off the sound on the LCD TV. Additionally, it functions as the exit button for the OSD menu.

3. **Volume ◄/►** - These buttons increase or decrease volume. When the OSD is active, these buttons adjust the OSD options.

4. **Channel** -/+ – These buttons increase or decrease the channels. When the OSD is active, these buttons are used to select OSD options.

5. **Input** – This button switches between the available input sources in the following sequence: AV1 and AV2 (Video), AV3 (side panel connections – S-Video and Video), Analog HD1 and Analog HD2 (Y-Pb/Cb-Pr/Cr), Digital HD (HDMI), RGB and TV. Press the button repeatedly to cycle through the available options.

6. **Power Button -** Switch the TV on by pressing the button once. Press the button again to turn the TV off.

7. **Remote Control Sensor** – This is the window that passes all of the remote signals to the sensor. Point the remote control directly at this window for the best response to the remote signal.

8. **Power Indicator Button** - If the button is solid orange, then your LCD TV is turned off. If the button is solid green, then your LCD TV is turned on. If the button is not lit, then there is not any AC power detected and the power cord is not connected properly. When turning the LCD TV on or off, wait three seconds before pressing the power button again.

1.9 - Side Panel Controls

1. **Head Phone Jack -** Connect external headphones (not included) to this port. Note: if headphones are connected, there will not be any sound coming from the speakers.

2. **Composite Video (V3) -** Connect a source for composite devices, such as a VCR of video games. Use the white (L3) and red (R3) connectors to connect the external audio from the same source.

3. **S-Video (AV3)** - Connect the primary source for S-Video devices, such as a VCR of video games. Use the white (L3) and red (R3) connectors to connect the external audio from the same source.

1.10 - Rear Panel Connections
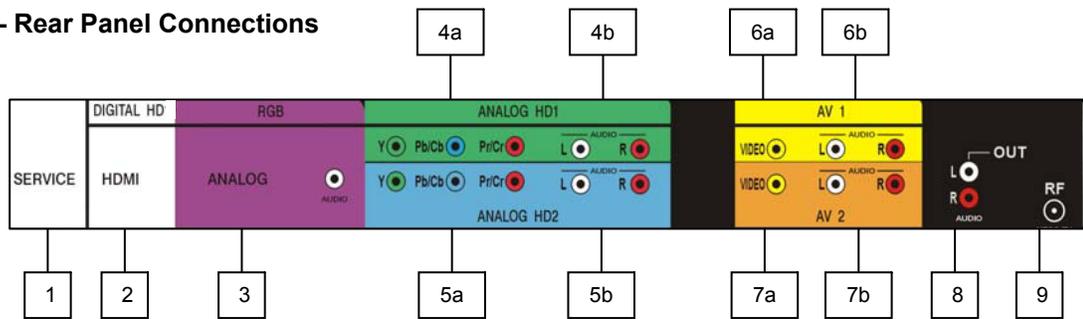
1. **Service** (RS232) - Used for factory service. (**do not** use without instructions).

2. **Digital HD (HDMI)** - Connect a DVD multimedia player, computer or set-top box and the audio through this connection. This connection is indicated by the white color band on the back of the display. *Note: This is a digital only connector.*

3. **RGB (Analog RGB/Audio In) -** Connect the video from a computer or set-top box and the audio from a computer or set-top box to these connections. This connection is indicated by the purple color band on the back of the display.

4. **Analog HD1 (Component Y-Pb/Cb-Pr/Cr with Audio L/R)** - Connect the primary source for component video, such as a DVD player or set-top box. Use the connectors indicated by the green, blue, and red (4a) for the video input and the white and red connectors (4b) for the audio input. This connection is indicated by the green color band on the back of the display.

Note: YPbPr is used for the following signals: 480i, 480p, 720p, and 1080i. YCbCr is used for 480i and 480p only.

5. **Analog HD2 (Component Y-Pb/Cb-Pr/Cr with Audio L/R)** - Connect the secondary source for component video, such as a DVD player or set-top box. Use the connectors indicated by the green, blue, and red (5a) for the video input and the white and red connectors (5b) for the audio input. This connection is indicated by the blue color band on the back of the display.

6. **AV1 In –** Connect the primary source for composite devices, such as a VCR or video game. Use the white and red connectors to connect the external audio from the same source. This connection is indicated by the yellow color band on the back of the display.

7. **AV2 In –** Connect the secondary source for composite devices, such as a VCR or video game. Use the white and red connectors to connect the external audio from the same source. This connection is indicated by the orange color band on the back of the display.

8. **Audio Out -** Connect the audio from the LCD TV to an external device, such as an external amplifier or secondary TV.

9. **NTSC TV (RF)** - Connect to the antenna, satellite or cable service.

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1.11 - VIZIO Universal Remote Control

The VIZIO Universal Remote Control is a comprehensive remote that can be used to control up to four different components. The remote control button functions are explained on the following pages.

VIZIO Universal Remote Control Button Description
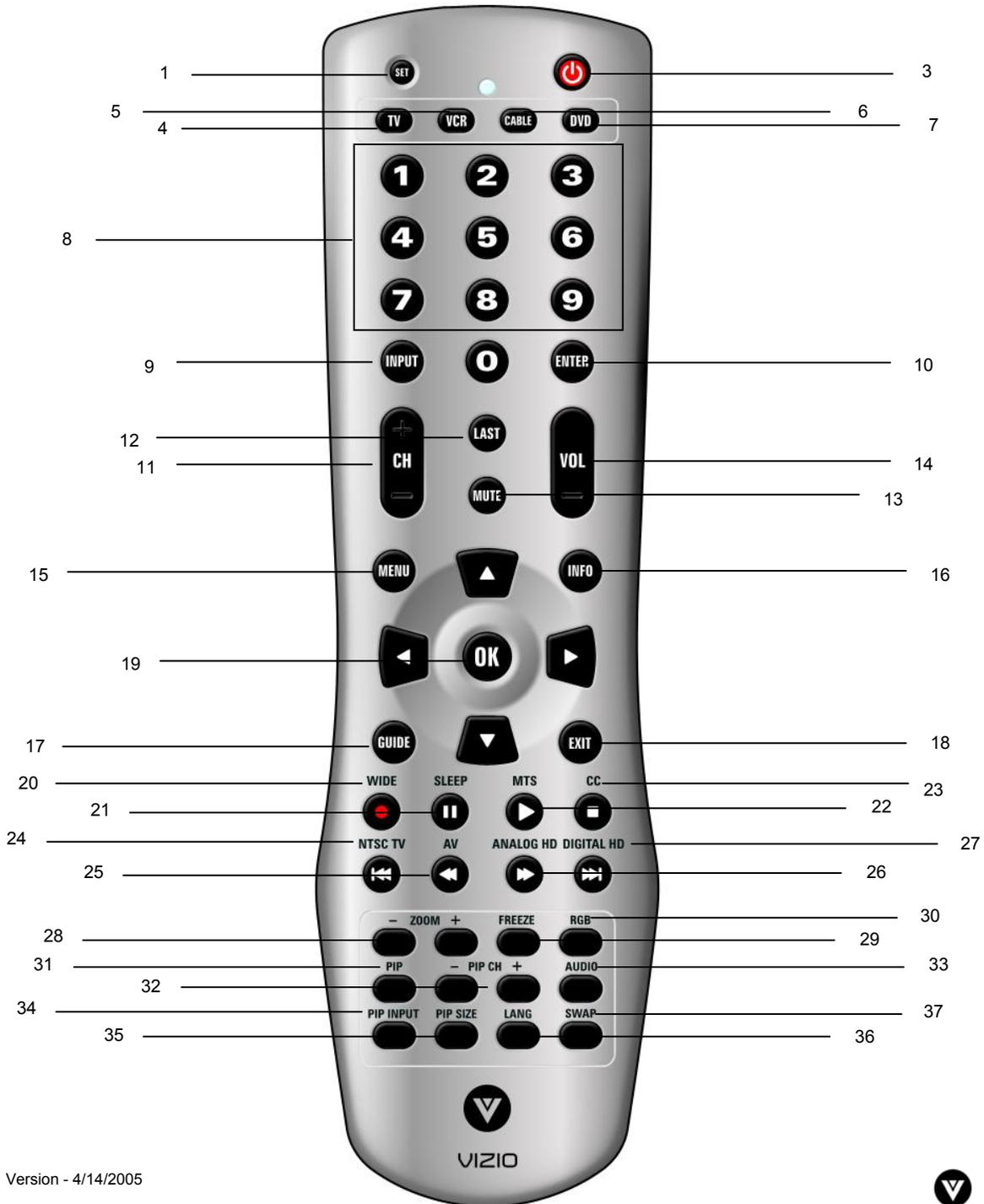
1.11.1 - Key Remote Control Functions

1. SETUP – This button starts all programming sequences.
2. Remote LED – Blinks when the remote is being programming or is sending a signal to your LCD display.
3. POWER – Press this key to turn the LCD display on from standby mode. Press it again to return to the standby mode.
4. *TV – This button selects a programmed TV. Note: this button has been pre-programmed for the VIZIO L32 LCD TV.*
5. VCR – This button selects a programmed VCR.
6. CABLE – This button selects a programmed cable TV set-top box or selects a programmed satellite TV set-top box.
7. DVD – This button selects a programmed DVD player.

8. Number Button Pad – Use these buttons to select a channel or enter a password.
9. INPUT – This button allows the user to cycle through the input sources.
10. Enter – This button works as an ENTER button in video modes.
11. CH (+ or -) – These buttons change the channels up or down.
12. LAST – This button recalls the previously viewed channel.
13. MUTE – This button turns the sound on and off.
14. VOL (+ or -) – These buttons turn volume up or down.

15. MENU – This button is used to turn the OSD on.
16. INFO – This button displays the image and system information display.
17. GUIDE – This button displays the electronic program guide. Note: this button is not functional for the VIZIO L32.
18. EXIT – This button exits the OSD menus.

    ▼▲▶◀ - These buttons navigate the on-screen display (OSD) menus.
19. OK – This button works to select your chosen option in on-screen display (OSD) menus.

20. *Record/Wide – This button functions as a VCR Record when the component is activated with the remote control. This button also cycles through standard and widescreen viewing modes. Options include Wide, Zoom, Panoramic and Normal. Note: in RGB mode, the only option is Wide.*
21. Pause/Sleep - This button pauses the CD, DVD or VCR when the component is activated with the remote control. Additionally, this button allows the user to select the sleep options by adjusting the timer in 30 minute increments up to 120 minutes.
22. Play/MTS – This button plays the CD, DVD or VCR when the component is activated with the remote control. Additionally, this button will select the MTS in the TV mode. Options include: Stereo, SAP or Mono.
23. Stop/CC – This button stops the CD, DVD or VCR when the component is activated with the remote control. Additionally, this button will select the Closed Caption menu in the TV mode. Options include the following: OFF, CC1, CC2, CC3, CC4, TT1, TT2, TT3 or TT4.

24. *Skip Channel Reverse/NTSC TV* - This button functions as a DVD skip channel reverse when the DVD player is activated with the remote control. This button also selects a programmed NTSC TV. *Note: this button has been pre-programmed for the VIZIO L32 LCD TV.*

25. Reverse/AV – This button rewinds the CD, DVD or VCR when the component is activated with the remote control. Additionally, this button will select the AV component in TV mode.

26. Forward/Analog HD – This button forwards the CD, DVD or VCR when the component is activated with the remote control. Additionally, this button will select the Analog HD component in TV mode.

27. Skip Channel Forward/Digital HD – This button functions as a DVD skip channel forward when the component is activated with the remote control. Additionally, this button will select the Digital HD component in TV mode.

28. *ZOOM (- and +)* – Use this key to zoom the image in or out. When in ZOOM mode, a small window will appear showing which area of the screen is enlarged. Use the arrow keys to move the zoomed portion. Press the OK or Zoom (-) button to return to the standard picture. *Note: users will not be able to return to the center.*

29. FREEZE – Press this key to "Freeze-Frame" the current screen. Users may press this key again to continue playing. Note: play will resume automatically after one minute.

30. RGB – This button selects a connected RGB component such as a PC.

31. *PiP* – Use this button to activate the picture-in-picture mode.

32. PiP CH (– and +) – These buttons are used to select the channels within the PiP screen when TV is the input selected.

33. *AUDIO* – Press this key to switch the audio from the main screen to the sub-screen while in PiP or POP mode.

