VIZIO



USER MANUAL

Model: E320-C0E



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This product qualifies for ENERGY STAR in the "factory default" setting and this is the setting in which power savings will be achieved. Changing the factory default picture settings or enabling other features will increase power consumption that could exceed the limits necessary to qualify for ENERGY STAR rating. For more information on the ENERGY STAR program, refer to www.energystar.gov.

Welcome

THANK YOU FOR CHOOSING VIZIO

Congratulations on the purchase of your new VIZIO HDTV.

To get the most out of your new VIZIO product, read these instructions before using your product and retain them for future reference. Be sure to inspect the package contents to ensure there are no missing or damaged parts.

PRODUCT REGISTRATION

To purchase or inquire about accessories and installation services for your VIZIO product, visit our website at www.VIZIO.com or call toll free at (877) 698-4946.

We recommend that you either:

- Register your VIZIO product at www.VIZIO.com
- · Complete and mail the enclosed registration card

Extended Warranties

For peace of mind, and to protect your investment beyond the standard warranty, VIZIO offers on-site extended warranty service plans. These plans provide additional coverage during the standard warranty period. To purchase an extended warranty service plan, visit www.VIZIO.com.

WHEN READING THIS MANUAL



When you see this symbol, please read the accompanying important warning or notice. It is intended to alert you to the presence of important operating instructions.



When you see this symbol, please read the accompanying helpful tip.

IMPORTANT SAFETY INSTRUCTIONS

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

- To reduce the risk of electric shock or component damage, switch off the power before connecting other components to your TV.
- · Read these instructions.
- · Keep these instructions.
- · Heed all warnings.
- Follow all instructions.
- · Do not use this apparatus near water.
- · Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.

 Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing
 is required when the apparatus has been damaged in
 any way, such as power-supply cord or plug is damaged,
 liquid has been spilled or objects have fallen into the
 apparatus, the apparatus has been exposed to rain
 or moisture, does not operate normally or has been
 dropped.
- Unplug the power cord before cleaning your TV.
- When moving your TV from an area of low temperature to an area of high temperature, condensation may form in the housing. Wait before turning on your TV to avoid causing fire, electric shock, or component damage.
- A distance of at least three feet should be maintained between your TV and any heat source, such as a radiator, heater, oven, amplifier etc. Do not install your TV close to smoke. Operating your TV 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 your TV and to protect it from overheating, be sure these openings are not blocked or covered. Do not place your TV in a bookcase or cabinet unless proper ventilation is provided.
- Never push any object into the slots and openings on your TV cabinet. Do not place any objects on the top of your TV. Doing so could short circuit parts causing a fire or electric shock. Never spill liquids on your TV.
- Your 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.
- Do not apply pressure or throw objects at your TV.
 This may compromise the integrity of the display. The manufacturer's warranty does not cover user abuse or improper installations.
- The power cord must be replaced when using different voltage than the voltage specified. For more information, contact your dealer.
- When connected to a power outlet, power is always flowing into your TV. To totally disconnect power, unplug the power cord.
- The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of un-isolated, dangerous voltage within the inside of your TV that may be of sufficient magnitude to constitute a risk of electric shock to persons.
- Do not overload power strips and extension cords.
 Overloading can result in fire or electric shock.
- The wall socket should be installed near your TV and easily accessible.
- Only power of the marked voltage can be used for your TV. Any other voltage than the specified voltage 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 your TV during a lightning storm or when it will not be used for long period of time. This will protect your TV from damage due to power surges.
- Do not attempt to repair or service your TV yourself.
 Opening or removing the back cover may expose you to high voltages, electric shock, and other hazards. If repair is required, contact your dealer and refer all servicing to qualified service personnel.
- WARNING: Keep your TV away from moisture. Do not expose your TV to rain or moisture. If water penetrates into

your TV, unplug the power cord and contact your dealer. Continuous use in this case may result in fire or electric shock.

- Do not use your TV 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 your TV yourself.
- Avoid using dropped or damaged appliances. If your
 TV 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 your TV may cause fire or electric
 shock.
- Do not install your TV in an area with heavy dust or high humidity. Operating your TV in environments with heavy dust or high humidity may cause fire or electric shock.
- Follow instructions for moving your TV. Ensure that the power cord and any other cables are unplugged before moving your TV.
- When unplugging your TV, hold the AC/DC power adapter, not the cord. Pulling on the power cord may damage the wires inside the cord and cause fire or electric shock. When your TV will not be used for an extended period of time, unplug the power cord.
- To reduce risk of electric shock, do not touch the connector with wet hands.
- Insert batteries in accordance with instructions. Incorrect polarities may cause the batteries to leak which can damage the remote control or injure the operator. Do not expose batteries to excessive heat such as sunshine, fire or the like.
- If any of the following occurs, contact the dealer:
 - -The power cord fails or frays.
 - Liquid sprays or any object drops into your TV.
 - Your TV is exposed to rain or other moisture.
 - Your TV is dropped or damaged in any way.
 - The performance of your TV changes substantially.

- This apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
- The mains plug or appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
- CAUTION These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated DANGEROUS VOLTAGE within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.

TELEVISION ANTENNA CONNECTION PROTECTION

If an outside antenna/satellite dish or cable system is to be connected to the 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 TV during a lightning storm or when it is left unattended or unused for long periods of time, unplug the 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. Remember, the screen of the coaxial cable is intended to be connected to earth in the building installation.

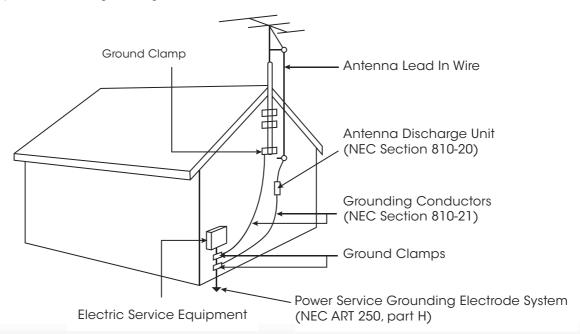


Table of Contents

nstalling the IV	3
Inspecting the Package Contents	3
Installing the TV	
Installing the TV Stand	
Installing the TV on a Wall	6
Controls and Connections	7
Back Panel	
Side Panel	8
Front Panel	9
Replacing the Batteries	11
Connecting Your Devices	.12
Connecting A Device	
Connecting a Device - Audio and Video Cable Types	13
Connecting an Audio Device	. 15
Connecting an Audio Device - Audio Cable Types	. 16
Completing the First-Time Setup	.17
Jsing the On-Screen Menu	.19
Navigating the On-Screen Menu	
Changing the Input Source	
Changing the Screen Aspect Ratio	
Viewing Video with the Menu Open	. 21
Adjusting the Picture Settings	
Adjusting the More Picture Settings	23
Adjusting the Picture Mode Edit Settings	24
Adjusting the Color Calibration Settings	
Adjusting the Color Tuner Settings	25
Creating a Custom Picture Mode	28

Locking and Unlocking the Custom Picture Modes	29
Resetting a Custom Picture Mode	29
djusting the Audio Settings	30
Changing the Equalizer Settings	31
Deleting the Custom Audio Mode	31
etting Timers	32
Setting the Sleep Timer	32
Setting the Auto Power Off Feature	32
etting Up the CHANNELS	33
Selecting a Channel Source	33
Finding Channels	33
Adding New Channels	34
Skipping Channels	35
stening to Alternate Audio	36
Changing the Analog Audio Language	36
Changing the Digital Audio Language	36
etting Up Closed Captioning	37
Changing the Appearance of Digital Closed Captio	ns 37
enaming Devices on the Input Menu	39
hanging the TV Settings	40
Viewing System Information	40
Changing the On-Screen Menu Language	41
Setting the Time and Local Settings	41
Using the Parental Controls	42
Accessing the Parental Controls Menu	42
Enabling or Disabling Program Ratings	42
Locking and Unlocking Channels	42
Blocking and Unblocking Content by Rating	43
Changing the Parental Control Passcode	43

Resetting the Content Locks	43
Setting up View Mode	44
Changing the Wide setting	44
Adjusting the CEC Settings	45
Turning the Power Indicator On or Off	
Using the Reset & Admin Menu	46
Restoring the TV to Factory Default Settings	46
Using the Guided Setup Menu	
Using Guided Setup	
Using the Info Window	47
Using the USB Media Player	48
Using the USB Media Player	48
Preparing your USB drive to play USB media	48
Playing USB media	48
Removing the USB drive from the TV	48
Specifications	55
Limited Warranty	57
Legal & Compliance	58
FCC Class B Radio Interference Statement	
Notice	58
FCC warning	58

Installing the TV

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INSPECTING THE PACKAGE CONTENTS

Before installing your new TV, take a moment to inspect the package contents. Use the images below to ensure nothing is missing or damaged.



VIZIO LED HDTV



Remote control with batteries



TV stands



Quick Start Guide



Power cord



4 x T3 30mm Phillips screws

PACKAGE CONTENTS

INSTALLING THE TV

After removing the TV from the box and inspecting the package contents you can begin installing the TV. Your TV can be installed in two ways:

- · On a flat surface, using the included stand
- On a wall, using a VESA-standard wall mount (not included)

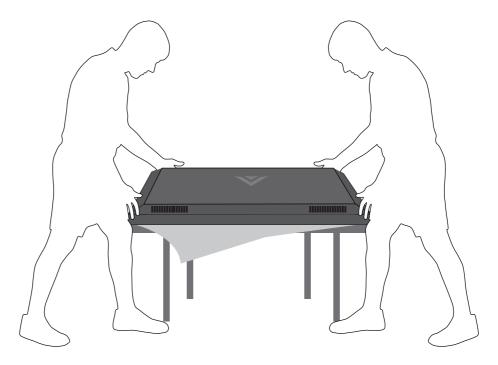
Installing the TV Stand

Your TV includes a stand designed to support the weight of the TV and keep it from falling over. However, the TV can still fall over if:

- It is placed on an uneven, unstable, or non-level surface
- · It is pushed, pulled, or otherwise improperly moved
- If an earthquake occurs and the TV is not properly secured.



