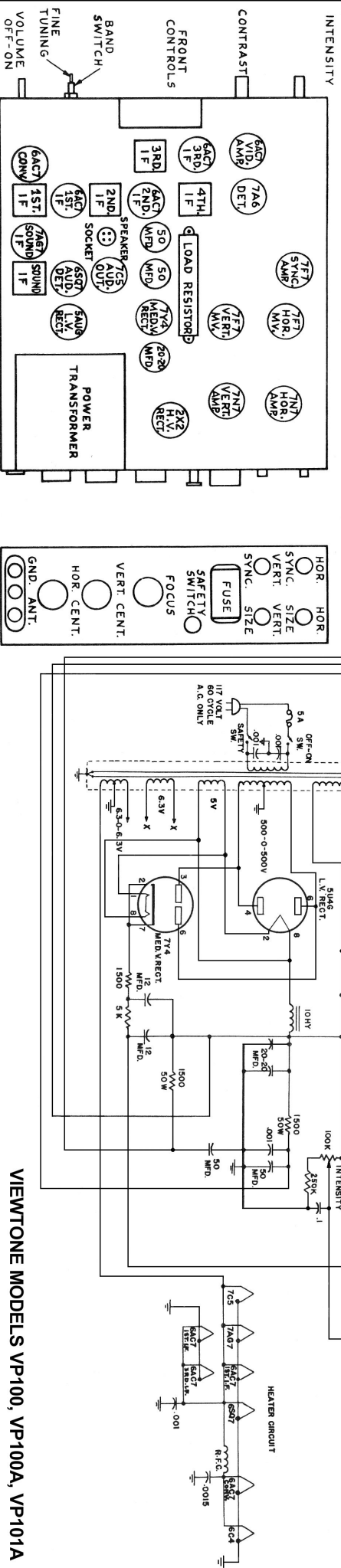


TOP VIEW OF VP CHASSIS

REAR VIEW



VIEWTONE MODELS VP100, VP100A, VP101A

# Viewtone Company models VP100, VP100A & VP101A

## VIEWTONE TELEPHONE RECEIVER

ADVENTURER - CONSOLE WITH RADIO AND TELEVISION  
FUTURA - TABLE MODEL

### GENERAL DESCRIPTION

THESE MODELS CONSIST OF A 19-TUBE, DIRECT VIEWING TELEVISION RECEIVER. FEATURES OF THE TELEVISION RECEIVER INCLUDE:

SEVEN INCH CATHODE RAY TUBE, SINGLE-STATION, SELECTOR SWITCH WITH FINE TUNING CONTROL; DOUBLE SAFETY PROTECTION WHICH INCLUDES FUSE AND INTERLOCK SWITCH; SAFETY PLEXITE VIEWING WINDOW AND AUTOMATIC GAIN CONTROL.

### OPERATION OF THE VIEWTONE TELEVISION RECEIVER

ON THE FRONT OF THE CHASSIS THERE ARE FOUR CONTROLS:

1. VOLUME, OFF-ON.
2. STATION SELECTOR AND FINE TUNING.
3. CONTRAST
4. INTENSITY

THE POWER-VOLUME CONTROL TURNS ON THE POWER FOR THE COMPLETE SET AND ALSO CONTROLS THE VOLUME OF THE SOUND ACCOMPANYING THE PICTURE

THE STATION SELECTOR AND FINE TUNING IS A COAXIAL DUAL CONTROL WHOSE OUTER KNOB SELECTS THE CHANNEL OF THE STATION WHICH IT IS DESIRED TO RECEIVE, THAT IS IN NEW YORK.

CHANNEL	FREQUENCY	STATION
2	54-60	WCBS - TV (C.B.S.)
4	66-72	WNBT (N.B.C.)
5	76-82	WABD (Dumont)

SET THE LARGE KNOB TO THE CORRESPONDING NUMERALS ON THE FRONT OF THE CABINET. THE INNER SECTION OF THIS KNOB IS THEN USED FOR FINE TUNING, AND MAY ELIMINATE RIPPLES AND DISTORTION FROM THE PICTURE. BY TURNING THIS KNOB, BOTH PICTURE AND SOUND ARE TUNED IN SIMULTANEOUSLY.

THE CONTRAST CONTROL VARIES THE BLACK AND WHITE TONES OF THE PICTURE BEING RECEIVED. TURNING THIS CONTROL CLOCKWISE INCREASES THE CONTRAST FROM GRAYS, TO BLACK AND WHITE.