34. PiP Input – Press this button to choose the PIP input from the OSD menu. Choose from one of the following: AV1, AV2, AV3, Analog HD1, Analog HD2, HDMI, RGB and TV. Note: Users must be in PiP mode for this button to be functional. *For additional information regarding the PiP options, see 3.5.3.2 - Picture-in-Picture (PiP) Mode, page 31.*

35. PiP Size – Press this button to select the size of the PiP screen from one of the following: small, medium or large.

36. LANG – This button is not functional for the VIZIO L32.

37. Swap – Used to swap the inputs from the main screen and the sub-screen while in the PiP mode.
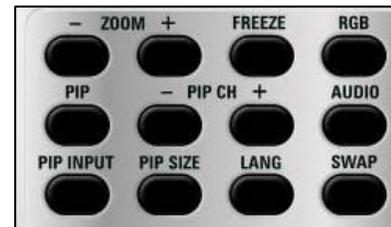
Note: The remote control layout is for reference only.

1.11.2 - Insertion of Batteries in the Remote Control

Insert two AA batteries into the remote control. Make sure that you match the (+) and (-) symbols on the batteries with the (+) and (-) symbols inside the battery compartment. Re-attach the battery cover.

Precautionary Tips for Inserting the Batteries:

- Only use the specified AA batteries.
- Do not mix new and old batteries. This may result in cracking or leakage that may pose a fire risk or lead to personal injury.
- Inserting the batteries incorrectly may also result in cracking or leakage that may pose a fire risk or lead to personal injury.
- Dispose of the batteries in accordance with local laws and regulations.
- Keep the batteries away from children and pets.

1.11.3 - Remote Control Range

- Point the remote control at the remote control sensor to transmit the commands.
- Do not place any obstacles between the remote control and the receiver window.
- The effective range of the remote control is approximately 32 feet (10 meters) from the front of the receiver window, 30º to the left and right, 20º up and down.

1.11.4 - Precautions for the VIZIO Universal Remote Control

- The remote control should be kept dry and away from heat sources. Avoid humidity.
- If the display responds erratically to the remote control or does not respond at all, check the batteries. If the batteries are low or exhausted, replace them with fresh batteries.
- When not using the remote control for a long period of time, remove the batteries.
- Do not take apart the batteries, heat them, or throw them into a fire.
- Do not subject the remote control to undue physical stress, such as striking or dropping it.
- Do not attempt to clean the remote control with a volatile solvent. Wipe it with a clean, damp cloth.

Chapter 2 - Connecting Components

2.1 - Which Video Connection Should I Use?

The VIZIO L32 LCD TV has six different ways to connect your video equipment:
Coaxial, Composite, S-Video, Component , RGB and HDMI (High Definition Multimedia Interface).

Connection Quality (type)	Connector	Color Codes for Rear Panel	Description
OK (analog)		NA	Coaxial RF. This is the only connection that has the audio and the video in one cable. If you have an antenna, this is the only way you can connect it to the LCD TV. If you have a VCR, you can connect your antenna/cable to the VCR RF Input and connect the VCR RF Output to this connector.
Basic (analog)		Yellow and Orange	AV1/AV2/AV3 (Composite) - The complete video signal is carried through this single pin connector. This is the most commonly used video connection.
Good (analog)		Side panel	S-Video (AV3) - The video signal is separated into two signals, one containing the black-and-white information and the other containing the color information. Separating the color in this way avoids 'cross color' effects where closely spaced black and white lines are erroneously displayed in color. It also enables text to be displayed more sharply.
Better (analog)		Green and Blue	Analog HD1/HD2 (Component) - This video signal is separated into three signals, one containing the black-and-white information and the other two containing the color information. This enhancement over S-Video takes advantage of the superior picture provided by progressive scan DVD players and HDTV formats.
Better (analog)		Purple	Analog RGB (VGA) - This video input has separate red, green and blue color components. The signal carries horizontal and vertical sync information on the green signal. This is most commonly used for PC input.
Best (digital)		White	Digital HD (HDMI - High-Definition Multimedia Interface) - It is the first and only industry-supported, uncompressed, all-digital audio/video interface. HDMI provides an interface between any audio/video source, such as a set-top box, DVD player, or A/V receiver and an audio and/or video monitor, such as a digital television (DTV), over a single cable.

HDMI logo and "High-Definition Multimedia Interface" are registered trademarks of HDMI Licensing LLC.

2.2 - Connecting Your DVD Player

You have several options for connecting your DVD player to your new L32 LCD TV – HDMI (Digital HD), Component (Analog HD), S-Video (AV), and Composite (AV) inputs. Based on your home theater configuration, you can decide which option is the right one for you.

2.2.1 - Using HDMI (Digital HD)

DVD players that have a digital interface such as HDMI (High-Definition Multimedia Interface) should be connected to the HDMI input of the VIZIO L32 LCD TV for optimal results.

> Note: To maintain the display quality, use a VIZIO certified HDMI cable that is 10 meters or less. See www.vizioce.com for details.

Installation:
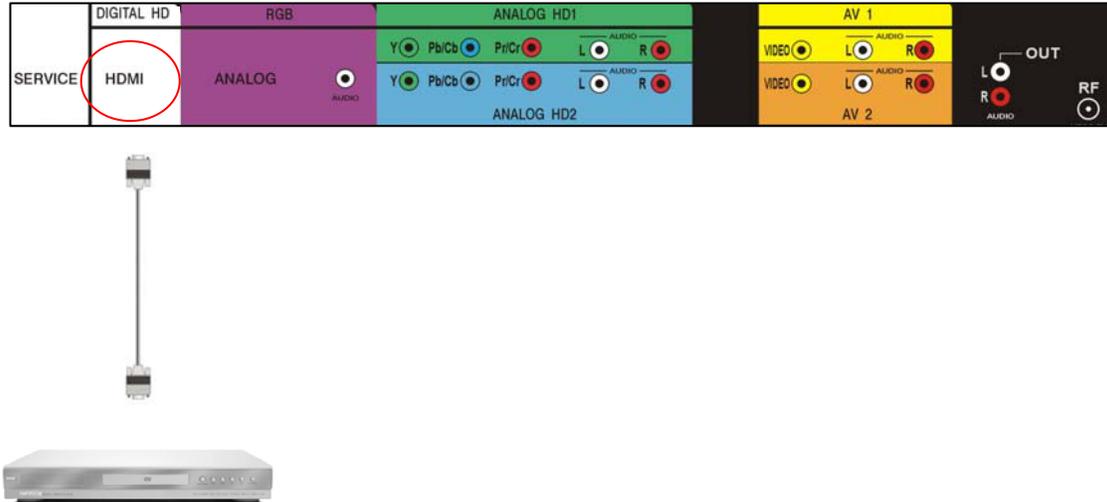
1. Turn off the power to the LCD TV and DVD player.
2. Connect a HDMI cable to the HDMI output of your DVD player and the other end to the HDMI input (white color band) in the rear of your LCD TV.
3. Turn on the power to the LCD TV and your DVD player.
4. Select Digital HD using the INPUT button on the front of the LCD TV.

> Note: Refer to your DVD player user manual for more information about the video output requirements of the product.

HDMI logo and "High-Definition Multimedia Interface" are registered trademarks of HDMI Licensing LLC.

2.2.2 - Using Component (Analog HD) Video

Installation:
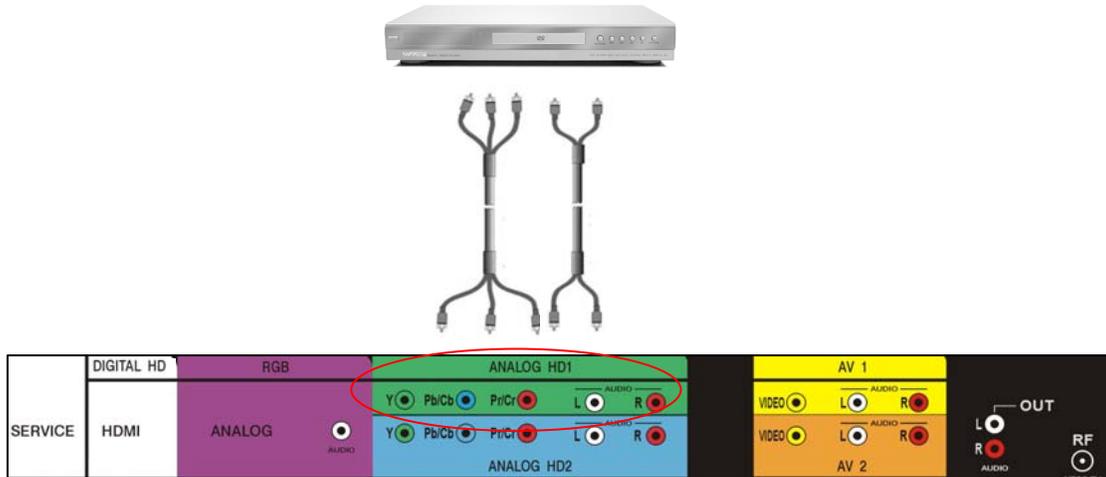
1. Turn off the power to the LCD TV and DVD player.
2. Connect the Y (green color) connector on the rear of your DVD player to the corresponding Y (green color) connector in the Analog HD1 group (green color band) in the rear of your LCD TV.
3. Connect the Pb (blue color) connector on the rear of your DVD player to the corresponding Pb (blue color) connector in Analog HD1 group (green color band) in the rear of your LCD TV.
4. Connect the Pr (red color) connector on the rear of your DVD player to the corresponding Pr (red color) connector in the Analog HD1 group (green color band) in the rear of your LCD TV.
5. Connect the R (red color) and L (white color) audio connectors on the rear of your DVD player to the R (red color) and L (white color) audio input connectors in the Analog HD1 group (green color band) in the rear of your LCD TV.
6. Turn on the power to the LCD TV and DVD player.
7. Select Analog HD1 using the INPUT button on the front of the LCD TV.

Note:
   a) If you are already using the Analog HD1 input for another component, or you do not want to use the Analog HD1 input for the DVD player, you can connect the DVD player to the Analog HD2 connections coded by the blue color band.
   b) Refer to your DVD player user manual for more information about the video output requirements of the product.

2.2.3 - Using S-Video (AV)

Installation:
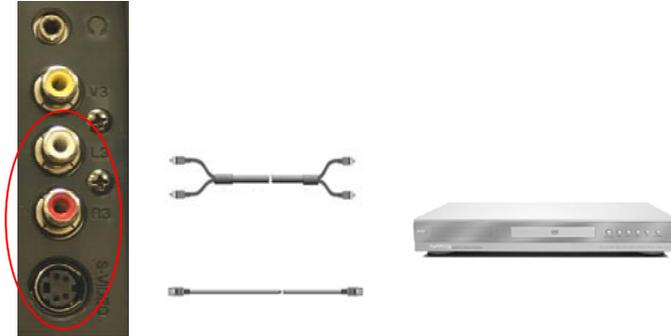
1. Turn off the power to the LCD TV and DVD player.
2. Connect the S-Video jack on the rear of your DVD player to the S-Video jack in the AV In group on the side of your LCD TV.
3. Connect the R (red color) and L (white color) audio connectors on the rear of your DVD player to the R3 (red color) and L3 (white color) audio input connectors in the side of your LCD TV.
4. Turn on the power to the LCD TV and DVD player.
5. Select AV3 using the INPUT button on the front of the LCD TV.

Note: Refer to your DVD player user manual for more information about the video output requirements of the product.

2.2.4 - Using Composite (AV) Video

Installation:
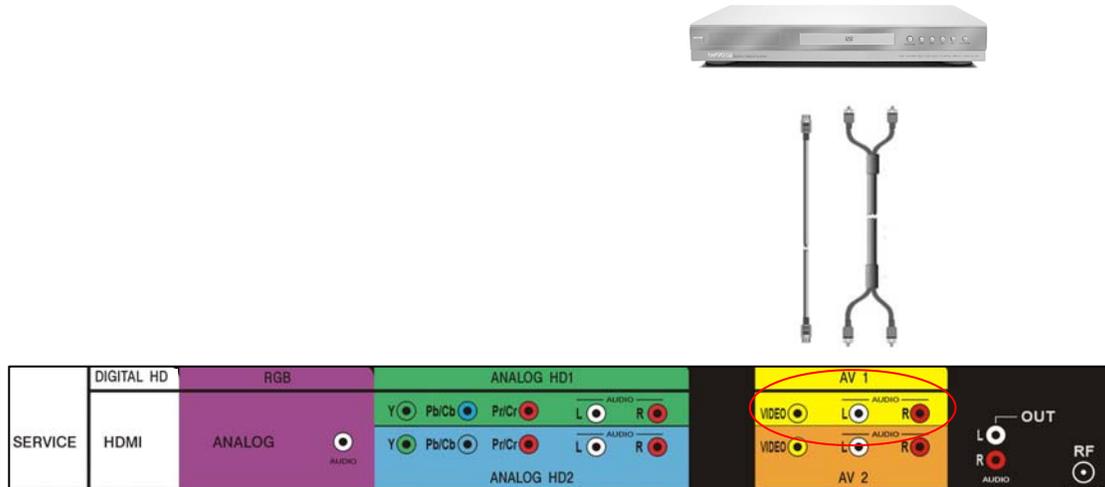
1. Turn off the power to the LCD TV and DVD player.
2. Connect the Video (yellow color) connector on the rear of your DVD player to the Video connector in the A/V 1 group (yellow color band) in the rear of your LCD TV.
3. Connect the R (red color) and L (white color) audio connectors on the rear of your DVD player to the R1 (red color) and L1 (white color) audio input connectors in the A/V 1 group (yellow color band) in the rear of your LCD TV.
4. Turn on the power to the LCD TV and DVD player.
5. Select AV1 using the INPUT button on the front of the LCD TV.