INSTALLING THE STAND



It is recommended that two people take part in the stand installation.

Remove any plastic wrapping from the TV and the stand.

Place the TV screen-down on a clean, flat surface. To prevent scratches or damage to the screen, place the TV on a soft surface such as a blanket and avoid any sharp edges.

INSTALLING THE STAND



Insert the left and right stands into the base of the TV.

Insert two (2) T3 30 mm Phillips screws (included) into the back of the TV and tighten them using a Phillips screwdriver, to secure each stand to the TV.

When you are finished, place the TV on a stable, level surface.

Installing the TV on a Wall

To mount your TV on a wall, you will need a wall mount. Consult the information below to find the appropriate mount for your TV model:



Installing a TV on a wall requires lifting. To prevent injury or damage to the TV, ask someone to help you.

	E320-C0E
Screw Size:	M4
Hole Pattern:	100 mm (V) x 100 mm (H)
Weight w/o Stand:	9.48 lbs

Be sure the mount you choose is capable of supporting the weight of the TV. After you have determined that you have the correct mount for your TV, you can begin the installation.

To install your TV on a wall:

- 1. Disconnect any cables connected to your TV.
- Place the TV face-down on a clean, flat, stable surface. Be sure the surface is clear of debris that can scratch or damage the TV.
- 3. Remove the base by loosening and removing the screws.
- 4. Attach your TV and wall mount to the wall, carefully following the instructions that came with your mount.

Use only with a UL-listed wall mount bracket rated for the weight/load of this TV.

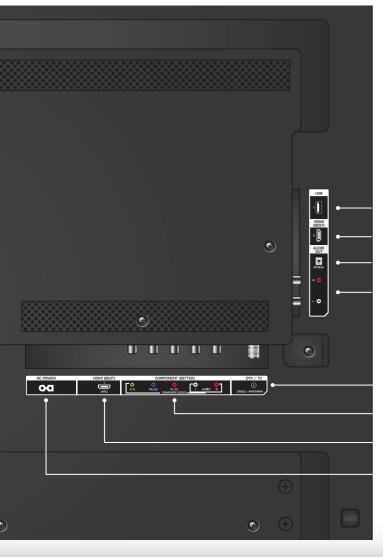


For some wall mounts, you may want to use cables with right-angle connectors. This allows the TV to rest closer to the wall.



WALL MOUNT SCREW LOCATIONS

Controls and Connections



USB - Connect USB thumb drive to play photo, music, or video.

HDMI - Connect HDMI device.

 $\mbox{\bf Optical Audio Out}$ - Connect optical/SPDIF audio device, such as home audio receiver.

Stereo Audio Out - Connect RCA audio device, such as sound bar.

Coaxial - Connect coaxial cable from cable, satellite, or antenna.

Component/Composite - Connect component or composite device.

HDMI - Connect HDMI device.

AC POWER - Connect AC power cord.

BACK PANEL

Controls and Connections

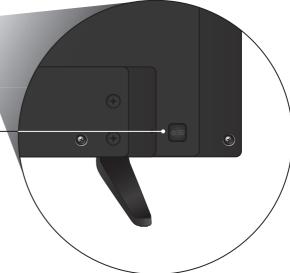


Note: The image shown here is for illustrative purposes only and may be subject to change. The actual number of ports and their locations may vary, depending on the model.

 $\textbf{Power -} \ \text{Press once to turn on the TV}.$

Press and hold to turn off the TV

 $\ensuremath{ \text{Input}}$ - Press once to access the INPUT menu.



SIDE PANEL



REMOTE SENSOR & POWER INDICATOR

When using the remote, aim it directly at this sensor.
The power indicator flashes on when the TV turns on, then goes out after several seconds.
To keep the power indicator on as long as the TV is on, see *Turning the Power Indicator On or Off* on page 45.

FRONT PANEL

USING THE REMOTE

INPUT Change the currently-displayed input.

EXIT

Close the on-screen menu.

OK Select the highlighted menu option.

BACK

Go to the previous on-screen menu.

VOLUME UP/DOWNIncrease or decrease loudness of the audio.

MUTE Turn the audio off or on.

NUMBER PAD

Manually enter a channel.

Switch the display mode.



POWER

Turn TV on or off.

MENII

Display the on-screen menu.

ARROW

Navigate the on-screen menu.

GUIDE

Display the info window.

V BUTTON

Open the USB photo viewer.

CHANNEL UP/DOWN

Change the channel.

AST

Return to the channel last viewed.

DASH

Use with number pad to manually enter a digital sub-channel. (For example, 18-4 or 18-5.)

REMOTE CONTROL

Replacing the Batteries



- 1. Remove the battery cover.
- Insert two batteries into the remote control. Make sure that the (+) and (-) symbols on the batteries match the (+) and (-) symbols inside the battery compartment.
- 3. Replace the battery cover.

Connecting Your Devices

CONNECTING A DEVICE

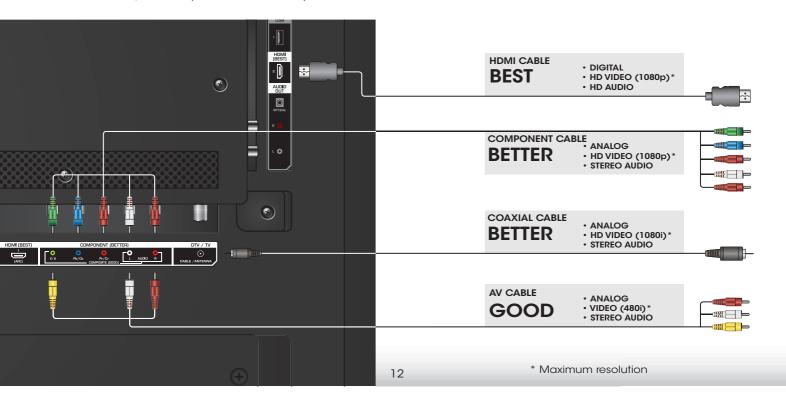
Your TV can be used to display output from most devices.

- 1. Verify that your device has a video port that matches an available port on the TV (HDMI, Component, etc.).
- 2. Turn the TV and your device off.
- 3. Connect the appropriate cable (not included) to the TV and the device.
- 4. Turn the TV and your device on. Set the TV's input to match the connection you used (HDMI-1, HDMI-2, etc.).



DVD/Blu-ray Player

Game Console

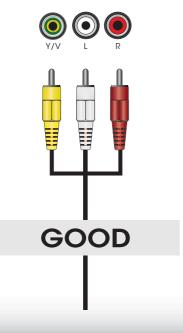


CONNECTING A DEVICE - AUDIO AND VIDEO CABLE TYPES

AV CABLE

AV cables (or Composite cables) are the traditional way of connecting your devices to your TV. Video signals are sent over the yellow connector while audio is sent over the red and white connectors.

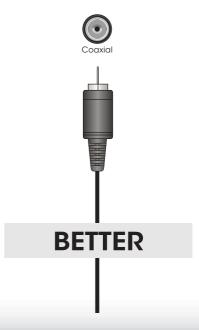
- · Video Resolutions up to 480i
- Analog Connection
- Audio and Video Signals



COAXIAL CABLE

Coaxial cables are the traditional way of connecting antennas and cable television signals to your TV. Coaxial cables carry both audio and video signals through a single connector.

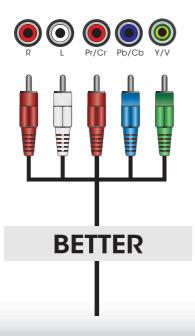
- HD Video Resolutions up to 1080i
- Analog Connection
- Audio and Video Signals



COMPONENT CABLE

Component cables are designed to carry high definition video signals along with additional audio connections. Colors are delivered with color information split up three different ways over three connectors for video (separated into red, blue and green signals) and the left and right audio connectors (red and white).

- · HD Video Resolutions up to 1080p
- Analog Connection
- Audio and Video Signals



HDMI CABLE

HDMI is the intelligent, all-digital interface that delivers both dazzling quality and unmatched ease of use. HDMI technology transmits crystal-clear digital video along with multi-channel surround audio. HDMI-connected devices have the ability to automatically adjust themselves for optimal viewing.

- HD Video Resolutions up to 1080p
- HD Audio
- Digital Connection
- Audio and Video Signals



CONNECTING AN AUDIO DEVICE

Your TV can output sound to an audio device, such as a receiver or sound bar.

- 1. Verify that your device has an audio port that matches an available port on the TV (optical, RCA, etc.).
- 2. Turn the TV and your audio device off.
- 3. Connect the appropriate cable (not included) to the TV and the device.
- 4. Turn the TV and your device on.

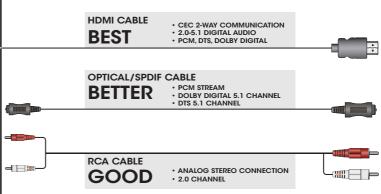


Home Audio Receiver



VIZIO Sound Bar



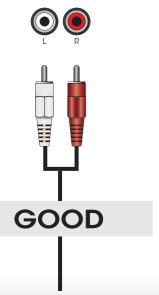


CONNECTING AN AUDIO DEVICE - AUDIO CABLE TYPES

RCA CABLE

AV cables (or composite cables) are the traditional way of connecting your devices to your audio device. Audio signals are sent over the red and white connectors.

