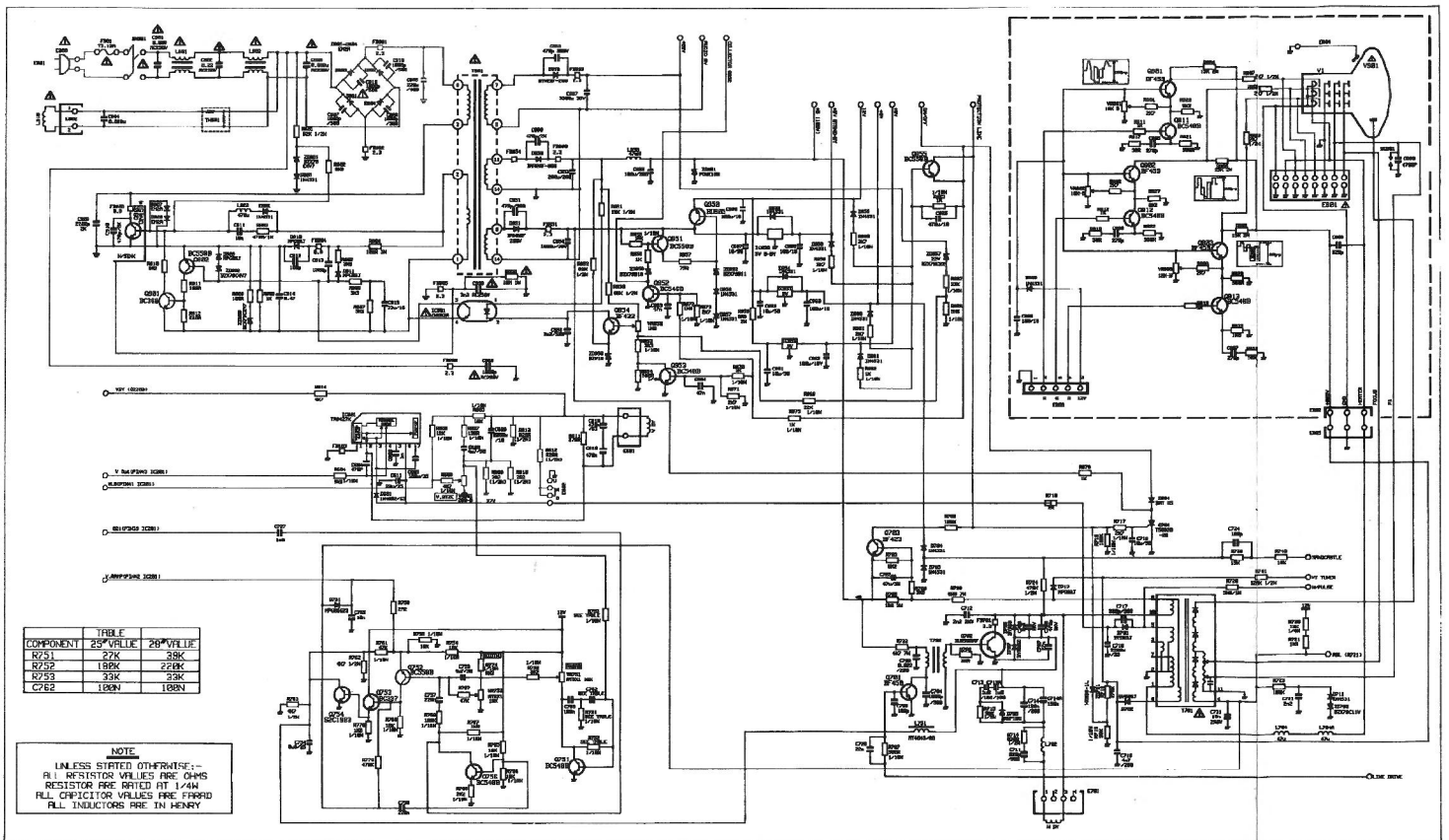


HITACHI

CIRCUIT AND ALIGNMENT SHEET
FOR MODELS CP2146TA
CP2546TA
CP2846TA

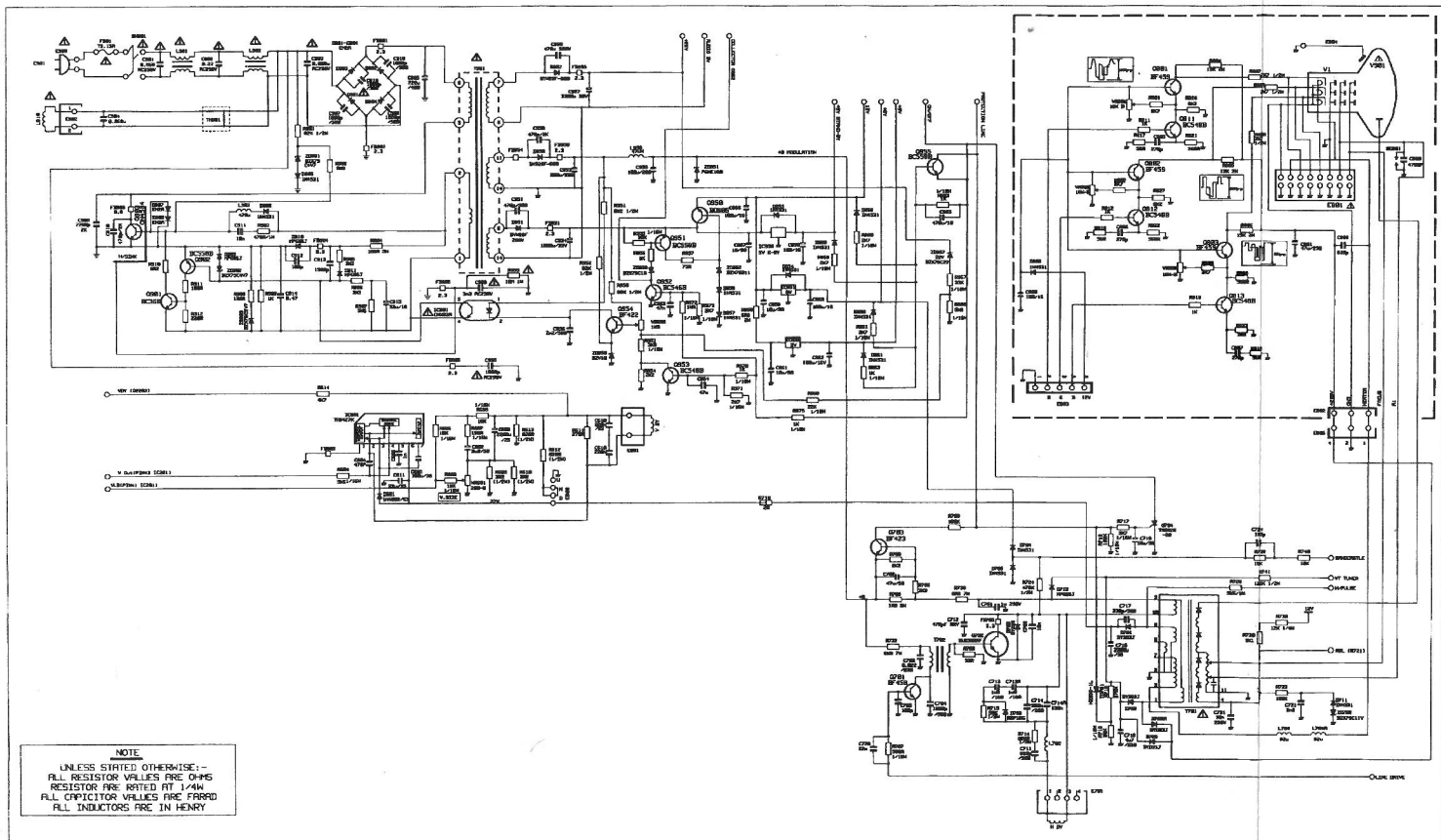
X831084
QP 48543



COMPONENT	TABLE	25°V/110V	28°V/110V
R751	27K	38K	
R752	180K	220K	
R753	33K	28K	
C762	180N	180N	

NOTE:
 UNLESS STATED OTHERWISE:--
 ALL RESISTOR VALUES ARE OHMS
 RESISTOR ARE RATED AT 1/4W
 ALL CAPACITOR VALUES ARE PPMFD
 ALL INDUCTORS ARE IN HENRY

