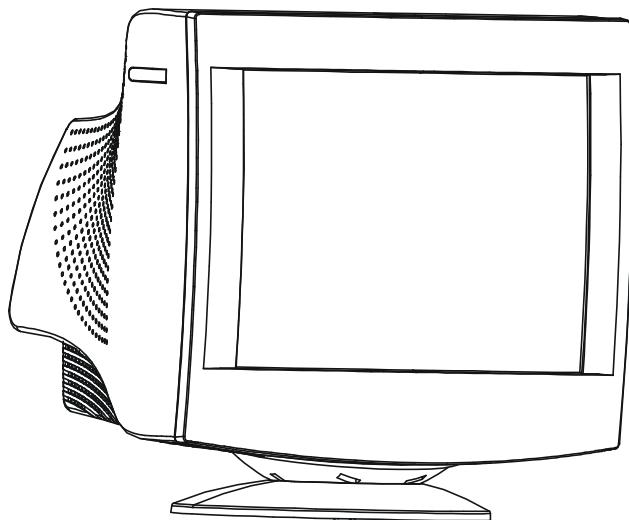


# SERVICE MANUAL

## COLOR MONITOR

Hewlett Packard D8904 D8905A S761V



HEWLETT  
PACKARD

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# **1. SPECIFICATIONS FOR D8905A SERIES COLOR MONITOR**

1. CRT : 43.2CM(17") 90 Deflection, 29mm Neck, 0.27mm Dot Pitch, Non-Glare Screen
2. Viewable image Size: 40.6CM (16") diagonal
3. Display Color: Unlimited Colors
4. External Controls:  
Power On/Off, OSD key, Function knob: Contrast, Brightness, H-Size, H-Center, V-Center, V-Size, ZOOM, Pincushion, Trapezoid, Pin-Balance, Parallelogram, Rotation, Color Temperature, Degaussing, Moire Reduce, Recall, Language.
5. Input Video Signal

| Mode                   | 1     | 2     | 3     | 4     | 5      | 6     | 7     | 8     | 9     |
|------------------------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| Horizontal Freq. (KHz) | 31.47 | 31.47 | 37.5  | 43.27 | 46.87  | 53.67 | 60.02 | 68.67 | 63.98 |
| Dot Clock (MHz)        | 25.18 | 28.18 | 31.5  | 36    | 49.5   | 56.25 | 78.75 | 94.5  | 108   |
| Horizontal Lines       | 720   | 640   |       |       | 800    |       | 1024  |       | 1280  |
| Vertical Lines         | 400   | 480   |       |       | 600    |       | 768   |       | 1024  |
| H. Sync Polarity       | NEG   | NEG   | NEG   | NEG   | POS    | POS   | POS   | POS   | POS   |
| H. Period (μs)         | 31.78 | 31.78 | 26.67 | 23.11 | 21.333 | 18.63 | 16.66 | 14.56 | 15.63 |
| H. Sync Width (μs)     | 3.18  | 3.81  | 2.03  | 1.56  | 1.616  | 1.138 | 1.219 | 1.016 | 1.037 |
| H. Back Porch (μs)     | 1.96  | 1.589 | 3.81  | 2.22  | 3.232  | 2.702 | 2.235 | 2.201 | 2.296 |
| H. Active (μs)         | 25.42 | 25.42 | 20.32 | 17.78 | 16.162 | 14.22 | 13    | 10.83 | 11.85 |
| H. Front Porch (μs)    | 0.64  | 0.64  | 0.51  | 1.56  | 0.323  | 0.569 | 0.203 | 0.508 | 0.444 |
| H. Blanking (μs)       | 6.36  | 5.72  | 6.35  | 5.33  | 5.172  | 4.409 | 3.657 | 3.725 | 3.778 |
| Vertical Freq. (Hz)    | 69.93 | 59.94 | 75    | 85.01 | 75     | 85.06 | 75.02 | 84.99 | 60.02 |
| V. Sync Polarity       | POS   | NEG   | NEG   | NEG   | POS    | POS   | POS   | POS   | POS   |
| V. Period (ms)         | 14.3  | 16.68 | 13.33 | 11.76 | 13.333 | 11.75 | 13.32 | 11.76 | 16.66 |
| V. Sync Width (ms)     | 0.06  | 0.06  | 0.08  | 0.07  | 0.064  | 0.056 | 0.05  | 0.044 | 0.047 |
| V. Back Porch (ms)     | 1.14  | 0.79  | 0.43  | 0.58  | 0.448  | 0.503 | 0.466 | 0.524 | 0.594 |
| V. Active (ms)         | 12.71 | 15.25 | 12.8  | 11.09 | 12.8   | 11.17 | 12.79 | 11.18 | 16    |
| V. Front Porch (ms)    | 0.38  | 0.064 | 0.03  | 0.02  | 0.021  | 0.019 | 0.017 | 0.015 | 0.016 |
| V. Blanking (ms)       | 1.59  | 0.92  | 0.53  | 0.67  | 0.533  | 0.578 | 0.533 | 0.582 | 0.656 |

6. Display Size  
Horizontal: 300 mm  
Vertical: 230 mm
7. Scanning Frequencies  
Horizontal: 30KHz ~ 70KHz  
Vertical: 50 Hz ~ 130 Hz
8. Factory Preset Timings: 9  
User Timings: 8
9. Misconvergence  
Center: 0.3 mm Max.  
Corner: 0.4 mm Max.

10. Video Bandwidth: 110 MHz
11. Power Source:  
Switching Mode Power Supply  
AC 100 ~240V, 50/60Hz Universal Type
12. Operating Temperature: 0°C to 40°C Ambient
13. Humidity: 10% to 85% Relative, Non-Condensing
14. Weight: 16.0 Kgs(Net), 19.0Kgs(Gross)
15. Dimensions Monitor:  
Carton: 495(W) × 455(H) × 530(D) mm  
Monitor: 410(W) × 402(H) × 420(D) mm
16. External Connection:  
15 Pin D-type Connector  
AC Power Cord
17. Regulations:UL, CSA, FDA, FCC, TÜV/GS, CE, MPR-II, TCO'99.

## **2. PRECAUTIONS AND NOTICES**

### **2-1 SAFETY PRECAUTIONS**

1. Observe all caution and safety related notes located inside the display cabinet.
2. Operation of the display with the cover removed, may cause a serious shock hazard from the display power supply. Work on the display should not be attempted by anyone who is not thoroughly familiar with precautions necessary when working on high voltage equipment.
3. Do not install, remove or handle the picture tube in any manner unless shatter-proof goggles are worn. People who are not so equipped should be kept away while handling picture tube. Keep picture tube away from the body while handling.
4. The picture tube is constructed to limit X-RAY radiation to 0.5 mR/HR. For continued protection, use the designated replacement tube only, and adjust the voltages so that the designated maximum rating at the anode will not be exceeded.
5. Before returning a serviced display to the customer, a thorough safety test must be performed to verify that the display is safe to operate without danger or shock. Always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as screw heads.  
Test method for current leakage is described as follow.
  - (a) Plug the AC line cord directly into rated AC outlet (do not use a line isolation transformer during this check).
  - (b) Use an AC voltmeter having 5000 ohms per volt or with more sensitivity in the following manner: Connect a 1500 ohms 10 Watt resistor, paralleled by a 0.15UF, AC type capacitor between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts simultaneously. Measure the AC voltage across the combination of 1500 ohms resistor and 0.15UF capacitor.
  - (c) Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part.
  - (d) Voltage measured must not exceed 0.5 volts RMS. This corresponds to 0.35 milliamp AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

### **2-2 PRODUCT SAFETY NOTICE**

Many electrical and mechanical parts in this chassis have special safety visual inspections and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Before replacing any of these components read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, X-RAY radiation or other hazards.

### **2-3 SERVICE NOTES**

1. When replacing parts or circuit boards, clamp the lead wires around terminals before soldering.
2. When replacing a high wattage resistor (more than 1/2W of metal oxide film resistor) in circuit board, keep the resistor about 10mm (1/2 in) away from circuit board.
3. Keep wires away from high voltage or high temperature components.
4. Keep wires in their original position so as to reduce interference.

## HIGH VOLTAGE WARNING

Operation of monitor outside of cabinet or with back removed may cause a serious shock hazard. Work on this model should only be performed by those who are thoroughly familiar with precautions necessary when working on high voltage equipment.

Exercise care when servicing this chassis with power applied. Many B plus and high voltage terminals are exposed which, if carelessly contacted, can cause serious shock or result in damage to the chassis. Maintain interconnecting ground lead connections between chassis and picture tube dag when operating chassis.

Certain HV failures can increase X-ray radiation. Monitor should not be operated with HV levels exceeding the specified rating for the chassis type. The maximum operating HV specified for the chassis used in this monitor is

25KV ± 1KV

with a line voltage of 120/240 VAC. Higher voltage may also increase possibility of failure in HV supply.

It is important to maintain specified values of all components in the horizontal and high voltage circuits and anywhere else in the monitor that could cause a rise in high voltage or operating supply voltages. No changes should be made to the original design of the monitor. Components shown in the shaded areas on the schematic should be replaced with exact factory replacement parts. The use of unauthorized substitute parts may create a shock, fire or other hazard.

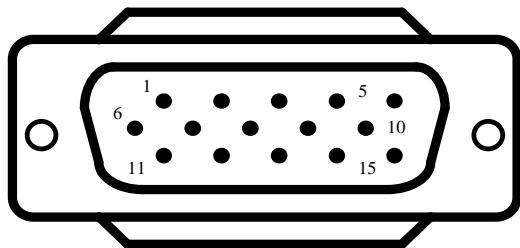
To determine the presence of high voltage, use accurate, high impedance, HV meter connected between second anode lead and CRT dag grounding device. When servicing the High Voltage System, remove static charge from it by connecting a 10K ohm resistor in series with an insulated wire (such as a test probe) between picture tube dag and 2nd anode lead.(AC line cord disconnected from AC power outlet.)

The picture tube used in this monitor employs integral implosion protection. Replace with tube of the same type number for continue safety. Do not lift picture tube by the neck. Handle the picture tube only after discharging the high voltage completely.

### 3. OPERATING INSTRUCTIONS

This procedure gives you instructions for installing and using the Color display.

1. Position the display on the desired operation and plug the power cord into a convenient AC outlet. Three-wire power cord must be shielded and is provided as a safety precaution as it connects the chassis and cabinet to the electrical conduit ground. If the AC outlet in your location does not have provisions for the grounded type plug, the installer should attach the proper adapter to ensure a safe ground potential.
2. Connect the 15-pin color display shielded signal cable to your signal system device and lock both screws on the connector to ensure firm grounding. The connector information is as follow:



15 - Pin Color Display Signal Cable

| PIN NO. | DESCRIPTION | PIN NO. | DESCRIPTION                     |
|---------|-------------|---------|---------------------------------|
| 1.      | RED         | 9.      | NC                              |
| 2.      | GREEN       | 10.     | NC                              |
| 3.      | BLUE        | 11.     | SYNC. GND                       |
| 4.      | GND         | 12.     | SDA                             |
| 5.      | NC          | 13.     | HORIZ. SYNC                     |
| 6.      | GND-R       | 14.     | VERT. SYNC ( $\downarrow$ VCLK) |
| 7.      | GND-G       | 15.     | SCL                             |
| 8.      | GND-B       |         |                                 |

3. Apply power to the display by turning the power switch to the "ON" position and allow about thirty seconds for display tube warm-up. The Power-On indicator lights when the display is on.
4. With proper signals feed to the display, a pattern or data should appear on the screen, adjust the brightness and contrast to the most pleasing display.
5. This monitor has power saving function following the VESA DPMS. Be sure to connect the signal cable to the PC.
6. If your color display requires service, it must be returned with the power cord.