Note:
  a) If you are already using the AV1 input for another component, or you do not want to use the AV1 input for the DVD player, you can connect the DVD player to the AV2 in (orange color band). If you are using AV2, then please make sure you connect the audio in the AV2 group.
  b) Refer to your DVD player user manual for more information about the video output requirements of the product.

2.3 - Connecting Your HDTV Set-Top Box

You have several options for connecting your HDTV Set-Top Box to your new L32 LCD TV: HDMI (Digital HD) and RGB inputs. Based on your home theater configuration, you can decide which option is the right one for you.

2.3.1 - Using HDMI (Digital HD)

DVD players that have a digital interface such as HDMI (High-Definition Multimedia Interface) should be connected to the HDMI input of the VIZIO L32 LCD TV for optimal results.

> *Note: To maintain the display quality, use a VIZIO certified HDMI cable that is 10 meters or less. See www.vizioce.com for details.*

Installation:
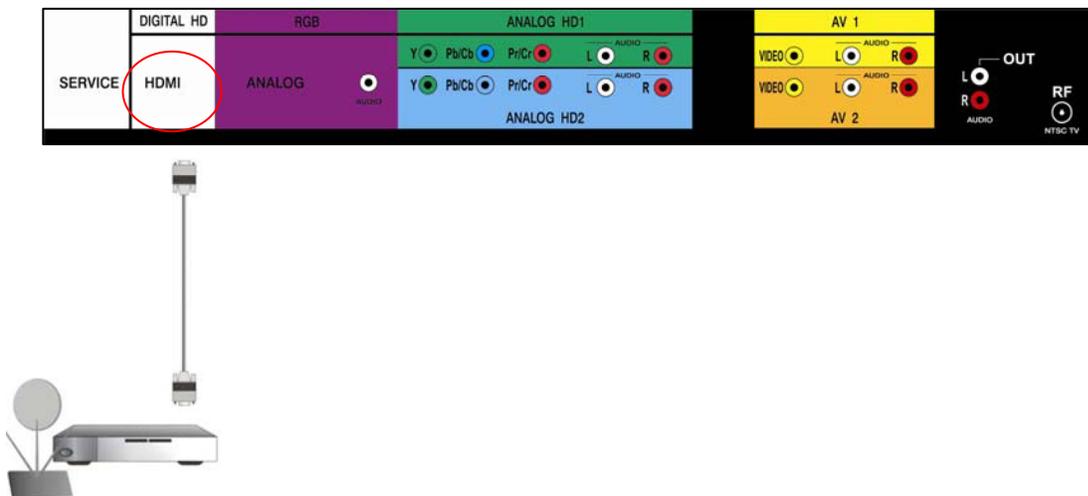
1. Turn off the power to the LCD TV and HDTV Set-Top Box.
2. Connect a HDMI cable to the HDMI output of your HDTV Set-Top Box and the other end to the HDMI input (white color band) in the rear of your LCD TV.
3. Turn on the power to the LCD TV and your HDTV Set-Top Box.
4. Select Digital HD using the INPUT button on the front of the LCD TV.

> *Note:*
> *a) The HDMI input on your LCD TV supports High-bandwidth Digital Content Protection (HDCP). HDCP encrypts the transmission between the video source and the digital display for added security and protection.*
> *b) Refer to your HDTV Set-Top Box user manual for more information about the video output requirements of the product or consult your satellite or cable operator.*

HDMI logo and "High-Definition Multimedia Interface" are registered trademarks of HDMI Licensing LLC.

2.3.2 - Using RGB Video

Installation:
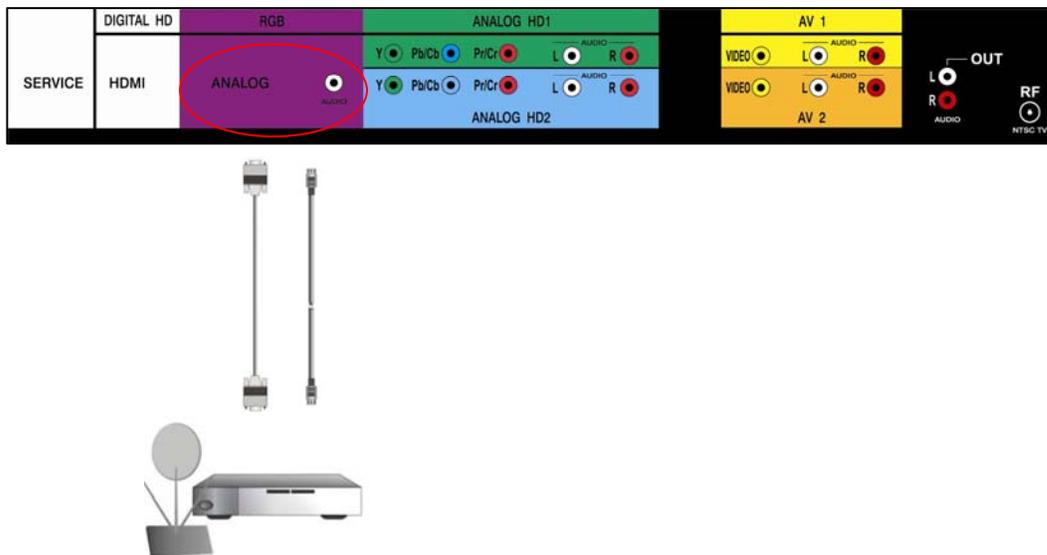
1. Turn off the power to the LCD TV and HDTV Set-Top Box.
2. Connect a 15-pin D-Sub RGB cable to the RGB output of your HDTV Set-Top Box and the other end to the RGB input (purple color band) in the rear of your LCD TV.
3. Connect the Audio Out on your HDTV Set-Top Box to the Audio within the RGB group (purple color band) on your LCD TV.
4. Turn on the power to the LCD TV and your HDTV Set-Top Box.
5. Select RGB using the INPUT button on the front of the LCD TV.

Note: Refer to your HDTV Set-Top Box user manual for more information about the video output requirements of the product or consult your satellite or cable operator.

2.4 - Connecting Your VCR or Video Camera

Installation:

1. Turn off the power to the LCD TV and VCR or video camera.
2. Connect the S-Video jack on your VCR or video camera to the S-Video jack on the side of your LCD TV.
3. Connect the R (red color) and L (white color) audio connectors on your VCR or video camera to the R (red color) and L (white color) audio input connectors on the side of your LCD TV.
4. Turn on the power to the LCD TV and VCR or video camera.
5. Select AV3 using the INPUT button on the front of the LCD TV.

Note: Refer to your VCR or video camera user manual for more information about the video output requirements of the product.

2.5 - Connecting Coaxial (RF)

There are several options for connecting your antenna or cable to your new L32 LCD TV - directly to the TV or through your VCR. Based on your home theater configuration, you can decide which option is the right one for you.

2.5.1 - Using Your Antenna or Cable TV

Installation:

1. Turn off the power to the LCD TV.
2. Connect the coaxial (RF) connector from your antenna, cable or cable box to the ANT connector on the rear of your LCD TV.
3. Turn on the power to the LCD TV
4. Select TV using the INPUT button on the front of the LCD TV.

> *Note: See page 27 for selecting the TV source within the OSD menus (antenna, cable, HRC and IRC). Make sure the antenna or cable TV is correctly grounded.*

2.5.2 - Using the Antenna through Your VCR

Installation:
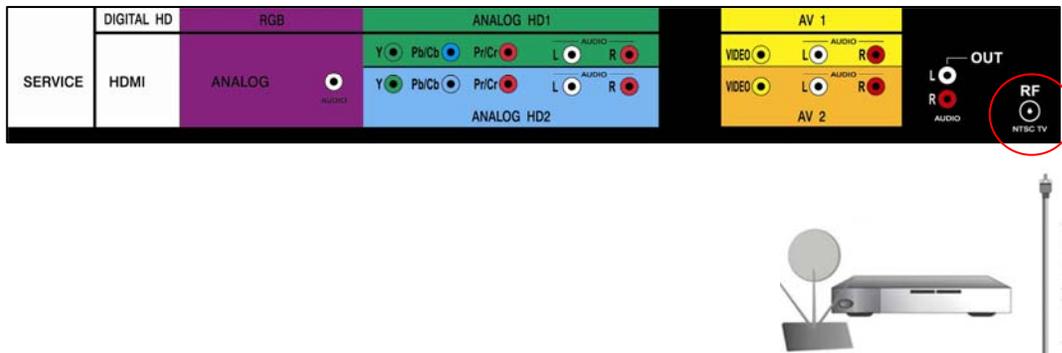
1. Turn off the power to the LCD TV and VCR.
2. Connect the "Output to TV" (RF Out or Antenna Out) connector on the rear of your VCR to the ANT connector on the rear of your LCD TV.
3. Turn on the power to the LCD TV and VCR.
4. Select TV using the INPUT button on the front of the LCD TV.
5. Select *Channel 3 or 4 t*o match the channel selected on the rear of your VCR.

> *Note:*
> *a) If you have an off-air antenna or cable TV, connect the off-air antenna or TV cable to the RF connector on the rear of your VCR.*
> *b) Make sure the antenna or cable TV is correctly grounded.*

2.6 - Connecting External Amplified Speakers or Amplifier

Installation:
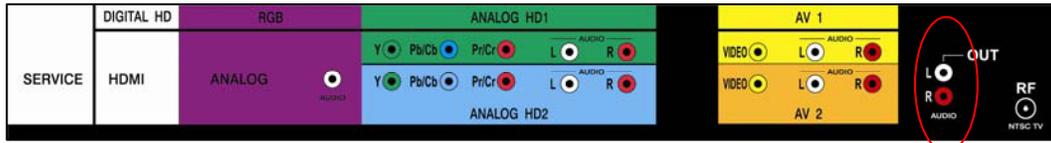
1. Turn off the power to the LCD TV and external speakers.
2. Connect the R (red color) and L (white color) audio connectors on the rear of your speakers to the R (red color) and L (white color) audio output connectors in the rear of your LCD TV.
3. Turn on the power to the LCD TV and speakers.
4. Then press the menu button on the remote control to open the OSD menu.
5. Press the ▶ on the remote control to select the Audio Adjust menu.
6. Press the ▼ on the remote control to select SPEAKERS.
7. Press the ▶ on the remote control to select OFF to switch to the display over to use external speakers.

2.8 - Connecting a Computer

Installation:
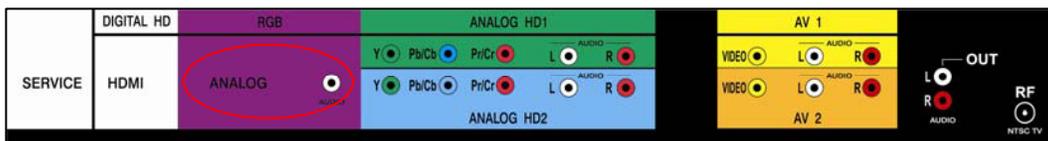
1. Turn off the power to the LCD TV and Computer.
2. Connect a 15-pin D-sub RGB cable to the RGB output of your computer and the other end to the RGB input (purple band) in the rear of your LCD TV.
3. Connect the RGB Audio Out on your computer to the RGB Audio (purple band) at the rear of your LCD TV.
4. Turn on the power to the LCD TV and your computer.
5. Select RGB using the INPUT button on the front of the LCD TV.

