

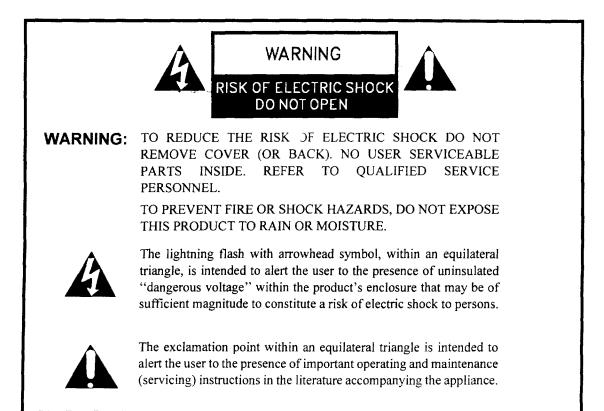
THE QUALITY GOES IN BEFORE THE NAME GOES ON

¡Aviso para nuestros clientes de habla hispana: consulte la información que aparece al final de este manual!





Return the Product Registration Card, and your TV could be free!



Safety Tips

Refer to the "Safety Tips" booklet that came with your product for important safety considerations.

Note to Cable TV System Installer

This reminder is provided to call the cable TV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of the cable entry as practical.

Power-Cord Polarization

This product is equipped with a polarized alternatingcurrent line plug (a plug having one blade wider than the other.) This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

CAUTION

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

ATTENTION

Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

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REMOTE CONTROL MODEL MBR3420

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Aviso para nuestros clientes de habla hispana

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HOW TO USE YOUR OPERATING GUIDE

This operating guide describes a family of TV models. Some models have features that are not provided on other models. Different control panels and remote controls may be used from model-to-model. Refer to the applicable sections of this operating guide for the features and items provided with your TV.

WELCOME

Welcome into the family of Zenith Color Television owners. This guide provides instructions on how to operate your new TV. It is supplemented by a booklet containing Safety Tips. We urge you to read these publications carefully so that you will receive full enjoyment from your new Zenith TV for many years to come.

Your new TV has been designed and built to give you the very best in quality, features and performance. There are thousands of Zenith authorized service centers throughout the U.S., Canada and Mexico who can attend promptly and effectively to ordinary service needs.

If you should have an unusual performance or service problem that cannot be satisfactorily resolved by your Zenith dealer or Zenith authorized service center, contact us at:

Zenith Electronics Corporation

Customer Service Department 1000 Milwaukee Avenue Glenview, IL 60025-2493 Telephone: (708) 391-8752 Mon-Fri, 8:00 a.m. - 4:30 p.m. Central Time

Provide the model number, serial number, and date of purchase or original installation, with a full explanation of the problem and the service history. We will welcome the opportunity to look into your specific question or problem and to be of assistance in resolving it promptly.

The model and serial numbers of your new TV are located on the back of the TV cabinet. For your future convenience and protection, we suggest that you record these numbers here:

Model No. _____

Serial No.____

INSTALLATION CONSIDERATIONS



Before you install your TV...

Ventilation — Proper ventilation keeps your TV running cool. Air circulates through perforations in the back and bottom of the cabinet. Do not block these vents or you will shorten the life of your TV.



Power Source — Your TV is designed to operate on normal household current, 120 volt 60 Hertz AC. Do not attempt to operate it on DC current.



Power Cord — Your power cord has a polarized plug as required by Underwriters' Laboratories. It has one regular blade and one wide blade and fits only one way into a standard electrical outlet. If the blades will not enter either way, your outlet is very old and non-standard. A new outlet should be installed by a qualified electrician.



Safe Operation — Your TV is manufactured and tested with your safety in mind. However, unusual stress caused by dropping or mishandling, exposure to flood, fire, rain or moisture, or accidental spilling of liquids into the TV, can result in potential electrical shock or fire hazards. If this happens, have your TV checked by a service technician before using it again.

Please read and observe each safety point in the "Safety Tips" folder when installing and using your TV.

VIDEO GAMES AND OTHER FIXED

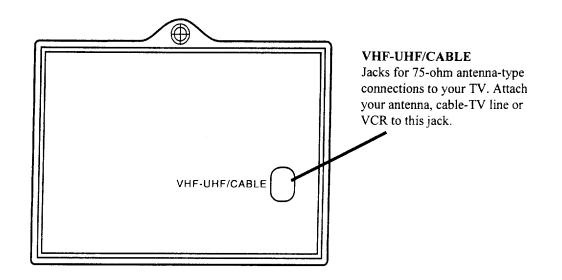
PATTERN DISPLAY CAUTION — If you use your TV for video games, teletext or other fixed displays, avoid setting the BRIGHTNESS control for an excessively bright picture. A bright, fixed pattern, if used for long periods of time, can result in a permanent imprint on the TV picture tube. You can reduce this possibility by alternating the use of the fixed pattern display with normal TV picture viewing, by turning down the CONTRAST control for sustained fixed pattern use, and by turning off the fixed pattern display when not in use.

PLUGGING IN YOUR TV — Be sure to plug your TV into an "unswitched" AC power source. The "switched" AC outlets found on some video equipment will not continue supplying power to the TV once the equipment is turned off. If the power to the TV is interrupted, you will have to reset the clock in the TV to the current time.

CONNECTIONS FOR YOUR TV

CONNECTION CENTER ON BACK OF TV

Refer to the illustration below and the connection-diagrams on the following pages when connecting your new TV.

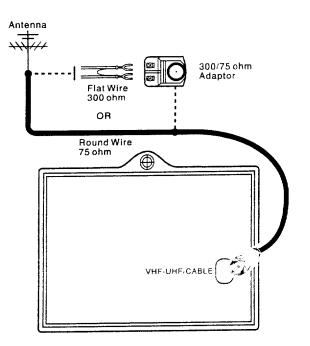


Connection Center On Back Of TV

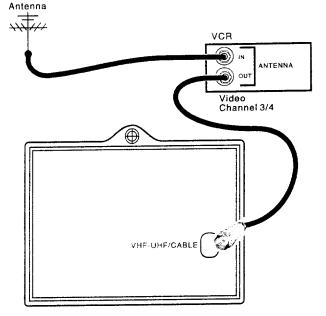
CONNECTIONS FOR YOUR TV

MAKE BASIC CONNECTION TO TV

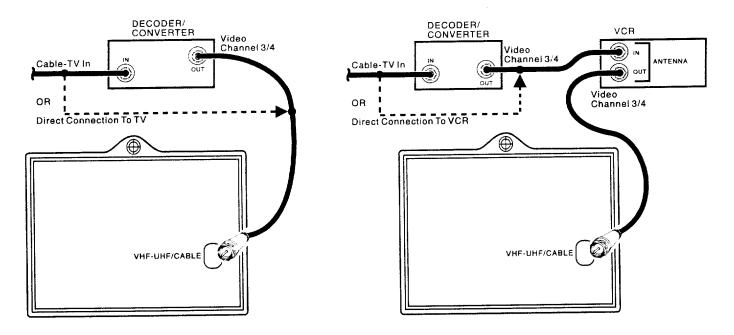
Select the hook up that best fits your needs.