## 4. ADJUSTMENT

### 4-1 ADJUSTMENT CONDITIONS AND PRECAUTIONS

1. Approximately 30 minutes should be allowed for warm up before proceeding.
2. Adjustments should be undertaken only on those necessary elements since most of them have been carefully preset at the factory.

### 4-2 MAIN ADJUSTMENTS

| NO. | FUNCTION                      | LOCATION       | DESIGNATION |
|-----|-------------------------------|----------------|-------------|
| 1.  | 14V ADJ                       | PCB - MAIN     | VR903       |
| 2.  | B + ADJ                       | PCB - MAIN     | VR902       |
| 3.  | SCREEN ADJ                    | FLY BACK TRANS | T402        |
| 4.  | FOCUS ADJ                     | FLY BACK TRANS | T402        |
| 5.  | ABL ADJ                       | PCB - MAIN     | VR701       |
| 6.  | SUB-BRIGHTNESS ADJ<br>-MENU   | PCB - MAIN     | VR702       |
|     | -UP ►                         | PCB - MAIN     | SW101       |
| 7.  | FUNCTION ADJ -DOWN ◀<br>-EXIT | PCB - MAIN     | SW102       |
|     |                               | PCB - MAIN     | SW103       |
|     |                               | PCB - MAIN     | SW104       |

### 4-3 ADJUSTMENT METHOD

1. 14V, B + & HV voltage adjustment:
  - A. Chroma-2000 Signal generator or PC equivalent set mode 1, VGA 640X480 pattern 1.0 .
  - B. Connect a DC Volt meter between TP903 and ground, then adjust VR903 to be 14VDC.
  - C. Connect a DC Volt meter between TP902 and ground, then adjust VR902 to be 61 VDC.
  - D. Connect a DC Volt meter between TP701 (G1) and ground, Brightness set to max. Then adjust VR702 to be -55 VDC.
2. Factory preset Timings Adjustment:
  - A. Press MENU Key to show OSD window press Up or Down Key to switch the functional controls.
  - B. Press the Up Key to select the "ZOOM" function, then press the MENU Key. While do not release the MENU Key until the OSD window changed to the Factory preset window.
  - C. The Factory preset window contains the following functional controls. Select one of the control. Then press the Up/Down Key to adjust its value for the optimum picture.

# Factory Preset



9300 6500



080



CONTRAST



H-MOIRE REDUCE



BRIGHTNESS



H-CENTER



H-SIZE



V-CENTER



V-SIZE



ZOOM



PINCUSHION



TRAPEZOID



PIN-BALANCE



PARALLELOGRAM



ROTATION



CORNER



V-MOIRE REDUCE



R-GAIN



G-GAIN



B-GAIN



R-BIAS



G-BIAS



R-BIAS

**9300**

COLOR TEMPERATURE

**6500**

COLOR TEMPERATURE



DEGAUSS



OSD EXIT



RETURN

- D. To switches the input signal to the other Timing Mode. Please follow step A ~ C to get the optimum picture.
- E. Select the "  " RETURN function and press the MENU Key, then the Factor Preset window will be returned to the original OSD window.(user's operating condition)
- F. The setting data of the CONTRAST, BRIGHTNESS, PIN-BALANCE, PARALLELOGRAM, ROTATION, COLOR TEMPERATURE are common mode saved in the memory. Don't needed adjust it individual at every timing Mode and save in the memory.

### 3. White Balance, Luminance adjustment:

- A. Bias (Low Luminance) adjustment:
- Set mode 1 640x480 Fh: 31KHz full white pattern.
  - To make the adjustment condition is under the Factory preset window.  
Same as step 2-B.
  - Warm up more than 20 minutes.
  - Brightness  set to maximum. Contrast  set to min. full white pattern, then adjust FBT screen VR to make  $Y=5\sim12\text{cd/m}^2$
  - Brightness set to raster just cutoff, adjust contrast to be 4FL, then adjust G-Bias , B-Bias , R-Bias , to make the setting value is(50), then adjust the R.G.B Bias individual to the color temperature  $x=283 \pm 10$ ,  $y=298 \pm 10$ .
- B. Gain (High light) adjustment:
- Set mode 1 640x480 Fh: 31.5KHz full white pattern.
  - Brightness set to raster just cutoff and set the contrast to max.
  - Adjust G-Gain , B-Gain , R-Gain , to make color temperature  $x=283 \pm 10$ ,  $y=298 \pm 10$ .
  - Change to 20% window white pattern then adjust contrast to  $165 \pm 25 \text{ cd/m}^2$ .
- C. Recheck item A&B to make sure both of them in spec. Finally select OSD function to the 9300cXK function, then press the MENU Key. To make the setting data saved in the memory.
- D. The adjustment of 6500cXK white Balance, May follow step A ~ C , with the  $x=313 \pm 10$ ,  $y=329 \pm 10$ .
- E. Full white luminance:
- Set mode 1 640x480 Fh: 31.5KHz full white pattern.
  - Image Size : H:300 ±4mm V:230 ±4mm.
  - Brightness set to raster just cut off and set the contrast to max.
  - Adjust VR701 to the luminance at  $103 \pm 17\text{cd/m}^2$ .

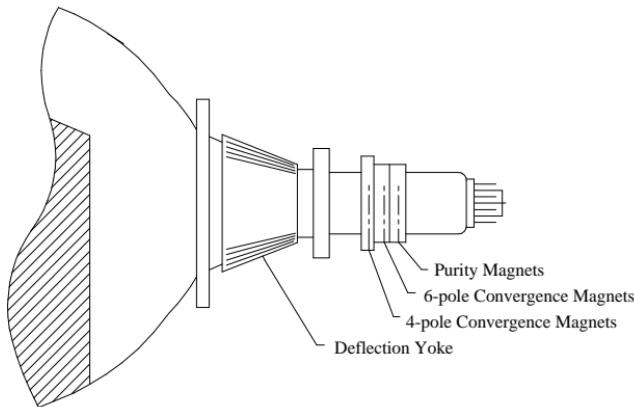
### 4. Focus Adjustment:

- Set mode 1 640x480 Fh: 31.5KHz with character full page.
- Adjust brightness to center and contrast to max.
- Then adjust focus VR1 to a fine vertical line.
- Adjust focus VR2 to a fine horizontal line.
- Repeat step C & D.

### 5. Purity Adjustment

- Be sure that the display is not being exposed to any external magnetic fields.
- Ensure that the spacing between the Purity, Convergence, Magnet, (PCM), assembly and the CRT stem is 29mm. (See below diagram)
- Produce a complete, red pattern on the display. Adjust the purity magnet rings on the PCM assembly to obtain a complete field of the color red. This is done by moving the two tabs in such a manner that they advance in an opposite direction but at the same time to obtain the same angle between the two tabs, which should be approximately 180'.
- Check the complete blue and complete green patterns to observe their respective color purity. Make minor adjustments if needed.

## RELATIVE PLACEMENT OF TYPICAL COMPONENTS



### 6. Convergence adjustment

- A. Produce a magenta crosshatch on the display.
- B. Adjust the focus for the best overall focus on the display.  
Also adjust the brightness to the desired condition.
- C. Vertical red and blue lines are converged by varying the angle between the two tabs of the 4 pole magnets on the PCM assembly. (See above diagrams)
- D. Horizontal red and blue lines are converged by varying the two tabs together, keeping the angle between them constant.
- E. Produce a white crosshatch pattern on the display.
- F. Vertical green and magenta lines are converged by varying the angle between the two tabs of the 6-pole magnets.
- G. Horizontal green and magenta lines are converged by varying the two tabs together, keeping the angle between them constant.

## **5. CIRCUIT DESCRIPTION**

### **5-1 MICRO CONTROLLER CIRCUIT**

#### **MICRO Controller**

The IC101 contains a 6502 8-bit CPU core, 512 bytes of RAM, 16K bytes of ROM, 14 channel 8 bit PWM D/A converters, 2 channel A/D converters for key detection, one 8 bit pre-loadable base timer, internal H-sync and V-sync signals processor providing mode detection, watch- dog timer preventing system from abnormal operation, and an I<sup>2</sup>C bus interface.

#### **H/V sync signals processor**

The functions of the sync processor include polarity detection, H-SYNC & V-SYNC signals counting, Programmable SYNC signals output, free running signal generator. Pin39/Pin40 are for the H-SYNC and V-SYNC input, Pin32/Pin33 will output the same signal as input sync signal without delay, and the polarity are setting in the positive. When no signal input, the Pin32 will output a 61Hz V-SYNC free run signal. The Pin33 will output a 62.5KHz H-SYNC free run signal. for the monitor testing use.

#### **On Screen Display Controller**

The IC105 is designed for display the built-in characters or fonts onto monitor screen. The display operation is by transforming data and control information from micro controller to RAM through a serial data interface.

Pin2 is used to control the internal oscillator frequency by DC voltage input from external low pass filter (R154, C166, R155) and filter (R175, C167) is used to regulate the appropriate bias current for internal oscillator the resonate at specific dot frequency.

Pin5 is input the horizontal fly back pulse, for PLL generator tracking.

Pin6 is left floating, I<sup>2</sup>C bus is enabled. Otherwise the SPI bus is enabled.

Pin7 the external data transfer through this pin to internal display registers and control registers

Pin8 the clock-input pin is used to synchronize the data transfer.

Pin10 is input the vertical flyback pulse for synchronizing the vertical position.

Pin12 is output a blanking signal to cut off external R.G.B signals of VGA while this chip is displaying characters or windows.

Pin13, Pin14, Pin15 is used to output the OSD (B.G.R) video signal.

## **5-2 DEFLECTION CIRCUIT**

The deflection circuit is achieved by a high performance and efficient solution IC 401 (TDA9111) for this monitor. The concept is fully DC controllable and can be used in applications with a micro-controller solutions.

The TDA9111 provides sync. Processing with full auto sync. Capability, a flexible SMPS block and an extensive set of geometry control facilities. Further the IC generates the drive waveforms for DC coupled vertical boosters to the TDA9302H.

### **Horizontal Oscillator**

The oscillator is of the relaxation type and requires a capacitor of 1nF C447 at pin5. The free running frequency is determined by a resistor R410 4.7K from pin6 to ground.

### **PLL 1 Phase Detector**

The phase detector is a standard one using switched current sources. It compares the middle of H-sync. with a fixed point on the oscillator saw-tooth voltage. The PLL loop filter C435, C437, R411, D403 is connected to Pin7.

### **PLL2 Phase Detector**

This phase detector is similar to the PLL1 detector and compares the line flyback pulse at pin 12 with the oscillator saw-tooth voltage. The PLL2 detector thus compensates for the delay in the external H-deflection circuit by adjusting the phase of the HDRV output pulses. The phase between H-flyback and H-sync can be controlled at pin4.