- Quality Stereo Connection
- · 2.0 Channel
- Analog Connection
- Audio Signal Only



OPTICAL/SPDIF CABLE

Optical/SPDIF cables transmit audio signals as pulses of light through a cable made of plastic fibers. Audio signals are digitally transmitted between devices.

- PCM Stream (Lossless)
- · Dolby Digital 5.1 Channel
- Digital Connection
- Audio Signal Only



HDMI CABLE

HDMI technology transmits crystal-clear digital multi-channel surround audio through a single HDMI cable. Audio Return Channel-enabled (ARC) TVs allow audio to be sent over an already connected HDMI cable, eliminating the need for a separate audio cable. See *Connecting an Audio Device - ARC* on page 17.

- CEC 2-way Communication (Auto setup)
- PCM, DTS, Dolby Digital
- 2.0-5.1 Scaleable Lossless Digital Audio Connection
- · Audio and Video Signals



CONNECTING AN AUDIO DEVICE - ARC

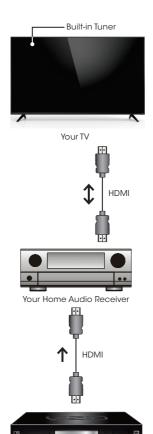
Without HDMI ARC



Without an HDMI ARC setup, your TV will transmit audio signal from the built-in tuner and VIA apps to your home audio receiver through a separate audio connection.



With HDMI ARC



Your Blu-Ray Player

With an HDMI ARC setup, the audio connection between your TV and Home Audio Receiver can be removed. The HDMI cable will transmit audio signal to and from your TV with an all-digital audio/video connection.

Completing the First-Time Setup

4

The first time you turn on the TV, the Setup App will guide you through each of the steps necessary to get your TV ready for use.

Before you begin the first-time setup:

- Your TV should be installed and the power cord should be connected to an electrical outlet.
- · Your devices should be connected.
- If you have a wireless network, have the wireless password ready.
- If you are connecting to your network with an Ethernet cable, connect it to the Ethernet port on the TV.

To complete the first-time setup:

- Press the Power/Standby button on the remote. The TV powers on and the Setup App starts.
- Use the Arrow buttons on the remote to highlight Home Use and press OK.
- Use the **Arrow** buttons on the remote to highlight your preferred language, and then press the **OK** button.







 Use the **Arrow** buttons on the remote to highlight your TV source and press **OK**.



If you have cable TV, select whether you have a cable box or if you connect the TV directly to a cable from the wall.



 If the TV Signal channel scan screen appears, the TV will need to scan for channels, which takes several minutes. Use the arrow buttons on the remote to highlight Begin Scan and press OK.



Otherwise, use the **Arrow** and **OK** buttons on the remote to select the input your TV source is connected to.

(Number of inputs may vary depending on your TV.)



When you are finished, the message "Your VIZIO TV is set up" will appear.

The First-Time Setup is complete.

Your TV features an easy-to-use on-screen menu.

To open the on-screen menu, press the \mathbf{MENU} button on the remote.

From this menu, you can:

- · Adjust the Picture settings
- · Adjust the Audio settings
- Set the Sleep Timer
- Adjust the Channel settings
- Set up Closed Captioning
- Select input devices
- Adjust TV settings
- · Access the Guided Setup



NAVIGATING THE ON-SCREEN MENU

To open the on-screen menu, press the **MENU** button on the remote.

Use the **Arrow** buttons to highlight a menu option, and press the **OK** button to select that option.





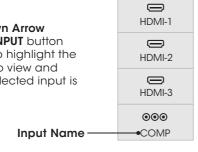
While navigating the on-screen menu, you can press the **BACK** button at any time to return to the previous menu screen. The **EXIT** button will close the on-screen menu.

CHANGING THE INPUT SOURCE

External devices such as DVD players, Blu-ray Players, and video game consoles can be connected to your TV. To use one of these devices with your TV, you must first change the input source using the Input menu.

To change the input source:

- Press the **INPUT** button on the remote. The Input menu is displayed.
- Use the Up/Down Arrow buttons or the INPUT button on the remote to highlight the input you wish to view and press OK. The selected input is displayed.



Note: Inputs may vary by TV

((**•**))

TV



You can change the input names that appear on the Input menu to make your devices easy to recognize. See *Renaming Devices on the Input Menu* on page 39 for more information.

CHANGING THE SCREEN ASPECT RATIO

The TV can display images in five different modes: Normal, Stretch, Panoramic, Wide, and Zoom. Each mode displays the picture differently.

To change the screen aspect ratio:

- Press the WIDE button on the remote.
- Use the **Arrow** buttons to highlight the aspect ratio you wish to view and press **OK**.
 - Normal preserves the content's original aspect ratio. Since the 4:3 aspect ratio is not large enough to fill the TV's screen, black bars are added to the left and right of the display image.



Note: Aspect ratio settings may vary by Input source.

- Stretch expands the display image to fill the screen. Images may appear wider than intended. If you are watching widescreen (1.85:1 or 2.35:1) content, black bars will still appear on the top and bottom of the display image. This option is only available when the TV is displaying a 720p/1080i source.
- Panoramic expands the display image to fill the screen. Images may appear wider than intended. If you are watching widescreen (1.85:1 or 2.35:1) content, black bars will still appear on the top and bottom of the display image. This option is only available when the TV is displaying a 480i/480p source.
- Wide stretches a 4:3 aspect ratio picture to the edges of the screen. Since the picture is being stretched, the display image may appear distorted. If the program is already formatted for widescreen viewing (1.85:1 or 2.35:1), then black bars will appear on the top and bottom of the display image.
- **Zoom** expands images with black bars to fit the screen.

VIEWING VIDEO WITH THE MENU OPEN

When the on-screen menu opens, it covers the left-hand portion of the picture. The picture can be displayed in three different ways:

- Full-sized and centered on the screen The left-hand portion of the picture covered by the menu.
- **Resized to fit** The entire picture is visible in the space to the right of the menu.
- Full-sized and aligned to the right edge of the menu The picture extends off of the right side of the screen.

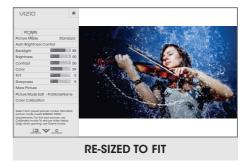
To change the position of the picture while the on-screen menu is displayed:

- Use the **Arrow** buttons on the remote to highlight Resize Video.
- 2. Press **OK** to cycle through the three display methods.
- 3. Press the **Up Arrow** button on the remote to the menu.





FULL-SIZED AND CENTERED



PIC_IPIE
PIC

FULL-SIZED AND ALIGNED TO RIGHT OF MENU

ADJUSTING THE PICTURE SETTINGS

Your TV display can be adjusted to suit your preferences and viewing conditions.



When changes are made while a preset picture mode is selected, an asterisk appears after the name of the picture mode. These settings can be saved as a new custom picture mode and the preset mode can be reset to its default settings (see Custom Picture Modes on pages 28 through 29).

UIZIO

PICTURE

Picture Mode

Backlight

Brightness

Sharpness

More Picture

Picture Mode Edit

Color Calibration

Select from preset picture modes. Standard picture mode meets ENERGY STAR® requirements. For the best picture, use Calibrated mode. To reduce video delay (lag) when gaming, use Game mode.

Contrast

Color

Tint

To adjust the picture settings:

- Press the MENU button on the remote. The on-screen menu is displayed.
- Use the Arrow buttons on the remote to highlight Picture and press OK. The PICTURE menu is displayed.
- Use the Arrow buttons on the remote to highlight Picture Mode, then use the Left/Right Arrow buttons to change the picture mode:
 - Standard sets the various picture settings to values that meet ENERGY STAR® requirements.
 - Calibrated sets the picture settings to values perfect for watching TV in a brightly-lit room.
 - Calibrated Dark sets the picture settings to values perfect for watching TV in a dark room.
 - · Vivid sets the picture settings to values that produce a

- brighter, more vivid picture.
- Game reduces throughput delays and optimizes the picture settings for displaying game console output.
- Computer optimizes the picture settings for displaying computer output.
- 4. To manually change each of the picture settings, use the Up/Down Arrow buttons on the remote to highlight that picture setting, then use the Left/Right Arrow buttons to adjust the setting:
 - **Backlight** Adjusts the LED brightness to affect the overall brilliance of the picture. Backlight cannot be adjusted when starting from some picture modes.
 - **Brightness** Adjusts the black level of the picture. When this setting is too low, the picture may be too dark to distinguish details. When this setting is too high, the picture may appear faded or washed out.
 - Contrast Adjusts the white level of the picture. When
 this setting is too low, the picture may appear dark. When
 this setting is too high, the picture may appear faded
 or washed out. If the setting is too high or too low, detail
 may be difficult to distinguish in dark or bright areas of
 the picture.
 - Color Adjusts the intensity of the picture colors.
 - Tint Adjusts the hue of the picture. This setting is useful
 in adjusting the flesh tones in the picture. If flesh appears
 too orange, reduce the level of color before adjusting tint.
 - Sharpness Adjusts the edge sharpness of picture elements. It can be used to sharpen non-HD (high definition) content; however, it will not produce detail that does not otherwise exist.
- 5. When you have finished adjusting the picture settings, press **BACK** to adjust additional settings or **EXIT**.