Antenna Direct to TV



Antenna Through VCR to TV



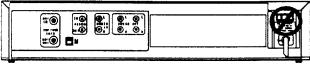
Cable Direct to TV

1 -- 2

THE FIRST TIME YOU OPERATE YOUR TV

STEP 1. CONNECT THE POWER

A.Plug your TV into an unswitched AC power source. **B.**Turn the TV on by pressing OFF-ON.



Do not plug TV into switched outlet on a VCR or cable-TV decoder

STEP 2. USE AUTO PROGRAM When your TV is first powered up you will see the AUTO SETUP MENU-PROGRAM reminder display. AUTO PROGRAM finds all AUTO PROGRAM START available channels and stores them in the memory of the TV. CH. ADD/DEL. TUNING BAND To activate AUTO PROGRAM, press ADJUST (ADJ) AUTO TUNING CLOCK SET Left/Right. CAPTIONS Setup Menu with Auto Program Highlighted CH 13 AUTO PROGRAM HAS COMPLETED STEREO DETERMINING TUNING BAND TUNING BAND IS TUNING BAND IS IS FOUND СН CHANNELS FOUND Normal Operation Determining Tuning Band Searching for Channels Search is Completed

STEP 3. SET THE CLOCK

- 1. Press MENU repeatedly until the SETUP MENU is shown.
- 2. Press SELECT (SEL) to highlight CLOCK SET.
- 3. Use numbered buttons on remote control to enter correct time or use ADJUST (ADJ) Left/Right to advance the clock.
- **4.** Press ENTER (ENT) to start the clock and return to normal viewing.

SE	TUP	MENU-	
AUTO PROG CH. ADD/DE TUNING BAI AUTO TUNII → CLOCK SET CAPTIONS	L ND		10:30

Setup Menu with Clock Set Highlighted

STEP 4. USE OTHER OPTIONS

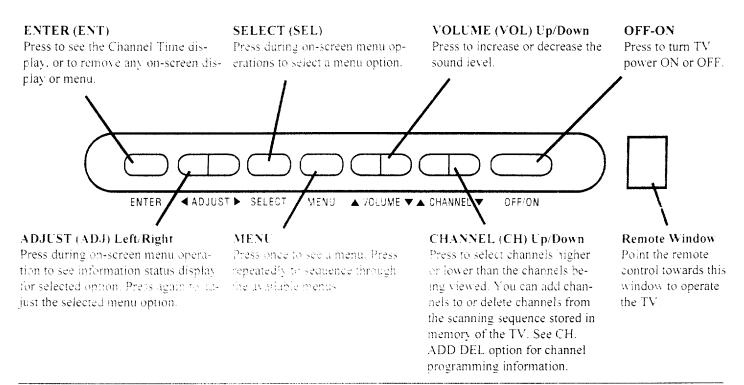
You may want to consider using the following options:

- Program the channels accessed by using CHANNEL (CH) Up/Down. Refer to the CH. (Channel) ADD/DEL option for details.
- Turn on Closed Captions using the CAPTIONS option.

GETTING TO KNOW YOUR TV

TYPICAL CONTROL PANEL

The control panel on your TV may differ from the one shown. **NOTE:** Some TVs have a vertical control panel — the operation is the same as described for the control panel shown.



SLEEP TIMER

Some remote controls are equipped with a TIMER button that provides access to the SLEEP TIMER available with some TV models. By using the SLEEP TIMER, you can program the TV to automatically shut off after a period from 15 minutes up to 4 hours.

To Set SLEEP TIMER

- **1.** Press TIMER to see SLEEP TIMER display.
- 2. Press TIMER repeatedly until you reach desired shutoff time.

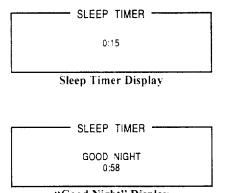
One minute before the TV shuts off, the GOOD NIGHT display appears on the screen. At this time you have a choice of the following three actions.

- **1.** Do nothing. The GOOD NIGHT display remains on the screen. The TV will shut off in one minute.
- **2.** Remove the GOOD NIGHT display by pressing ENTER (ENT). The TV will still shut off in one minute.
- **3.** Delay the shut off by using TIMER to select a new shut off time.

To Cancel the SLEEP TIMER

You can cancel the SLEEP TIMER by setting the SLEEP TIMER status to OFF. Press TIMER repeatedly until OFF is selected.

NOTE: The SLEEP TIMER resets to OFF when you turn off the TV.



"Good Night" Display

REMOTE CONTROL MODEL SC2400

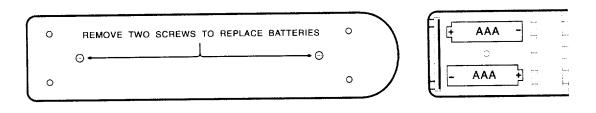
OPERATION Point toward your TV. **OFF/ON** OFF-ON Used to turn TV ON or OFF. -DISPLAY DISPLAY MUTE MUTE Used to see Channel/Time display for TV Used to turn off sound while the picture having on-screen displays. Press again to reremains. Press again to restore the sound. CHAN move display. Δ Þ **VOLUME Up/Down CHANNEL Up/Down** Used to adjust the volume level of the TV. Used to select a TV channel by going up or down through channels. MIL

SC2400

INSTALLING BATTERIES

When the effective range of the remote becomes noticeably shorter, replace the batteries with two (2) high quality, size AAA, alkaline batteries.

Zenith is not responsible for damage caused by battery leakage.