### **X-ray Protection**

The X-ray protection input pin25 provides a voltage detector with a precise threshold. If the voltage exceeds this threshold for a certain time, an internal latch switches the whole IC into protection mode. In this mode several pins are forced into defined states:

Pin28 (BDRV) is floating

Pin26 (HDRV) is floating

Pin21, 23 ( VOUT 1, 2) are floating

### **Vertical Oscillator**

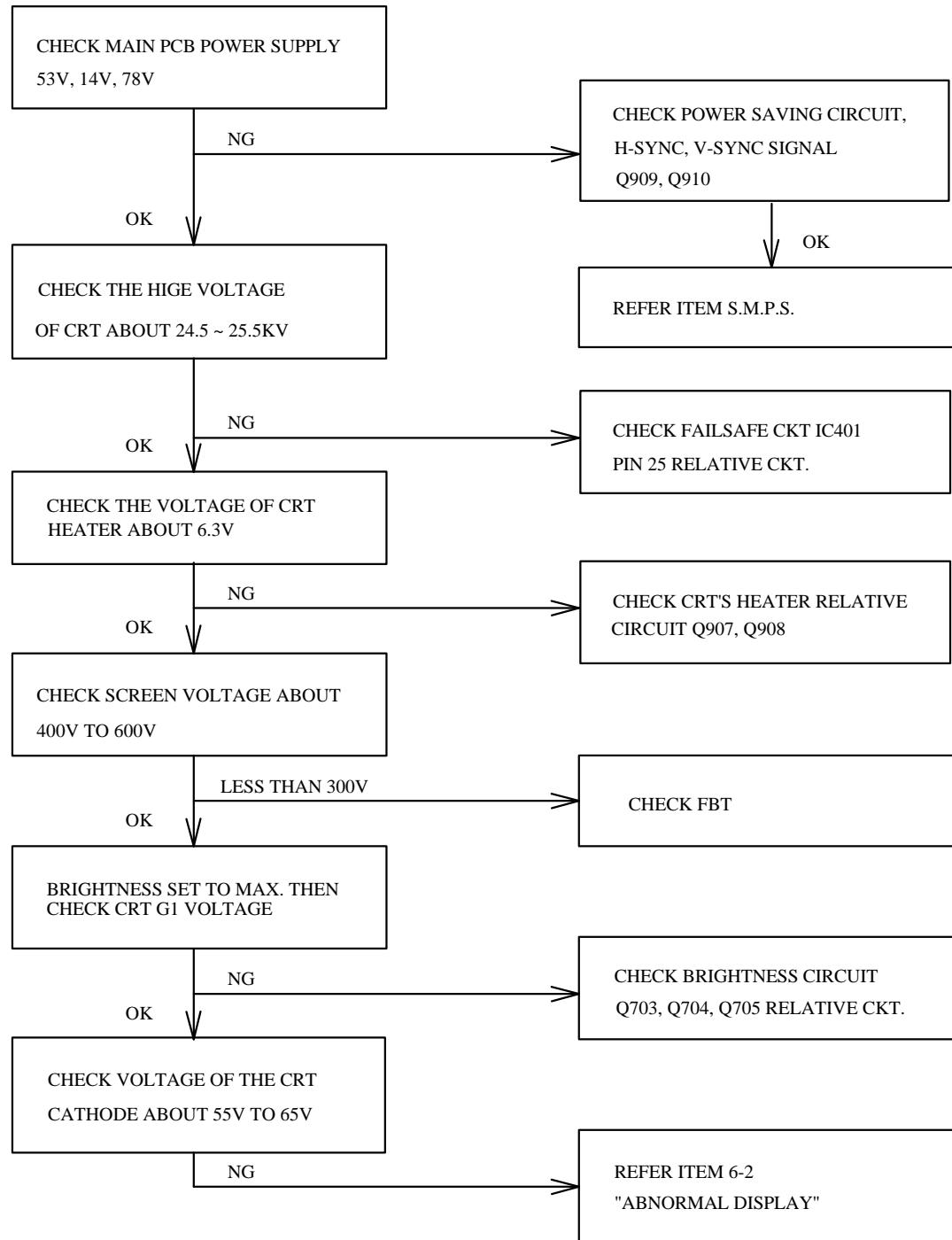
The vertical free running frequency is determined by the resistor C613, C616, R616 at pin22. Usually the free-running frequency should be lower than the minimum trigger frequency.

### 5-3 TRANSISTOR & DIODE CIRCUIT

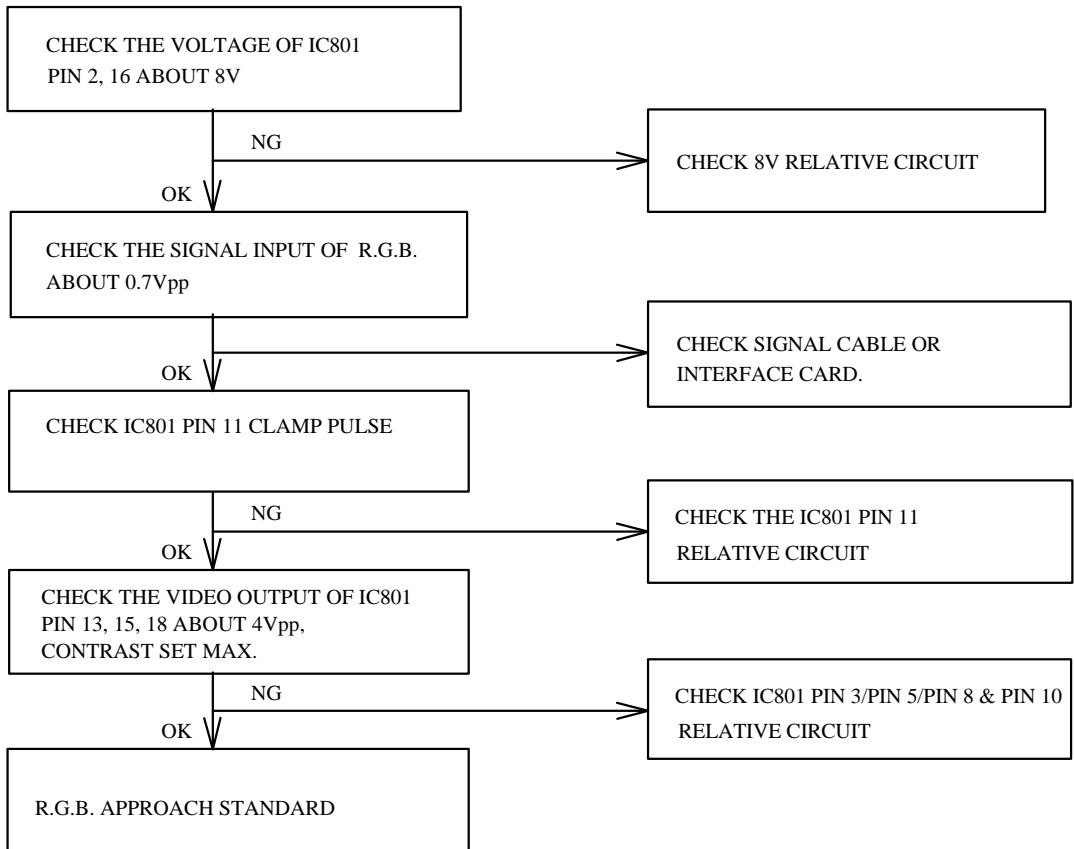
| LOCATION                    | CIRCUIT FUNCTION DESCRIPTION                                    |
|-----------------------------|---|
| D901 ~ D904                 | Bridge Rectifier for AC Source                                  |
| D910                        | Clamp Diode for Snubber CKT                                     |
| D918, D919                  | Rectifier for Output Voltage                                    |
| D922                        | Rectifier for Output Voltage                                    |
| D923                        | Rectifier for Output Voltage                                    |
| D925                        | Rectifier for B+ Supply   |
| D929                        | B+ Feed Back Rectifier from F.B.T Pulse                         |
| Q901                        | MOS FET for Switching Power Control.                            |
| Q907, Q908                  | Use for Off-Mode to Cut-off 6.3V Supply Voltage                 |
| Q909, Q910                  | Use for Standy-By or Suspend Mode to Cut-off 14V Supply Voltage |
| Q912, Q920                  | Push-Pull Topology to Drive Q911                                |
| Q913                        | Degaussing Switcher Transistor                                  |
| Q921                        | 5V Regulator Transistor   |
| Q401                        | Turn-on at Power ON/OFF and Change Mode to Protect Hor.Block    |
| Q402                        | HOR. Driver Transistor  |
| Q407, Q408                  | As a Switcher for Horizontal S Correction CKT                   |
| Q426                        | Horizontal s correction control MOSFET                          |
| Q404, Q405                  | As Differential Amp. to Drive Q406                              |
| Q406                        | Transistor for H-Size Control                                   |
| Q703                        | As a Switcher to Mute Screen                                    |
| Q704, Q705                  | Brightness Control CKT  |
| Q601                        | Blanking Signal output transistor                               |
| Q740 ~ Q742                 | V-Dynamic focus CKT   |
| Q821 ~ Q823,<br>Q830 ~ Q832 | Video DC Restoration control transistor                         |

## 6.TROUBLE SHOOTING CHART

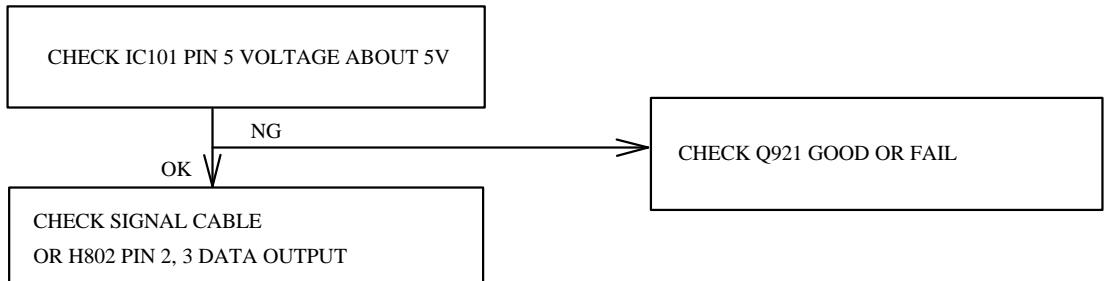
### 6-1 NO RASTER, CRT RELATIVE CIRCUIT PROBLEMS



