

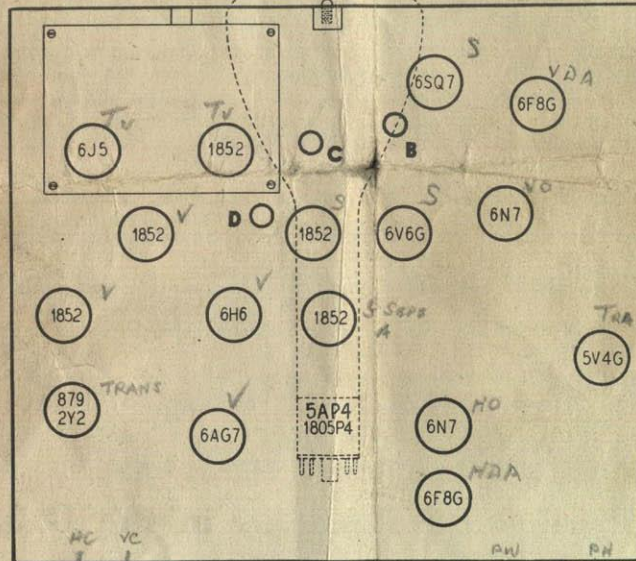
Andrea Radio

"SHARP-FOCUS"  
TELEVISION

THE MARK OF  
LEADERSHIP IN

## RADIO SIGHT & SOUND

ANDREA 1-F-5 TELEVISION RECEIVER



**AN ENTIRELY NEW SERVICE:** Television reception, seeing and hearing without wires, is the greatest of all the marvels of modern science. The results which you can see and hear are no more marvelous, however, than the engineering achievements by which this set has been simplified, refined, and made dependable in its operation.

Never before has scientific equipment of such accuracy and precision been perfected to such a degree of ruggedness that it can be operated by unskilled owners under conditions of use in the home.

Of course, it is necessary to operate this television receiver according to a few simple rules, as set forth below. Most important of these rules is the one concerning the Brightness Control, which must be turned down, anti-clockwise,

when the set is turned off, and must be down before the set is switched on.

Instructions are given here for adjustments to be made by the dealer's service engineer. No one else should be permitted to touch any of the controls at the back of the set. If anything about the set does not seem right, switch it off and leave it alone. Call your dealer, and have him send his service engineer to examine your receiver. DO NOT, under any circumstances, attempt to make any adjustments yourself.

**GUARANTEE:** This receiver is covered by the standard R. M. A. guarantee against defective materials or workmanship for a period of 90 days from original date of purchase. Within this period, Andrea Radio Corp. will repair or replace any defective part that is delivered to the factory at Long Island City, N. Y. with shipping charges prepaid. A charge will be made by your dealer for removing the defective part and fitting the replacement part.

This Guarantee is subject to the following conditions:

1. The receiver must have been purchased from a bona fide Andrea dealer, at the resale price authorized by the Andrea Radio Corp. at the time of purchase. Second hand sets and those purchased below the authorized resale price are specially excluded.

2. The receiver must have been installed and used in accordance with the operating and installation instructions.

3. This guarantee does not apply to defects caused by accident, neglect, alteration, misuse, or wear and tear.

4. Andrea Radio Corp. will not be responsible for any loss, damage, or expense caused directly or indirectly by any fault developing in this receiver or its accessories.

5. A purchaser of an Andrea television receiver shall be deemed to have purchased it with full knowledge and approval of the Conditions of Guarantee herewith. No other warranty is to apply whether expressed or implied.

**IMPORTANT:** This Guarantee is only effective when your purchase of this receiver has been registered with Andrea Radio Corp. by filling out and mailing the Registration of Guarantee card which accompanies these instructions. This card must show your name and address, date of purchase, name and address of the dealer from whom the set was purchased, and the Serial Number which appears on the side of the picture tube bracket. DO NOT ACCEPT DELIVERY OF A SET ON WHICH THE SERIAL NUMBER HAS BEEN DESTROYED OR REMOVED.