THE INTENSITY CONTROL SHOULD BE TURNED COMPLETELY COUNTER-CLOCKWISE BEFORE TURNING THE SET ON. THIS WILL REDUCE THE ILLUMINATION OF THE INTENSE SPOT THAT APPEARS ON THE CATHODE RAY TUBE BEFORE THE SWEEP CIRCUITS START FUNCTIONING. BY TURNING THE CONTROL CLOCKWISE THE AVERAGE ILLUMINATION, OR BRIGHTNESS OF THE PICTURE IS INCREASED.

ON THE REAR OF THE CHASSIS ARE SEVEN CONTROLS, WHICH ONCE SET, NEED ONLY OCCASIONAL ADJUSTMENT.

THE HORIZONTAL SYNC. CONTROLS THE PICTURE STABILITY. IT SHOULD BE ADJUSTED TO THE ONE POINT WHERE THE PICTURE "LOOKS IN" HORIZONTALLY.

THE HORIZONTAL AMPLITUDE CONTROLS THE SIZE OF THE PICTURE ONCE IT HAS BEEN LOCKED IN.

THE VERTICAL SYNC. SHOULD BE ADJUSTED TO THE POINT WHERE ONLY ONE PICTURE LOOKS IN VERTICALLY.

THE VERTICAL AMPLITUDE CONTROLS THE VERTICAL SIZE OF THE PICTURE.

THESE CONTROLS WHEN ONCE SET REQUIRE ONLY OCCASIONAL ADJUSTMENT, THIS DUE TO THE AGING OR CHANGING OF TUBES.

THE FOCUS CONTROL SHOULD BE ADJUSTED TO THE POINT OF THE GREATEST SHARPNESS OF THE PICTURE

THE HORIZONTAL CENTERING CONTROL ENABLES THE COMPLETE PICTURE TO BE MOVED HORIZONTALLY IN ORDER TO CENTER IT ON THE TUBE.

THE VERTICAL CENTERING CONTROL ENABLES THE COMPLETE PICTURE TO BE MOVED VERTICALLY IN ORDER TO CENTER IT ON THE TUBE.

### IMPORTANT SAFETY PRECAUTIONS

USE EXTREME CAUTION AT ALL TIMES WHEN SERVICING RECEIVER.

THIS RECEIVER CONTAINS HIGH VOLTAGE (3,000 volts). AN INTERLOCK SWITCH IS PROVIDED AT THE REAR OF THE CHASSIS FOR THE PROTECTION OF THE INDIVIDUAL. IT IS RECOMMENDED THAT ONLY QUALIFIED PERSONNEL BE ALLOWED TO SERVICE THIS RECEIVER.

THE MOST DANGEROUS PORTION OF THE H.V. SUPPLY IS THE PLATE LEAD OF THE 2X2/879 RECTIFIER TUBE.

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## ANTENNA INSTALLATION

THE IMPORTANCE OF A GOOD ANTENNA INSTALLATION CANNOT BE OVEREMPHASIZED. A PROPERLY INSTALLED ANTENNA IS THE DIFFERENCE BETWEEN GOOD OR POOR RECEPTION. AN ANTENNA SHOULD NOT BE INSTALLED PERMANENTLY ON AN APARTMENT OR RESIDENCE ROOF UNTIL THE QUALITY OF PICTURE RECEPTION IS AT ITS BEST. ENOUGH SLACK SHOULD BE ALLOWED IN THE LEAD IN TO FACILITATE MOVEMENT OF THE ANTENNA. A SHIFT OF ONLY A FEW FEET IN ANTENNA POSITION MAY RESULT IN AN ENORMOUS DIFFERENCE IN PICTURE RECEPTION. THE ANTENNA SHOULD BE POSITIONED BROADSIDE TOWARD THE TRANSMITTER. IF A RECEPTOR AND REFLECTOR ARRANGEMENT IS USED, THE RECEPTOR IS PLACED IN FRONT OF THE REFLECTOR BROADSIDE TOWARD THE STATION.

FOR BEST POSSIBLE RESULTS THE ANTENNA SHOULD BE REMOVED AS FAR AS POSSIBLE FROM HIGHWAYS, HOSPITALS, AND OTHER SOURCES OF INTERFERENCE. AUTOMOBILE IGNITION NOISES AND DIATHERMY MACHINES MAY CAUSE "HERRINGBONES" WHICH DISTORT THE PICTURE BEING RECEIVED.