## 2. ABNORMAL VIDEO LEVEL ON SCREEN

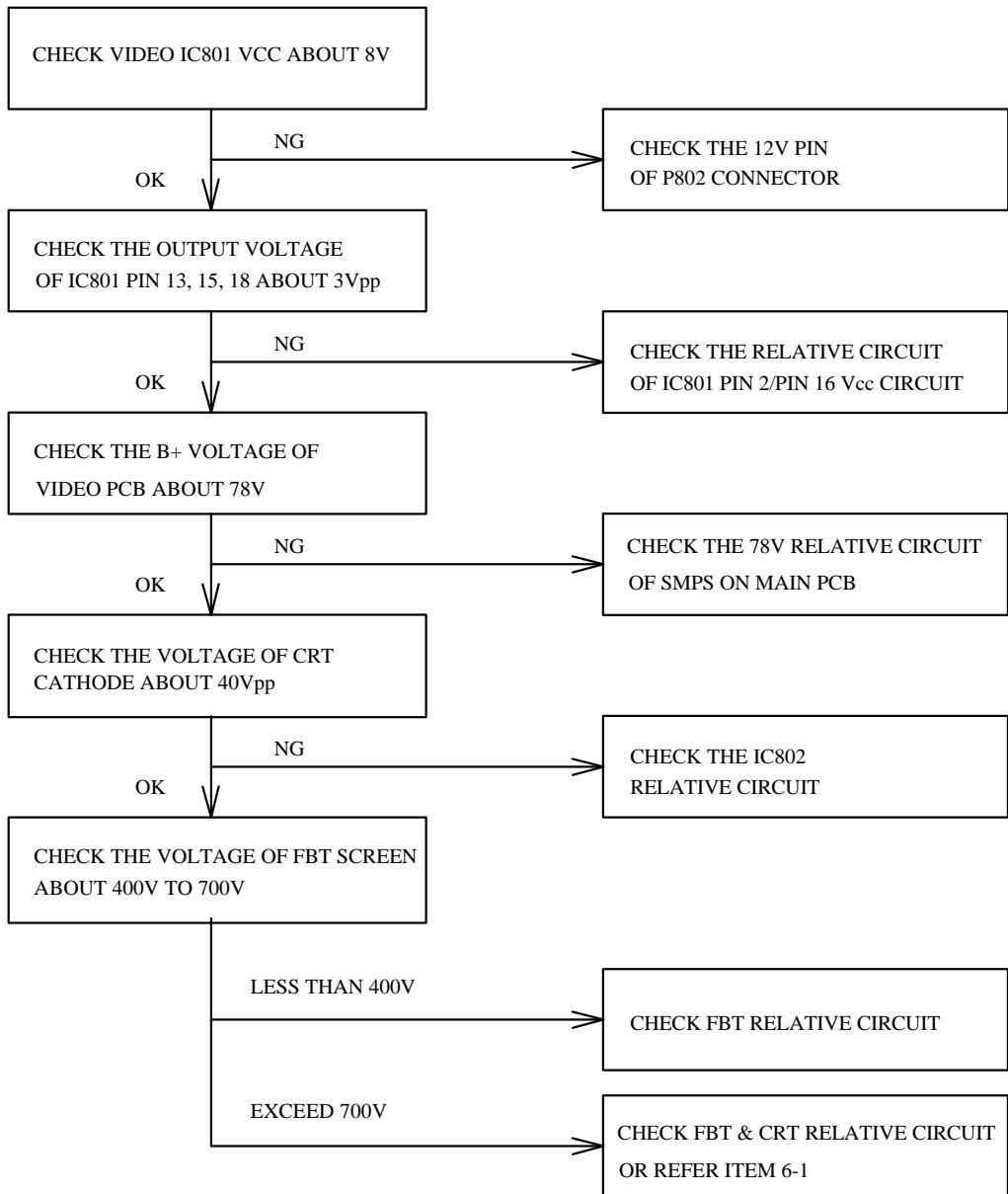


## 3. ABNORMAL DDC (PLUG & PLAY)

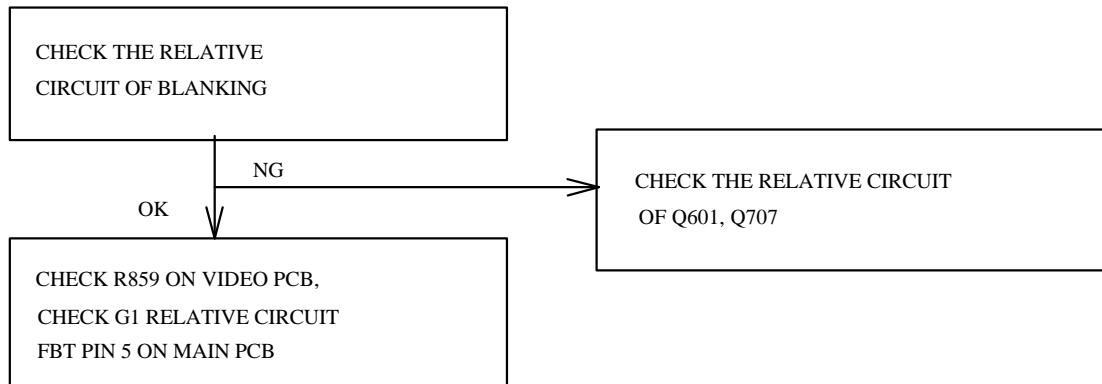


## 6-2 ABNORMAL DISPLAY

### 1.NO SIGNAL ON SCREEN

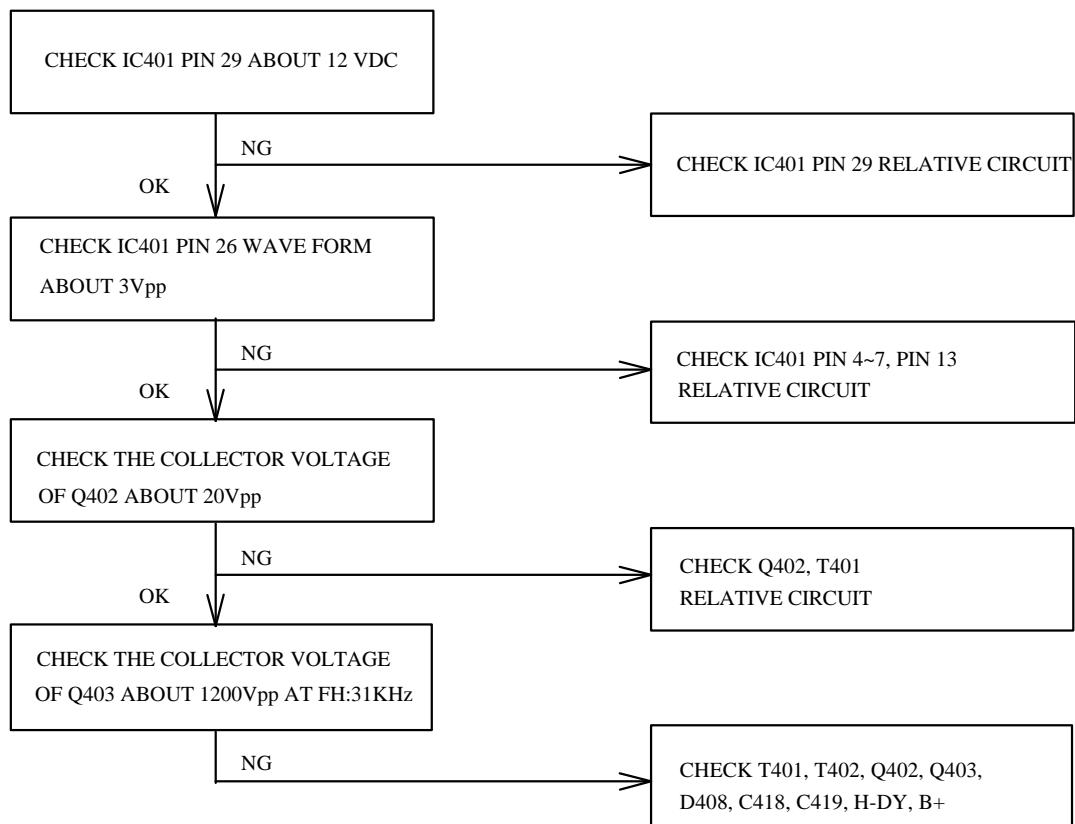


## 6-3 NO BLANKING



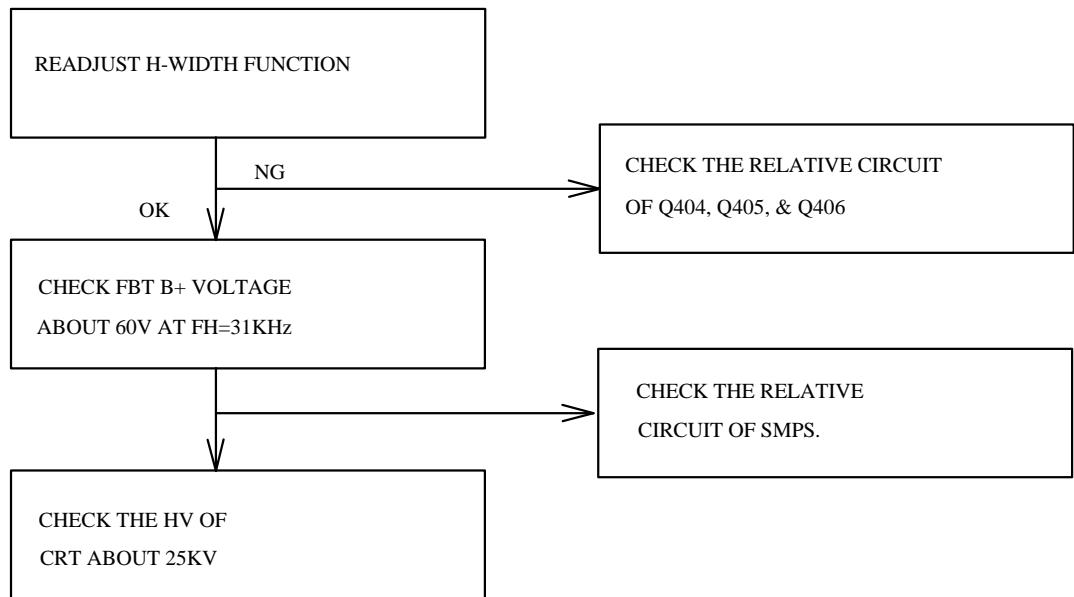
## 6-4 HOR./OSC/DEF/HV CIRCUIT FAULT

### 1. NO RASTER (DISCONNECT WITH SIGNAL CABLE)

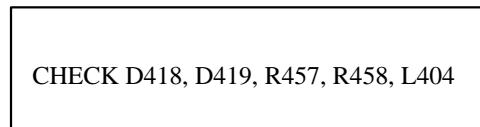


## 6-5 ABNORMAL HORIZONTAL DEFLECTION

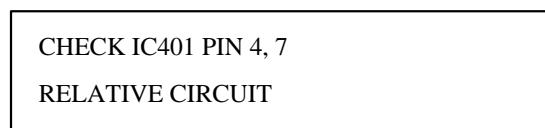
### 1. ABNORMAL HORIZONTAL WIDTH OF VIDEO



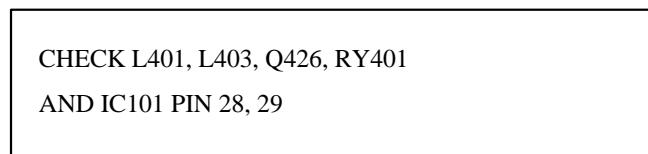
### 2. ABNORMAL HORIZONTAL RASTER CENTER