**CORRECT INSTALLATION:** This Andrea television receiver must be used with the No. 66 Andrea Teleceptor antenna. Ordinary antenna arrangements which are used for broadcast receivers are entirely unsuited for ultra-frequency television reception. You must bear in mind that while broadcast transmission is done on 1,800 to 530 kc. (167 to 566 meters), television transmission is on various bands from 90,000 to 44,000 kc. (3.3 to 6.8 meters). It is necessary, therefore, to use an antenna which is not only so designed that it is actually tuned to these ultra-high frequencies, but is also matched exactly to the tuning circuits of the Andrea receiver.

Only with the No. 66 Teleceptor can the superior Andrea "Sharp-Focus" images and the "Picture Tone" sound be obtained. Complete instructions for installation are furnished with the Teleceptor.

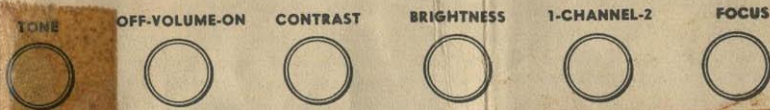
A ground connection is essential for television reception. While this may not be necessary for broadcast receivers, a ground connection must be provided for this television set.

Complete service instructions for your dealer's service engineer are given under a separate heading. Keep this sheet for his use.

#### HOW TO ADJUST THE ANDREA TELEVISION RECEIVER

When your service engineer has installed the Teleceptor, and has connected the set in accordance with the instructions, the operating controls should be adjusted in the following manner:

1. Turn the Brightness Control all the way anti-clockwise, and the Contrast Control all the way clockwise.
2. Switch on the set by turning the Volume Control clockwise.



3. Throw the channel switch to left for 54-60 mc channel. To center position for 60-72 mc or to the right for 76-82 mc channel.

4. Allow 30 to 60 seconds for the set and the picture tube to reach their operating temperatures.
5. Turn up the Brightness Control SLOWLY, in a clockwise direction, until the picture tube is illuminated faintly. Bear in mind that too much brightness will spoil the contrast and definition of the picture, in addition to reducing the life of the tube.
6. When you see the television picture on the tube, adjust the Contrast Control to obtain the true relation between the light and dark areas of the picture.
7. Readjust the Brightness Control and then the Contrast Control until adequate brightness is obtained with a natural degree of contrast. Remember that you should not use excessive brightness, and do not force the Brightness Control to compensate for excessive illumination in the room where the set is installed. For any adjustment of the picture contrast, shading, when the Contrast Control is rotated in a clockwise direction, the Brightness Control must be turned anti-clockwise. Always turn the controls slowly!
8. Adjust the Focus Control to improve the sharpness of the picture detail. Rotate it slowly until the maximum degree of detail is obtained.
9. Sound volume and tone can be adjusted by the Volume Control and the Tone Control. To obtain the full quality and brilliance of Andrea "Picture Tone", turn the Tone Control all the way anti-clockwise.
10. Have the service engineer who installs your set give you a practical demonstration of the television receiver before he leaves your home.
11. Before you switch off the receiver, turn the Brightness Control all the way anti-clockwise. Do not forget this!
12. If, at any time, you are troubled by interference, turn the Contrast Control anti-clockwise, and the Brightness Control clockwise. The Contrast Control has the effect of regulating the sensitivity of the set. Therefore, if the sensitivity is reduced, the effects of interference will be cut down correspondingly.

### INSTALLATION AND ADJUSTMENT

To be made only by the dealer's service engineer

**WARNING:** Before making any adjustments on this television receiver, turn off the switch and remove the plug from the light socket.  
The HIGH VOLTAGE required to operate this set is dangerous, and must be handled with the greatest caution.  
A SAFETY SWITCH is mounted inside the chassis, and is opened automatically when the base plate is removed. In addition, a SAFETY PLATE is provided to cover the elements inside the chassis which are in the picture tube circuit.  
DO NOT, under any circumstances, short-circuit the SAFETY SWITCH. It is pro-

vided for your protection. Keep the SAFETY PLATE in position inside the chassis. When it is removed, you will be exposed to dangerous voltages!

