



# How To Enjoy Your General Electric

## PORTA-COLOR

### TELEVISION RECEIVER





# Introduction

Because of the outstanding engineering developments and manufacturing skill of General Electric, you may be assured that the PORTA-COLOR receiver you now own is the finest color television possible.

This receiver will provide you with excellent quality on color as well as on ordinary black-and-white programs.

Your receiver, with the GEMINI Tuning System, is designed to operate on VHF channels 2 through 13 and on UHF channels 14 through 83.

As you read the following pages, you will find that MAGIC MEMORY TUNING makes the operation of your receiver very simple. Your color television receiver can be tuned to receive both color and black-and-white pictures. Tuning is the same for both types of programming. After the picture is correctly tuned in, the color is added by adjusting two simple controls. This can be compared to "coloring" the black-and-white pictures in a coloring book. The MAGIC MEMORY adjustments as well as the adjustments of the other simplified controls are described on the following pages.

## **ANTENNA ADJUSTMENTS**

Your PORTA-COLOR receiver is equipped with a telescoping two-pole antenna for VHF reception and a ring or loop antenna for UHF reception. The position of the antenna determines the quality of the picture and the strength of the color in the picture. On a color program, it is possible to receive a good black and white picture without color if the antenna is not positioned correctly.

For VHF Reception—Extend the telescoping poles fully before positioning. Select a position which provides a stable, detailed picture with good color. Usually, for the best picture, the poles should be fully extended for channels 2 through 6 and partially extended for channels 7 through 13 (the bottom section of each pole should always be fully extended when the poles are in use).

For UHF Reception—Position the loop or ring antenna for a stable, detailed picture with good color.

In difficult reception areas it may be necessary to use an external antenna. Disconnect the antenna on the set from the antenna terminals before connecting the external antenna leads. Your General Electric dealer can furnish advice on an antenna which will provide the best reception.

## **POWER CONNECTIONS**

Your set is designed to operate only from a power source indicated on the receiver. The receiver is equipped with a polarized AC line plug. This means one blade of the plug is wider than the other and will fit into the outlet only one way. If you are unable to insert the plug fully into the outlet, try reversing the plug. Should this then fail to fit, contact your dealer for assistance. **DO NOT** defeat the purpose of the polarized plug.

For added enjoyment of your receiver on the porch or patio, your General Electric dealer can supply a POLARIZED EXTENSION CORD, CATALOG NUMBER ET90X32.

**CAUTION**—Do not operate the receiver less than three feet from any motorized or vibrating type of home appliance or electrically operated toys such as vacuum cleaners, electric shavers, mixers, blenders, toy automobiles, trains, etc.

If any of the above or similar devices are operated too close to the receiver, the picture tube may become magnetized and cause the colors to change tint. This might require that the picture tube be demagnetized.



# CAREFUL READING OF THE FOLLOWING INSTRUCTIONS...

*will help you to obtain the best results from  
your General Electric Color Television Receiver*

## MAGIC MEMORY TUNING

The small knobs on the front of the receiver have reference indicators. Quality Control at the factory has adjusted your receiver with test instruments so that optimum picture performance is attained when the indicators are pointing straight up. If signal conditions in your area require a change in MAGIC MEMORY settings, readjust the controls according to the following instructions. After the readjustments are made, pull off the knobs and push them back onto the control shafts with the indicators pointing straight up. This allows you to return to your favorite adjustments immediately in case of an accidental misadjustment.

In the following step-by-step tuning procedure, Steps 1 through 3 are performed using a black and white picture. Color is added in Steps 4 and 5.

REFER TO THE SEPARATE CARD ACCOMPANYING THIS BOOKLET WHICH SHOWS THE CONTROLS FOR YOUR RECEIVER.

Turn your PORTA-COLOR receiver ON by rotating the OFF-VOLUME knob gently clockwise until the MAGIC MEMORY indicator points straight up for normal sound volume.