Note:
  a) For the best picture quality when connecting a PC through RGB or DVI, set your product timing mode to VESA 1280 x 768 at 60 Hz. Please refer to the graphic card's user guide for additional information on how to set the timing mode.
  b) Refer to your computer user manual for more information about the video output requirements of the product.

Chapter 3 - Getting Started

3.1 - Turning your LCD TV On and Off

1. **Connecting Power Cables**
   Connect the power cord to the power cord connector on the back of your LCD TV, and then plug the power cord into an AC wall socket.

2. **Connect Audio and Video Cables to the TV**
   For AV, S-Video and Air/Cable, connect Video/Audio cables from the compatible devices into the connections in the rear or side panel of the LCD TV.

   For a PC, connect it through the ANALOG input connection in the back of the LCD TV. See below for diagram of the rear panel connections. *Note: the S-Video connection is located on the right side panel of the TV.*
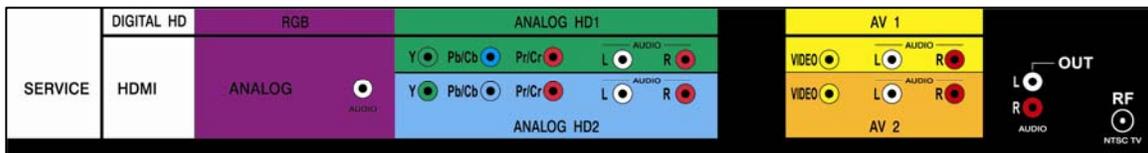
3. **Turning Power On**
   Once all the components are connected, press the Power ON button on the front of the LCD TV, or press the Power ON (Red) button on the remote control.

4. **Select Input Source**
   Select the input source for the LCD TV by pressing the INPUT button on the front of the TV or using the Input button on the remote control.

   Pressing this button will cycle you through the following options: Digital HD (HDMI), RGB (Analog RGB), Analog HD1 and Analog HD2 (Y-Pb/Cb-Yr/Cr), AV1, AV2 and AV3 (Video) or TV.

5. **Connecting to Antenna or Cable**
   If connecting to antenna or cable source for the TV input, you will need to select the appropriate source within the OSD (on-screen display) menu.

   Please follow the instructions below:
   a. Press the MENU button on the remote control to show the OSD menu.
   b. Press the ►button on the remote control to highlight the TV Tuner Setup menu.

   Note: if you do not see this option within the OSD, you might have selected the wrong input in the previous steps and you will need to repeat step 4 (above) to select another Input Source.

   c. Press ▼ button (channel down) twice to highlight TV/Cable. Use the ► button (volume +) to select either TV or Cable. TV sets the tuner for an antenna and Cable sets the tuner for cable or a satellite dish.
   d. Once selected, press the ▼ button (channel down) once more to highlight Auto Search to scan the available channels. Use the ► button (volume +) to start the scan.
   e. Press the MENU button repeatedly to exit the OSD.
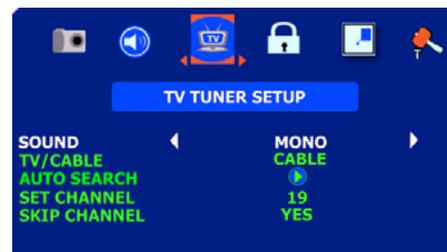
6. **Connecting to a PC**
   If connecting to a PC through RGB (Analog RGB) input, set LCD TV timing mode to VESA 1024 x 768 at 60Hz for best picture quality (refer to the graphic card's user guide for questions on how to set this timing mode).

3.2 - Watching a TV program

Before you start watching TV, please make sure that any cable, satellite, or off-air antenna connections are secure. Also, verify that the power cord is plugged into a correctly grounded electrical outlet or surge protector.

1. Press the power button on the front of your LCD TV. The status LED on the front turns green.
2. There are 3 options for selecting your programming:
   a. Select TV using the INPUT button on the front of your LCD TV if you are watching a cable set-top box, satellite dish, or off-air antenna connected through the RF input.
   b. Select Digital HD using the Input button on the front of your LCD TV if you are watching broadcasts through a cable set-top box or satellite dish connected by HDMI.
   c. Select Analog HD using the Input button on the front of your LCD TV if you are watching a cable set-top box or satellite dish connected through the component inputs (YPbPr).

Note: You should be able to see a picture. If you do not, make sure that all connections are secure and you have selected the correct video input source.

3. Press the Channel ▼/▲ buttons on the front of your LCD TV to change the channel.
   Note: The Channel ▼/▲ buttons on the front of the TV do not work if you are watching a program using HDTV input.

To make additional adjustments to your LCD TV, please see "Section 3.4: Adjusting Basic LCD TV Settings" on page 24.

3.3 - Preparing the LCD for Wall Mounting

VIZIO offers certifed wall mounts and professional Installation services. To purchase a wall mount or have your VIZIO L32 installed contact VIZIO at www.vizioce.com or call toll free 1-888-VIZIOCE.

The VIZIO L32 can either be kept on the base stand or mounted to the wall for viewing. If you choose to mount the L32 to the wall, please follow the instructions below for removing the base stand.

To remove the stand base:

1. Unplug all the cables and cords from the LCD TV.

2. Place the LCD TV face down on a soft and flat surface (blanket, foam, cloth, etc) to prevent any damage to the display.

3. Remove the 4 screws on the back panel of the TV located near the bottom so that the base stand can be removed (see Figure 3.3a).

Figure 3.3a

4. Gently pull the stand away from the display by grasping firmly to the base.

5. Now, the display can fit securely to a mount (sold separately) by utilizing the mounting holes in the center of the back panel of the display (see Figure 3.3b). Please make sure to read the directions of your specific wall mount to properly hang the L32.
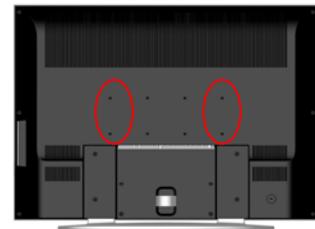
Figure 3.3b

3.4 - Adjusting Basic LCD TV Settings

Volume

To increase the volume, press and hold the VOL + button on the front panel or remote control until the desired level is reached.

To decrease the volume, press and hold the - VOL button on the front panel or remote control until the desired level is reached.

TV Channels

To step up through the available TV channels, press the CH + button on the front panel or remote control once for the next channel or hold it depressed until the desired channel is reached.

To step down through the available TV channels, press the - CH button on the front panel or remote control once for the previous channel or hold it depressed until the desired channel is reached.

Wide

Using this feature you can watch video content in Wide, Zoom, Panoramic, or Normal mode. Press the WIDE button on the remote control to switch among the modes.

3.5 - Using the On-Screen Display (OSD)

The remote control or the bottom control keys on the front panel of the LCD TV can control all the function settings. The on-screen display (OSD) allows you to adjust and save contrast, brightness and other settings. The LCD TV will save changes made to the settings even if the LCD TV is turned off.

3.5.1 - Menu Operations

The OSD consists of several menu options: Picture Adjust, Audio Adjust, TV Tuner Setup, Parental Controls, PiP Set Up, or Special Features. The main menu options may vary depending on your selected input source. Note: Some of the main menu options may have additional sub menus, i.e. H-Position in the Picture Adjust for Digital HD.

1. Press the MENU button on the front of the TV or on the remote control. The Main Menu will be displayed on the screen.

2. Use the Volume (◄/►) buttons on the front of the LCD TV or ◄/► on the remote control to select one of the submenus - Picture Adjust, Audio Adjust, TV Tuner Setup, Parental Controls, PiP Set Up, or Special Features.

3. Once the submenu is highlighted, use the Channel (▲/▼) buttons on the front of the LCD TV or ▲/▼ buttons on the remote control to select a menu option.

4. Use the Volume (◄/►) buttons on the front of the LCD TV or ◄/► on the remote control to select adjust the options settings.

5. Press the OK button on the remote control to confirm the feature.

6. Repeat steps 2 through 5 to adjust additional options within this menu.

7. Once the adjustments are completed, press the Exit button on the remote control to exit the OSD completely.

3.5.2 - OSD Menus and Options

The OSD menus and options are used to adjust various settings on your LCD TV. Some of the menu options can vary depending on the video input source that you are using.

3.5.2.1 – Picture Adjust
Available for the following input sources – Analog HD1 and HD2, AV1, AV2, AV3 or TV.

Picture Mode – Select from one of the following: User, VIVID1, VIDID2 or VIDID3.

Backlight – Alters the luminance of the display.

Brightness – Adjusts the black levels of the picture. Users may need to readjust the brightness after the LCD TV warms up.

Contrast – Adjusts the level of white between the lightest and darkest portions of an image. If the contrast is too low, the picture appears dark and lacks detail. If the contrast is too high, the picture appears faded and lacks shadow and depth.

Color – Adjusts the levels of white and color in the picture. Highly saturated colors tend to be deep and strong while unsaturated colors are weaker and lighter.

Tint – Adjusts to make the flesh tones more natural.

Sharpness – Adjusts the clarity of the picture. If the sharpness is set incorrectly, the picture appears fuzzy or out of focus.

Closed Caption – Choose one of the following options: Off, CC1, CC2, CC3, CC4, TT1, TT2, TT3, or TT4.

3.5.2.2 - Picture
Available for the following input sources – Digital HD and RGB.

Auto Adjust – Automatically sets the position and size of the picture.

Brightness – Adjusts the black levels of the picture. Users may need to readjust the brightness after the LCD TV warms up.

Contrast – Adjusts the level of white between the lightest and darkest portions of an image. If the contrast is too low, the picture appears dark and lacks detail. If the contrast is too high, the picture appears faded and lacks shadow and depth.

H-SIZE – Adjusts the horizontal size of the image.

H-POSITION – Adjusts the horizontal position on the image adjustment.

V- POSITION - Adjusts the vertical position on the image adjustment.

FineTune – Allows user to manually adjust the image.
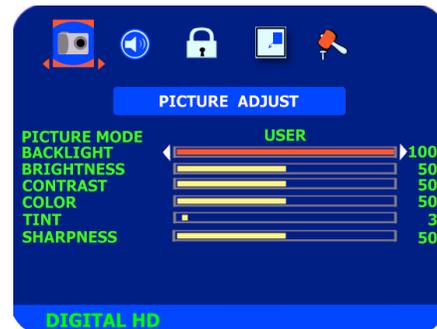
3.5.2.3 – Temperature
The Temperature Menu Option is only available when RGB is selected as the input.

Color Temp. – Options include User, 5000k, 6500k and 9300k.
Red – Adjusts the red levels of the picture.
Green - Adjusts the green levels of the picture.
Blue - Adjusts the blue levels of the picture.
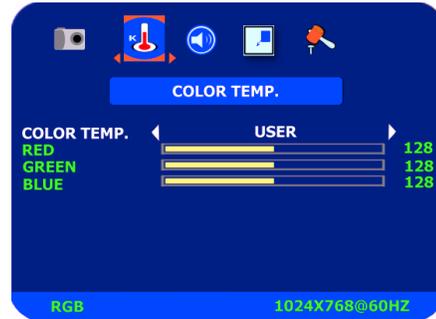
3.5.2.4 – Audio Adjust

Volume – Adjusts the volume.
Bass – Adjusts the bass.
Treble – Adjusts the treble.
Balance – Adjusts the balance level between the channels.
Surround – User selects either on or off.
Reverb – Select from one of the following: Concert, Living Room, Hall, Arena or Off.
Mute – Turns the sound either on or off.
Speaker – Turns the internal speakers on or off.
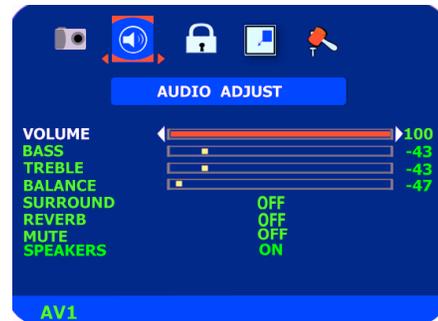
3.5.2.5 - TV Tuner Setup

Sound – Changes the sound output for TV programs. Switch between STEREO, MONO, or SAP (Second Audio Program) for audio simulcasts. The TV program must support the output option.
TV/Cable Mode – Sets the source for the tuner. Options include TV or Cable. TV sets the tuner for an antenna and CABLE sets the tuner for cable or a satellite dish.
Auto Search – Adds all channels that have a signal to the channel list.
Set Channel – Enter the channel selection to be added or deleted.
Skip Channel – Deletes the set channel from the channel list.