The manufacturers have taken every reasonable precaution to protect you, by making overload tests on the parts, and by providing the Safety Switch and Safety Plate. However, Andrea Radio Corp. can accept no responsibility for personal or property damage resulting from the use, operation, or repair of this television receiver.

HORIZONTAL  
CENTERING



VERTICAL  
CENTERING

HORIZONTAL  
HOLD



VERTICAL  
HOLD



PICTURE  
WIDTH

PICTURE  
HEIGHT

**IMPORTANT:** Do not alter the adjustment of the plunger condensers on the R.F. Tuning Unit or make any change in the wiring of this Unit. The controls have been set accurately at the Andrea factory, using special instruments which are not available now to servicemen.

The following instructions for adjusting the controls are arranged in the order in which they should be carried out:

**CONNECT THE ANTENNA & GROUND:** With your Teleceptor antenna installed in accordance with the instructions which accompany it, connect the twisted-pair lead-in to the A.A. terminals at the rear of the chassis. **NOTE:** Do not neglect the ground connection, as this is highly important for television reception. The G terminal at the rear of the chassis must be connected to a good ground, such as a radiator or water pipe. The connection should be made with an **INSULATED** wire, as short as possible.

**BEFORE TURNING ON THE POWER:** Before you plug in the line cord, make a final check to see that all the tubes are in their proper places, that the picture tube is firmly in place and that the socket is pushed on firmly, that the shields are in place, the grid caps pushed down tightly, and that the speaker plug is in its socket.

**TURN DOWN THE BRIGHTNESS CONTROL:** Turn the Brightness Control all the way to the left (anti-clockwise). Wait for a minute until the tubes have reached their normal operating temperature. If the screen does not light up, increase the Brightness Control slightly until the screen becomes faintly luminous.

**SQUARE THE TUBE:** The rectangular area of illumination will probably not be aligned with the opening in the rubber mask. **SWITCH OFF THE SET**, and then turn the Picture Tube to the approximately correct position. Keep your **HANDS OFF** the Picture Tube when the current is on. If you touch the Tube and the chassis or any other ground connection, you will get a slight static shock through the glass. When you have aligned the Tube and the mask, tighten the tube clamp lightly, but do not squeeze it.

**IMPORTANT:** At all times, keep the Brightness Control turned down to normal brightness for a dimly-lighted room. Do not try to turn it up to show pictures when light is shining on the screen. Excessive brightness tends to burn the coating off the screen, and to reduce the useful life of the Picture Tube.

**TUNING BANDS:** The standard receiver is furnished with tuning circuits adjusted for the 44-50 and 50-56 mc. television bands, unless other bands were specified.

**ADJUST THE FOCUS CONTROL:** Looking in at a time when transmission is on the air, first set the Channel Selector Switch on the correct Channel and turn up the Contrast Control until dark and light areas appear on the screen. Then adjust the Focus Control. This regulates the size of the luminous spot which forms the lines making up the picture. If the spot is too large, the lines will overlap and the picture will be blurred. The spot should be reduced until the separate lines are just visible at the sides of the illuminated screen. At this point, you will not see a clear or steady picture, but you will be able to tell if the set is picking up the television transmitter.

**ADJUST THE CENTERING CONTROLS:** The illuminated part of the screen will not be of the correct height and width. For the present, simply adjust the Vertical and Horizontal Centering Controls to center the image within the opening of the mask.

**ADJUST PICTURE WIDTH & HEIGHT CONTROLS:** If the illuminated part of the screen is larger or smaller than the opening in the mask, adjust the Picture Width & Height Control until it is just inside the mask.