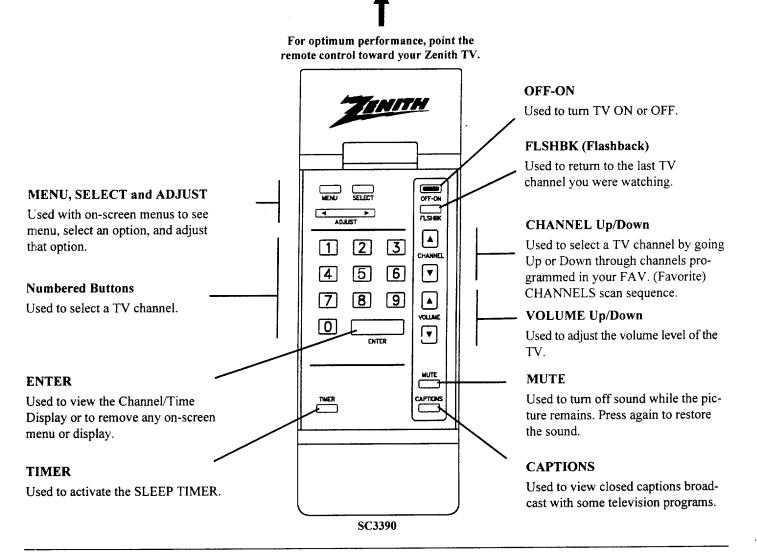
REMOTE CONTROL MODEL SC3390

OPERATION

This remote control provides access to all on-screen-menus, as well as, access to special features that cannot be accessed by using the control panel on the TV.

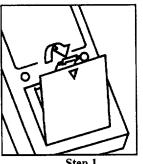
PREPARATION FOR USE

Batteries are provided with this remote, but you must install them before using the remote.

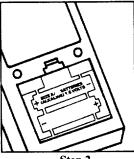


INSTALLING BATTERIES

When the effective operating range of your remote becomes noticeably shorter, replace the batteries with two (2) high quality, alkaline, size AAA batteries.

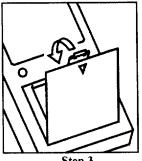


Step 1.



Step 2.

NOTE: Zenith is not responsible for damage caused by battery leakage.



Step 3.

OPERATION

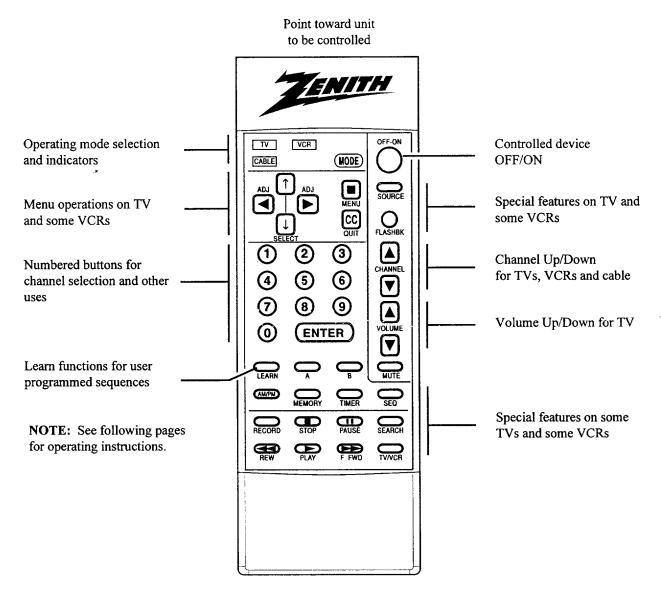
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The multi-brand remote supplied with your new Zenith TV allows you to operate most models of infrared (IR) remote-con trolled TVs, VCRs and cable-TV converters, even if they are all different brands.

CHOOSE THE OPERATING MODE

To operate your TV, VCR or CABLE-TV decoder, you must first choose the remote's mode of operation. To select the mode, press the MODE key until the desired indicator lights. Your multi-brand remote has already been programmed to operate your Zenith TV, a Zenith VCR and a Zenith cable-TV decoder. It must be "taught" to operate other brands. Refer to "Programming Your Remote Control" for details.

Some KEYS on the remote will always operate a particular appliance. For example, VOLUME always operates the TV volume and PLAY always operates the VCR. The function of other keys depends on the mode selected.



MBR3420

TV OPERATIONS

The following functions and operations apply to your Zenith TV. The remote control must be in the TV mode to operate your TV.

MODE

Used to select the TV mode of operation.

ΤV

Lights when TV mode of operation is selected.

CC (Closed Captions)

Used to view closed captions broadcast with some television programs.

MENU, SELECT and ADJUST

Used with on-screen menus to see menu, select an option, and adjust that option.

Numbered Buttons

Used to select a TV channel.

ENTER

.

Used to view the Channel/Time Display or to remove any onscreen menu or display.

LEARN

Used to program remote.

Point toward your TV. NITH OFF-ON TV VCR MODE BARLE ↑ ADJ ADJ SOURCE ◀ MENU CC Ţ FLASHBK QUIT (3) (2) CHANNEL (5) **(6)** 4 V $\overline{7}$ (8) (9) VOLUME \mathbf{O} ENTER V LEARN MUTE (AM/PM) SEQ PAUSE STOP RECORD EARCH REW

OFF/ON

Used to turn TV ON or OFF.

SOURCE

Used to display the menu of TV sources for some TVs. Press again to step through the source selections. On some TVs, press to select AUX (Auxiliary) channel.

FLASHBK (Flashback)

Used to return to the last TV channel you were watching.

CHANNEL Up/Down

Used to sequence through the TV channels.

VOLUME Up/Down

Used to adjust the TV's volume.

MUTE

Used to turn off sound while the picture remains. Press again to restore the sound.

SPATIAL EQUALIZATION (SEq)

Used to select SEQ audio mode on TVs equipped with SEQ feature.