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Adjusting the More Picture Settings

To adjust the More Picture settings:

- From the PICTURE menu, use the Arrow buttons to highlight More Picture, and then press OK. The MORE PICTURE menu is displayed.
- Use the Arrow buttons to highlight the setting you wish to adjust, then press the Left/ Right Arrow buttons to change the setting:
 - Color Temperature Adjusts the 'warmness' and
 'coolness' of the white areas
 of the picture. Select Cool,
 Normal, or Computer.
 - Cool produces a blue-hued picture.
 - Normal is optimized for television viewing.
 - Computer optimizes the picture for use as a PC monitor.
 - Black Detail Adjusts the average brightness of the picture to compensate for large areas of brightness.
 Select Off, Low, Medium, or High.
 - Backlight Control Dynamically improves the contrast ration of the picture by adusting the backlight. Select Off or On.
 - Reduce Signal Noise Reduces background picture noise when viewing analog sources. The function helps to correct "speckle" noise with a slight reduction in sharpness. Select Off, Low, Medium, or High.
 - Reduce Block Noise Reduces pixelation and distortion

- for mpeg files. Select Off, Low, Medium, or High.
- Game Low Latency Reduces video delay (lag) when gaming. Select Off, or On.
- Picture Size & Position Picture Size increases or decreases the vertical and horizontal size of the displayed picture. Picture Position adjusts the vertical and horizontal positions of the picture to ensure the image is centered and completely fills the screen. Use the Left/Right Arrow buttons to adjust the horizontal position of the displayed picture. Use the Up/Down Arrow buttons to adjust the vertical position of the displayed picture. Press the OK button when you are finished.
- Film Mode Optimizes the picture for watching film.
 Select Auto or Off.
- Gamma Sets the shape of the gamma curve. Use lower values for bright room conditions and higher values when it is dark. Select 1.8, 2.0, 2.1, 2.2, or 2.4.
- When you have finished adjusting the Advanced Picture settings, press BACK to adjust additional settings or EXIT.

Cool

On

Low

Low

On

Auto

Medium

VIZIO

Black Detail

Film Mode

Gamma

MORE PICTURE

Color Temperature

Backlight Control

Reduce Signal Noise

Reduce Block Noise

Game Low Latency

Picture Size & Position

Adjusting the Picture Mode Edit Settings

To adjust the Picture Mode Edit settings:

- From the PICTURE menu, use the Arrow buttons to highlight More Picture > Picture Mode Edit, and then press the OK button. The PICTURE MODE EDIT menu is displayed.
- Use the Arrow buttons to highlight the setting you wish to adjust, then press the Left/ Right Arrow buttons to change the setting:
 - Save Picture Mode Saves the settings for a custom picture mode.
 - Lock Picture Mode Prevent/ allow changes to the currently selected custom picture mode. Select On or Off.
 - Reset Picture Mode Resets the picture mode settings to factory default values.
- When you have finished adjusting the Picture Mode Edit settings, press BACK to adjust additional settings or EXIT.



Adjusting the Color Calibration Settings

Color Calibration Settings allow you to make precise adjustments to the picture and to create picture modes to save groups of picture settings.



The Color Tuner, 11 Point White Balance, and test patterns allow technicians to manually calibrate the TV. Calibration requires specialized training, an input with precisely set colors, and a specialized light meter.

VIZIO

Picture Mode*

Color Tuner

Color Temperature*

COLOR CALIBRATION

Reset Color Temperature

To adjust the color calibra picture settings:

- From the PICTURE menu, use the **Arrow** buttons to highlight **Color Calibration** and press the **OK** button. The COLOR CALIBRATION menu is displayed.
- 2. Use the **Arrow** buttons to highlight the setting you wish to adjust, then press the **OK** button to change the setting:
 - Picture Mode Not directly selectable (reference only). Changes to Hue, Saturation, and Brightness are saved here and indicated with an asterisk (*).
 - Color Temperature Not directly selectable (reference only). Changes to Offset and Gain are saved here and indicated with an asterisk (*).
 - Color Tuner Adjust the HSB color, RGB offsets, and 11-point white balance, and display calibration test patterns.
 - Reset Color Tuner/Temperature Prevent/allow changes to the currently selected custom picture mode.

Adjusting the Color Tuner Settings

The Color Tuner settings allow you to adjust the Hue, Saturation, and Brightness (HSB) color and 11 point white balance, turn color channels off for testing, and display color bar, flat, and ramp test patterns.

To adjust the HSB color settings:

- From the PICTURE menu, use the Arrow buttons to highlight Color Calibration and press the OK button. The COLOR CALIBRATION menu is displayed.
- Use the Arrow buttons to highlight Color Tuner, and press the OK button. The Color Tuner menu is displayed.

◁	ColorTuner					
	Red	Green	Blue	Cyan	Magenta	Yellow
Hue	0	0	0	0	25	-14
Saturation	-1	5	-4	0	-2	0
Brightness	-24	0	-22	0	0	0
Offset	0	0	0			
Gain	0	0	0			

- 3. Use the **Arrow** buttons on the remote to highlight the **Hue**, **Saturation**, **Brightness**, (these 3 adjust the color) **Offset**, or **Gain** (these two adjust the color temperature) of the color you wish to adjust. Press the **OK** button.
- Use the Left/Right Arrow buttons to adjust the value. When you are finished press the OK button to save the setting.
- 5. When you have finished adjusting the Color Tuner settings, press the BACK button to adjust additional settings or EXIT. Changes to Hue, Saturation, and Brightness are indicated with an asterisk (*) on the Picture Mode setting.

Changes to Offset and Gain are indicated with an asterisk (*). on the Color Temperature setting.

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To turn color channels off and on:

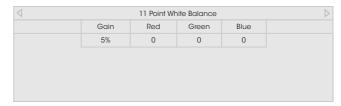
- From the PICTURE menu, use the **Arrow** buttons to highlight **Color Calibration** and press the **OK** button. The COLOR CALIBRATION menu is displayed.
- 2. Use the **Arrow** buttons to highlight **Color Tuner**, and then press the **OK** button. The Color Tuner menu is displayed ..

< .	Color Tuner					\triangleright
	Red	Green	Blue	Cyan	Magenta	Yellow
Hue	0	0	0	0	25	-14
Saturation	-1	5	-4	0	-2	0
Brightness	-24	0	-22	0	0	0
Offset	0	0	0			
Gain	0	0	0			

- Use the Arrow buttons on the remote to highlight Red, Green, or Blue.
- 4. Press the **OK** button to turn the color channel off or on. An X appears over a color channel that has been turned off.
- 5. Use the **Arrow** buttons to highlight another color channel to turn off or on. Only two color channels can be turned off at the same time.
- When you are finished with the color channels, press the BACK button to adjust additional settings or EXIT.

To adjust the 11 Point White Balance settings:

 From the Color Tuner menu, use the Arrow buttons to highlight Color Tuner, and then press the Left/Right Arrow buttons until the 11 Point White Balance menu is displayed.

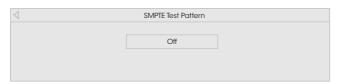


- Use the Arrow buttons on the remote to highlight the Gain and Color values you wish to adjust. Press the OK button and use the Left/Right Arrow buttons to adjust the value. When you are finished press the OK button to save the setting.
- When you are finished, press the BACK button to adjust additional settings or EXIT.

All changes here are saved to Color Temperature.

To show or hide the Color Bar Test Pattern:

 Ensure that you are on an input that is displaying active content. From the Color Tuner menu, use the **Arrow** buttons to highlight **Color Tuner**, and then press the **Left/Right** Arrow buttons until the SMPTE Test Pattern menu is displayed.



 Use the Arrow buttons on the remote to highlight Off. Use the Left/Right Arrow buttons to highlight On to show the Color Bar.

-or-

To hide the Color Bar Test Pattern, use the **Left/Right Arrow** buttons to highlight **Off**.

When you are finished, press the BACK button to adjust additional settings or EXIT. To show or hide the Flat Test Pattern:

 Ensure that you are on an input that is displaying active content. From the Color Tuner menu, use the **Arrow** buttons to highlight **Color Tuner**, and then press the **Left/Right** Arrow buttons until the Flat Test Pattern menu is displayed.



 Use the Arrow buttons on the remote to highlight Off. Use the Left/Right Arrow buttons to select the percentage brightness for the flat test pattern. Selecting a percentage immediately shows the flat pattern at that brightness.

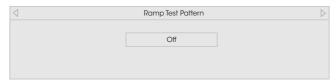
-or-

To disable the Flat Test Pattern, use the **Left/Right Arrow** buttons to highlight **Off**.

3. When you are finished, press the **BACK** button to adjust additional settings or **EXIT**.

To show or hide the Ramp Test Pattern:

 Ensure that you are on an input that is displaying active content. From the Color Tuner menu, use the **Arrow** buttons to highlight **Color Tuner**, and then press the **Left/Right** Arrow buttons until the Ramp Test Pattern menu is displayed.



 Use the Arrow buttons on the remote to highlight Off. Use the Left/Right Arrow buttons to select the color for the ramp test pattern. Selecting a color immediately shows that color ramp.

-or-

To hide the Ramp Test Pattern, use the **Left/Right Arrow** buttons to highlight **Off**.

When you are finished, press the BACK button to adjust additional settings or EXIT.

Creating a Custom Picture Mode

Custom picture modes allow you to save a group of custom settings for various viewing conditions and video sources.

- · Custom picture modes can be created manually.
- A new custom picture mode is created automatically whenever picture settings are changed while in any preset picture mode.



A custom picture mode only applies to the input (HDMI-1, COMP, etc.) in use when it was created. Each input can have up to six custom picture modes.

To create a custom picture mode:

- Set the Picture Mode to an existing custom setting. See Adjusting the Picture Settings on page 22.
- From the PICTURE menu, use the Arrow buttons to highlight Picture Mode Edit and press OK. The PICTURE MODE EDIT menu is displayed.
- On the PICTURE MODE EDIT menu, select Save Picture Mode. The SAVE PICTURE MODE menu is displayed.
- 4. Use the **Arrow** buttons to enter a custom name using the on-screen keyboard.
- 5. Highlight **Done** and press **OK**.
- Press the EXIT button to exit the menu screens.