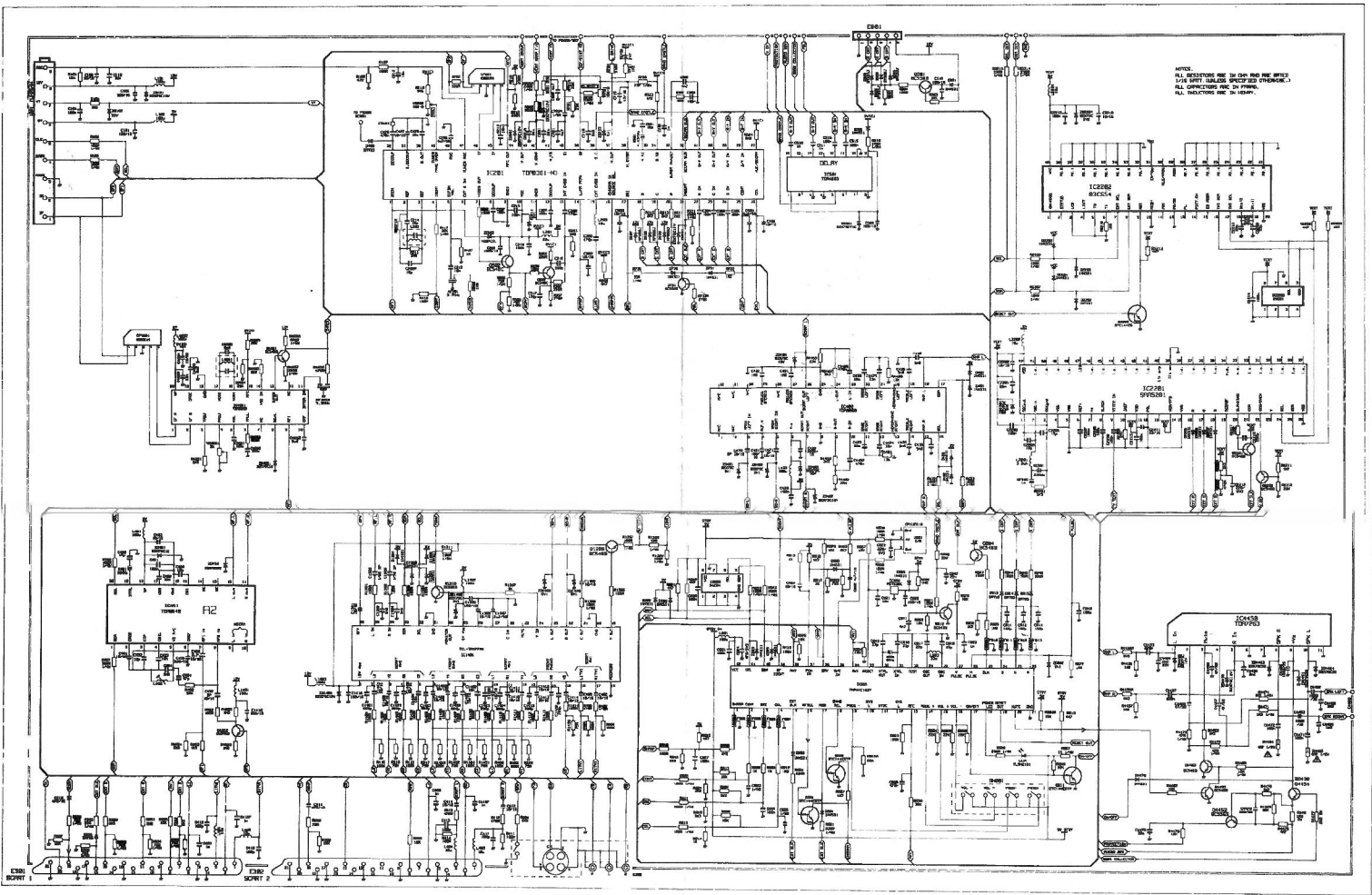
ALIMENTAZIONE BASE DI TEMPI CP25/2846TA



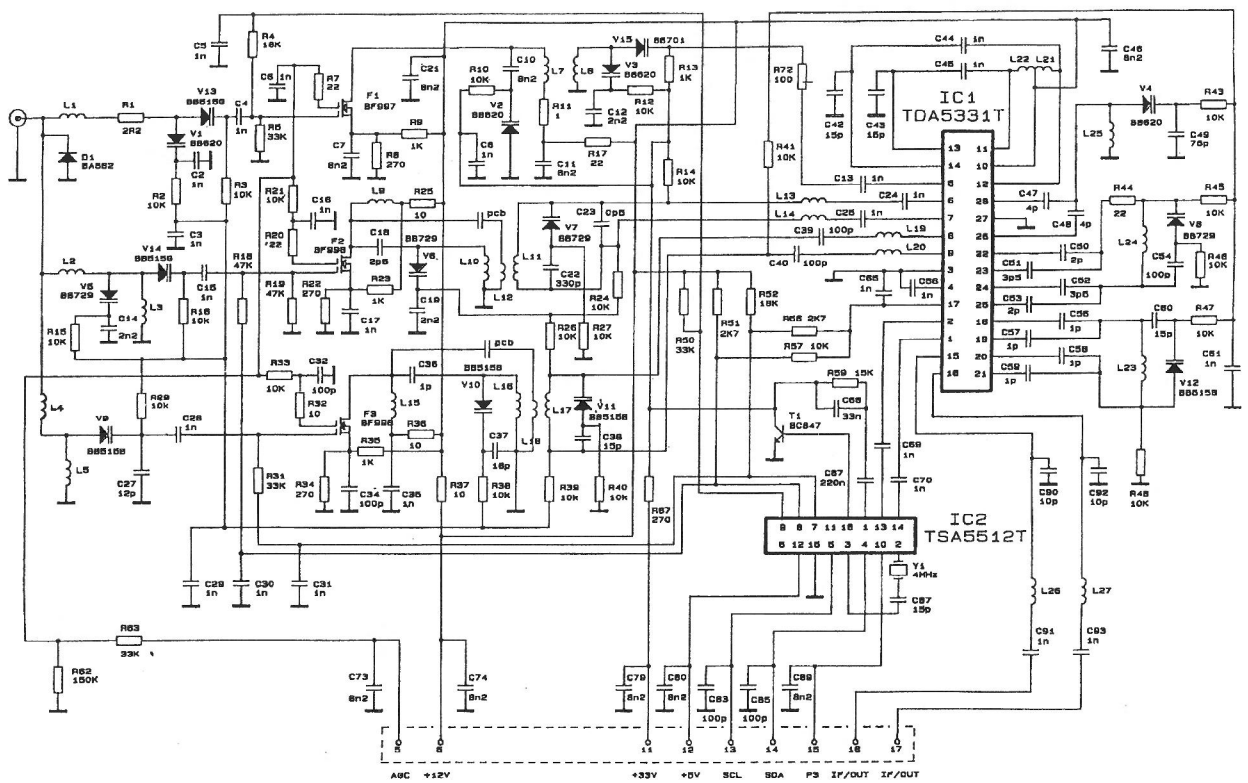
NOTE

UNLESS STATED OTHERWISE: -
 ALL RESISTOR VALUES ARE OHMS
 RESISTOR ARE RATED AT 1/4W
 ALL CAPACITOR VALUES ARE FARAD
 ALL INDUCTORS ARE IN HENRY

ALIMENTAZIONE BASE DI TEMPI CP2146TA



CIRCUITO DI SEGNALE E DI COMANDO



CIRCUITO DEL SINTONIZZATORE

PICTURE AND CONTROL ADJUSTMENTS

AGC Adjustment:

1. Switch T.V. on and allow to warm up for at least two minutes.
2. Receive a signal with a level of -47dBm .
3. Connect a voltmeter to the AGC terminal of tuner, i.e. +ve leg of C105.
4. Adjust VR202 until meter reads $8\text{v}0 \pm 0\text{v}1$.

HT Adjustment:

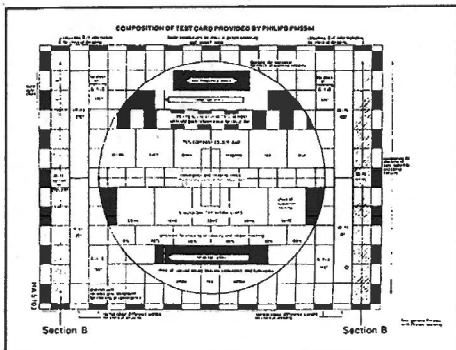
1. Switch T.V. on, receive Philips circle test pattern, and set contrast and brightness levels to maximum.
2. Connect a voltmeter between the +ve leg of C955 and Ground.
3. Adjust VR950 so that meter reads as follows:-
CP2146TA models $110\text{v} \pm 0\text{v}2$
CP25/2846TA models $152\text{v} \pm 0\text{v}2$

Horizontal Phase/Vertical amplitude/Horizontal amplitude:

1. Receive Philips circle test pattern.
 2. Set brightness and contrast levels to maximum.
 3. Adjust VR701 to centralise circle pattern.
 4. Connect the flying lead (E601) to the pin which achieves the best vertical centre position.
 5. Adjust VR601 to obtain the required vertical height.
 6. Return brightness and contrast levels to their previous levels.
 7. Adjust VR751 so that the vertical lines at each side of the screen are as straight as possible.
 8. Adjust VR752 until the castillations at each side of the screen just disappear.
- N.B.** Steps 7 and 8 do not apply to CP2146TA models.