### 3. ABNORMAL HORIZONTAL VIDEO CENTER

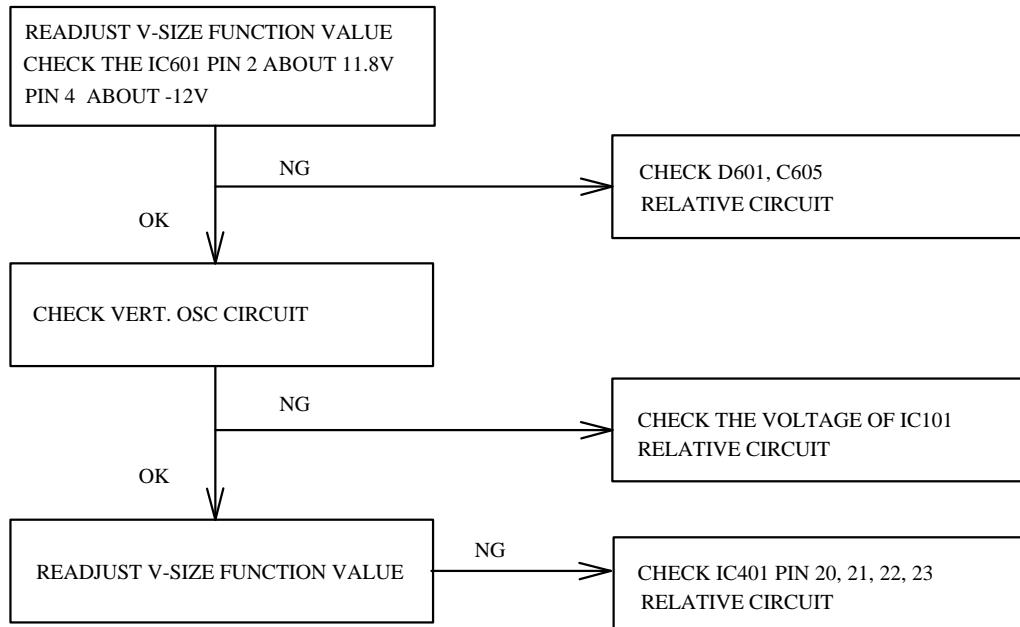


### 4. ABNORMAL HORIZONTAL LINEARITY

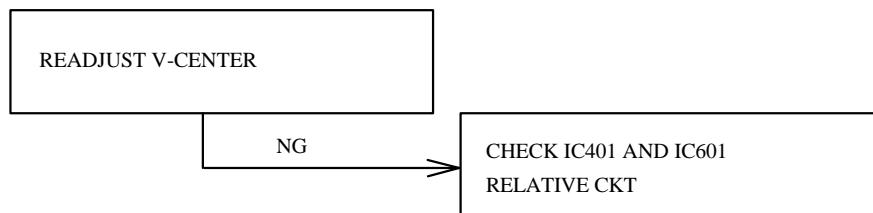


## 6-6 ABNORMAL VERTICAL SCANNING

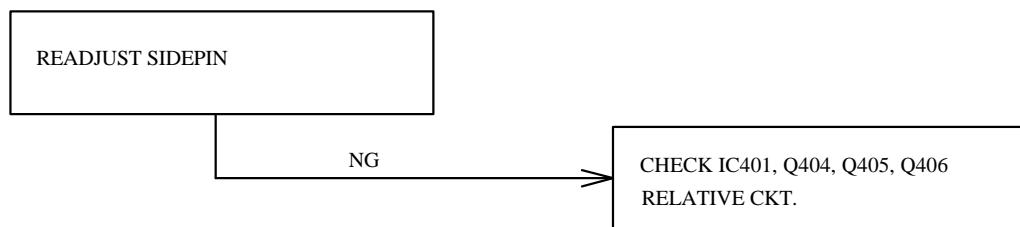
### 1. ABNORMAL VERTICAL SIZE



### 2. VERTICAL CENTER



## 6-7 SIDE-PIN CUSHION DISTORTION



## 6-8 POOR FOCUS

READJUST FOCUS CONTROL

NG

CHECK FOCUS CONTROL UNIT,  
FOCUS LEAD WIRE, CRT SOCKET & CRT

## 6-9 POWER SUPPLY TROUBLE SHOOTING CHART

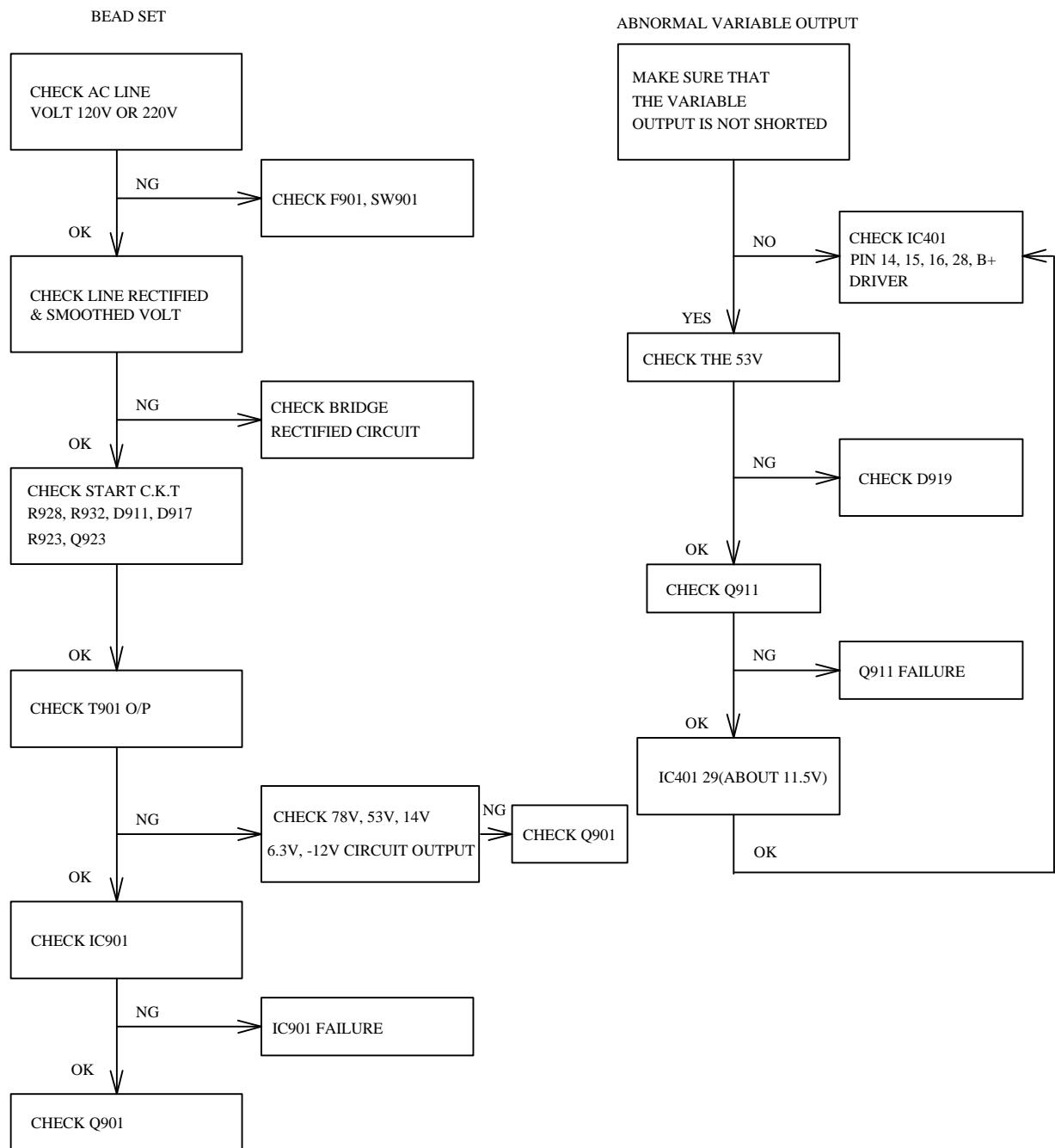
BEFORE CHECK SW.REG. PLEASE REFER TO THE POWER SUPPLY BLOCK DIAGRAM

POWER SUPPLY OUTPUT: (A)

VARIABLE OUTPUT : 60.5V - 145V

(DEPENDING EPENDING UPON H.SYNC FREQUENCY)

(B) CONSTANT OUTPUT : 6.3V, 14.5V, -12V, 80V



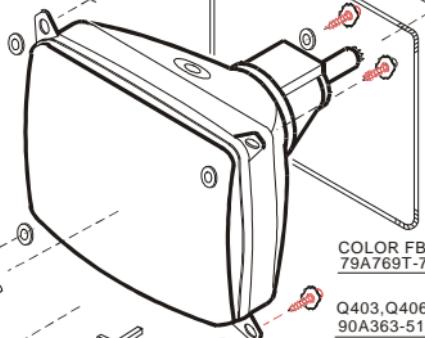
CRT BOARD SHIELD  
85A582-1

CRT SOCKET BOARD  
VIDEO BOARD

DEGAGSSING COIL  
705A5855-3AV

SCREW M5 X 25  
1A6003-21-128 X 4

FRONT PANEL  
34A813-A76-A



SCREW M3 X 10  
C1S1230-10-128 X 2

COLOR FBT(T402)  
79A769T-7

Q403,Q406,D408  
90A363-518

RUBBER WASHER  
5A38-8 X 4

POWER LENS  
33A4156-1

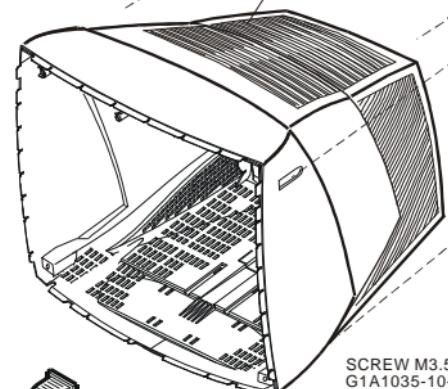
POWER HOLDER  
33A4153-1

POWER BUTTON  
33A4154-76-A

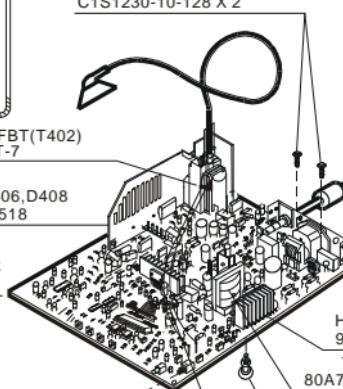
KEY PAD  
33A4155-76-A

SCREW M4 X 16  
Q1A340-16-128 X 4

BACK COVER  
34A814-76-A



SCREW M3.5 X 10  
G1A1035-10-128



SIGNAL CABLE ASS'Y  
89A173-49-4

AC INLET  
15A5659-500-2

HEAT SINK  
90A348-3

T901  
80A769T-1-1L

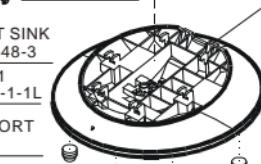
PCB SUPPORT  
11A141-1

HEAT SINK(IC601)  
90A351-500-A

POWER LINK  
33A4020-Y-A

SWIVEL  
34A740-Y-L

BASE  
34A741-Y-L



RUBBER FOOT  
12A385-1 X 4

# PARTS LIST OF CABINET

**LOCATION**

**D8905A**  
(LOW RADIATION 220V)  
CM761VSNHP

**SPECIFICATION**

CHAS ASS;IY

|     |       |       |     |                   |
|-----|-------|-------|-----|-------------------|
| 1A  | 6003- | 21 -  | 128 | CRT SCREW         |
| 5A  | 38-   | 8     |     | RUBBER WASHER     |
| 11A | 112-  | 500   |     | WIRE MOUNT        |
| 11A | 115-  | 1     |     | FBT CLIP          |
| 12A | 385-  | 1     |     | RUBBER FOOT       |
| 19A | 403-  | 7     |     | STEEL             |
| 19A | 506-  | 2     |     | STEEL WIRE SPRING |
| 23A | 3178- | 690 - | 1A  | LOGO              |
| 33A | 3663- | 1     |     | SUPPORT           |
| 33A | 4020- | Y -   | A   | S.W.CAP           |
| 33A | 4153- | 76 -  | T   | POWER HOLDER      |
| 33A | 4154- | 76 -  | T   | POWER KNOB        |
| 33A | 4155- | 76 -  | T   | KEY PAD           |
| 33A | 4156- | 1     |     | LED LENS          |
| 34A | 813-  | A76 - | T   | FRONT PANEL       |
| 34A | 814-  | 76 -  | T   | REAR CABINET      |
| 34A | 818-  | 76 -  | B   | SWIVEL            |
| 34A | 819-  | 76 -  | B   | BASE              |
| 40A | 152-  | 509   |     | RECYCLE LABEL     |
| 40A | 152-  | 512   |     | RECYCLE LABEL     |
| 40A | 153-  | 513   |     | CRT WARNNG LABEL  |