3.5.2.6 – Parental Controls

Parental Lock Enable - Turns TV and movie blocking on or
off.
TV Rating - Sets the level of television programs that will
be blocked without typing in the password. For more
information, see Section 3.5.4 - Using the Parental
Controls, page 31.
Movie Rating - Sets the level of movies that will be blocked
without typing in the password. For more information,
see Section 3.5.4 - Using the Parental Controls, page
31.
Access Code Edit – Changes the password used for
modifying the parental control settings or watching a program blocked by the parental
controls. For more information, see Section 3.5.5 - Setting a Password, page 32.

3.5.2.7 – PiP Setup

Style - Changes the type of sub-picture. Options include
Off, PiP (picture in picture) or POP (picture by picture).
Source - Changes the video input source of the sub-
picture when PiP is turned on. *For additional
information regarding the PIP options, see 3.5.3.2 -
Picture-in-Picture (PiP) Mode, page 31.*
Size – Changes the size of the sub-screen picture.
Choose from one of the following: small, medium or
large.
Position - Moves the sub-picture within the display image.

3.5.2.8 – Special Features

Language - Changes the language of the OSD menu.
Options include French, Spanish, or English.
Sleep Timer – Sets sleep timer either on or off. Users can
select the number of minutes the Plasma monitor
waits before it automatically turns off in 5-minute
increments. Maximum available time is 120 minutes.
Wide Format - Changes the main screen size. Choose
from the following: Normal, Wide, Zoom or Panoramic.
For additional information, please see Section 3.5.3 -
Understanding Viewing Features, page 30.
Reset All Settings - Resets the display back to the factory default settings.

3.5.3 - Understanding Viewing Features

Your LCD TV features four viewing modes and Picture-in-Picture (PiP) mode. You can switch viewing modes using the on-screen display (OSD) or the remote control. For more information on using the OSD, see 3.5.2 - OSD Menus and Options, page 27.

3.5.3.1 - Viewing Modes

Normal Mode

The original 4:3 aspect ratio (1.33:1 source) is preserved, so black bars are added to the left and right of the display image. Standard TV broadcasts are displayed with a 4:3 Aspect Ratio. Movies in 4:3 Aspect Ratio may be referred to as pan-and-scan or full frame. These movies were originally filmed in 16:9 (widescreen), and then modified to fit a traditional TV screen (4:3).
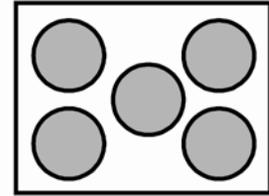
Wide Mode

When watching a standard broadcast or full-frame movie in this mode, the display image is stretched proportionately to fill the TV screen. When watching a widescreen (1.76:1 source) program or movie, the display image fills the TV screen. If you are watching a widescreen (1.85:1 or 2.35:1 source) program or movie, there will still be black bars at the top and bottom.
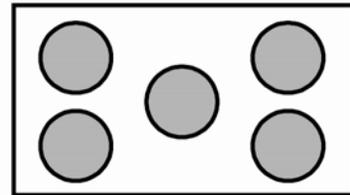
Zoom Mode

When watching a widescreen (1.76:1, 1.85:1, or 2.35:1 source) program or movie, the display image is zoomed proportionally to fill the width of the screen. The top and bottom are cut off to remove most of the source material's black bars. This mode is good for programs or movies with sub-titles.
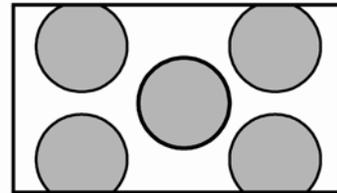
Panoramic Mode

When watching a standard broadcast or full frame movie in this mode, the 4:3 Aspect Ratio (1.33:1 source) display image is stretched horizontally on the left and right sides to fill the TV screen. The center of the image is not stretched.
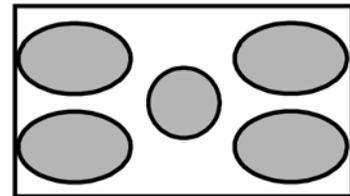
Note: Viewing modes and volume settings are saved based on input. For example, you last watched a DVD in widescreen mode and at high volume, and then watched TV in standard mode and low volume. When you switch back to DVD input, the viewing mode will return to widescreen and your volume will be high.

3.5.3.2 - Picture-in-Picture (PiP) Mode

Your LCD TV features PiP mode so you can watch two pictures at the same time. When PiP is turned on, you can display two pictures at one time. One picture is displayed as the full screen (main screen) and the other picture is displayed in a small window (sub screen). The sub-screen can be set to small, medium or large.

See below for detailed information regarding the PiP sources.

Sub / Main	TV	AV1	AV2	AV3	ANALOG HD1	ANALOG HD2	DIGITAL HD	RGB
TV		x	x	x	x	x	x	x
AV1	x		x	x	x	x	x	x
AV2	x	x		x	x	x	x	x
AV3	x	x	x		x	x	x	x
ANALOG HD1	x	x	x	x				
ANALOG HD2	x	x	x	x				
DIGITAL HD	x	x	x	x				
RGB	x	x	x	x				

"x" – Indicates which inputs are available for PIP and POP modes.

Adjusting Basic PiP Settings

PiP Channel

The PiP channel is independent of the main TV channel. To change the PiP channel, press the PiP CH + or - button on the remote control.

Swapping PiP Video

You can swap the program that is in the main picture with the program in the PiP sub-picture. To swap the main picture program with the PiP sub-picture program, press SWAP on the remote control. If you press SWAP again, it will return the program to the main picture.

3.5.4 - Using the Parental Controls

The Parental Controls feature prevents viewers from watching programs that are not age-appropriate, such as programs containing violence or adult language.

1. Press the MENU button to open the main OSD Menu.
2. Press the ► on the remote control until the Parental Controls menu opens.
3. Press ▼ button on the remote control to highlight Parent Lock Enable. The "Key-In Access Code" window opens.
4. Use the number pad to type the default password (0 0 0 0), then press OK.
5. While the Parent Lock enable menu is highlighted, press the ► on the remote control to select "ON" to enable the blocking features.
6. Press ▼ button on the remote control to highlight TV Rating, and then ► on the remote control to enter into the TV Rating Menu.
7. The following window will allow the user to customize the following TV ratings:
    - Y (all children)
    - Y7 (older children)
    - G (general audience)
    - PG (guidance suggested)
    - 14 (strongly cautioned)
    - MA (mature audience)

    You can also customize the TV ratings for the following content:
    - FV (fantasy violence)
    - D (sexual dialog)
    - L (adult language)
    - S (sexual situations)
    - V (violence)

8. Press the ▼, ▲, ◄ or ► button on the remote control to navigate through the TV menu options. Press ◄ or ► button to block (red lock) or unblock (green lock) each area.
9. Press the EXIT button on the remote control to return to the submenu.
10. Press ▼ button on the remote control to highlight Movie Rating, and then ► on the remote control to enter into the Movie Menu and the MPAA window opens.
11. The following window will allow the user to customize the following MPAA movie ratings:
    - G (general audience)
    - PG (parental guidance suggested)
    - PG-13 (recommended for children 13 years of age or older)
    - R (mature audience)
    - NC-17 (no one under 17 years of age)
    - X (no one under 17 years of age)

12. Press the ▼, ▲, ◄ or ► button on the remote control to navigate through the TV menu options. Press ◄ or ► button to block (red lock) or unblock (green lock) each area.
13. Press the EXIT button on the remote control to return to the submenu.
14. Press the EXIT button the remote control to exit the OSD menu when you are finished.

3.5.5 - Setting a Password

You control access to the Parental Control features with a password. The default password is "0000". You can change the password to any four-digit number.

To change the password:
1. Press the MENU button to open the main OSD Menu.
2. Press the ► on the remote control until the Parental Controls menu opens.
3. Press ▼ button on the remote control to highlight Parent Lock Enable. The "Key-In Access Code" window opens.
4. Use the number pad to type the default password (0 0 0 0), then press OK.
5. Press ▼ button on the remote control to highlight Access Code Edit.
6. Press the ► on the remote control to enter into the submenu. You will need to use the number pad to type the default password first.
7. Use the number pad to type the new password.
8. Confirm the new password by retyping it.
9. Press the EXIT button on the remote control immediately to exit the OSD menu.
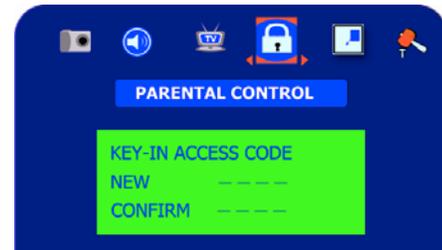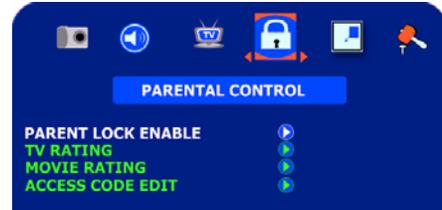
Note: Please make sure to write down and store the new password in a secured place. The reset option in the Special Features menu (Section 3.5.2) does not reset the password.

3.5.6 - Setting the Sleep Timer

The sleep timer lets you set a time delay to turn off your LCD TV automatically.

To set the sleep time using the remote control:
1. Press the TV component button.
2. Press the SLEEP button on the remote control. The sleep timer appears in the center of your screen.
3. Press the SLEEP button one or more times to select the time you want. Options include 30, 60, 90 or 120 minutes.
4. Press the EXIT button on the remote control to hide the sleep timer display. Your sleep timer is now running in the background.

To turn off the sleep time using the remote control, press the SLEEP button repeatedly until Off appears.

3.6 - Remote Control Operation

3.6.1 - Programming the VIZIO Universal Remote Control

You can program the remote control to work with up to four different components. Listed below are the steps for programming your TV, VCR, Cable Box and DVD Player.

3.6.1.1 - Programming for TV

For your convenience, the TV button on the remote has already been preprogrammed for the L32. If you would like to program a second TV as the primary TV, please follow the instructions below.

1. Manually turn on the TV.
2. Press the TV button on the remote control.
3. Press and hold the SETUP button until the LED LIGHT flashes twice.
4. Find the programming code for your TV in the code list in the back of this book and enter it using the Number Buttons. If the code is accepted, the LED flashes twice after the last digit is entered.

    If the LED does not flash twice, repeat Steps 2 through 4 with the next code listed for the component and manufacturer.

5. Point the remote control at the TV and press the POWER button. The TV will turn off.

> *Note:*
> *a) If your TV does not respond, try all the codes for your brand. If the codes do not work, or your brand is not listed, see "Searching for Component Codes", page 35.*
> *b) Sometimes a code listed will only include limited functions. Try other codes that may include more functionality.*

3.6.1.2 - Programming for VCR

1. Manually turn on the VCR.
2. Press the VCR button on the remote control.
3. Press and hold the SETUP button until the LED LIGHT flashes twice.
4. Find the programming code for your VCR in the code list in the back of this book and enter it using the Number Buttons. If the code is accepted, the LED flashes twice after the last digit is entered.

    If the LED does not flash twice, repeat Steps 2 through 4 with the next code listed for the component and manufacturer.

5. Point the remote control at the VCR and press the POWER button. The VCR will turn off.

> *Note:*
> *a) If your VCR does not respond, try all the codes for your brand. If the codes do not work, or your brand is not listed, see "Searching for Component Codes", page 35.*
> *b) Sometimes a code listed will only include limited functions. Try other codes that may include more functionality.*

3.6.1.3 - Programming for Cable Box

1. Manually turn on the Cable Box.
2. Press the CBL button on the remote control.
3. Press and hold the SETUP button until the LED LIGHT flashes twice.
4. Find the programming code for your Cable Box in the code list in the back of this book and enter it using the Number Buttons. If the code is accepted, the LED flashes twice after the last digit is entered.

   If the LED does not flash twice, repeat Steps 2 through 4 with the next code listed for the component and manufacturer.

5. Point the remote control at the Cable Box and press the POWER button. The Cable Box will turn off.

Note:
   a) If your Cable Box does not respond, try all the codes for your brand. If the codes do not work, or your brand is not listed, see "Searching for Component Codes", page 35.
   b) Sometimes a code listed will only include limited functions. Try other codes that may include more functionality.

3.6.1.4 - Programming for AUX (DVD Player)

1. Manually turn on the DVD Player.
2. Press the AUX button on the remote control.
3. Press and hold the SETUP button until the LED LIGHT flashes twice.
4. Find the programming code for your DVD player in the code list in the back of this book and enter it using the Number Buttons. If the code is accepted, the LED flashes twice after the last digit is entered.

   If the LED does not flash twice, repeat Steps 2 through 4 with the next code listed for the component and manufacturer.

