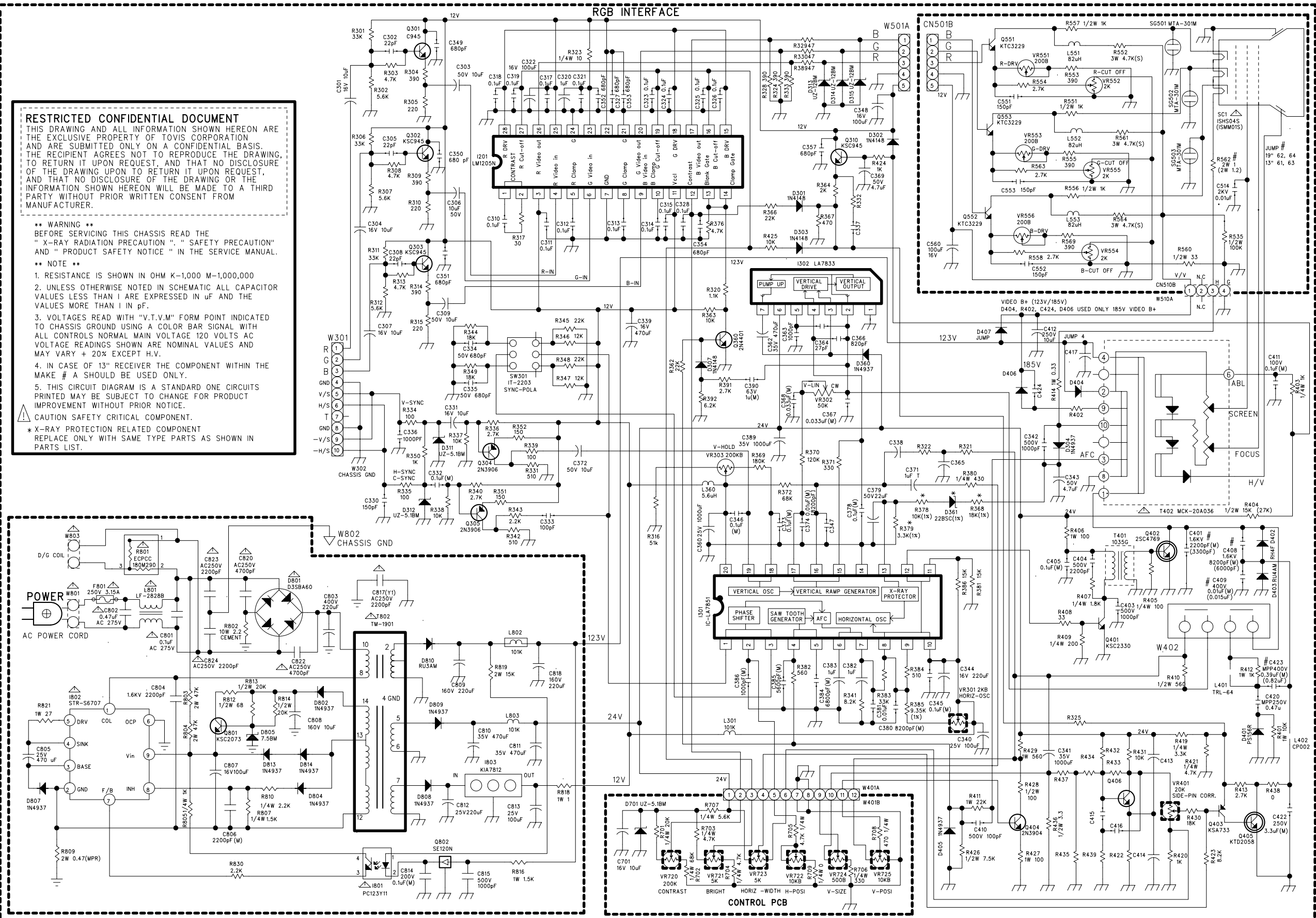


**RESTRICTED CONFIDENTIAL DOCUMENT**  
 THIS DRAWING AND ALL INFORMATION SHOWN HEREON ARE THE EXCLUSIVE PROPERTY OF TOWIS CORPORATION AND ARE SUBMITTED ONLY ON A CONFIDENTIAL BASIS. THE RECIPIENT AGREES NOT TO REPRODUCE THE DRAWING, TO RETURN IT UPON REQUEST, AND THAT NO DISCLOSURE OF THE DRAWING UPON TO RETURN IT UPON REQUEST, AND THAT NO DISCLOSURE OF THE DRAWING OR THE INFORMATION SHOWN HEREON WILL BE MADE TO A THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT FROM MANUFACTURER.

**\*\* WARNING \*\***  
 BEFORE SERVICING THIS CHASSIS READ THE " X-RAY RADIATION PRECAUTION ", " SAFETY PRECAUTION " AND " PRODUCT SAFETY NOTICE " IN THE SERVICE MANUAL.

- \*\* NOTE \*\***
1. RESISTANCE IS SHOWN IN OHM K-1,000 M-1,000,000
  2. UNLESS OTHERWISE NOTED IN SCHEMATIC ALL CAPACITOR VALUES LESS THAN 1 ARE EXPRESSED IN  $\mu$ F AND THE VALUES MORE THAN 1 IN pF.
  3. VOLTAGES READ WITH "V.T.V.M" FORM POINT INDICATED TO CHASSIS GROUND USING A COLOR BAR SIGNAL WITH ALL CONTROLS NORMAL MAIN VOLTAGE 120 VOLTS AC VOLTAGE READINGS SHOWN ARE NOMINAL VALUES AND MAY VARY + 20% EXCEPT H.V.
  4. IN CASE OF 13" RECEIVER THE COMPONENT WITHIN THE MAKE # A SHOULD BE USED ONLY.
  5. THIS CIRCUIT DIAGRAM IS A STANDARD ONE CIRCUITS PRINTED MAY BE SUBJECT TO CHANGE FOR PRODUCT IMPROVEMENT WITHOUT PRIOR NOTICE.
- CAUTION SAFETY CRITICAL COMPONENT.  
 \* X-RAY PROTECTION RELATED COMPONENT REPLACE ONLY WITH SAME TYPE PARTS AS SHOWN IN PARTS LIST.



**JUMP #**

19"	62, 64
13"	61, 63

VIDEO B+ (123V/185V)  
 D404, R402, C424, D406 USED ONLY 185V VIDEO B+

SCREEN  
 FOCUS  
 H/V

VERTICAL OSC  
 VERTICAL RAMP GENERATOR  
 X-RAY PROTECTOR  
 PHASE SHIFTER  
 SAW TOOTH GENERATOR  
 AFC  
 HORIZONTAL OSC

CONTRAST  
 BRIGHT  
 HORIZ - WIDTH  
 H-POS  
 V-SIZE  
 V-POS