**READJUST VERTICAL HOLD CONTROL:** If the picture appears to move up or down, readjust the Vertical Hold Control until the picture becomes steady. You will see that the image tends to lock in position, so that it is not affected by a slight movement of the Vertical Hold Control to the right or left. If the Vertical Hold Control will not lock the picture in synchronization, the Contrast Control has been advanced too far, and the video signal is being overloaded. Reduce the Contrast Control until the Vertical Hold Control will lock the signal in synchronization. Feel out the limits of the control movement, so as to leave the Control at the center of it. Adjustments of the Vertical and Horizontal Hold Controls should be made with the Contrast Control turned anti-clockwise until the picture is barely visible.

**READJUST THE HORIZONTAL HOLD CONTROL:** Readjust the Horizontal Hold Control until the picture becomes clear, that is until the edges cease to be jagged.

**ADJUST CONTRAST & BRIGHTNESS CONTROLS:** Turn the Contrast Control a slight amount clockwise and cut down the Brightness Control until you get a normal relation between the light and dark portions of the picture. Anti-clockwise rotation of the Contrast Control will cut down the brightness of the image, so that the Brightness Control must be turned up slightly. Some further adjustment, back and forth, may be necessary before the image is just right. Always turn the Contrast and Brightness Controls in opposite directions for quickest results.

**HOW TO USE THE SOUND SENSITIVITY CONTROL:** The Sound Sensitivity control, as the name implies, should be used whenever it is necessary to tune in the sound accompanying the picture for best tone quality and maximum volume. This control is located on the right side of the cabinet.

The conditions under which it may be found necessary to use the control are as follows:

1. During the initial warm up period shortly after the receiver has been first turned "ON" the tone may gradually become distorted. A slight turning of the Sound Sensitivity control knob until maximum volume and best tone quality is heard will correct this condition.

2. In changing from one television station channel to another the sound sensitivity control knob should be reset for maximum volume and best tone quality of each station.

3. In both of the above conditions it will be noted that the setting of the sound sensitivity control may affect the picture. However, in general the setting where maximum volume and best tone quality is obtained will give best picture quality. In some cases it may be found that an in-between setting produces best results.

**REVERSE THE LINE PLUG:** In some instances, an improvement in reception is obtained by reversing the line plug. Try this, to see if reversing the line plug in your home makes any difference in the clarity of the images received.

**HOW TO ELIMINATE REFLECTIONS:** If two or more images, slightly offset from one another, appear on the screen, your Teleceptor must be turned in one direction or the other. Try swinging it slightly to the right, and check your reception to see if the reflections increase or decrease. If they disappear partly, turn the Teleceptor a little more to the right. If they increase, swing the Teleceptor to the left. Use this cut-and-try method until you find the position for best reception.

**DC OPERATION:** The ordinary motor-generator for producing AC current from a DC line is not suitable for operating a television receiver. Television reception requires a generator equipped with accurate frequency control, and one which has good wave form. Also, care must be taken to prevent the pick-up of the external field, which will cause a hum pattern in the picture.

**REPLACEMENT PARTS:** Replacement parts for this set must be ordered from Andrea Radio Corp. This is essential because the original parts are held to extremely close limits in order to assure satisfactory performance in the critical circuits required for "Sharp-Focus" reception. The tolerances of dealers' stock replacement parts are too wide for use in this set.

For example, the pass band of this set is 4 mc. wide. A stock replacement resistor may be correct as to resistance value, and yet it may have a value of capacity which will reduce the pass band substantially. Again, parts used in this set are subject to breakdown and overload tests, to assure proper performance under the conditions of use in television circuits.

Take no chances when replacement parts are required. Order them from the Manufacturer.

**Designed by Engineers who have pioneered  
Television development in the U. S. A.**

*Phone Stillwell - 4-5411*

**Andrea Radio**

Manufactured by ANDREA RADIO CORP.

43-20 34th Street, Long Island City, N. Y.

NEW ADDRESS

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LONG ISLAND CITY 1, N. Y.