5. Point the remote control at the DVD Player and press the POWER button. The DVD Player will turn off.

Note:
   a) If your DVD Player does not respond, try all the codes for your brand. If the codes do not work, or your brand is not listed, see "Searching for Component Codes", page 35.
   b) Sometimes a code listed will only include limited functions. Try other codes that may include more functionality.

3.6.2 - Searching for Component Codes

If the user cannot find the manufacturer in the component list or the program code does not work, the user can use the remote control to search for the correct component code.

To search for a component code:
1. Turn on the component.
2. Press the matching camponent button on the remote control.
3. Press and hold the SETUP button until the LED flashes twice.
4. Press 9 9 1. The LED flashes twice.
5. Point the remote control at the camponent and then alternate between pressing the POWER button and the component button on the remote control until the component turns off.

   If the component still does not respond, clear the component button, then repeat the search procedure.

To clear the component button:
1. Make sure that the component is turned on.
2. Press and hold the SETUP button on the remote control until the LED flashes twice.
3. Press 9 9 2, then press the component button on the remote control twice.

3.6.3 - Reassigning Component Buttons

You can reassign the component buttons on the remote control if you have more than one of the same types of component. For example, if you are using the remote to control the cable (CBL), CD, DVD, TV and two VCRs, you can reassign the AV2 button as a second VCR button.

To reassign component buttons:
1. Press and hold the SETUP button until the LED flashes twice.
2. Press 9 9 2. The LED flashes twice.
3. Press the component button that you want (VCR) once, and then press the component button that you are reassigning (AV2) once. The AV2 button is now reassigned and can be programmed as a VCR component button. See "Programming the VIZIO Universal Remote Control", page 33.

3.6.4 - Changing Volume Lock

The remote control is set to control volume throHugh your TV while in cable (CBL), DVD, satellite (SAT) and VCR camponent modes. Use the volume lock if you want to control the volume for all camponents through a specific component. For example, you want to control volume for all camponents through the tuner (TNR).

To change the volume lock:
1. Press and hold the SETUP button until the LED flashes twice.
2. Press 9 9 3. The LED flashes twice.
3. Press the component button that you want (TNR) once. The LED flashes twice. Volume will now be controlled through the tuner for all camponents.

3.7.5 – Using a Cable Box or Satellite Box Remote

Your VIZIO remote uses code 0178 and 1758 to work with your L32. To use a cable or satellite remote to work with your L32, refer to your cable or satellite remote users guide for information on how to program their remote. If your cable or satellite remote uses a 4 digit remote code program in 0178. If your cable or satellite remote is a 5 digit remote (like most Direct TV units) use code 10178. If your cable or satellite remote uses a 3 digit code (for example, Echostar and Dish Network), then use code 627.

Note: Some functions on your cable or satellite remote may not function like expected. Typically power, volume and mute will work.

Chapter 4 - Maintenance and Troubleshooting

4.1 - Maintenance

Important

1. Make sure that the power cable is removed from the socket before cleaning the display.
2. Do not use volatile solvent (such as toluene, rosin and alcohol) to clean the display. Such chemicals may damage the housing, screen glass and remote control, and cause the paint to peel.

Cleaning the Housing and the Remote Control

1. Use a soft cotton cloth for cleaning.
2. If the housing or remote control is seriously contaminated, use a soft cloth moistened with diluted neutral cleaner to clean the display. Wring water out of the cloth before cleaning to prevent water from penetrating into the housing. Wipe the display with a dry cloth after cleaning.

Cleaning the Screen

1. Use a soft cotton cloth to gently clean the screen.
2. The screen glass is very fragile. Do not scrape it with any sharp object. Do not press or tap the screen to avoid cracking. When the screen is seriously contaminated, use a soft cloth moistened with diluted neutral cleaner to clean the display. Wring water out of the cloth before cleaning to prevent water from penetrating into the housing. Wipe the display with a dry cloth after cleaning.

4.2 - Troubleshooting Guide

If the display fails or the performance changes dramatically, check the display in accordance with the following instructions. Remember to check the peripherals to pinpoint the source of the failure. If the display still fails to perform as expected, contact the dealer for assistance.

Problem	Solution
There is not any power.	Make sure the AC power button is ON, DC power button is ON (Green LED). Make sure AC power cord is securely connected to the AC socket. Plug another electrical device (like a radio) to the power outlet to verify that the outlet is supplying the proper voltage.
There is not any sound.	Check your audio connection Press MUTE on the remote control again, so that MUTE disappears from the screen Check your audio settings, your TV audio may be set to SAP or minimum Press the Volume + (Up) key on your remote control Make sure that headphones are not connected

Snow appears on screen	Check your antenna connection. Check TV / CABLE selection.
Power is ON but no screen image.	Make sure the video cable supplied with the LCD display is tightly secured to the video output port on the back of the computer. If the other end of the video cable is not attached permanently to the LCD display, tightly secure it to the LCD display. Adjust brightness and contrast. If you are using a Macintosh older than G3, you will need a Macintosh adapter. Check Source settings.
Wrong or abnormal colors appear.	If any colors (red, green, or blue) are missing, check the video cable to make sure it is securely connected. Loose or broken pins in the cable connector could cause an improper connection. Connect the LCD display to another computer.
Control buttons do not work.	Press only one button at a time.
Remote Control does not work.	Make sure batteries are inserted correctly Batteries could be weak.
There appears to be image quality issues.	TV: For best image quality, "Standard Definition" TV should be viewed as 4:3. COMPONENT 480i: For best image quality the "YCbCr" Input should be used.
You cannot see a picture.	Make sure that the power cord is plugged into a grounded electrical outlet. Make sure that the power button is turned on. Make sure that the selected input source is connected to a working input source. If your LCD TV is connected to your computer in RGB or HDMI mode, press any key on your keyboard to "wake" your computer.
You see a distorted picture or hear unusual sound.	You may be getting interference from electrical appliances, cars, motorcycles, or fluorescent lights. Try moving your LCD TV to another location.
The picture has abnormal patterns.	Make sure that the input source cable is attached securely and correctly to the back of your LCD TV. Make sure that the video input source is within the range of your LCD TV. Compare the video input source's specifications with your LCD TV specifications.
The display image does not cover the entire screen.	If you are using RGB mode, make sure that H Size and V Position in the OSD are set correctly. If you are using TV, AV1, AV2, or component (Analog HD) with 480i input, use the WIDE button on the remote control to scroll through various screen modes.
You can see a picture but you cannot hear sound.	Make sure that the volume is not turned down. Make sure that the sound is not muted. Make sure that your audio input source cables are connected securely and correctly.
The LCD TV has pixels that are always bright, dark, or colored.	Your LCD TV is manufactured using an extremely high level of precision technology. However, sometimes some pixels of your LCD TV may not display. Pixel defects within industry specifications are inherent to this type of product and do not constitute a defective product.
You see "noise" or "trash" on the screen.	When your LCD TV's digital capabilities exceed a digital broadcast signal, the signal is up-converted (increased) to match your LCD TV's display capabilities. Up-converting can cause noise or trash.
You switch to a different input and the volume changes.	The LCD TV remembers the volume level from the last time you used a particular input (AV1, AV2, Analog HD, Digital HD, and TV).
You switch to a different input and the screen size changes.	The LCD TV remembers the viewing mode from the last time you used a particular input (AV1, AV2, Analog HD, Digital HD, and TV).

The PiP input is set to DVD but the picture does not look correct.	The PiP DVD source must be 480i (interlaced) and not 480p (progressive scan). Set your DVD player to interlaced or choose a different PiP source.
Tips for High-Definition Users	The LCD TV is an ideal platform for viewing High Definition Content. Best Image Quality will be achieved by the HDMI Input, then YPbPr, then RGB. However, due to variances in broadcast practices, it is possible some image distortions can occur.
Tips for Letterbox Content Users	Letterboxed (or "Widescreen") versions of DVD movies are most commonly formatted for standard 4:3 Televisions. The LCD TV has the capability of expanding this content so the entire screen is filled at the expense of image accuracy. To use this function, press the "ZOOM" key on the remote control and cycle among the available options.

4.3 - Telephone & Technical Support

Products are often returned due to a technical problem rather than a defective product that may result in unnecessary shipping charges billed to you. Our trained support personnel can often resolve the problem over the phone. For more information on warranty service or repair, after the warranty period, please contact our Support Department at the number below.

Quality service and consistent technical support are integral parts of V's commitment to service excellence. V's service representatives are dedicated to assist you with the utmost in customer satisfaction. To better assist you, please call toll free or contact us via email.

Tel: (714) 668-0588, 7:30 am – 5:30 pm PST Mon - Fri
E-mail: techsupport@vinc.com
VIZIO
320A Kalmus Drive
Costa Mesa, CA 92626
Tel: (714) 668.0588 Fax: (714) 668-9099
Web: www.vizioce.com

4.4 - Compliance

Caution: Always use a power cable that is properly grounded. Please use the AC cords listed below for each area.

USA	UL
Canada	CSA
Germany	VDE
Britain	BASE/BS
Japan	Electric Appliance Control Act

4.5 - FCC Class B Radio Frequency Interference Statement

NOTE: This 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:
1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

Notice:
1. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
2. Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.
3. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification to this equipment. It is the responsibilities of the user to correct such interference.

Appendix A: Limited Product Warranty

Please read this warranty card carefully, it is a "ONE-YEAR LIMITED WARRANTY" on parts and labor.

VIZIO's Responsibility
VIZIO Displays purchased in the United States are warranted to be free from defects in materials or workmanship for a period of one (1) year from the date of their original retail purchase. If the unit fails to conform to this warranty, we will service the monitor using new or refurbished parts.

Service Labor
During a period of one (1) year from the effective warranty date, VIZIO will provide, when needed, service labor to repair a manufacturing defect at its designated Service Center. To obtain warranty service in the Untied States, you must first call our Customer Support at (714) 668-0588, 7:30 am – 5:30 pm PST. The determination of service will be made by VIZIO Customer Support. PLEASE DO NOT RETURN YOUR UNIT TO VIZIO WITHOUT PRIOR AUTHORIZATION.

Parts
New or remanufactured replacements for defective parts will be used for repairs by VIZIO at its designated Service Center for one (1) year from the effective warranty date. Such replacement parts are warranted for the remaining portion of the original warranty period.

Service
During the one (1) year warranty period, VIZIO will, at its option and sole discretion, repair or replace defective parts, including replacement of the entire   Panel. The Customer will be required to ship the unit to the Service Center indicated at the time Customer Support is contacted to make the necessary repairs, you are responsible for all transportation charges to and from the service facility. VIZIO is not responsible for the de-installation or re-installation of the unit.

Packaging and Shipping Instruction
When you send the product to an authorized VIZIO service facility you must use the original carton box and packing material or an equivalent as designated by VIZIO

Not Covered
This warranty does not cover defects, malfunctions or failures resulting from shipping or transit accidents, abuse, misuse, operation contrary to furnished instructions, operation on incorrect power supplies, operation with faulty associated equipment, modification, alteration, improper servicing, tampering or normal wear and tear or TVs on which the serial number has been removed or defaced. Image Sticking caused by operating at excessive brightness levels for extended periods or mishandling are not covered by this warranty.

ANY IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE SHALL BE LIMITED IN DURATION TO THE PERIOD OF TIME SET FORTH ABOVE. OUR LIABILITY FOR ANY AND ALL LOSSES AND DAMAGES RESULTING FROM ANY CAUSE WHATSOEVER, INCLUDING OUR NEGLIGENCE, ALLEGED DAMAGE OR DEFECTIVE GOODS, WHETHER SUCH DEFECTS ARE DISCOVERABLE OR LATENT, SHALL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE DISPLAY. WE SHALL NOT BE RESPONSIBLE FOR LOSS OF USE, COMMERCIAL LOSS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. This is the only warranty applicable; no one is authorized to extend or modify it or to grant any other warranty.

VIZIO retains the right to assess all warranty claims and to determine if damages are covered by the warranty. In case of a claim that is not covered by the warranty, you will be contacted to determine whether VIZIO should repair the damage for a fee or whether the product should be returned to you as received by the repair center.

Owner's Responsibility
Effective Warranty Date
Warranty begins on the date of sale to the end user. To ensure warranty service, keep the dated bill or sale receipt as evidence of the purchase date.

Warranty Service
For warranty service information, contact VIZIO Customer Support at (714) 668-0588, 7:30 am to 5:30 pm PST or visit www.vizioce.com. Parts and service labor that are VIZIO's responsibility (see above) will be provided without charge. Other service is at the owner's expense. You must provide the model, serial number and date of purchase. Before you ask for warranty service, read your User Manual. You might avoid a service call.