<b>STEP 1</b>	Turn the COLOR control fully counterclockwise (all the way to the left). This will produce a black and white picture on all programs, even color. Make all adjustments from Step 2 through Step 3 while viewing the black and white picture.
<b>STEP 2</b>	Rotate the BRIGHTNESS control until the MAGIC MEMORY indicator points up as in the illustration on the card.
<b>STEP 3</b>	Select and tune each channel in your area as follows: A. For VHF CHANNELS (2-13). Rotate the VHF CHANNEL SELECTOR knob until the desired channel is indicated. Rotate the VHF TUNING knob clockwise (to the right) slowly until the edges of detail in the picture take on a beady white or broken up appearance as shown below. Now turn the tuning knob slowly counterclockwise until the

*beady or  
broken up  
appearance*



beady or broken up appearance just disappears. The picture is now at its correct tuning point and should show sharp detail. Since your receiver is equipped with VHF Automatic Fine Tuning, the tuning adjustment need be made only once for each VHF channel in your area.

- B. For UHF CHANNELS (14-83). Turn the VHF Channel Selector Knob to the UHF position between Channels 2 and 13.  
Rotate the UHF SELECT Knob until the desired channel is indicated and a picture is on the screen.
- C. Rotate the UHF FINE TUNE Knob slowly clockwise until the beady effect appears and then counterclockwise until the beady appearance just disappears in the same manner as VHF tuning. The UHF Fine Tuning Knob must be turned slowly to achieve the best picture.



Too Dark

**BRIGHTNESS**



Too Light

The *NORMAL* black and white picture at the right is similar to the picture you should see after finishing STEP 3. All controls are properly adjusted and the picture is steady on the screen with good focus and detail. The shades of blacks, grays and whites are correctly balanced.



Normal

**COLOR PURIFIER**—If color should appear on the screen when viewing a black-and-white picture, slide the spring-loaded DEGAUSS switch to the right and hold in this position for a moment—then release the switch. The switch is located at the left rear of the receiver.



NOW YOU ADD COLOR TO YOUR CORRECTLY TUNED PICTURE BY ADJUSTING THE CONTROLS IN STEPS 4 and 5.

**STEP**  
**4**

Rotate the COLOR control clockwise until normal strength colors appear (you must be receiving a color program). If the color control is turned too far to the right, excessive color will be produced.

If no color is present, you may have turned the fine tuning control too far to the left. Repeat STEP 3.



Too Little Color



Excessive Color

**STEP**  
**5**

The TINT control must be rotated for proper flesh colors to make all other hues correct. Technical difficulties in transmission may cause skin tones to vary from one side of the screen to the other. In this event, adjust the TINT control for correct skin tones near the center of the screen.



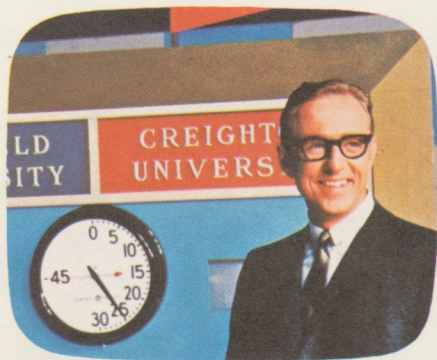
Too Green



Too Purple



Below is a *NORMAL* color picture similar to the picture that you should see after finishing the recommended step-by-step tuning procedure. Black and white programming will also be received without making further adjustments. If you should choose to adjust the small secondary controls to settings other than those recommended, it is suggested that you do not rotate the BRIGHTness control more than one quarter of a turn from the recommended MAGIC MEMORY setting.



Normal Picture

#### ADDITIONAL CONTROLS



#### ● VERTICAL HOLD CONTROL

If the picture tends to jump out of position or appears to be "rolling" up or down, it may be brought back into position by turning the VERT Control knob in either direction until the picture is steady.



#### ● HORIZONTAL CONTROL (at rear)

When diagonal bars or a sideways motion appears on your screen, the picture may be restored to position by turning the HORIZ Control in either one direction or the other until the picture locks in.

After adjusting either the VERT or HORIZ Control as described above, rotate the VHF selector knob to the next higher and lower channels and then back to the desired channel. If rolling or diagonal bars appear for an instant after returning to the desired channel, adjust the appropriate control in slight steps until you can rotate the VHF Selector knob off-and-on channel without evidence of rolling or diagonal bars.