Locking and Unlocking the Custom Picture Modes

Custom picture modes can be locked with a unique PIN to prevent accidental changes to their settings.

To lock all custom picture modes:

- From the PICTURE menu, use the Arrow buttons to highlight Picture Mode Edit and select Lock or Unlock Picture Mode, then press OK. The LOCK PICTURE MODE menu is displayed.
- Use the **Number Pad** on your remote to enter a unique 4-digit PIN.
- 3. Highlight **Save** and then press the **OK** button.
- 4. Press the **EXIT** button to exit the menu screens.

To unlock all custom picture modes:

- From the PICTURE menu, use the Arrow buttons to highlight Picture Mode Edit and select Lock or Unlock Picture Mode, then press OK. The LOCK PICTURE MODE menu is displayed.
- Use the **Number Pad** on your remote to enter your 4-digit PIN.
- 7. Make any desired changes to the picture modes.
- 8. To relock picture modes, you must create a new 4-digit PIN.



Deleting a Custom Picture Mode

Custom picture modes that are no longer needed can be deleted.



Inputs assigned to a deleted custom picture mode become assigned to the *Calibrated* picture mode.

To delete a custom picture mode:

 From the PICTURE menu, use the Arrow buttons to highlight Picture Mode Edit and select Lock or Unlock Picture Mode, then press OK. The DELETE PICTURE MODE window is displayed.



- Use the Left/Right Arrow buttons to highlight Delete and press OK.
- 3. Press the BACK button to adjust additional settings or EXIT.

ADJUSTING THE AUDIO SETTINGS

To adjust the audio settings:

- Press the **MENU** button on the remote. The on-screen menu is displayed.
- Use the **Arrow** buttons on the remote to highlight **Audio** and press **OK**. The AUDIO menu is displayed.
- Use the Arrow buttons to highlight the setting you wish to adjust, then press Left/Right Arrow buttons to change the setting:
 - TV Speakers Turns the built-in speakers on or off.





When the TV speakers are set to **On**, DTS signals cannot be passed through digital audio outputs.

- Surround Sound Surround sound uses DTS TruSurround™
 to deliver an immersive surround sound experience
 from the TV's internal speakers. TruSurround completes
 the entertainment experience by providing deep, rich
 bass and by delivering crisp details and clear, intelligible
 dialog. Select On or Off.
- Balance Adjusts the loudness of the audio output from the left and right speakers.
- Lip Sync Adjusts the synchronization between the display image and the accompanying audio track.



You must select **Bitstream** for audio with more than two channels (3.0, 5.0, or 5.1, for example).

- Analog Audio Out Sets the volume control properties for the 3.5mm (headphone jack) connector when connected to a home theater audio system. Select Variable to control the headphones' volume from the TV's volume controls, or select Fixed to control the headphones' volume from your home theater system controls. (Some external speakers can also be connected to the 3.5mm connector.)
- Equalizer Adjusts the boost or attenuation of different frequencies using either preset or custom settings. See Changing the Equalizer Settings on page 31.
- Delete Audio Mode Deletes a custom audio mode created using the Equalizer Settings. See Deleting the Custom Audio Mode on page 31.



This option is cannot be selected if no custom audio mode has been created.

4. When you have finished adjusting the audio settings, press the **BACK** button to adjust additional settings or **EXIT**.

Changing the Equalizer Settings

The graphic equalizer has several pre-set modes and allows you to create one custom mode.

To select a pre-set audio mode:

- Press the MENU button on the remote. The on-screen menu is displayed.
- 2. Use the **Arrow** buttons on the remote to highlight **Audio** and press **OK**. The AUDIO menu is displayed.
- Use the Arrow buttons to highlight Equalizer and press OK.
 The Audio Mode and equalizer settings screen appears.
- Use the Left and Right Arrow buttons to select an audio mode (Flat, Dynamic, Center, Bass Boost, or Bright). The equalizer bars change to reflect the mode.
- 5. Press the **BACK** button to adjust additional settings or **EXIT**.

To create, modify, or replace the single custom equalizer setting:

- Press the MENU button on the remote. The on-screen menu is displayed.
- Use the Arrow buttons on the remote to highlight Audio and press OK. The AUDIO menu is displayed.
- Use the Arrow buttons to highlight Equalizer and press OK.
 The Audio Mode and equalizer settings screen appears.
- Use the Left and Right Arrow buttons to select any audio mode as a starting point.
- Use the Arrow buttons to highlight a frequency and then press OK.
- Use the Up and Down Arrow buttons to adjust the boost (up) and attenuation (down) for the frequency.
- 7. Use the **Left** and **Right Arrow** buttons to select another frequency, if desired, and adjust it.
- 8. Press the BACK button to adjust additional settings or EXIT.

Deleting the Custom Audio Mode

To delete the custom audio mode that has been created:

- Press the MENU button on the remote. The on-screen menu is displayed.
- Use the Arrow buttons on the remote to highlight Audio and press OK. The AUDIO menu is displayed.
- 3. Use the **Arrow** buttons to highlight **Delete Audio Mode** and press **OK**. The TV displays, "To delete the user created custom audio mode, select the Delete button."
- 4. Highlight Delete and press OK.
- 5. Press the **BACK** button to adjust additional settings or **EXIT**.

SETTING TIMERS

This TV has several timers to save energy and to turn off when you go to sleep.

Setting the Sleep Timer

When activated, the TV's sleep timer will turn the TV off after a set period of time.

- Press the MENU button on the remote. The on-screen menu is displayed.
- Use the Arrow buttons on the remote to highlight Timers and press OK. The TIMERS menu is displayed.
- Use the Left/Right Arrow buttons on the remote to highlight the period of time after which you want the TV to go to sleep: 30, 60, 90, 120, or 180 minutes. If you don't want the sleep timer to activate, change the setting to Off.
- When you have finished setting the sleep timer, press the BACK button to adjust additional settings or EXIT.



Setting the Auto Power Off Feature

To help save energy, your TV is set by default to turn off after 10 minutes without a video or audio signal. This feature can be deactivated.

To set the Auto Power Off feature:

- From the TIMERS menu, use the Up/Down Arrow buttons on the remote to highlight Auto Power Off.
- Use the Left/Right Arrow buttons on the remote to change whether the TV will turn off. If you don't want the TV to turn off when there is no signal, change the setting to Off or 10 minutes.
- When you have finished setting the auto power off time, press the BACK button to adjust additional settings or EXIT.

SETTING UP CHANNELS

You can use the TV's Channels menu to:

- Select a Channel Source
- Find channels
- · Perform a partial channel scan
- Manually add channels
- Select channels to skip
- · Select analog mts modes
- · Select digital languages



Selecting a Channel Source

- On the remote control, press Input and use the Arrow button to highlight TV (antenna icon), then press OK.
- Press the MENU button, select Channels and press OK. The CHANNELS menu is displayed.
- On the CHANNELS menu, highlight Channel Source and using the left/right Arrow buttons to select either Antenna or Cable.

Finding Channels

The TV may need to scan for channels before it can display programs and their associated information. A channel scan is required for free over-the-air channels (using an antenna) and cable channels from an out-of-the-wall connection (without a cable box). Moving the TV to an area with different channels requires the TV to scan for channels again.

To perform an Auto Channel Scan:

- From the CHANNELS menu, highlight Find Channels and press OK. The auto channel scan begins.
- Wait until the channel scan is 100% complete. Highlight **Done** and press **OK**.
- 3. Press the **EXIT** button on the remote.

If the channel scan is cancelled, the channels that were already discovered are retained. A new channel scan will clear all channels.



Adding New Channels

Occasionally, you may need to add a new range of channels or add a new analog channel. You can do this by using the Partial Channel Scan and Add Analog Channel options. This is quicker than scanning all possible channels.

To add a range of new channels:

- From the CHANNELS menu, highlight Partial Channel Search, and press OK. The PARTIAL CHANNEL SEARCH menu is displayed.
- Highlight Scan Mode and select the type of channel you are adding: Analog, Digital, or Analog/Digital.
- Highlight From Channel and type the channel where you want to begin the scan. (Use the left Arrow button to backspace. Use the Number Pad on the remote to type the channel.)
- Highlight To Channel and enter the channel where you want to end the scan. (Use the left Arrow button to backspace. Use the Number Pad on the remote to enter the channel.)
- 5. Highlight **Start** and press **OK**. The partial channel search begins.
- Wait until the partial channel search is 100% complete. Highlight **Done** and press **OK**.
- 7. Press the **EXIT** button on the remote.

To add a single new analog channel:

- From the CHANNELS menu, highlight Add Analog Channel and press OK. The ADD ANALOG CHANNEL menu is displayed.
- Highlight Enter Channel # and use the Number Pad on the remote to type the number of the channel to be added.
- 3. Highlight **Add Channel** and press **OK**. The TV scans for the channel.
- When the TV is done scanning for the channel, press the EXIT button on the remote.



Skipping Channels

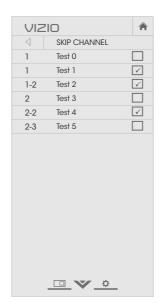
After a channel scan is completed, you may find that some channels are too weak to watch comfortably. There may also be some channels you do not want to view. You can remove these channels from the TV's memory with the Skip Channel feature.



Channels that have been removed with the Skip Channel feature can still be viewed if the channel is entered using the Number Pad. If you wish to completely block a channel from being viewed, use the parental controls. See Locking and Unlocking Channels on page 42.