Extended Warranty Service Plans
On-Site Extended Warranty services are also available for purchase. These service plans cover extras above the standard warranty and extends your 1 year plan to 2, 3, 4 or 5 years. Call toll free 1-800-988-4196, Monday through Friday 7AM to 7PM CST or visit our web site at www.VIZIOCE.com

Appendix B: Component Program Codes for Televisions

Setup Code for TV's (1 Prefix)	
Addison	10092
Admiral	10093, 10463
Advent	10761, 10842
Aiko	10092
Aiwa	11914
Akai	10812, 10702, 10030, 10672, 11903
Albatron	10700, 10843
America Action	10180
Anam	10250, 10180, 10700
Anam National	10250, 10650
Anhua	10051
AOC	10451, 10093, 10180, 10060, 10030, 10178, 10092
Apex Digital	10748, 10765, 10879, 10767, 11943
Audiovox	10451, 10180, 10875, 10092, 10623
Baile	10661
Beijing	10812, 10661
Bell & Howell	10154
BenQ	11032
Bradford	10180
Broksonic	10236, 10463, 11911, 11938, 11905, 11935, 11929
Cailing	10748
Candle	10030
Carnivale	10030
Carver	10054
Celebrity	10000

Setup Code for TV's (1 Prefix)	
Celera	10765
Changcheng	10051, 10661
Changhong	10156, 10765, 11156, 10767
Ching Tai	10092
Chun Yun	10000, 10180, 10700, 10092, 10843
Chung Hsin	10180, 10053
Cinema	10672
Citizen	10060, 10030, 11928, 10092
Clarion	10180
Commercial Solutions	11447, 10047
Conrowa	10156, 10145, 11156
Contec	10180
Craig	10180
Crosley	10054
Crown	10180
Curtis Mathes	10047, 10054, 10154, 10451, 10093, 10060, 10702, 10030, 10145, 10166
CXC	10180
Daewoo	10154, 10451, 10180, 10030, 10178, 10672, 11928, 10092, 10661, 11909, 10623, 10700
Dayu	10661
Dell	11080
Denon	10145
Dumont	10017
Durabrand	10463, 10180, 10178, 10171,

Setup Code for TV's (1 Prefix)	
Lloyd's	11904
LXI	10047, 10054, 10154, 10156, 10178
Magnasonic	11928, 11913
Magnavox	11454, 10054, 10030, 10706, 11931, 11254, 11913, 11904, 11944
Magnin	11907
Marantz	10054, 10030, 10704
Matsushita	10250, 10650
Maxent	11755
Megapower	10700
Megatron	10178, 10145
Memorex	10154, 10463, 10150, 10178, 11911, 11926, 11924, 11920, 11927
MGA	10150, 10030, 10178, 11907
Midland	10047, 10017, 10051
Mitsubishi	10154, 10250, 10093, 10236, 10180, 11250, 10150, 10030, 10178, 11917, 10836
Monivision	10843, 10700
Motorola	10093
MTC	10060, 10030
Mudan	10051
Multitech	10180
NAD	10156, 10178, 10866
National	10051

Setup Code for TV's (1 Prefix)	
NEC	10154, 10156, 10051, 10053, 10030, 10178, 11704
Newave	10093, 10178, 10092
Nikko	10030, 10178, 10092
Norcent	10748, 10824
NTC	10092
Onwa	10180
Optimus	10154, 10250, 10166, 10650, 11927, 11924, 11913
Optonica	10093
Orion	10236, 10463, 11929, 11911, 11905
Panasonic	10054, 10250, 10051, 10650, 11941, 11927, 11924
Panda	10051, 10706
Penney	10047, 10156, 10051, 10060, 10030, 10178, 11926, 11907
Philco	10054, 10180, 10030, 10178
Philips	11454, 10054, 10000, 10051, 10030, 10178, 10092, 10690
Pilot	10030
Pioneer	10166, 10866, 10679
Portland	10092
Prima	10761
Princeton	10700
Prism	10051

Setup Code for TV's (1 Prefix)	
	11034
Electroband	10000
Emerson	10154, 10236, 10463, 10180, 10178, 10171, 11944, 11909, 11929, 11905, 11928, 10623, 11911
Envision	10030
Ether	10030
Firstar	10236
Fisher	10154
Fortress	10093
Fujitsu	10809, 10853
Funai	10180, 10171, 11904
Furi	10145
Futuretech	10180
Gateway	11756, 11755
GE	11447, 10047, 11454, 10051, 10451, 10180, 10030, 10178, 11917, 10092, 11907, 11922
Gibralter	10017, 10030
GoldStar	10154, 10030, 10178, 11926
Grunpy	10180
Haier	11034
Hallmark	10178
Hankook	10180, 10030, 10178
Harley Davidson	11904
Harman/Kardon	10054
Harvard	10180
Havermy	10093

Setup Code for TV's (1 Prefix)	
Helios	10865
Hello Kitty	10451
Hisense	10156, 10748, 10145, 11156
Hitachi	10156, 10030, 10178, 11145, 10145, 10092, 11904, 11156
Hongmei	10093
Huafa	10145
Huari	10145
Huodateji	10051
Imperial Crown	10661
Infinity	10054
Inteq	10017
JBL	10054
JCB	10000
Jean	10156, 10051, 10236, 10092
Jensen	10761
Jiahua	10051
Jinfeng	10051
Jinxing	10054, 10156, 10145
JVC	10053, 11923, 11253
Kangli	10661
KEC	10180
Kenwood	10030
KLH	10765, 10767
Kolin	10180, 10150, 10053
KTV	10180, 10030
Kunlun	10051, 10661
LG	10060, 10030, 10178, 10856, 10700, 10025

Setup Code for TV's (1 Prefix)	
Proscan	11447, 10047, 11922
Proton	10030, 10178
Pulsar	10017
Qingdao	
Quasar	10250, 10051, 11924, 10650
RadioShack	10047, 10154, 10180, 10030, 10178, 11920, 11904
RCA	11447, 10047, 11454, 10000, 10030, 10178, 11547, 11922, 11917, 10092, 11907, 11948, 10090, 10679
Realistic	10154, 10180, 10030, 10178
Rowa	10748
Runco	10017, 10030
Sampo	10154, 10093, 10030, 10178, 10171, 10700, 10650, 11755, 10092
Samsung	10154, 10156, 10060, 10812, 10702, 10030, 10178, 11060, 10814, 10092, 11903, 10090, 10766
Sansui	10463, 11904, 11935, 11929, 11911
Sanyo	10154, 10156, 10180, 10145, 11907
Sanyuan	10093
Scotch	10178

Setup Code for TV's (1 Prefix)	
Scott	10236, 10180, 10178
Sears	10047, 10054, 10154, 10156, 10178, 10171, 11926, 11904
Shaofeng	10145
Sharp	10093, 10030, 10650, 11917
Shen Ying	10092
Shencai	10145
Sheng Chia	10093, 10236
Skygiant	10180
Skyworth	10748
Sony	11100, 10000, 10650, 11925, 11904
Soundesign	10180, 10178
Sowa	10156, 10051, 10060, 10178, 10092
Squareview	10171
SSS	10180
Starlite	10180
Studio Experience	10843
Supreme	10000
SVA	10748, 10865
Sylvania	10054, 10030, 10171, 11944, 11931
Symphonic	10180, 10171, 11913, 11904
Synco	10000, 10451, 10093, 10060, 10178, 10092
Tacico	10178, 10092
Tandy	10093
Tashiko	10092, 10650

Setup Code for TV's (1 Prefix)	
Tatung	10054, 10154, 10156, 10051, 10060, 11156, 11756, 11254
Technics	10250, 10051
Techwood	10051
Teco	10051, 10093, 10178, 10092
Teknika	10054, 10180, 10150, 10060, 10092
Telefunken	10702
Tera	10030
Thomas	11904
Tiane	10093
TMK	10178
TNCi	10017
Tobo	10748
Toshiba	10154, 10156, 10060, 10145, 11945, 11704, 11936, 11156, 11935, 10650, 11918
Tuntex	10030, 10092

Setup Code for TV's (1 Prefix)	
TVS	10463
V Inc.	11756, 10885, 10864
Vector Research	10030
Victor	10250, 10053, 10650
Vidikron	10054
Vidtech	10178
Viewsonic	11755, 10885, 10864
Wards	10054, 10030, 10178, 10866, 11156
Warumaia	10661
Waycon	10156
White Westinghouse	10463, 11909, 10623
Yamaha	10030
Yapshe	10250
Zenith	10017, 10463, 10178, 11904, 11929, 11911, 11909, 10092

Setup Code for VCR's (2 Prefix)	
KLH	20072
Kodak	20035, 20037
Kolin	20043
LG	20037, 20045, 20042, 20209, 20038
Logik	20072
LXI	20037
Magnavox	20035, 20039, 20081
Magnin	20240
Marantz	20035, 20081
Marta	20037
Matsushita	20035, 20162
Media Center PC	21972
MEI	20035
Memorex	20035, 20162, 20037, 20048, 20039, 20047, 20240, 20104, 20209, 20479
MGA	20240, 20043
MGN Technology	20240
Microsoft	21972
Mind	21972
Minolta	20042
Mitsubishi	20067, 20043
Motorola	20035, 20048
MTC	20240
Multitech	20072
NEC	20035, 20037, 20048, 20104, 20067, 20038
Newave	20037
Nikko	20037
Noblex	20240
Northgate	21972

Setup Code for VCR's (2 Prefix)	
Olympus	20035
Optimus	21062, 20162, 20037, 20048, 20104, 20432
Orion	20184, 20209, 20002, 20479
Panasonic	21062, 20035, 20162, 20616, 20225
Penney	20035, 20037, 20240, 20042, 20038
Pentax	20042
Philco	20035, 20479
Philips	20035, 20081, 20739, 20618
Pilot	20037
Pioneer	20042, 20067
Polk Audio	20081
Profitronic	20240
Proscan	20060
Protec	20072
Pulsar	20039
Qisheng	20060
Quasar	20035, 20162
Radix	20037
Randex	20037
RCA	20060, 20035, 20240, 20042, 20880
Realistic	20035, 20037, 20048, 20047, 20104
ReplayTV	20616
Runco	20039
Sampo	20037, 20048
Samsung	20240, 20045, 20432

Setup Code for VCR's (2 Prefix)	
ABS	21972
Admiral	20048, 20209
Aiko	20278
Aiwa	20037, 20479
Alienware	21972
America Action	20278
American High	20035
Amoisonic	20479
Anam	20162, 20037, 20240, 20278
Anam National	20162
Asha	20240
Audiovox	20037, 20278
Beaumark	20240
Bell & Howell	20104
Broksonic	20184, 20121, 20209, 20002, 20479
Calix	20037
Canon	20035
Carver	20081
CCE	20072, 20278
Changhong	20048, 20081
Citizen	20037, 20278
Colt	20072
Craig	20037, 20047, 20240, 20072
Curtis Mathes	20060, 20035, 20162
Cybernex	20240
CyberPower	21972
Daewoo	20045, 20104, 20278
Dell	21972
Denon	20042

Setup Code for VCR's (2 Prefix)	
DirecTV	20739
Durabrand	20039, 20038
Electrohome	20037
Electrophonic	20037
Emerex	20032
Emerson	20035, 20037, 20184, 20240, 20045, 20121, 20043, 20209, 20002, 20278, 20479
Fisher	20047, 20104
Fuji	20035, 20033
Fujitsu	20045
Gateway	21972
GE	20060, 20035, 20240
General	20045
Go Video	20432
GoldStar	20037, 20209, 20038, 20225
Haojie	20240
Harman/Kardon	20081, 20038
Harwood	20072
Hewlett Packard	21972
HI-Q	20047
Hitachi	20037, 20042, 20055
Howard Computers	21972
HP	21972
Hughes Network Systems	20042, 20739
iBUYPOWER	21972
JVC	20045, 20067
KEC	20037, 20278
Kenwood	20067, 20038

Setup Code for VCR's (2 Prefix)	
Sanky	20048, 20039
Sansui	20067, 20209, 20479
Sanyo	20047, 20240, 20104
Scott	20184, 20045, 20121, 20043
Sears	20035, 20037, 20047, 20042, 20104
Sharp	20048, 20209
Shintom	20072
Shogun	20240
Singer	20072
Sonic Blue	20616
Sony	20035, 20032, 20033, 20636, 21972
STS	20042
Sylvania	20035, 20081, 20043
Systemax	21972
Tagar Systems	21972
Tashiko	20037
Tatung	20045, 20067
Technics	20035, 20162
Teco	20035, 20037, 20048, 20038
Teknika	20035, 20037