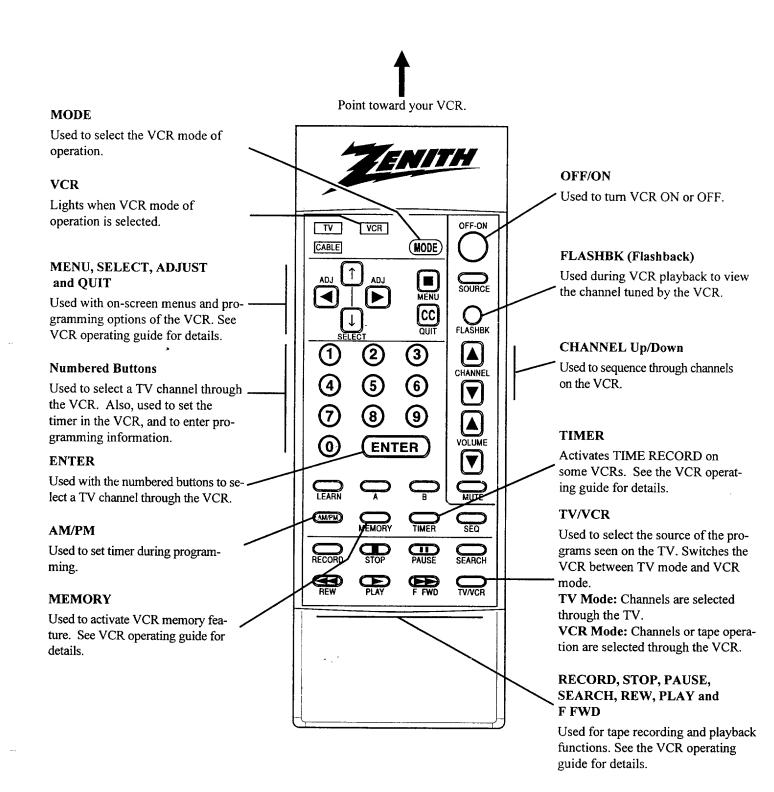
TIMER

Used to activate the SLEEP TIMER. Press repeatedly to select desired turn-off time.

VCR OPERATIONS

The following functions and operations apply to Zenith VCR models built after 1988. The remote control must be in the VCR mode to operate your VCR.

The remote control supplied with your VCR may have keys not duplicated on the new remote. If these functions are desired, the original remote control will have to be used.

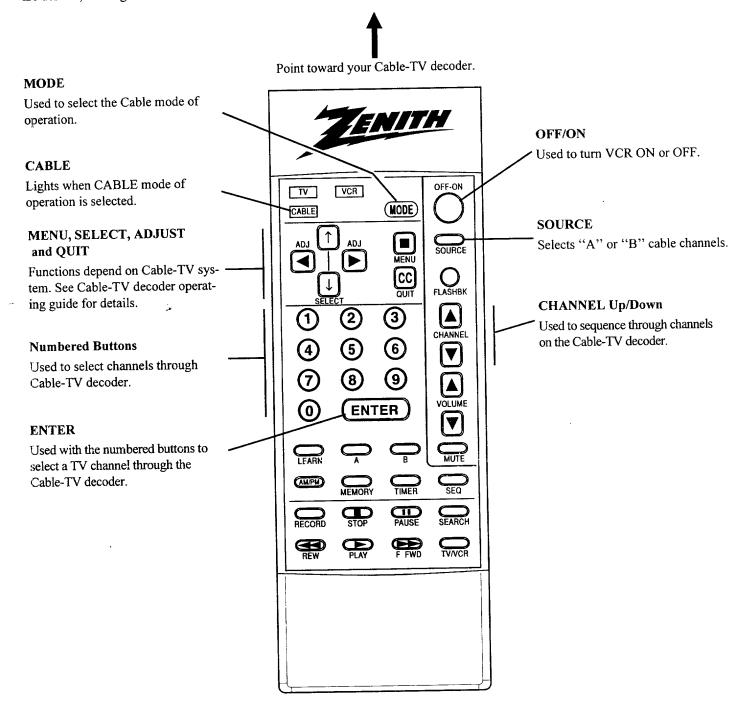


CABLE-TV OPERATIONS

-

The following functions and operations apply to a Zenith cable-TV decoder. The remote control must be in the CABLE mode to operate your cable-TV decoder.

The remote control supplied with your cable-TV decoder may have keys not duplicated on the new remote. If these functions are desired, the original remote control will have to be used.



PREPARATION FOR USE

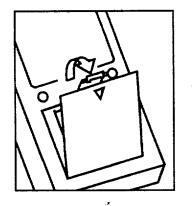
Batteries are provided with this remote, but you must install them before using the remote.

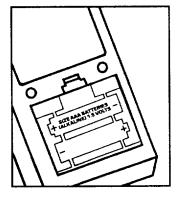
INSTALLING BATTERIES

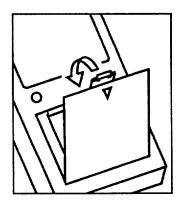
When the effective operating range of your remote becomes noticeably shorter, replace the batteries with two high-quality, alkaline, size AAA batteries.

Zenith is not responsible for damage caused by battery leakage. After installing new batteries, the remote control will set itself to Zenith brand codes, as follows: TV=101, VCR=201 and CABLE=301.

If you are going to operate equipment that uses different codes, the remote must be reprogrammed for those codes.







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PROGRAMMING BRAND CODES

Introduction

Before using your new remote control, it must be programmed to recognize the brands of equipment it will be used to operate. If you are using a Zenith VHS VCR or a Zenith cable-TV decoder, the remote has already been programmed for you.

Find the code that corresponds to each brand and type of equipment you are going to operate. Refer to Tables 1, 2 and 3.

For example, if you were programming the remote for use with a Zenith TV, you would look for "Zenith" in "Table 1", and find code "101."

Write the brand codes for your equipment on the following lines.

TV CODE:

CABLE CODE:

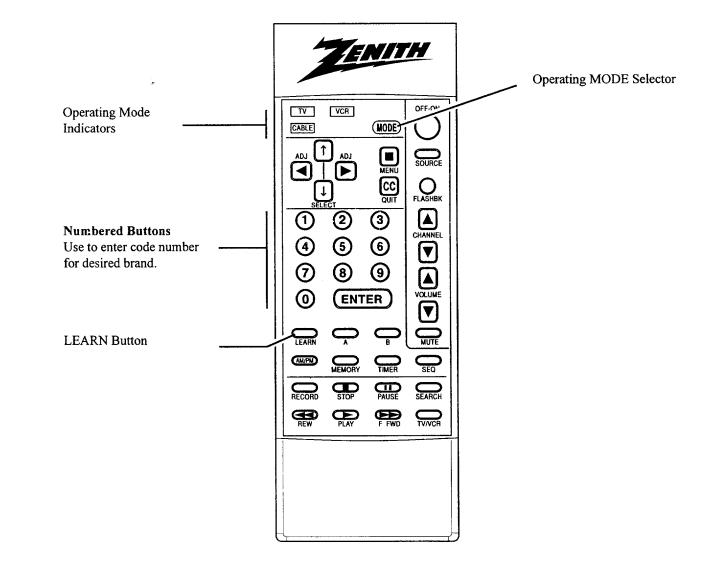
VCR CODE:

 \mathbf{r}

- 1. Press MODE repeatedly to select the desired TV, VCR or CABLE operating mode for the remote.
- 2. Press LEARN for about 5 seconds until the MODE indicator lights for the selected TV, VCR or CABLE mode of operation.
- 3. Enter the proper brand code number for the equipment to be controlled.
- 4. Press LEARN. All three mode indicators should light briefly, then turn off to indicate the brand code has been programmed.
- 5. If all three mode indicators fail to light briefly, an error has occurred. Repeat Steps 1-4 to try again.
- 6. Repeat steps 1-4 to program the remote for the other equipment you are using.