|     |       |       |     |                     |
|-----|-------|-------|-----|---------------------|
| 40A | 154-  | 501 - | 1   | HI-POT GND LABEL    |
| 40A | 155-  | 185   |     | ID LABEL            |
| 40A | 581-  | 26 -  | 704 | LABEL               |
| 40A | 581-  | 625 - | 2A  | PALLET LABEL        |
| 40A | 581-  | 690 - | 1A  | CARTON LABEL        |
| 41A | 68-   | 508 - | A   | CARD                |
| 41A | 68-   | 615 - | 4B  | TCO;99 CARD         |
| 41A | 68-   | 690 - | 6A  | SETTING UP GUIDE    |
| 41A | 68-   | 690 - | 21A | WARRANTY STATEMENTS |
| 41A | 68-   | 690 - | 25A | DOC FLYER           |
| 41A | 578-  | 690 - | 1A  | MANUAL              |
| 44A | 6754- | 1     |     | EPS CUSHION         |
| 44A | 6754- | 2     |     | EPS CUSHION         |
| 44A | 6754- | 690 - | 2A  | CARTON              |
| 45A | 76-   | 28 -  | HP  | HP MANUAL PE BAG    |
| 45A | 76-   | 520   |     | PE BAG              |
| 45A | 76-   | 521   |     | PE BAG              |
| 45A | 77-   | 3     |     | TRANSPARENT SHEET   |
| 45A | 77-   | 500   |     | BARCODE RIBBON      |
| 45A | 77-   | 501   |     | BARCODE RIBBON      |
| 85A | 582-  | 1     |     | SHIELD              |
| 89A | 404E- | 18N - | IS  | POWER CORD UL/CSA   |
| 95A | 91-   | 205 - | 615 | WIRE HARNESS        |

|      |       |       |     |             |
|------|-------|-------|-----|-------------|
| 95A  | 8013- | 2     |     | CONNECTOR   |
| B1A  | 1035- | 10 -  | 128 | SCREW       |
| Q1A  | 340-  | 16 -  | 128 | SCREW       |
| Q1A  | 1030- | 10 -  | 128 | SCREW       |
| 705A | 769N- | F34 - | 01N | CABiT ASSiY |



|      |      |       |       |    |                       |
|------|------|-------|-------|----|-----------------------|
| H701 | 750A | 1697- | 504 - | JA | DEG. COIL UL/CSA      |
|      | 750A | 5868- | 3AV   |    | 17i" LG .27 S-ART CRT |
|      | 750A | 1697- | 503 - | NA | ROTATION COIL         |

# PARTS LIST OF CHAS

| <b>LOCATION</b> | <b>D8905A</b> |       |       | <b>SPECIFICATION</b> |
|-----------------|---------------|-------|-------|----------------------|
|                 | AIM761VSNHP   |       |       | MAIN BOARD ASS'Y     |
|                 | CR761VSNHP    |       |       | CRT BOARD ASS'Y      |
|                 | ITEM          | REF.  | QTY   | DESCRIPTION          |
|                 | 1A            | 421-  | 4 -   | 128                  |
|                 | 11A           | 141-  | 500   | SCREW                |
|                 | 15A           | 5640- | 1 -   | PCB SUPPCRT          |
|                 | 15A           | 5659- | 501   | AL GND LUG           |
|                 | 40A           | 581-  | 26 -  | AC BRACKET           |
|                 | 40A           | 581-  | 624 - | FAIL-SAFE LABEL      |
|                 | 50A           | 500-  | 1     | CHASSIS LABEL        |
|                 | 55A           | 1-    | 4     | CABLE TIE            |
|                 | 71A           | 100-  | 8 -   | SOLDER BAR           |
|                 | 84A           | 33-   | 10    | FERRITE BEAD         |
|                 | 89A           | 174F- | 5DB - | FUSE CLIP            |
|                 | 96A           | 29-   | 6 -   | POWER CORD           |
|                 | B1A           | 1040- | 10 -  | H.S TUBING           |
|                 | D1A           | 1140- | 7 -   | SCREW                |
|                 | M1A           | 1140- | 6 -   | SCREW                |
|                 | 705A          | 560L- | C56 - | IC601 ASS'Y          |
|                 | 705A          | 761U- | C57 - | Q403/Q406/D408 ASS'Y |
|                 | 705A          | 761U- | C57 - | Q901 ASS'Y           |
|                 | 705A          | 761U- | C57 - | Q911 ASS'Y           |
|                 | 705A          | 761U- | C57 - | Q426 ASS'Y           |
|                 | 705A          | 761U- | C61 - | NR901 ASS'Y          |
|                 | 705A          | 761U- | C87 - | AC SOCKET ASS'Y      |
|                 | 705A          | 761U- | C93 - | D919 ASS'Y           |
|                 | 705A          | 761V- | C56 - | IC101 ASS'Y          |
|                 | 705A          | 761V- | C56 - | IC101 ASS'Y          |
|                 | 750A          | 5866- | 761 - | 17" LG MPRII         |
|                 | 750A          | 5868- | 761 - | 17" LG TCO           |
| (GND2)          | 95A           | 205-  | 30 -  | WIRE                 |
| <SW101>         | 77A           | 602-  | 1 -   | TACT SWITCH          |
| <SW102>         | 77A           | 602-  | 1 -   | TACT SWITCH          |
| <SW103>         | 77A           | 602-  | 1 -   | TACT SWITCH          |
| <SW104>         | 77A           | 602-  | 1 -   | TACT SWITCH          |
| AS1             | 95A           | 205B- | 30 -  | WIRE                 |
| B-B             | 95A           | 201-  | 69 -  | WIRE                 |
| C-C             | 95A           | 201-  | 69 -  | WIRE                 |
| C1              | 65A           | 450-  | 104 - | 0.1UF +80-20% 50V    |
| C2              | 65A           | 450-  | 104 - | 0.1UF +80-20% 50V    |
| C400            | 67A           | 305-  | 478 - | 0.47UF 250V          |
| C405            | 67A           | 309-  | 471 - | 470UF 16V +-20%      |
| C414            | 67A           | 215-  | 470 - | 47UF 100V            |
| C416            | 63A           | 210J- | 474 - | 0.47UF 250V          |
| C418            | 63A           | 210J- | 622 - | 6.2NF +-5% 1.6KV     |
| C419            | 63A           | 210J- | 432 - | 4.3NF 1KV +-5%       |
| C422            | 64A           | 100J- | 225 - | 2.2uF 100V           |
| C425            | 63A           | 210J- | 434 - | 0.43UF 400V          |
| C426            | 63A           | 210J- | 274 - | 0.27UF 250V +-5%     |

|      |     |       |       |     |                     |
|------|-----|-------|-------|-----|---------------------|
| C427 | 63A | 210J- | 644 - | 2CC | 0.64UF 250V         |
| C431 | 64A | 210J- | 104 - | 2BC | 0.1uF 250V          |
| C432 | 67A | 215-  | 470 - | 11J | 47UF 200V           |
| C439 | 63A | 210J- | 394 - | 2CC | 0.39UF 250V +-5%    |
| C488 | 65A | 2K-   | 471 - | 2A  | 470PF 2KV           |
| C489 | 62A | 10-   | 16 -  | W   | SPARK GAP 1KV       |
| C606 | 67A | 309-  | 471 - | 3   | 470UF 16V +-20%     |
| C709 | 65A | 1K-   | 151 - | 6A  | 150PF 1KV           |
| C713 | 67A | 305-  | 229 - | 12  | 2.2uF +-20% 250V    |
| C720 | 65A | 1K-   | 102 - | 5T  | 1NF 1KV +-10%       |
| C740 | 67A | 305-  | 109 - | 15  | 1UF 450V            |
| C900 | 65A | 305M- | 472 - | 2B2 | 4700PF +-20% 400VAC |



|      |     |       |       |     |             |
|------|-----|-------|-------|-----|-------------|
| C901 | 63A | 108K- | 334 - | CS  | 0.33UF      |
| C902 | 63A | 107-  | 224 - | 5   | 0.22Uf 250V |
| C907 | 65A | 30-   | 221 - | 14D | 220UF 400V  |

| <b>LOCATION</b>   | <b>D8905A</b> |       |       |     | <b>SPECIFICATION</b>   |
|---|---------------|-------|-------|-----|------------------------|
| C915  | 65A           | 2M-   | 103 - | 3B  | 0.01uF 2KV 20%         |
| C929  | 67A           | 305-  | 100 - | 12  | 10UF 250V +-20%        |
| C931  | 67A           | 215-  | 391 - | GFJ | 390Uf 80V              |
| C936  | 67A           | 305-  | 102 - | 4   | 1000uF +-20% 25V       |
| C937  | 67A           | 309-  | 222 - | 3   | 2200UF 16V +-20%       |
| C939  | 67A           | 305-  | 102 - | 3   | 1000uF +-20% 16V       |
| C942  | 67A           | 309-  | 471 - | 3   | 470UF 16V +-20%        |
| C951  | 67A           | 215-  | 470 - | 11J | 47Uf 200V              |
| C963  | 65A           | 305M- | 472 - | 2B2 | 4700PF +-20% 400VAC    |
| C964  | 65A           | 305M- | 472 - | 2B2 | 4700PF +-20% 400VAC    |
| CN902   | 33A           | 3074- | 1     |     | 2P PLUG                |
| CN903   | 33A           | 3278- | 2     |     | 2P PLUG                |
| D-D   | 95A           | 201-  | 69 -  | 022 | WIRE                   |
| F901  | 84A           | 7H-   | 315 - | SL  | FUSE 250V 3.15A        |
| D901  | 93A           | 52-   | 55W - | 52T | RECTIFIER DIODE IN5408 |
|    |               |       |       |     |                        |
| D902  | 93A           | 52-   | 55W - | 52T | RECTIFIER DIODE IN5408 |
| D903  | 93A           | 52-   | 55W - | 52T | RECTIFIER DIODE IN5408 |
| D904  | 93A           | 52-   | 55W - | 52T | RECTIFIER DIODE IN5408 |
| D922  | 93A           | 3020- | 6C -  | 52T | FAST RECOVERY DIODE    |
| D923  | 93A           | 3020- | 8     |     | RG-4Z-LF-L1            |
| D925  | 93A           | 3020- | 6C -  | 52T | FAST RECOVERY DIODE    |
| DF925   | 71A           | 55-   | 2     |     | FERRITE BEAD           |
| H802  | 95A           | 8013- | 10 -  | 502 | WIRE                   |
| H803  | 95A           | 8013- | 6 -   | 1   | WIRE                   |
| H804A   | 95A           | 8013- | 11 -  | 501 | 5-11PIN                |
|  |               |       |       |     |                        |
| H804B   | 95A           | 8013- | 11 -  | 501 | 5-11PIN                |
| IC104   | 56A           | 74LS- | 14 -  | H   | 14 PIN IC 74LS14       |
| IC901   | 56A           | 379-  | 12    |     | 8 PIN IC UC3842AM      |
| IC401   | 56A           | 573-  | 1     |     | TDA9111                |
| L400  | 73A           | 253-  | 111 - | T   | CHOKE COIL             |
| L401  | 73A           | 147-  | 117 - | L   | LINEARITY              |
| L403  | 73A           | 253-  | 118 - | L   | CHOKE                  |
| L404  | 73A           | 253-  | 70 -  | G   | 1.5MH +-10% 0.4A       |
|  |               |       |       |     |                        |
| L405  | 73A           | 253-  | 68 -  | H   | 180UH +-10%            |
| L901  | 73A           | 174-  | 2 -   | SA  | FILTER                 |
| L902  | 73A           | 174-  | 17 -  | H   | LINE FILTER            |
| L903  | 73A           | 259-  | 4     |     | 200UH +-5%             |
| L906  | 73A           | 253-  | 88 -  | L   | CHOKE                  |
| LED2  | 81A           | 10-   | 6 -   | BH  | LED/HOLDER             |
| P402  | 33A           | 3192- | 4     |     | 4P PLUG                |
| P403  | 33A           | 8009- | 3     |     | 3P PLUG                |
| P601  | 33A           | 3278- | 4     |     | 4P PLUG                |
| PR901   | 61A           | 52-   | 27 -  | 4G  | PTCR 9 OHM             |
| Q428  | 57A           | 600-  | 503   |     | IRF630A                |