Setup Code for VCR's (2 Prefix)	
Tivo	20636, 20618, 21503, 20739
TMK	20240
Toshiba	20045, 20042, 20067, 20043, 21503, 21008, 21972
Totevision	20037, 20240
Touch	21972
Unitech	20240
Vector	20045
Vector Research	20038
Victor	20067
Video Concepts	20045
Videomagic	20037
Videosonic	20240
Viewsonic	21972
Wards	20060, 20035, 20048, 20047, 20081, 20240, 20042, 20072
White Westinghouse	20209, 20072
XR-1000	20035, 20072
Yamaha	20038
Zenith	20039, 20033, 20209, 20479
ZT Group	21972

Setup Code for Digital Video Disks (2 Prefix)	
Aiwa	20641, 21912
Akai	20770
Allegro	20869
Apex Digital	20672, 20717, 20797, 21061, 20796, 21056, 21937, 20794, 21020, 21915
Blaupunkt	20717
Blue Parade	20571
Broksonic	20695
Changhong	20627, 21061
CineVision	20869
Coby	21086
Curtis Mathes	21087
CyberHome	21024, 21023, 21129, 20816, 21117
Daewoo	20833, 21172, 20869
Denon	20490
DVD2000	20521
Emerson	20591, 20675
Enterprise	20591
Fisher	21919
Funai	20675
Gateway	21158, 21073
GE	20522, 20717
Go Video	20744, 20833, 21099, 20783, 21075, 20869, 21730
Greenhill	20717
Harman/Kardon	20582, 20702
Hitachi	20573, 20664, 21919

Setup Code for Digital Video Disks (2 Prefix)	
Hiteker	20672
Initial	20717
Integra	20627, 21924
JBL	20702
JVC	20558, 20623, 20867
Kenwood	20490, 20534
KLH	20717, 21020, 21149
Koss	20651, 21980
Lasonic	20798
LG	20591, 20869, 20801
Liquid Video	21980
Lite-On	21158, 21058
Loewe	20511
Magnavox	20503, 20539, 21976, 21914, 20675
Marantz	20539
Memorex	20695
Microsoft	20522
Mintek	20717
Mitsubishi	21521, 20521
Nesa	20717
Norcent	21003
Onkyo	20503, 20627, 21924, 20792
Oritron	20651, 21980
Panasonic	20490, 21762, 21990
Philips	20503, 20539, 20646, 21914
Pioneer	20525, 20571
Polaroid	21086, 21061

Setup Code for Cable Converters (0 Prefix)	
ABC	00003, 00008, 00014
Americast	00899
Bell & Howell	00014
Bell South	00899
Clearmaster	00883
ClearMax	00883
Coolmax	00883
Daeryung	01877, 00877, 00477, 00008
Digi	00637
Director	00476
Dumont	00637
Gehua	00476
General Instrument	00476, 00810, 00276, 00003, 00014
GoldStar	00144
Hamlin	00009, 00273
Hitachi	00014
Jerrold	00476, 00810, 00276, 00003, 00012, 00014
KNC	00008
LG	00144
Memorex	00000
Motorola	00476, 00810, 00276, 01254, 01376
MultiVision	00012
Pace	01877, 00237
Panasonic	00000, 00008, 00107

Setup Code for Cable Converters (0 Prefix)	
Panther	00637
Paragon	00000
Philips	00317, 01305
Pioneer	01877, 00877, 00144, 00533
Pulsar	00000
Quasar	00000
RadioShack	00883
Regal	00279, 00273
Runco	00000
Samsung	00000, 00144
Scientific Atlanta	01877, 00877, 00477, 00008
Sony	01006
Starcom	00003, 00014
Supercable	00276
Supermax	00883
Tocom	00012
Torx	00003
Toshiba	00000
Trans PX	00276
Tristar	00883
TS	00003
V2	00883
Viewmaster	00883
Vision	00883
Vortex View	00883
Zenith	00000, 00525, 00899

Setup Code for Digital Video Disks (2 Prefix)	
Polk Audio	20539
Portland	20770
Proscan	20522
Qwestar	20651
RCA	20522, 20571, 20717, 20822
Rio	20869
Rotel	20623
Sampo	20752, 20698
Samsung	20490, 20573, 21932, 21075, 20820
Sansui	20695
Sanyo	20695
Sharp	20630, 20752
Sharper Image	21117
Sherwood	20770
Shinco	20717
Shinsonic	20533

Setup Code for Digital Video Disks (2 Prefix)	
Sonic Blue	20869, 21099
Sony	20533, 20864, 21033, 21904, 21903
SVA	20717
Sylvania	20675
Symphonic	20675
Teac	20717, 21984, 20809
Technics	20490
Theta Digital	20571
Toshiba	20503, 20695
Urban Concepts	20503
Xbox	20522
Yamaha	20490, 20539, 20545
Zenith	20503, 20591, 20869

Setup Code for Satellite Receivers (0 Prefix)	
AlphaStar	00772
Chaparral	00216
Crossdigital	01109
DirecTV	00392, 00566, 00639, 01142, 00247, 00749, 01749, 00724, 00819, 01856, 01076, 01109, 00099, 01392, 01640, 01442, 01414, 01108
Dish Network System	01005, 00775, 01505
Dishpro	01005, 00775, 01505
Echostar	01005, 00775, 01505
Expressvu	00775
GE	00566
General Instrument	00869
GOI	00775
Goodmans	01246
Hisense	01535
Hitachi	00819, 00222, 01250
HTS	00775
Hughes Network Systems	01142, 00749, 01749, 01442
I-Lo	01535
JVC	00775
LG	01414, 01226
Magnavox	00724, 00722
Memorex	00724

Setup Code for Satellite Receivers (0 Prefix)	
Mitsubishi	00749
Motorola	00869
NEC	01270
Next Level	00869
Panasonic	00247, 00701
Paysat	00724
Philips	01142, 00749, 01749, 00724, 01076, 00722, 00099, 01442
Proscan	00392, 00566
Proton	01535
RadioShack	00869
RCA	00392, 00566, 00855, 00143, 01392
Samsung	01276, 01109, 01108
Sanyo	01219
SKY	00856
Sony	00639, 01640
Star Choice	00869
Tivo	01142, 01442
Toshiba	00749, 01749, 00790, 01285
UltimateTV	01640, 01392
Uniden	00724, 00722
US Digital	01535
USDTV	01535
Voom	00869
Zenith	00856, 01856

Setup Code for CD Players (3 Prefix)	
Aiwa	30157
Burmester	30420
California Audio Labs	30029
Carver	30157, 30179
Denon	30873
DKK	30000
DMX Electronics	30157
Dynamic Bass	30179
Fisher	30179
Garrard	30420
Genexxa	30032
Harman/Kardon	30157, 30173
Hitachi	30032
Integra	30101
JVC	30072
Kenwood	30826, 30626, 30028, 30037, 30036, 30190
Krell	30157
Linn	30157
Magnavox	30157
Marantz	30626, 30029, 30157
MCS	30029
Miro	30000
Mission	30157
MTC	30420
NSM	30157
Onkyo	30868, 30101
Optimus	31063, 30000, 30032, 30037, 30420, 30179, 31075, 30145
Panasonic	30029
Parasound	30420

Setup Code for CD Players (3 Prefix)	
Philips	30626, 30157
Pioneer	31063, 31062, 30032
Polk Audio	30157
Proton	30157
QED	30157
Quad	30157
Quasar	30029
RadioShack	31075
RCA	31062, 30032, 30420, 30179, 30053
Realistic	30420, 30179
Rotel	30157, 30420
SAE	30157
Sansui	30157
Sanyo	30179
SAST	30157
Sharp	30861, 30037
Silsonic	30888, 30036
Sonic Frontiers	30157
Sony	30490, 30000, 30100
Soundesign	30145
TAG McLaren	30157
Tascam	30420
Teac	30420
Technics	30029
Victor	30072
Wards	30157, 30053
Yamaha	30888, 30036
Zonda	30157

Setup Code for Audio Amplifiers (3 Prefix)	
Bose	30674
GE	30078
JVC	30331
Marantz	30321
Nakamichi	30321
NEC	30264
Optimus	30395
Realistic	30395
Sansui	30321
Shure	30264
Sony	30689
Soundesign	30078
Victor	30331
Wards	30078
Yamaha	30354, 30133

Setup Code for Audio Amp/Tuners (3 Prefix)	
ADC	30531
Aiwa	31405, 31243, 30121
Anam	31609, 31074
Audiotronic	31189
Bose	31229
Capetronic	30531
Carver	31189
Coby	31263
Denon	31360, 31142, 30904
Fonmix	31360
Glory Horse	31263
Harman/Kardon	30110
Hitachi	31273
Inkel	30027
Integra	30135
JBL	30110
JVC	30074, 31263
Kenwood	31313, 31570, 30027
KLH	31428
Magnavox	31189, 31269, 30531
Marantz	31189, 31269, 30039
MCS	30039
Onkyo	30842, 30135
Optimus	31023, 30670,

Setup Code for Audio Amp/Tuners (3 Prefix)	
	30531, 31074
Panasonic	31518, 30039
Philips	31189, 31269
Pioneer	31023, 30150, 30014, 30630, 30531
Proscan	31254
Qisheng	31609
Quasar	30039
RadioShack	31263
RCA	31023, 31609, 31254, 30531, 31074
Sharper Image	31263
Silsonic	30176
Sony	31058, 31441, 31258, 31759
Soundesign	30670
Stereophonics	31023
Sunfire	31313
Teac	31074, 31267
Technics	31308, 31518, 30039
Thorens	31189
Victor	30074
Wards	30014
Yamaha	30176, 31276, 31176

Appendix C: Glossary - Standard Definitions

Analog TV: Today's TV system using radio frequency waves to transmit and display pictures and sound.

Digital TV (DTV): Television delivered and displayed using radio frequency waves that contain information that is digitally encoded for improved quality and efficiency.

Standard Definition TV (SDTV): Basic digital television transmission that may be displayed with fewer than 480 progressively scanned lines (480p) in 16 x 9 or 4 x 3 format. 480 interlaced (480i) is the quality of today's analog TV system. SDTV provides 150-300,000 pixels.

Enhanced Definition TV (EDTV): A better digital television transmission than SDTV with at least 480p, in a 16 x 9 or 4 x 3 display and Dolby digital surround sound. 480p is the quality used by most DVD players. EDTV provides 300-400,000 pixels.

High-Definition Television (HDTV): The best quality digital picture, widescreen (16 x 9) display with at least 720 progressively scanned lines (720p) or 1080 interlaced lines (1080i) and Dolby digital surround sound. HDTV provides 900,000-2.1 million pixels.

HDTV Monitor (sometimes called HDTV Ready): A set that can display HDTV programming if you have a separate HDTV tuner, HD Cable Set-Top Box or HD Satellite Set-Top-Box Receiver.

HDTV Tuner (also decoder, receiver, set-top box): A device capable of receiving and outputting HDTV signals for display. It may be stand-alone or integrated in the set.

Integrated HDTV: An HDTV that has the digital tuner built into the set. It does not need a separate set-top box to receive over-the-air DTV signals.

Plug-and-Play or Digital Cable Ready: A DTV or other device for digital cable customers that plugs directly into the cable jack and does not require a separate set-top box. Plug and Play TV owners must obtain a CableCARD from their cable company in order to view scrambled programming services.

Interlace Scan: A way to scan vertical lines onto a TV picture by scanning all the odd lines first, then filling in the even lines (this happens instantaneously).

Progressive Scan: A way to scan vertical lines onto a TV picture by scanning all the lines consecutively (progressively).

Aspect ratio (4 X 3): Traditional TV "aspect ratio," that is, the screen's width as compared to its height. For example, a "32 inch TV screen" would be 25 ½ inches wide and 19 inches tall.

Aspect ratio (16 X 9): "Widescreen" TV" aspect ratio" that is more like a movie screen than a traditional TV. For example, a "32 inch TV screen" would be 28 inches wide and 16 inches tall.

Source: Buying a Digital Television, CEA, HDTV Guide, 2005

Note: The Federal Communications Commission (FCC), the Consumer Electronics Association (CEA) and the Consumer Electronics Retailers Coalition (CERC) have made a new tip sheet available for digital television (DTV) retailers to reproduce and distribute to consumers on the sales floor. The file may be downloaded online at www.dtv.gov. While you're there, check out the other useful information the FCC is making available to consumers interested in learning more about the analog to digital transition.