NOTE: CABLE mode can be programmed to operate a second TV or second VCR, if desired.

When batteries are removed: It will be necessary to reprogram the proper VCR and cable-TV decoder codes.



TV, VCR AND CABLE-TV OPERATING CODES Table 1. TV Codes by Brand Table 2. VCR Codes by Brand

TV Brand		TV Brand		VCR Brand		VCR Brand		Cable Decoder		Cable Decoder	
Name	Code		Code	Name	Code		Code		Code	Brand Name	Cod
Admiral	116	Montgomery Ward	119	Akai	223	Pentax	215	Drake Satellite		Pioneer	31
Admiral	121	Montgomery Ward		Audio Dynamics	202		214	Drake Satellite	330	Regency	32
Akai	104	Montgomery Ward		Audio Dynamics		Philips	214	Gemini	305	Samsung	33:
Amark	103	NEC	104	Broksonic	221	•	227	Gemini	331	Scientific Atlanta	316
AOC	104	NEC	119	Canon		Pioneer	210	General Instrument		Scientific Atlanta	323
Bell & Howell	121	Panasonic	106	Citizen		Pioneer	215	General Instrument	306	Scientific Atlanta	336
Centurion	119	Panasonic	107	Craig		Pioneer Laser Disk		Hamlin		Sprucer	
Coronado	103	Philco	103	Curtis Mathes	214		214	Hamlin	303	(Panasonic)	313
Curtis Mathes	116	Philco	104	Curtis Mathes	216	RCA	215	Jerrold	304	· · · ·	
Curtis Mathes	119	Philco	112	DBX	202	RCA	216	Jerrold	307	Components	335
Curtis Mathes	121	Philco	113	DBX	218	RCA	220	Jerrold	308	STS Satellite	324
Daytron	119	Philips	112	Emerson	203	RCA	227	Jerrold	309	Telecaption 4000	325
Emerson	103	Philips	113	Emerson	221	Realistic	206	Jerrold	310	Tocom	317
Emerson	104	Pioneer	135	Emerson	223	Realistic	208	Kale Vision	335	Tocom VIP	318
Emerson	123	Portland	103	Emerson	226	Realistic	212	Macom	314	Toshiba	322
Emerson	124	Quasar	106	Emerson	233	Realistic	214	Macom	321	Toshiba Satellite	319
Emerson	131	Quasar	107	Emerson	235	Realistic	231	Macom Satellite	322	Zenith	301
Emerson	136	Realistic	105	Fisher	211	Samsung	220	Magnavox	334	Zenith	322
Fisher	109	Realistic	123	Fisher	212	Samsung	230	NSC	335	Zenith AV3000	327
Fisher	118	Realistic	124	Fisher	213	Sanyo	206	Oak	311	Zenith Satellite	312
General Electric	106	RCA	104	Funai	231	Sanyo	212	Oak	332	Zenith Satellite	330
General Electric	107	RCA	116	General Electric	214	Scott	204	Panasonic	313	Zenith Satellite	328
General Electric	114	RCA	126	General Electric	216	Scott	205	Panasonic	320	Zenith Laser Disk	326
General Electric	116	Sampo	119	General Electric	220	Scott	233	Paragon (Zenith)	333		
Goldstar	103	Samsung	103	Goldstar	209	Sears	206				
Goldstar	104	Samsung	119	Hitachi	215	Sears	209				
Goldstar	119	Samsung	134	Instant Replay	214	Sears	211				
Hitachi	102	Sanyo	108	Instant Replay	227	Sears	212				
Hitachi	103	Sanyo	109	JVC	202	Sears	215				
Hitachi	129	Sanyo	118	JVC	225	Sharp	208				
JVC	125	Scott	119	J.C. Penney	214	Sony VHS	232				
JVC	132	Sears	103	J.C. Penney	218	Sony Video 8	217				
J.C. Penney	104	Sears	108	J.C. Penney	227	Sylvania	207				
J.C. Penney	110	Sears	109	Kenwood	202	Sylvania	214				
J.C. Penney	114	Sears	110	Magnavox	207	Sylvania	227				
J.C. Penney	117	Sears	111	Magnavox	214	Symphonic	231				
J.C. Penney	119	Sears	118	Marantz	207	Tashiko	209				
KMC	103	Sears	134	Marantz	218	Tatung	202				
KTV	103	Sharp	103	Marta	209	Teac	202				
KTV	104	Sharp	105	Memorex		Teac	231				
Lodgenet	121	Sharp	122	Memorex	214	Teknika	234				
Logik	121	Sharp	133	Memorex	231	Toshiba	205				
LXI	133	Sharp	137	MGA/Mitsubishi	204	Toshiba	215				
LXI	137	Sony	115	MGA/Mitsubishi		Vector Research	204				
Magnavox	103	Sylvania	112	Montgomery Ward		Vector Research	218				
Magnavox	112	Sylvania	113	Montgomery Ward		Yamaha	202				
Magnavox	113	Sylvania	117	Montgomery Ward		Yamaha	218				
Magnavox	119	Sylvania	119	NEC		Zenith VHS	201				
Magnavox	127	Sylvania	127	NEC		Zenith VHS	225				
Magnavox	128	•	128	Panasonic	214	Zenith VHS	229				
Majestic		Tatung	106								
Marantz		Teknika	103	i							
Marantz		Teknika	112								
Memorex	121		121								
MGA/Mitsubishi		Teknika	124								
MGA/Mitsubishi		Telerent	103								
MGA/Mitsubishi		Telerent	121								
MGA/Mitsubishi		Toshiba	110								
Montgomery Ward		Toshiba	111								
Montgomery Ward			134								
Montgomery Ward		Yorx	119	•			1				
Montgomery Ward		Zenith	101								
Montgomery Ward	114										

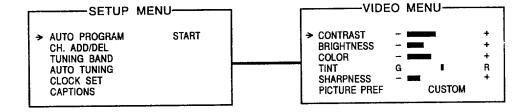
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12

QUICK REFERENCE TO ON-SCREEN MENUS

AVAILABLE MENUS

Your TV is menu operated, that is, adjustments that can be made to the TV appear on the screen in a list of choices you can make.