Focus Adjustment:

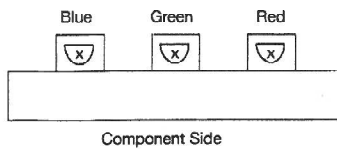
1. Receive Philips circle test pattern setting colour level to minimum, and contrast and brightness levels to maximum.
2. Adjust contrast so that the first two bars of the colour bar display become black.
3. Adjust brightness so that the 3rd and 4th bars of the grey scale bar display are the same colour black as in step 2.
4. Adjust the focus control (upper control on flyback transformer) to obtain the best overall focus.



CUT OFF AND SCREEN ADJUSTMENT

PREPARATION:

- i) Preset the red, green and blue background controls on the C.R.T. base to the positions shown (Approximately mid. point).

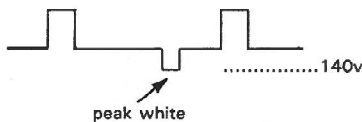


- ii) Set the customer controls as follows:-
Contrast = 0
Colour = 0
Brightness = middle of scale

- ii) Receive horizontal white line, or red raster pattern from a Philips pattern generator.

METHOD:

1. Adjust screen control on the flyback transformer until the horizontal line is just visible and its colour can be seen.
2. Do not touch the background control of the colour that is most prominent on the screen, but adjust the other two background controls until a reasonable white line is obtained.
3. Connect an oscilloscope probe to each of the R.G.B. cathodes in turn and leave connected to the one with the highest level.
4. Set customer brightness so that the cathode value is no greater than 140v as shown below.



5. Disconnect oscilloscope, and set screen control so that the white horizontal line is just visible once more.

WHITE BALANCE

PREPARATION:

- i) Set the customer controls as follows:-
Contrast = 0
Colour = 0
- ii) Receive the white raster pattern.
- iii) Obtain and set up a combined colour analyser and light meter, e.g. MINOLTA CA100.

METHOD:

1. Adjust brightness customer control so that the light output from the white raster reads $Y = \rightarrow 2 \text{ cdm}^2$ on the light meter.
2. Next adjust the red and blue background controls to obtain the colour chromaticity co-ordinates of $x = 304 \quad y = 320$
The above co-ordinates represent a colour temperature of 7400K.

PROTECTION CHECKS

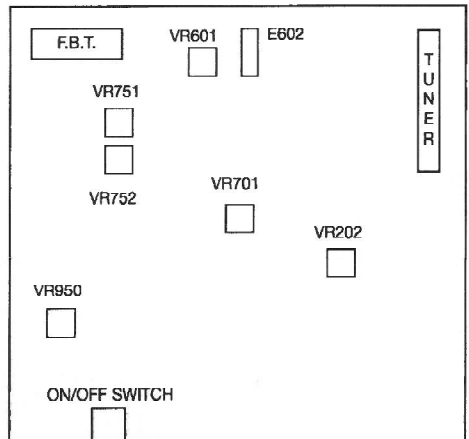
High Voltage Limit Check:

1. Switch T.V. on and set contrast and brightness levels to maximum.
2. Connect a 470K resistor in parallel with R718/R718A and ensure that picture and sound disappear instantly.
3. Switch T.V. off, remove resistor, and wait 10 - 15 seconds.
4. Switch T.V. on again, check that normal operation is resumed, then return contrast and brightness levels to their original levels.

Anode/Focus s/c Check:

1. Switch T.V. on and set contrast and brightness levels to maximum.
 2. Connect a 270R (20 - 30 Watt) resistor from pin 9 of the flyback transformer to ground.
- N.B.** Use a 390R resistor for CP2546TA/CP2846TA models.
3. Check that picture and sound disappear instantly.
 4. Switch T.V. off, remove resistor, and wait 10 - 15 seconds.
 5. Switch T.V. on again, and check that normal operation is resumed, then return contrast and brightness levels to their original levels.

POSITION OF ADJUSTMENT CONTROLS



CRT Base viewed from component side