|      |     |       |       |                   |
|------|-----|-------|-------|-------------------|
| Q907 | 57A | 728-  | 1     | 2SB772 Q          |
| Q909 | 57A | 728-  | 1     | 2SB772 Q          |
| Q923 | 57A | 498-  | 1 -   | TRAN BF423        |
| R1   | 61A | 602-  | 103 - | 10K OHM +-5% 1/6W |
| R400 | 61A | 152M- | 151 - | 150 OHM +-5% 2W   |
| R426 | 61A | 153M- | 220 - | 22 OHM +-5% 3W    |
| R428 | 61A | 153M- | 828 - | 0.82 OHM +-5% 3W  |
| R455 | 61A | 152M- | 220 - | 22 OHM +-5% 2W    |
| R456 | 61A | 153M- | 331 - | 330 OHM +-5% 3W   |
| R457 | 61A | 153M- | 560 - | 56 OHM +-5% 3W    |
| R458 | 61A | 153M- | 560 - | 56 OHM +-5% 3W    |
| R608 | 61A | 152M- | 479 - | 4.7 OHM +-5% 2W   |
| R723 | 61A | 152M- | 101 - | 100 OHM +-5% 2W   |
| R907 | 61A | 208-  | 471 - | 470 OHM 5% 1W     |
| R927 | 61A | 153M- | 333 - | 33K OHM +-5% 3W   |
| R929 | 61A | 152M- | 278 - | 0.27 OHM +-5% 2W  |
| R936 | 61A | 303-  | 228 - | 0.22 OHM 5% 1W    |
| R989 | 61A | 152M- | 471 - | 470 OHM +-5% 2W   |
| R991 | 61A | 153M- | 560 - | 56 OHM +-5% 3W    |

| LOCATION  | D8905A |       |       |    | SPECIFICATION      |
|---|--------|-------|-------|----|--------------------|
| RA101   | 61A    | 124-  | 472 - | 7  | 7 PIN 4.7K OHM     |
| RY401   | 77A    | 260-  | 9 -   | 1B | RELAY              |
| RY402   | 77A    | 260-  | 9 -   | 1B | RELAY              |
|  |        |       |       |    |                    |
| RY901   | 77A    | 260-  | 5 -   | 1  | RELAY DC12V G5PA-2 |
| T401  | 79A    | 167-  | 110 - | H  | DRIVER X'FMR       |
| T901  | 80A    | 761-  | 1 -   | L  | POWER X'FMR        |
| SW101   | 77A    | 411A- | 2 -   | S  | PUSH SWITCH        |
| T402  | 79A    | 761-  | 2 -   | A  | FBT                |
| T403  | 79A    | 167-  | 112 - | LA | DRIVER X'FMR       |
| TP701   | 9A     | 211-  | 2     |    | PIN                |
| TP901   | 9A     | 211-  | 2     |    | PIN                |
| TP902   | 9A     | 211-  | 2     |    | PIN                |
| VR701   | 75A    | 335-  | 223   |    | 22K OHM +-20%      |
| VR702   | 75A    | 335M- | 204   |    | 200K OHM           |
| VR902   | 75A    | 335-  | 203   |    | 20K OHM +-20%      |
| VR903   | 75A    | 335-  | 101   |    | 100 OHM +-20%      |

## PARTS LIST OF MAIN PC BOARD

| LOCATION | D8905A |      |       |     | SPECIFICATION         |
|----------|--------|------|-------|-----|-----------------------|
|          | 715A   | 794- | 1     |     | MAIN BOARD            |
|          | 6A     | 31-  | 4     |     | BRASS                 |
|          | 95A    | 90-  | 23    |     | TIN COATED            |
| C101     | 67A    | 309- | 220 - | 7T  | 22uF +-20% 50V        |
| C103     | 65A    | 450- | 104 - | 7T  | 0.1uF +80-20% Y5V 50V |
| C104     | 67A    | 309- | 101 - | 4T  | 100uF +-20% 25V       |
| C105     | 65A    | 450- | 104 - | 7T  | 0.1uF +80-20% Y5V 50V |
| C106     | 67A    | 309- | 330 - | 7T  | 33UF +-20% 50V        |
| C109     | 67A    | 60-  | 229 - | 7T  | 2.2UF 50V             |
| C110     | 67A    | 309- | 109 - | 7T  | 1.0uF +-20% 50V       |
| C111     | 65A    | 444- | 101 - | 5T  | 100PF +-10% Y5P 50V   |
| C112     | 65A    | 444- | 101 - | 5T  | 100PF +-10% Y5P 50V   |
| C113     | 65A    | 444- | 101 - | 5T  | 100PF +-10% Y5P 50V   |
| C114     | 65A    | 444- | 101 - | 5T  | 100PF +-10% Y5P 50V   |
| C130     | 65A    | 442- | 470 - | 13T | 47PF +-5% 50V NPO     |
| C140     | 67A    | 305- | 100 - | 7T  | 10uF +-20% 50V        |
| C141     | 67A    | 305- | 100 - | 7T  | 10uF +-20% 50V        |
| C142     | 67A    | 305- | 100 - | 7T  | 10uF +-20% 50V        |
| C143     | 67A    | 305- | 100 - | 7T  | 10uF +-20% 50V        |
| C144     | 67A    | 305- | 100 - | 7T  | 10uF +-20% 50V        |
| C145     | 67A    | 305- | 100 - | 7T  | 10uF +-20% 50V        |
| C146     | 67A    | 305- | 100 - | 7T  | 10uF +-20% 50V        |
| C150     | 67A    | 309- | 101 - | 3T  | 100UF +-20% 16V       |
| C151     | 67A    | 305- | 101 - | 3T  | 100UF +-20% 16V       |
| C160     | 65A    | 444- | 101 - | 5T  | 100PF +-10% 50V       |

|      |     |       |       |     |                       |
|------|-----|-------|-------|-----|-----------------------|
| C161 | 65A | 442-  | 471 - | 9T  | 470PF 50V             |
| C162 | 65A | 444-  | 102 - | 13T | 1000PF +-10% Y5V 50V  |
| C163 | 65A | 444-  | 101 - | 5T  | 100PF +-10% 50V       |
| C164 | 65A | 450-  | 104 - | 7T  | 0.1Uf +80-20% Y5V 50V |
| C166 | 64A | 176J- | 103 - | 1T  | 0.01UF +-5% 100V      |
| C167 | 64A | 700J- | 104 - | 0AT | 0.1UF 50V +-5%        |
| C168 | 65A | 450-  | 104 - | 7T  | 0.1Uf +80-20% Y5V 50V |
| C169 | 67A | 305-  | 101 - | 3T  | 100UF +-20% 16V       |
| C170 | 65A | 442-  | 121 - | 13T | 120PF 50V NPO +-5%    |
| C171 | 67A | 305-  | 100 - | 7T  | 10uF +-20% 50V        |
| C172 | 65A | 444-  | 102 - | 13T | 1000PF +-10% Y5P 50V  |
| C401 | 65A | 442-  | 120 - | 13T | 12PF 50V NPO          |
| C403 | 64A | 44J-  | 223 - | 1AT | 22NF 100V             |
| C406 | 65A | 450-  | 104 - | 7T  | 0.1Uf +80-20% Y5V 50V |
| C407 | 65A | 444-  | 101 - | 5T  | 100PF +-10% 50V       |

| LOCATION | D8905A |       |       |     | SPECIFICATION           |
|----------|--------|-------|-------|-----|-------------------------|
| C408     | 65A    | 444-  | 101 - | 5T  | 100PF +-10% 50V         |
| C410     | 65A    | 450-  | 104 - | 7T  | 0.1uF +80-20% Y5V 50V   |
| C411     | 67A    | 309-  | 470 - | 3T  | 47uF 16V +-20%          |
| C412     | 65A    | 444-  | 331 - | 5T  | 330PF +-10% 50V Y5P     |
| C413     | 65A    | 450-  | 104 - | 7T  | 0.1uF +80-20% Y5V 50V   |
| C415     | 64A    | 44J-  | 472 - | 1AT | 4700PF 100V             |
| C417     | 64A    | 176J- | 154 - | 0T  | 0.15UF +-5% 63V/50V     |
| C421     | 65A    | 1K-   | 472 - | 3T  | 4700PF 1KV              |
| C429     | 65A    | 444-  | 332 - | 5T  | 3300PF +-10% Y5P 50V    |
| C430     | 65A    | 517K- | 152 - | 1T  | 1500UF 500V             |
| C433     | 67A    | 309-  | 109 - | 7T  | 1uF +-20% 50V           |
| C434     | 67A    | 309-  | 479 - | 7T  | 4.7UF +-20% 50V         |
| C435     | 64A    | 44J-  | 103 - | 1AT | 0.01UF +-5% 100V        |
| C437     | 67A    | 309-  | 100 - | 7T  | 10UF +-20% 50V          |
| C441     | 64A    | 701J- | 224 - | 0AT | 0.22uF +-5% 50V         |
| C443     | 67A    | 309-  | 470 - | 3T  | 47UF +-20% 16V          |
| C444     | 65A    | 450-  | 104 - | 7T  | 0.1uF +80-20% Y5V 50V   |
| C446     | 65A    | 444-  | 101 - | 5T  | 100PF +-10% 50V         |
| C447     | 65A    | 45G-  | 102 - | 1AT | 0.01UF +-2% 100V        |
| C449     | 65A    | 442-  | 561 - | 9T  | 560PF 50V               |
| C460     | 65A    | 450-  | 473 - | 4T  | 47000PF +80-20% 50V     |
| C462     | 67A    | 309-  | 101 - | 3T  | 100uF +-20% 16V         |
| C463     | 64A    | 44J-  | 103 - | 1AT | 0.01UF +-5% 100V        |
| C464     | 65A    | 444-  | 821 - | 5T  | 820PF +-10% 50V         |
| C466     | 64A    | 176J- | 822 - | 1T  | 8200PF +-5% 100V        |
| C467     | 65A    | 450-  | 103 - | 7T  | 10000uF +80-20% Y5V 50V |
| C470     | 65A    | 444-  | 332 - | 5T  | 3300PF +-10% 50V        |
| C481     | 65A    | 450-  | 104 - | 7T  | 0.1uF +80-20% Y5V 50V   |
| C601     | 64A    | 176J- | 104 - | 1T  | 0.1UF +-5% 100V         |
| C602     | 65A    | 444-  | 331 - | 5T  | 330PF +-10% 50V         |
| C603     | 67A    | 309-  | 471 - | 3T  | 470UF +-20% 16V         |
| C604     | 64A    | 176J- | 224 - | 0T  | 0.22UF 63V +-5%         |
| C605     | 67A    | 309-  | 470 - | 7T  | 47UF +-20% 50V          |
| C610     | 64A    | 701J- | 474 - | 0AT | 0.47UF +-5% 50V         |
| C611     | 64A    | 176J- | 104 - | 0T  | 0.1uF +-5% 63V          |
| C612     | 67A    | 309-  | 470 - | 3T  | 47UF +-20% 16V          |
| C613     | 64A    | 701J- | 104 - | 0AT | 0.1UF 50V               |
| C614     | 65A    | 444-  | 101 - | 5T  | 100PF +-10% 50V         |
| C615     | 64A    | 44J-  | 103 - | 1AT | 0.01UF +-5% 100V        |
| C616     | 64A    | 701J- | 104 - | 0AT | 0.1UF 50V               |
| C705     | 67A    | 309-  | 220 - | 7T  | 22uF +-20% 50V          |
| C707     | 63A    | 212J- | 223 - | 2AT | 22NF 250V +-5%          |
| C710     | 63A    | 212J- | 224 - | 2AT | 220NF 250V +-5%         |
| C733     | 64A    | 176J- | 824 - | 1T  | 0.82UF +-5% 100V        |
| C735     | 67A    | 60-   | 229 - | 7T  | 2.2UF 50V               |
| C741     | 65A    | 444-  | 331 - | 5T  | 330PF +-10% 50V         |
| C742     | 65A    | 444-  | 471 - | 5T  | 470PF +-10% 50V         |
| C743     | 67A    | 309-  | 100 - | 7T  | 10UF +-20% 50V          |
| C750     | 65A    | 450-  | 104 - | 7T  | 0.1uF +80-20% Y5V 50V   |