BASIC MENU OPERATION

between available menus.	VCR OFF ON
2 Press SELECT (SEL) Un/Down re-	
peatedly until the desired option is highlighted.	ADJ. MENU SOURCE CC QUIT FLASHBK
3. Press ADJUST (ADJ) Left/Right to adjust an option. (1) (4) (7) (6) LEARN	2 3 CHANNEL 5 6 V 6 9 VOLUME ENTER V
4. Press ENTER (ENT) or wait a few seconds and the TV will return auto- matically to normal operation.	MEMORY TIMER SEQ

Typical Remote Control Shown

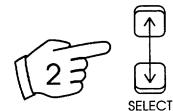
QUICK REFERENCE TO ON-SCREEN MENUS

MENU OPERATION EXAMPLE

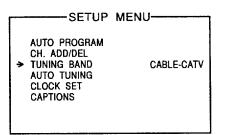


Press MENU repeatedly until the desired menu is shown. This example shows choosing the SETUP MENU.

	SETUP	MENU
•	AUTO PROGRAM CH. ADD/DEL TUNING BAND AUTO TUNING CLOCK SET CAPTIONS	START



Press SELECT (SEL) Up/Down repeatedly until the desired option is highlighted. This example shows choosing TUNING BAND.



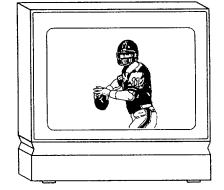
Available options TUNING BAND. ADJ. ADJ. SETUP MENU-AUTO PROGRAM CH. ADD/DEL > TUNING BAND CAB AUTO TUNING CLOCK SET CLOCK SET

Press ADJUST (ADJ) Left/Right to adjust an option. This example shows the various choices you have for TUNING BAND.

Available TUNING	BAND. C	ABLE-CATV
AUTO PROGRAM CH. ADD/DEL → TUNING BAND AUTO TUNING CLOCK SET CAPTIONS	CABLE-CATV	<u> </u>
]



Press ENTER (ENT) or wait a few seconds and the TV will return to normal operation.



SETUP MENU

To Access SETUP MENU

Refer to the "Quick Reference to On-Screen Menus" section for details.

Before Using SETUP MENU

Connect and turn ON all external equipment, such as cable TV decoder, VCR, etc. before using any item on the SETUP MENU.

AUTO PROGRAM

Purpose

Finds all available channels and stores them in the memory of the TV for access by CHANNEL (CH) Up/Down.

Use AUTO PROGRAM only when you first install your TV, or when you permanently change the connections to the TV. For example, when you replace the antenna with a cable-TV system.

To Use AUTO PROGRAM

Press ADJUST (ADJ) Left/Right to start AUTO PROGRAM.

SETUP MENU AUTO PROGRAM START CH. ADD/DEL TUNING #AND AUTO TUNING CLOCK SET CAPTIONS

Selecting Auto Program

CH. (Channel) ADD/DEL Purpose

Purpose

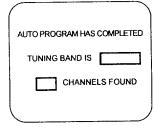
Lets you add channels to and remove channels from the active channels found when using the AUTO PROGRAM option. In this way you can customize the channels that are accessed through CHANNEL (CH) Up/Down.

To Add a Channel to Scan Sequence

- 1. Use numbered buttons to select the channel you wish to add.
- 2. Add channel by pressing ADJUST (ADJ) Left/Right until the display shows ADD.

To Delete a Channel from Scan Sequence

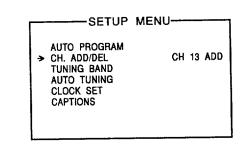
- 1. Use numbered buttons to select the channel you wish to delete.
- 2. Delete channel by pressing ADJUST (ADJ) Left/Right until the display shows DEL.



Status When Search is Complete

When Some Channels Are Not Found

AUTO PROGRAM finds only active channels and stores them in the favorite channel memory. You can add channels to those stored in memory by using the CH. ADD/DEL option.



Selecting Ch. Add/Del

→ AUTO PROGRAM START CH. ADD/DEL TUNING BAND AUTO TUNING CLOCK SET CAPTIONS

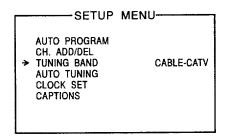
SETUP MENU

TUNING BAND

Purpose

Allows for setting the TV channel selector (tuner) to match your antenna or cable-TV system.

If you are having difficulty tuning channels, the TUNING BAND may have to be set manually to match your viewing needs.



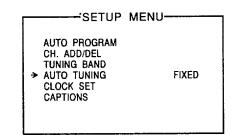
Selecting Tuning Band

AUTO TUNING

Purpose

-

Lets your TV compensate for variations in broadcast and cable-TV frequencies.

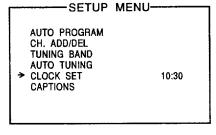


Selecting Auto Tuning

CLOCK SET

Purpose

Sets the clock in the TV to the correct time.



Selecting Clock Set

To Use TUNING BAND

Press ADJUST (ADJ) Left/Right to select the tuning band that gives you the most channels:

- BROADCAST is used for standard "over-the-air" broadcasts.
- CABLE CATV is used for most standard cable-TV (CATV) systems.
- CABLE HRC is used for cable-TV systems that use HRC (Harmonically Related Carrier).
- CABLE ICC is used for cable-TV systems using ICC (Incremental Coherent Carrier).

Available Channels per Band

The channels that are available in the broadcast and cable tuning bands are shown below:

BROADCAST Band — VHF 2 to 13, UHF 14 to 69 CATV, HRC and ICC Bands — 1 to 125

If you are having difficulty tuning channels, the AUTO TUN-ING may have to be set manually to match your viewing needs.

To Use AUTO TUNING

Press ADJUST (ADJ) Left/Right to select the mode of operation that gives you the most channels:

- FIXED is used to receive "over-the-air" TV stations, and with many cable-TV systems.
- SEARCH is used only when the TV must search to find the frequency being received, such as when used with certain cable-TV systems, VCRs and video game controllers.

To Use CLOCK SET from Remote Control

Use the numbered buttons on the remote control to enter the correct time. Press ENTER (ENT) to start the clock.

To Use CLOCK SET from Control Panel

Use ADJUST (ADJ) Left/Right to advance the clock. Press ENTER (ENT) to start the clock.