The CONTRast control, located at the rear of the receiver, is preset at the factory to a fully clockwise position and normally needs no adjustment.



## RECEPTION PECULIARITIES & INTERFERENCE

Television program transmission difficulties will often produce picture disturbance whose appearance can be similar to or identical with electrical and static disturbances. Usually such difficulties are announced on the sound or picture portion of the program, whichever is not affected. If you are in doubt whether the trouble is in the transmitter or your receiver, simply turn your channel selector to another station and program. If the trouble is not present, it is caused by studio, transmitter or network difficulties on the first station.

The most common types of television interference are as follows:



**IGNITION** Horizontal streaks and splashes on the picture are caused by ignition interference from trucks, automobiles and airplanes. Some electric shavers and other small motor devices may also cause this difficulty.

**RADIO FREQUENCY SIGNALS** The interference shown in this illustration may be caused by short-wave transmitting and receiving equipment. The interference produces moving ripples or diagonal streaks, and, in some cases, causes loss of contrast in the picture.



**MULTIPLE IMAGE (GHOSTS)** Ghosts are caused by the television signal following two paths. One is the direct path and the other is reflected from tall buildings, hills or some other object. The signal following the reflected path always arrives later at the receiver and produces the second image. Relocation or reorientation of the antenna may improve the reception.

**WEAK SIGNAL (SNOW)** If your receiver is located in the fringe area of a television station where the signal is weak, the picture may appear covered by irregular dots which give it a snowy appearance. When the signal is extremely weak, part of the picture may be blotted out. It may be necessary to install a special antenna to improve the picture under these conditions.



**CAUTION:**—Your receiver requires air for cooling. **DO NOT** drape a scarf over the back of the receiver or place the receiver in a location that will block circulation of air through the receiver bottom and back. **DO NOT** place objects with rubber feet or items impregnated with possibly harmful chemicals on the cabinet surfaces.

**CLEANING AND CARE:**—The surfaces of your television receiver cabinet and picture window are easily damaged if not properly protected. Guard the surfaces against abrasion, heat and flame. Many common household sprays, cleaning agents, solvents and polishes will cause damage to the fine surfaces. Good results in cleaning are attained by using mild soap and water and a soft cloth for drying. Your General Electric dealer can supply Anti-Static Plastic Cleaner and Polish, Catalog Number ET90X25, which provides the best cleaning properties for unpainted plastic surfaces.



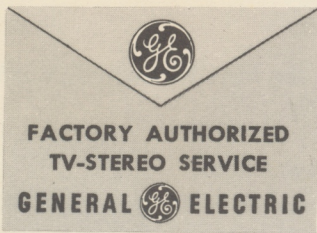
## IF YOU REQUIRE SERVICE

Your General Electric television receiver is a complex electronic device, and may require service sometime during its years of life. Before you decide that service is required, consult the chart on this page; a slight adjustment on your part may correct the difficulty.

If the difficulty persists, after per-

forming the checks on the chart, then carry-in your receiver to an authorized General Electric Television Service Station. See your warranty for details.

Insist upon genuine General Electric replacement tubes and parts for continued "new set" performance.



	Try a new channel; if OK, probably station trouble.	Is receiver plugged in? Check outlet with lamp.	Is TV receiver power switch on?	Is antenna connected to terminals on back of set?	If outside antenna, check for broken wires.	Adjust antenna poles or loop	Check for local interference.	Adjust fine tuning.	Adjust VERTICAL control.	Adjust HORIZONTAL HOLD control.	Is program in color?	Adjust TINT control.
No Picture or Sound	X	X	X	X	X			X				
Picture OK, Sound Poor	X					X	X	X				
Sound OK, Picture Poor	X			X	X	X	X	X				
Picture Blurred	X				X	X		X				
Ghosts in Picture	X			X	X	X		X				
Lines or Streaks in Picture	X				X	X	X	X				
Weak Picture	X			X	X	X		X				
Poor Reception on Some Channels	X			X	X	X	X	X				
No Color						X		X		X	X	
Wrong Colors								X				X
Picture Rolls Vertically	X				X	X	X		X			
Picture Distorted	X				X	X		X		X		
Bars on Screen					X	X	X			X		