To remove a channel:

- From the CHANNELS menu, highlight Skip Channel, and press OK. The SKIP CHANNEL menu is displayed.
- For each channel you wish to remove, use the Up/Down Arrow buttons on the remote to highlight the channel and press OK. A ✓ appears to the right of each channel you select.
- When you have selected all of the channels you wish to remove, press BACK to adjust additional settings or EXIT.



LISTENING TO ALTERNATE AUDIO

Changing the Analog Audio Language

Some analog over-the-air (free) and cable channels broadcast programs in more than one language. The TV's Analog Audio feature allows you to listen to audio in an alternate language using Secondary Audio Programming (SAP).



Not all programs are broadcast in SAP. The Analog Audio Language feature only works when the program being viewed is being broadcast with Secondary Audio Programming.

To use the Analog Audio feature:

- From the CHANNELS menu, highlight **Analog Audio** and press **OK**. The ANALOG AUDIO menu is displayed.
- Select Stereo, SAP (secondary audio programming), or Mono. Press OK.
- 3. Press **BACK** to adjust additional settings or **EXIT**.



Changing the Digital Audio Language

Some digital over-the-air (free), cable, and satellite channels broadcast programs in more than one language. The TV's Digital Audio feature allows you to listen to audio in alternate languages.



Not all programs are broadcast in alternate languages. The Digital Audio Language feature only works when the program being viewed is being broadcast in the language you select.

- From the CHANNELS menu, highlight Digital Language and press OK. The DIGITAL LANGUAGE menu is displayed.
- Select your preferred language: English, Français, or Español and press OK.
- 3. Press **BACK** to adjust additional settings or **EXIT**.



SETTING UP CLOSED CAPTIONING

Your TV can display closed captions for programs that include them. Closed captions display a transcription of a program's dialogue.



If the program you are viewing is not being broadcast with closed captions, the TV will not display them.



The Closed Captions menu does not appear when an HDMI input is selected.

To activate or deactivate closed captions:

- Press the MENU button on the remote. The on-screen menu is displayed.
- Use the Arrow buttons on the remote to highlight Closed Captions and press OK. The CLOSED CAPTIONS menu is displayed.
- Use the Arrow buttons on the remote to highlight Closed Captions and then use the Left/Right Arrow buttons to select On or Off.
- Use the Arrow buttons on the remote to highlight either Analog or Digital Closed Captions.
- Use the Left/Right Arrow buttons on the remote to select the caption channel you wish to display, then press BACK to adjust additional settings or EXIT.



Changing the Appearance of Digital Closed Captions

Digital closed captions can be displayed according to your preference. See the diagram on the next page for an explanation of the parts of the closed caption area.

To change the appearance of digital closed captions:

- From the CLOSED CAPTIONS menu, use the Arrow buttons to highlight Digital Style and press OK.
- Use the Left/Right Arrow buttons on the remote to select Custom and press OK. The DIGITAL STYLE menu is displayed.
- Use the Up/Down Arrow buttons on the remote to highlight the setting you wish to change, then use the Left/ Right Arrow buttons to change the setting:
 - Caption Style Choose
 As Broadcast to keep
 default settings or Custom
 to manually change each
 setting.
 - Text Style Change the font used for the closed captioning text.
 - Text Size Make the text larger or smaller.
 - Text Color Change the color of the text.
 - Text Opacity Change the transparency of the text.
 - **Text Edges** Change the effects at the edges of the text, such as raising the edges or adding drop shadows.

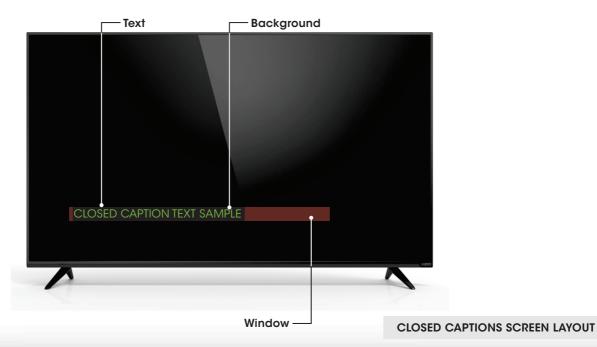


- **Text Edges Color** Change the color of the text edge effects.
- Background Color Change the color of the background directly behind the text.
- Background Opacity Change the transparency of the background directly behind the text.
- Window Color Change the color of the closed captioning box.
- 4. When you are satisfied with the appearance of the closed captions, press the **EXIT** button on the remote.

Typical choices include:

- Opaque background, transparent window—Only a strip
 of background appears behind the text, expanding as
 the text appears. This is the typical "As Broadcast" mode.
- Opaque background and window in the same color— When text appears, the entire line fills with color at once.

In the example below, the closed caption text is green, the background is black, and the window is red.



RENAMING DEVICES ON THE INPUT MENU

Inputs can be renamed to make them easier to recognize on the Input menu (see *Changing the Input Source* on page 20). For example, if you have a DVD player connected to the Component input, you can rename that input to display "DVD Player."

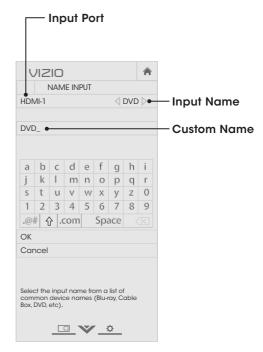
To change the name of an input:

- Press the MENU button on the remote. The on-screen menu is displayed.
- 2. Use the **Arrow** buttons on the remote to highlight **Devices** and press the **OK** button. The DEVICES menu is displayed.
- 3. Highlight the input port that you want to name and press OK.
- 4. To use a preset input name:
 - a. Highlight the Input Port row and press OK.
 - b. Highlight the input name you want to use (HDMI-1, Blu-ray, Cable Box, Computer, DVD, DVR, Game, or Satellite) and press OK.

—or—

To enter a custom name:

- a. Enter your custom name using the on-screen keyboard.
- b. Highlight **OK** and press **OK**.
- c. The Input Name changes to show the custom name that you created.
- When you have finished naming your input, press the BACK button to adjust additional settings or EXIT.



CHANGING THE TV SETTINGS

Using the System menu, you can:

- · View system information
- Change the on-screen menu language
- Set the time zone and local settings
- Set up parental controls
- Select a view mode
- Change the Wide settings
- Adjust the California Energy Commission (CEC) settings
- Adjust when the power indicator is illuminated
- Reset the TV settings & set up administrative controls



Viewing System Information

To view a summary of the TV settings:

- Press the MENU button on the remote. The on-screen menu is displayed.
- 2. Use the **Arrow** buttons on the remote to highlight **System** and press **OK**. The SYSTEM menu is displayed.
- 3. Highlight System Information and press OK.
- 4. Use the **Up/Down Arrow** buttons to scroll through the system information.



System information is used verify settings and the firmware version.

When you are finished reviewing the system information, press the BACK button to view or change additional settings or EXIT.

Changing the On-Screen Menu Language

Your TV can display the on-screen menu in different languages.

To change the on-screen menu language:

- Press the MENU button on the remote. The on-screen menu is displayed.
- Use the **Arrow** buttons on the remote to highlight **System** and press **OK**. The SYSTEM menu is displayed.
- Use the Arrow buttons on the remote to highlight Menu Language and press OK. The MENU LANGUAGE menu is displayed.
- Highlight your preferred language (English, Español, or Français) and press OK. All screens will now be displayed in the selected language.
- 5. Press the **BACK** button to change additional settings or **EXIT**.



Setting the Time and Local Settings

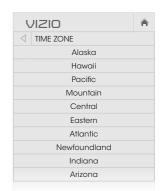
To ensure the correct time is displayed when you press the **INFO** button, set the TV's time zone:

- Press the MENU button on the remote. The on-screen menu is displayed.
- Use the Arrow buttons on the remote to highlight System and press OK. The SYSTEM menu is displayed.
- Use the Arrow buttons on the remote to highlight Time & Local Settings and press OK. The menu headed by the local date and time is displayed.
- Highlight Time Zone and press OK. The TIME ZONE menu is displayed.





7. Press the **BACK** button to change additional settings or **EXIT**.



Using the Parental Controls

The TV's parental controls allow you to prevent the TV from displaying certain channels or programs without a password.

The Parental Controls menu only appears when:

- You are using the tuner to receive your TV signals, such as when you are using an antenna for Over-the-Air signals or when connected to cable TV directly from the wall (no cable box).
- You have a device connected using a composite video cable or a coaxial cable, such as a VCR, satellite or cable box, or DVR.

Accessing the Parental Controls Menu

To access the Parental Controls menu:

- Press the MENU button on the remote. The on-screen menu is displayed.
- 2. Use the **Arrow** buttons on the remote to highlight **System** and press **OK**. The SYSTEM menu is displayed.
- 3. Use the **Arrow** buttons on the remote to highlight **Parental Controls** and press **OK**.
- Enter your parental passcode. If you have not set a passcode, enter the default, 0000. The PARENTAL CONTROLS menu is displayed.



To set a custom parental passcode, see *Changing the Parental Control Passcode* on page 43.

Enabling or Disabling Program Ratings

To manage program content according to its rating, you must enable the Program Rating feature.

To enable or disable the Program Rating feature:

From the PARENTAL CONTROLS menu, highlight **Locks** and use the left/right **Arrow** buttons to select **On** (enable) or **Off** (disable).

Locking and Unlocking Channels

When a channel is locked, it will be inaccessible. Locking a channel is a good way to prevent children from viewing inappropriate material.