			-
		CH 13	
		10:56	
1			
			_
	1.00.1		_

Channel/Time Display

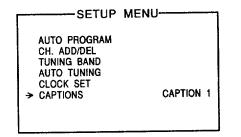
2734-0

SETUP MENU

CAPTIONS

Purpose

Displays closed captions (CC) or informational text when available on the selected channel.

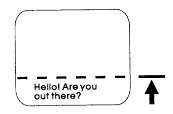


Selecting Captions

To Use CAPTIONS

-

Press ADJUST (ADJ) Left/Right to select desired mode of operation. Five different selections can be made: OFF, CAP-TION 1, CAPTION 2, TEXT 1 or TEXT 2. At the time of this writing, very little appears in any selection except CAPTION 1. Therefore you should select CAPTION 1 and leave it in that selection unless you know there is something you want to see in one of the other selections. Once you make a selection, that selection is remembered until you change it.



Typical Captions Display

where on the screen.

Captions may be shown any-



Typical Text Display

Fixed size text window fills lower half of screen. May be all black when no information is shown.

VIDEO MENU

VIDE	O MENU	
➤ CONTRAST BRIGHTNESS COLOR TINT SHARPNESS PICTURE PREF	G CUSTO	+ + R + N

CONTRAST	Adjusts the overall contrast and color level of the picture.
BRIGHTNESS	Adjusts the brightness level of black areas in the picture.
COLOR	Adjusts the intensity of the colors in the picture.
TINT	Adjusts the color of the flesh tones, where G is Green and R is Red.
SHARPNESS	Adjusts the clarity of the edges of objects for the clearest picture quality.
PICTURE PREF. (Pref- erence)	Lets you decide if you want to use your own CUSTOM video settings, or the factory PRESET video settings.

To Access VIDEO MENU

100

Refer to the "Quick Reference to On-Screen Menus" section for details.

NOTE: All adjustments on the VIDEO MENU are optional. You do not have to use these features in order to use your TV.

To Use Video Settings

- 1. Select video setting to be adjusted.
- 2. Press ADJUST (ADJ) Left/Right until the most pleasing picture is seen.

NOTE: Any adjustment made to these settings while PIC-TURE PREF. is in PRESET mode will automatically store the current settings as the CUSTOM setting.

To Use PICTURE PREF. (Preference)

Press ADJUST (ADJ) Left/Right to select status.

MAINTENANCE AND TROUBLESHOOTING

CARING FOR YOUR TV

Your TV will look better, have a longer life and perform better if you care for it properly.



First check to see that the TV is off. For added safety, unplug the TV from the power outlet. **NOTE:** If you unplug your TV, you will have to

reset the clock to the current time.

Picture Glass Cleaning

The picture tube face attracts dust particles and should be cleaned regularly. To clean the face, spray a small amount of glass cleaner on a cleaning cloth and wipe the picture tube glass face until clean. Repeat if necessary.

To delay new dust accumulation, wet a soft cloth in lukewarm water in which a little fabric softener or Ivory dishwashing detergent has been mixed. Wring the cloth almost dry. Wipe the glass face. Make sure no drops of moisture are squeezed onto the glass. Do not wipe the glass dry. Allow the glass to air-dry before you turn the TV on again.

Cabinet Care

Non-Wood Cabinet or Cabinet Components.

Moisten a soft cloth with a mild soap solution or Ivory dishwashing detergent. Wipe the surface with a damp cloth. Then rinse the cloth in clean water and wipe the surface again. Allow the TV to air-dry before turning it on.

Wood Cabinets or Cabinet Components.

Use any good furniture cleaner and polish. Regular care will help preserve the finish.

EXTENDED ABSENCE

Before an extended absence (such as a vacation) you may want to unplug the power cord from the electrical wall outlet. This will protect the TV' from possible damage from lightning or power line surges. If you have an outdoor antenna, you may also want to disconnect the antenna lead-in wires on the back of the TV.

NOTE: If you unplug your TV, you will have to reset the clock to the current time.

TV PICTURE INTERFERENCE

Your TV picture may be affected by interference caused by one or a number of factors. These include:

Nearby Automobile Ignition, Electrical Appliances, etc. Which causes a speckled, streaked picture. This is most noticeable in weak signal areas.

Snow in Picture Caused by insufficient signal. Usually caused by the TV being located too far from the TV station or by an improper antenna installation.

Ghosts or Reflections Caused by signals being reflected from surrounding buildings, water tanks, or other high structures.

Radio Signal Police, amateur or CB radio transmitters may cause interference.

These interference problems can often be corrected through the use of a better antenna, signal amplifiers, or various filter devices. See your TV dealer for additional information, and available TV accessories.

MAINTENANCE AND TROUBLESHOOTING

BEFORE CALLING FOR SERVICE

Check these items and see if you can correct the trouble by changing the adjustment of a control or the setting of a switch.

By making these simple checks before calling for service, you may save time and money.

Problem	Try This
Picture OK. Poor sound.	Re-orient antenna. Try another channel — possible station trouble. Check for local interference. Check AUTO TUNING and TUNING BAND options on SETUP MENU.
Sound OK. Poor picture.	Re-orient antenna. Try another channel — possible station trouble. Adjust VIDEO MENU options with PICTURE PREF. in CUSTOM mode. Trouble with cable-TV system?
No picture or sound.	Is TV on? Is there power in wall outlet? Is TV plugged in? Is antenna hooked up? Is cable hooked up? Trouble with cable- TV system? Check auxiliary audio/video equipment. Check channel selection. Check TUNING BAND and AUTO TUNING options on SETUP MENU.
Picture blurred or distorted. Ghost in picture.	Check antenna or cable hook up for broken wires. Try another channel — possible station trouble. Check for local interference.
No color, or poor color.	Is it a color program? Check antenna or cable hook up for broken wires. Adjust VIDEO MENU options with PICTURE PREF. in the CUSTOM mode.
No sound.	VOLUME (VOL) setting may be too low. Check MUTE button operation on remote control.
Cannot select certain channels.	Channels may be skipped in CH. ADD/DEL option on SETUP MENU. Check TUNING BAND and AUTO TUNING options on SETUP MENU.
No closed captions	Are captions available? Is CAPTION 1 or CAPTION 2 selected using the CAPTIONS option on the SETUP MENU?
Black or blue box covers half of screen.	Is TEXT 1 or TEXT 2 selected using the CAPTIONS option on the SETUP MENU and is text information available?
Remote control does not work.	Are batteries okay? Is TV turned ON? Is TV plugged in?