## R. F. ALIGNMENT PROCEDURE

1. REPLACE 6C4 OSCILLATOR TUBE. APPLY OUTPUT OF SIG. GEN. TO ANTENNA TERMINAL OF CHASSIS. CONNECT OUTPUT INDICATING DEVICE TO VIDEO LEAD OF C.R.T. SET OSCILLATOR CONDENSER HALF WAY OPEN.

2. ADJUST OSC. COIL SLUGS SO THAT SOUND OUTPUT IS HEARD AS THE SIG. GEN. IS SET ON THE SOUND CARRIER FREQUENCY OF THE TELEVISION CHANNEL.

CHANNEL	SOUND CARRIER
1	49.75 Mc
2	59.75 Mc
3	65.75 Mc
4	71.75 Mc
5	81.75 Mc
6	87.75 Mc
CHANNEL	SET ANT. COIL TO
1	47 Mc
2	58 Mc
3	63 Mc
4	70 Mc
5	78 Mc
6	85 Mc

## I. F. ALIGNMENT PROCEDURE

1. REQUIRED: SIGNAL GENERATOR, 8-15 Mc  
OUTPUT INDICATOR (OSCILLOSCOPE, V.T.V.M.)  
REMOVE OSCILLATOR TUBE  
TYPE VP100 CHASSIS DISTINGUISHED BY BLACK SERIAL NO.  
TYPE VP100A " " " RED " " "

2. ALIGNMENT OF 4TH I.F. TRANSFORMER.  
APPLY OUTPUT OF SIG. GEN. TO GRID OF THIRD I.F. TUBE.  
TUNE IN SLUG OF TRANS. FOR MAXIMUM DEFLECTION IN INDICATOR CONNECTED TO C.R.T. VIDEO LEAD.  
FREQUENCY: VP100 12.8 Mc  
VP100A 11.5 Mc

3. ALIGNMENT OF 3RD I.F. TRANSFORMER.  
APPLY OUTPUT OF SIG. GEN. TO GRID OF SECOND I.F. TUBE.  
TUNE BOTTOM SLUG OF I.F. TRANS. FOR MAXIMUM DEFLECTION IN OUTPUT INDICATOR CONNECTED TO C.R.T. VIDEO LEAD.  
FREQUENCY: VP100 12.0 Mc  
VP100A 12.0 Mc  
TUNE TOP IRON SLUG OF IF TRANS. FOR MINIMUM DEFLECTION OF OUTPUT INDICATOR CONNECTED TO C.R.T. VIDEO LEAST  
TRAP FREQUENCY: VP100 8.25 Mc  
VP100A 10.3 Mc

4. ALIGNMENT OF 2ND I.F. TRANSFORMER.  
APPLY OUTPUT OF SIG. GEN. TO GRID OF 1ST IF AMPLIFIER TUBE. TUNE BOTTOM SLUG OF IF FOR MAXIMUM DEFLECTION OF OUTPUT INDICATOR CONNECTED TO VIDEO LEAD OF C.R.T.  
FREQUENCY: VP100 11.5 Mc  
VP100A 10.3 Mc  
TUNE TOP SLUG OF IF TRANS. FOR MINIMUM DEFLECTION OF OUTPUT INDICATOR CONNECTED TO C.R.T. VIDEO LEAD. THIS WILL CORRESPOND TO MAXIMUM AUDIO OUTPUT.  
TRAP FREQUENCY: VP100 8.25 Mc  
VP100A 8.25 Mc

5. ALIGNMENT OF 1ST IF TRANSFORMER.  
APPLY OUTPUT OF SIG. GEN. TO GRID OR CATHODE OF CONVERTER TUBE. TUNE BOTTOM IRON SLUG FOR MAXIMUM DEFLECTION IN OUTPUT.  
FREQUENCY: VP100 10.3 Mc  
VP100A 9.0 Mc  
IN THE MODEL VP100 THERE IS A 14.25 Mc TRAP WHICH IS TUNED FOR MINIMUM DEFLECTION.

6. ALIGNMENT OF SOUND IF TRANSFORMER.  
APPLY OUTPUT OF SIG. GEN. TO GRID OR CATHODE OF CONVERTER TUBE. TUNE TOP SLUG FOR MAXIMUM SOUND OUTPUT. MAXIMUM SOUND CAN BE DETERMINED BY EAR OR BY APPLYING V.T.V.M. OR OSCILLOSC. TO GRID OF 7C5 AUDIO OUTPUT.  
FREQUENCY: VP100 8.25 Mc  
VP100A 8.25 Mc