To lock or unlock a channel:

- 1. From the PARENTAL CONTROLS menu, highlight **Channel Locks** and press **OK**. The CHANNEL LOCKS menu is displayed.
- 2. Highlight the channel you want to lock or unlock and press **OK**.
- When a channel is locked, the Lock icon appears locked.
 The channel is not accessible unless the parental passcode is entered.
- 4. When a channel is **unlocked**, the **Lock** icon appears **unlocked**. The channel is accessible.

Blocking and Unblocking Content by Rating

A channel may sometimes broadcast programs that are meant for children, and at other times broadcast programs that are meant for mature audiences. You may not want to block the channel completely using a channel lock, but you may wish to block certain programs from being viewed.

When this is the case, you can use the TV's Rating Block feature to block content based on its rating.



For a list of content ratings and their definitions, visit www.tvguidelines.org.

To block or unblock content by its rating:

1. From the PARENTAL CONTROLS menu, highlight the content type you want to adjust and press **OK**:

USA TV - USA television program broadcasts.

USA MOVIE - USA movie broadcasts.

Canadian English - Canadian English television program broadcasts.

Canadian French - Canadian French television program broadcasts.

- For each rating type you want to block or unblock, use the Up/Down and Left/Right Arrow buttons on the remote to highlight the rating type and press OK.
- When the rating type is blocked, the Lock icon appears locked. Content with this rating and all higher ratings cannot be viewed.
- When the rating type is unblocked, the Lock icon appears unlocked. Content with this rating and all lower ratings can be viewed

If you want to block all unrated content, highlight **Block Unrated Shows** and use the **Arrow** buttons on the remote to select **On**.

5. When you are finished adjusting the rating level blocks, press the **EXIT** button on the remote.

Changing the Parental Control Passcode

If you use the parental controls, you should change the passcode to prevent children from accessing inappropriate material.

To change the parental control passcode:

- From the PARENTAL CONTROLS menu, highlight Change PIN and press OK. The CHANGE PIN menu is displayed.
- In the New PIN field, use the Number Pad on the remote to enter your new 4-digit parental control passcode.
- 3. In the **Confirm PIN** field, use the **Number Pad** on the remote to re-enter your new 4-digit parental control passcode.
- 4. Write down your new parental control passcode and save it in a secure location.
- 5. Press the **EXIT** button on the remote.

Resetting the Content Locks

To reset the content locks to the factory-default settings:

- From the PARENTAL CONTROLS menu, highlight Reset Locks and press OK. The TV displays, "Select Reset to restore Parental Controls to the factory defaults."
- 2. Highlight **Reset** and press **OK**.

Setting up View Mode

Your TV can display the screens in different modes.

To change the on-screen menu language:

- Press the MENU button on the remote. The on-screen menu is displayed.
- 2. Use the **Arrow** buttons on the remote to highlight **System** and press **OK**. The SYSTEM menu is displayed.
- Use the Arrow buttons on the remote to highlight View Mode and press OK. The VIEW MODE menu is displayed.
- Highlight your preferred view mode (Viewport, Overlay, or Centered Overlay) and press OK. All screens will now be displayed in the selected mode.
- Press the BACK button to change additional settings or EXIT.



Changing the Wide Setting

To change the aspect ration:

- Press the MENU button on the remote. The on-screen menu is displayed.
- 2. Use the **Arrow** buttons on the remote to highlight **System** and press **OK**. The SYSTEM menu is displayed.
- 3. Use the **Arrow** buttons on the remote to highlight **Wide** and press **OK**. The aspect ratio options are displayed.
- 4. Select an aspect ratio. See *Changing the Screen Aspect Ratio* on page 20 for more information.

Adjusting the CEC Settings

The California Energy Commission (CEC) function on your TV enables you to control HDMI-connected devices with the included remote without any additional programming.



Not all HDMI devices support CEC. See your device's user manual for details.

To enable, disable, or adjust CEC settings:

- Press the MENU button on the remote. The on-screen menu is displayed.
- Use the Arrow buttons on the remote to highlight System and press OK. The SYSTEM menu is displayed.
- Use the Arrow buttons on the remote to highlight CEC and press OK. The CEC menu is displayed.
- 4. Use the **Arrow** and **OK** buttons to adjust each setting:
 - CEC To use CEC, you must select On.
 - Device Discovery Use this function to determine if your device is connected and supports CEC.
- 5. Press the BACK button to change additional settings or EXIT.

Turning the Power Indicator On or Off

The Power Indicator on the front of your TV normally does not glow when the TV is on. You can change this setting if you prefer the light to be on.

To turn the Power Indicator Light on or off:

- Press the MENU button on the remote. The on-screen menu is displayed.
- 2. Use the **Arrow** buttons on the remote to highlight **System** and press **OK**. The SYSTEM menu is displayed.
- Highlight Power Indicator and press OK. The POWER INDICATOR menu is displayed.
- Use the Up/Down Arrow buttons to select On or Off, then press OK.

USING THE RESET & ADMIN MENU

Restoring the TV to Factory Default Settings

All of the on-screen menu settings can be reset to the factory default settings.



If you restore the TV to the factory default settings, all changes you have made to the settings will be lost!

To restore the TV to its factory default settings:

- Press the MENU button on the remote. The on-screen menu is displayed.
- 2. Use the **Arrow** buttons on the remote to highlight **System** and press **OK**. The SYSTEM menu is displayed.
- Highlight Reset & Admin and press OK. The RESET & ADMIN menu is displayed.
- 4. Highlight Reset TV to Factory Defaults and press OK.
- If you have changed the default parental control passcode, type it now.

The TV displays, "Select Reset to restore all TV settings to factory defaults and clear all account information."

- 6. Highlight Reset and press OK.
- 7. Wait for the TV to turn off. The TV will turn back on shortly afterward and the Setup App will begin.
- 8. To view a demonstration of TV functions on start-up, select **Store Demo > On**.

USING THE GUIDED SETUP MENU

The TV's Setup App can be used to easily set up the TV tuner.

To use guided setup:

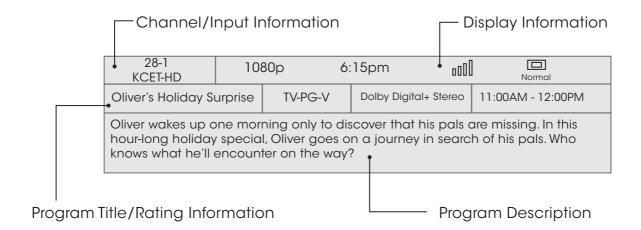
- Press the MENU button on the remote. The on-screen menu is displayed.
- 2. Highlight **Guided Setup** and press **OK**.
- 3. Highlight the guided setup you want to use and press **OK**:
 - Tuner Setup Set up the TV tuner.
- Follow the on-screen instructions. When finished, press the BACK button to change additional settings or EXIT.



USING THE INFO WINDOW

The Info Window can be displayed by pressing the $\mbox{{\bf INFO}}$ or $\mbox{{\bf GUIDE}}$ button on the remote:

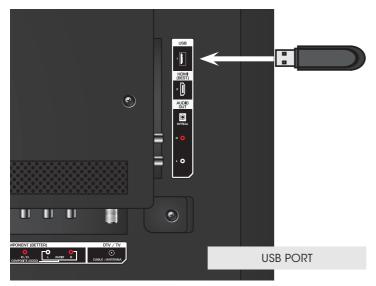
- Press the INFO or GUIDE button one time to display channel, input, and display information.
- Press the INFO or GUIDE button two times to display the program title, program rating, audio information, and the start and end times of the program.



DIGITAL EPISODE GUIDE & INFO WINDOW

USING THE USB MEDIA PLAYER

The USB Media Player allows you to connect a USB thumb drive to your TV and play music, video, or photos.



Preparing your USB drive to play USB media

To play USB media, you must first save your files on a USB thumb drive:

- · The USB thumb drive must be formatted as FAT32.
- Files on the USB thumb drive must end in a supported file extension (.mp3, .jpg, etc.).
- The player is not designed to play media from smartphones.

Playing USB media

To play your USB media:

- 1. Connect your USB thumb drive to the USB port on the side of the TV.
- 2. Press the **V button** on the remote.
- Use the **Arrow** buttons to highlight the **Multimedia** app in the V.I.A. Plus Dock and press **OK**. (The highlighted App is in the center of the dock.)
- 4. Use the **Arrow** buttons to highlight the type of media to display (**Music**, **Video**, or **Photo**) and press **OK**.
- 5. Use the **Arrow** buttons to highlight the file you want to display. Press **OK**. Music or video files play, photos display.



You can display your photos in fullscreen. Select the photo, press **OK**, then highlight **Fullscreen** and press **OK**.

Removing the USB drive from the TV



Do not remove the USB thumb drive while the TV is on. Doing so may damage the drive.

To safely remove your USB drive from the TV:

- 1. Turn off the TV.
- Disconnect your USB thumb drive from the USB port on the side of the TV.

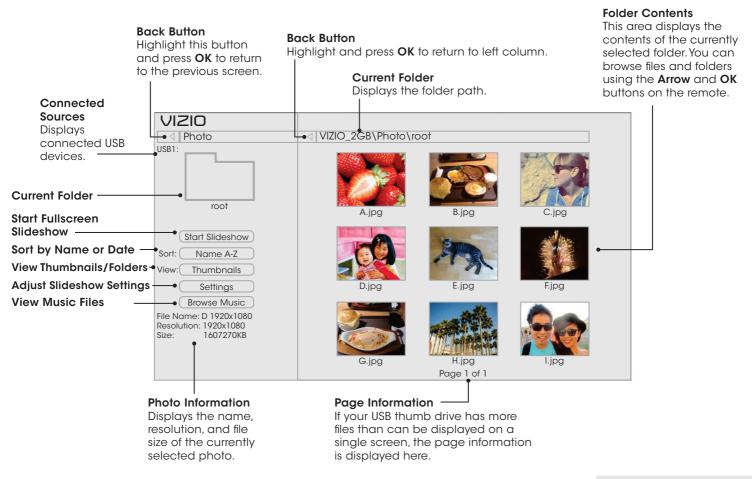


PHOTO VIEWER

Troubleshooting & Technical Support

Do you have questions? Find answers at

SUPPORT. VIZIO. COM

Find help with:

- · New product setup
- · Connecting your devices
- · Technical problems
- · Product updates and more



Live chat support available

Your can also contact our award-winning support team at:

Phone: (877) 698-4946 (toll-free) Email: techsupport@VIZIO.com

Hours Of Operation:

Monday - Friday: 7 AM TO 11 PM (CST) Saturday - Sunday: 9 AM TO 6 PM (CST)

Se habla Español • Nous parlons Français



The TV displays "No Signal."