Always request that your technician use only genuine Zenith exact replacement parts for continued Quality and Safety performance. Keep your Zenith ALL Zenith. **NOTE:** If your TV fails to respond to the PICTURE PREF. selection, or to any other menu selection, you must reset the TV. Simply disconnect the AC power cord from the power outlet. Wait a few minutes, then plug the TV back into the power outlet. You will have to reset the clock to the current time.

PRODUCT REGISTRATION CARD

You could win a full refund on your new Zenith product.

Look for the Product Registration Card on your new video product.

Each month a drawing is held by Zenith from the completed Product Registration Cards received during the preceding month. Zenith will reimburse the winner for the full purchase price of the product purchased.

In order to participate, simply complete and return the Product Registration Card at once, even if you choose not to complete the information and interests portion of the questionnaire.

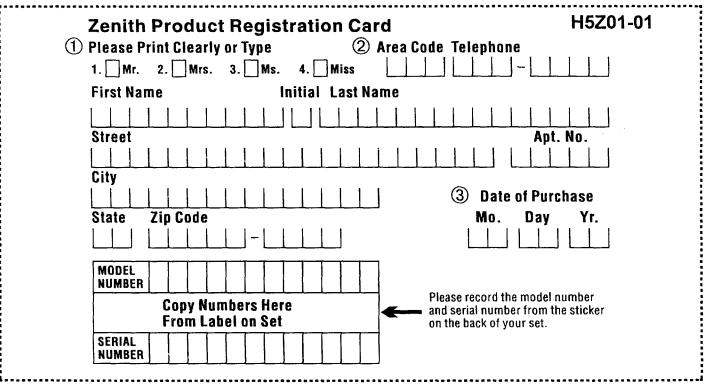
The odds of winning the free drawing described above, depend on the number of participants. Free drawing offer is void in Canada and other places where restricted or prohibited by law. Offer is void for Hotel/Motel and Institutional models. Rental models are not eligible.

Product Card lost or misplaced?

The Product Registration Card furnished with your video product is pre-printed with its Model and Serial numbers. Please fill out the card and mail it at your earliest convenience. It is imperative that Zenith know how to reach you promptly if we discover a safety problem that would affect you. If the original card has been lost or misplaced, you may use the replacement card provided below. Either card will qualify you for the free drawing, but you are limited to only one entry in the drawing. Complete the card, place it in an envelope and mail it to:

Zenith Electronics Corporation P. O. Box 173257 Denver, CO 80217-3257

Use the replacement Product Registration Card only if the original card has been misplaced or lost.



PHOTOCOPY AND CUT ALONG DASHED LINE

BROKEN OR LOST REMOTE CONTROL?





For an **Exact Replacement Remote Control** for your new Zenith Television, see your local Zenith Dealer or order direct by calling 1-800-255-6790. To assure the correct remote for your new Zenith, please have your television's model number ready! **ONLY \$39.95**

		PHOTOCOPY	PAGE AND DETAC	H HERE	r1		
To order these fine access please fill out this card ar		rem Number	DESCRIPTION		QUANTITY	PRICE PER ITEM	TOTAL Price
return a photocopy to:							
Attn: Accessory Offers Zenith Video Tech C							
1000 Milwaukee Av Glenview, Illinois 60	enue 🖵		Sales Tax: Pleas live ir	e add your state sales tax if you n one of the following states.		SUBTOTAL	
or call 1-800-255-6790	or call 1-800-255-6790			IL 8 3/4%, KS 4.9%, KY 6%, ME 8%, 7 3/4%, VA 4 1/2%, WA 8.2%.	STATE SALES TAX		
(Made payable to Zenith Vie				SHIPP	ING & HANDLING	\$4.50	
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IMPORTANT: PLEASE BE SURE	TO COMPLETE THE INFOR	MATION BELOW.		Address:			
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PLEASE ALLOW UP TO 3 WEE	KS FOR DELIVERY. THAN	k you!				nt to customers within th	

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YOUR ZENITH WARRANTY

Consumer Protection Plan for Zenith TV

Welcome into the Zenith family! We believe that you will be pleased with your new Zenith Color TV. Please read this Consumer Protection Plan carefully. It is a "LIMITED WARRANTY" as defined under Federal Law. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state within the U.S.A.

Zenith's Responsibility

Service Labor — During a period of 90 days from effective warranty date, Zenith will pay for service labor by a Zenith authorized service center when needed as a result of manufacturing defects.

Parts — New or remanufactured replacements for factory-defective parts will be supplied by a Zenith authorized service center for one year from effective warranty date (color picture tube — two years). Such replacement parts are warranted for the remaining portion of the original warranty period.

Home Service — Warranty service for 19" diagonal (U.S.A.) or larger screen size models is provided in the home in most cases. (Some repairs may require the unit to be taken by the servicer to the repair facility and returned, at no additional charge.)

Not Covered — This warranty covers manufacturing defects and does not cover installation, adjustment of customer controls in the home, installation or repair of home antenna systems, cable converters or cable company-supplied equipment; it also does not cover damage due to misuse, abuse, negligence, acts of God or other causes beyond the control of Zenith. Any alteration of the product after manufacture voids this warranty in its entirety.

Owner's Responsibility

Effective Warranty Date — Warranty begins on the date of original consumer installation. For your convenience, keep the dealers dated bill of sale or delivery ticket as evidence of the purchase date.

Operating Guide — Read your Operating Guide carefully so that you will understand the operation of your set and how to adjust the customer controls.

Carry-In Service — Models under 19" diagonal (U.S.A.) screen size must be taken to a Zenith authorized service center for warranty service and must be picked up by the owner.

Antenna — Reception problems caused by inadequate home antennas or faulty antenna connections are the owner's responsibility.

Important: Product Registration — Please fill out and mail your Product Registration Card. It is imperative that Zenith know how to reach you promptly if we should discover a safety problem that could affect you.

Warranty Service — For warranty service information, contact your Zenith dealer preferably, or any Zenith authorized service center. Parts and service labor that are Zenith's responsibility (see above) will be provided without charge. Other service is at the owner's expense. If you have any problem in obtaining satisfactory warranty service, write:

> Zenith Electronics Corporation Customer Service Department 1000 Milwaukee Avenue Glenview, Illinois 60025-2493 Telephone: (708) 391-8752 Mon-Fri, 8:00 a.m. - 4:30 p.m. Central Time

NOTE: Before you ask for Warranty service, check the Operating Guide section entitled, "MAINTENANCE AND TROUBLESHOOTING." It may be possible to avoid a service call.

ZENITH ELECTRONICS CORPORATION 1000 MILWAUKEE AVENUE GLENVIEW, ILLINOIS 60025

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