- Press the INPUT button on the remote control to select a different input source.
- If you are using an antenna or cable TV connected directly to the TV, scan for channels. See Setting Up Channels on page 33.

There is no power.

- Ensure the TV is plugged into a working electrical outlet.
- Ensure the power cable is securely attached to the TV.
- Press the POWER button on the remote or on the side of the TV to turn the TV on.

The power is on, but there is no image on the screen.

- Ensure all cables are securely attached to the TV.
- Ensure all devices are connected correctly. Devices differ; see your device's user manual for details.
- Adjust Brightness, Contrast, or Backlight. See *Adjusting the Picture Settings* on page 22.
- Press the INPUT button on the remote to select a different input source.

There is no sound.

- Press VOLUME UP on the remote control.
- Press the MUTE button on the remote to ensure mute is off.
- Check the audio settings. See Adjusting the Audio Settings on page 30.
- Ensure the speakers are set to On.
- Ensure no headphones are connected to the TV.
- Check the audio connections of external devices (Blu-ray player, game console, cable/satellite box) that are connected to the TV.
- If you are using an antenna, the signal strength of the channel may be low. Ensure your antenna is connected securely to the TV and move the antenna around the room or close to a window for the best signal.

The sound is flat or dialog is not audible.

• Turn off Sound Leveling. See Adjusting the Audio Settings on page 30.

The colors on the TV don't look right.

- Adjust the Color and Tint settings in the Picture menu. See *Adjusting the Picture Settings* on page 22.
- · Check all cables to ensure they are securely attached.

The buttons on the remote aren't working.

- The Red and Yellow hot key buttons below the V button do not operate with this model.
- · Ensure you are only pressing one button at a time.
- Point the remote directly at the TV when pressing a button.
- Replace the remote batteries with new ones. See Replacing the Batteries on page 11.

The image quality is not good.

- For the best image quality, view high-definition programs using digital sources. Connect your devices with HDMI cables.
- If you are using an antenna, the signal strength of the channel may be low. Ensure your antenna is connected securely to the TV and move the antenna around the room or close to a window for the best signal.

The picture is distorted.

- Nearby electrical devices may be interfering with the TV. Separate the TV from electrical appliances, cars, or fluorescent lights.
- Ensure all cables are securely attached.

The display image does not cover the entire screen.

 If you are using TV, AV, or Component with 480i input, press the WIDE button on the remote to change the screen mode.

The TV has pixels (dots) that are always dark or always lit.

 Your HDTV is precision-manufactured using an extremely high level of technology. However, sometimes pixels may not display correctly. These types of occurrences are inherent to this type of product and do not constitute a defective product.

I see "noise" or static on the screen.

- When your TV's digital capabilities exceed a digital broadcast signal, the signal is up-converted (improved) to match your TV's display capabilities. This up-converting can sometimes cause irregularities in the image.
- If you are using an antenna, the signal strength of the channel may be low. Ensure your antenna is connected securely to the TV and move the antenna around the room or close to a window for the best signal.

When I change input source, the display image changes size.

- The TV remembers the viewing mode on each input source. If the viewing mode on the new input source differs from the one on the input source you switch from, the difference may be noticeable.
- See Changing the Screen Aspect Ratio on page 20.

Specifications

В

E320-C0E

Screen Size:	32" Class
Viewable Area:	31.50"
Dimensions w/ Stand: w/o Stand:	28.71" x 19.08" x 7.87" 28.71" x 17.11" x 2.91"
Weight w/ Stand: w/o Stand:	10.36 lbs 9.48 lbs
TV Type:	Full Array LED
Refresh Rate:	60 Hz (Effective Refresh Rate)
Maximum Resolution:	1366 x 768 (720p)
Pixel Pitch:	0.51075 mm (H) x 0.51075 mm (V)
Dynamic Contrast Ratio:	200,000:1
Viewing Angle:	178°/ 178°
HDMI Inputs:	2
Component Video Inputs:	1
Composite Inputs:	1
RF Antenna Input:	1
USB 2.0 Ports:	1
Audio Outputs:	RCA Stereo, Optical Digital
OSD Language:	English, Spanish, French
Remote Control Model:	XRT020
Certifications:	CSA-US, FCC Class B, HDMI (CEC, ARC), Dolby Digital

E320-C0E

Compliance: Energy Star 6.1 COUNEE NRCan

Voltage Range:120V @ 60 HzPower-On Consumption:29 WStandby Power Consumption:<0.5 W</th>

Limited Warranty

C

ON PARTS AND LABOR

Covers units purchased as new in United States and Puerto Rico Only. VIZIO provides a warranty to the original purchaser of a new Product against defects in materials and workmanship for a period of one (1) year of non-commercial usage and ninety (90) days of commercial use. If a Product covered by this warranty is determined to be defective within the warranty period, VIZIO will either repair or replace the Product at its sole option and discretion.

To obtain warranty service, contact VIZIO Technical Support via e-mail: TechSupport@VIZIO.com or via phone at 877 MY VIZIO (877.698.4946) from 7:00AM to 11:00PM Monday through Friday and 9:00AM to 6:00PM Saturday and Sunday, Central Standard Time, or visit www.VIZIO.com. PRE-AUTHORIZATION MUST BE OBTAINED BEFORE SENDING ANY PRODUCT TO A VIZIO SERVICE CENTER. Proof of purchase in the form of a purchase receipt or copy thereof is required to show that a Product is within the warranty period.

Parts and Labor

There will be no charge for parts or labor during the warranty period. Replacement parts and Products may be new or recertified at VIZIO's option and sole discretion. Replacement parts and Products are warranted for the remaining portion of the original warranty or for ninety (90) days from warranty service or replacement, whichever is greater.

Type of Service

Defective Products must be sent to a VIZIO service center to obtain warranty service. VIZIO is not responsible for transportation costs to the service center, but VIZIO will cover return shipping to the customer. PRE-AUTHORIZATION IS REQUIRED BEFORE SENDING ANY PRODUCT TO A VIZIO SERVICE CENTER FOR WARRANTY SERVICE.

Product returns to VIZIO's service centers must utilize either the original carton box and shipping material or packaging that affords an equal degree of protection. VIZIO Technical Support will provide instructions for packing and shipping the covered Product to the VIZIO service center.

Limitations and Exclusions

VIZIO's one-year limited warranty only covers defects in materials and workmanship. This warranty does not cover, for example: cosmetic damage, normal wear and tear, improper operation, improper voltage supply or power surges, signal issues, damages from shipping, acts of God, any type of customer misuse, modifications or adjustments, as well as installation and set-up issues or any repairs attempted by anyone

other than by a VIZIO authorized service center. Products with unreadable or removed serial numbers, or requiring routine maintenance are not covered. This one year limited warranty does not cover Products sold "AS IS", "FACTORY RECERTIFIED", or by a non-authorized reseller.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE LISTED OR DESCRIBED ABOVE. 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, VIZIO'S TOTAL LIABILITY FOR ANY AND ALL LOSSES AND DAMAGES RESULTING FROM ANY CAUSE WHATSOEVER INCLUDING VIZIO'S NEGLIGENCE, ALLEGED DAMAGE, OR DEFECTIVE GOODS, WHETHER SUCH DEFECTS ARE DISCOVERABLE OR LATENT, SHALL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE PRODUCT. VIZIO SHALL NOT BE RESPONSIBLE FOR LOSS OF USE, LOSS OF INFORMATION OR DATA, COMMERCIAL LOSS, LOST REVENUE OR LOST PROFITS, OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS OR THE EXCLUSION 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 WARRANTY IS SUBJECT TO CHANGE WITHOUT NOTICE.

CHECK WWW.VIZIO.COM FOR THE MOST CURRENT VERSION.

Personal Data

If your VIZIO product is capable of storing personal data and other information, ALL CONTENTS AND INFORMATION WILL BE DELETED IN THE COURSE OF SOME IN-HOME AND ALL SHIP-IN WARANTY SERVICE. If this occurs, your product will be restored to you configured as originally purchased. You will be responsible for restoring all applicable data and passwords. Recovery and reinstallation of user data is not covered under this Limited Warranty. In order to protect your personal information, VIZIO recommends that you always clear all personal information from the unit before it is serviced, regardless of the servicer.

Zero Bright Pixel Defect Guarantee

This policy covers "zero bright pixel" defects for the duration of the limited "ONE YEAR WARRANTY" on select new product purchases. To determine if this guarantee applies to your product, refer to the "DETAILS" tab of the model's product information page (www.VIZIO.com) or look for the "zero bright pixel" guarantee on the box.

Legal & Compliance

D

FCC Class B Radio 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.
- Consult the dealer or an experienced radio/TV technician for help.

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

Notice

- 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.
- 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.

FCC warning

Changes or modifications not expressly approved by the party responsible for compliance with the FCC Rules could void the user's authority to operate this equipment.

Other

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