|      |     |       |       |     |                       |
|------|-----|-------|-------|-----|-----------------------|
| C760 | 67A | 60-   | 229 - | 7T  | 2.2UF 50V             |
| C770 | 95A | 90-   | 23    |     | TIN COATED            |
| C908 | 65A | 450-  | 104 - | 7T  | 0.1uF +80-20% Y5V 50V |
| C916 | 67A | 305-  | 101 - | 4T  | 100uF +-20% 25V       |
| C918 | 64A | 44J-  | 332 - | 1AT | 3300PF 100V           |
| C920 | 64A | 44J-  | 102 - | 1AT | 1000PF 100V           |
| C921 | 64A | 176J- | 104 - | 1T  | 0.1uF +-5% 100V       |
| C922 | 64A | 176J- | 104 - | 1T  | 0.1uF +-5% 100V       |
| C923 | 65A | 1K-   | 331 - | 5T  | 330PF 1KV +-10%       |
| C924 | 64A | 176J- | 332 - | 1T  | 0.0033UF +-5% 100V    |
| C925 | 67A | 309-  | 100 - | 7T  | 10uF +-20% 50V        |
| C938 | 67A | 305-  | 471 - | 3T  | 470uF +-20% 16V       |
| C941 | 64A | 701J- | 104 - | 0AT | 0.1uF 50V             |
| C943 | 64A | 44J-  | 152 - | 1AT | 1500PF 100V           |

| <b>LOCATION</b>   | <b>D8905A</b> |       |       |     | <b>SPECIFICATION</b> |
|---|---------------|-------|-------|-----|----------------------|
|  |               |       |       |     |                      |
| C945  | 64A           | 176J- | 104 - | 1T  | 0.1uF +-5% 100V      |
| C946  | 64A           | 176J- | 223 - | 2T  | 0.022uF 250V         |
| C947  | 67A           | 309-  | 479 - | 7T  | 4.7uF +-20% 50V      |
| C950  | 65A           | 1K-   | 221 - | 5T  | 220PF 1KV +-10%      |
| C955  | 65A           | 1K-   | 101 - | 5T  | 100PF 1KV +-10%      |
| C958  | 67A           | 309-  | 101 - | 3T  | 100uF +-20% 16V      |
| C960  | 67A           | 309-  | 229 - | 7T  | 2.2uF +-20% 50V      |
| C961  | 64A           | 44J-  | 223 - | 1AT | 22NF 100V            |
| C965  | 64A           | 176J- | 103 - | 1T  | 0.01uF +-5% 100V     |
| C967  | 67A           | 309-  | 101 - | 3T  | 100uF +-20% 16V      |
| C990  | 67A           | 309-  | 109 - | 7T  | 1uF +-20% 50V        |
| D104  | 93A           | 64-   | 11 -  | 52T | DIODE IN4148         |
| D105  | 93A           | 1002- | 1F -  | 52T | 1N5817               |
| D106  | 93A           | 64-   | 11 -  | 52T | DIODE IN4148         |
| D107  | 93A           | 64-   | 11 -  | 52T | DIODE IN4148         |
| D130  | 93A           | 1002- | 1F -  | 52T | 1N5817               |
| D401  | 93A           | 64-   | 11 -  | 52T | DIODE IN4148         |
| D402  | 93A           | 64-   | 11 -  | 52T | DIODE IN4148         |
| D405  | 93A           | 1002- | 1W -  | 52T | RECTIFIER DIODE      |
| D406  | 93A           | 1060- | 6 -   | 52T | BYV26C               |
| D407  | 93A           | 60-   | 21P - | 52T | DIODE PS156R         |
| D410  | 93A           | 64-   | 11 -  | 52T | DIODE IN4148         |
| D411  | 93A           | 64-   | 19G - | 52T | BAV21                |
| D412  | 93A           | 64-   | 11 -  | 52T | DIODE IN4148         |
| D418  | 93A           | 60-   | 21P - | 52T | PS156R               |
| D419  | 93A           | 60-   | 21P - | 52T | PS156R               |
| D432  | 93A           | 64-   | 11 -  | 52T | DIODE IN4148         |
| D433  | 93A           | 64-   | 11 -  | 52T | DIODE IN4148         |
| D450  | 93A           | 64-   | 11 -  | 52T | DIODE IN4148         |
| D460  | 93A           | 64-   | 11 -  | 52T | DIODE IN4148         |
| D463  | 93A           | 60-   | 26T - | 52T | FR107                |
| D470  | 93A           | 60-   | 26T - | 52T | FR107                |
| D471  | 93A           | 64-   | 11 -  | 52T | DIODE IN4148         |
| D601  | 93A           | 52-   | 47T - | 52T | DIODE 1N4004         |
| D602  | 93A           | 64-   | 11 -  | 52T | DIODE 1N4148         |
| D603  | 93A           | 64-   | 11 -  | 52T | DIODE 1N4148         |
| D607  | 93A           | 64-   | 11 -  | 52T | DIODE 1N4148         |
| D701  | 93A           | 64-   | 11 -  | 52T | DIODE 1N4148         |
| D702  | 95A           | 90-   | 23    |     | TIN COATED           |
| D704  | 95A           | 90-   | 23    |     | TIN COATED           |
| D706  | 93A           | 60-   | 44T - | 52T | FR157S               |
| D710  | 95A           | 90-   | 23    |     | TIN COATED           |
| D721  | 95A           | 90-   | 23    |     | TIN COATED           |
| D735  | 93A           | 64-   | 11 -  | 52T | DIODE IN4148         |
| D740  | 93A           | 1060- | 6P -  | 52T | ER106                |
| D741  | 93A           | 1060- | 6P -  | 52T | ER106                |
| D742  | 93A           | 64-   | 11 -  | 52T | DIODE IN4148         |

|      |     |       |       |     |              |
|------|-----|-------|-------|-----|--------------|
| D910 | 93A | 60-   | 21P - | 52T | PS156R       |
| D911 | 93A | 1060- | 6 -   | 52T | BYV26C       |
| D912 | 93A | 64-   | 11 -  | 52T | DIODE IN4148 |
| D913 | 93A | 64-   | 11 -  | 52T | DIODE IN4148 |
| D914 | 93A | 64-   | 11 -  | 52T | DIODE IN4148 |
| D917 | 93A | 64-   | 11 -  | 52T | DIODE IN4148 |
| D918 | 93A | 1060- | 6 -   | 52T | BYV26C       |
| D926 | 93A | 64-   | 11 -  | 52T | DIODE IN4148 |
| D927 | 93A | 64-   | 11 -  | 52T | DIODE IN4148 |
| D929 | 93A | 1040- | 2 -   | 52T | UF4004       |
| D930 | 93A | 1040- | 2 -   | 52T | UF4004       |
| D939 | 93A | 64-   | 11 -  | 52T | DIODE IN4148 |
| D967 | 93A | 64-   | 11 -  | 52T | DIODE IN4148 |
| D968 | 93A | 64-   | 11 -  | 52T | DIODE IN4148 |
| D990 | 93A | 64-   | 11 -  | 52T | DIODE IN4148 |
| D991 | 93A | 64-   | 11 -  | 52T | DIODE IN4148 |

| LOCATION | D8905A |     |      |   | SPECIFICATION |
|----------|--------|-----|------|---|---------------|
| FB050    | 71A    | 55- | 9 -  | T | SHIELD BEAD   |
| FB101    | 71A    | 55- | 19 - | T | BEAD          |
| FB401    | 71A    | 55- | 9 -  | T | SHIELD BEAD   |
| FB402    | 71A    | 55- | 19 - | T | BEAD          |
| FB403    | 71A    | 55- | 19 - | T | BEAD          |
| FB405    | 71A    | 55- | 19 - | T | BEAD          |
| FB409    | 71A    | 55- | 19 - | T | BEAD          |
| FB903    | 71A    | 55- | 19 - | T | BEAD          |
| FB904    | 71A    | 55- | 19 - | T | BEAD          |
| FB905    | 71A    | 55- | 9 -  | T | SHIELD BEAD   |
| FB906    | 71A    | 55- | 9 -  | T | SHIELD BEAD   |
| FB907    | 71A    | 55- | 19 - | T | BEAD          |
| J003     | 95A    | 90- | 23   |   | TIN COATED    |
| J004     | 95A    | 90- | 23   |   | TIN COATED    |
| J005     | 95A    | 90- | 23   |   | TIN COATED    |
| J007     | 95A    | 90- | 23   |   | TIN COATED    |
| J008     | 95A    | 90- | 23   |   | TIN COATED    |
| J009     | 95A    | 90- | 23   |   | TIN COATED    |
| J010     | 95A    | 90- | 23   |   | TIN COATED    |
| J011     | 95A    | 90- | 23   |   | TIN COATED    |
| J012     | 95A    | 90- | 23   |   | TIN COATED    |
| J014     | 95A    | 90- | 23   |   | TIN COATED    |
| J015     | 95A    | 90- | 23   |   | TIN COATED    |
| J016     | 95A    | 90- | 23   |   | TIN COATED    |
| J017     | 95A    | 90- | 23   |   | TIN COATED    |
| J018     | 95A    | 90- | 23   |   | TIN COATED    |
| J019     | 95A    | 90- | 23   |   | TIN COATED    |
| J022     | 95A    | 90- | 23   |   | TIN COATED    |
| J023     | 95A    | 90- | 23   |   | TIN COATED    |
| J024     | 95A    | 90- | 23   |   | TIN COATED    |
| J026     | 95A    | 90- | 23   |   | TIN COATED    |
| J027     | 95A    | 90- | 23   |   | TIN COATED    |
| J028     | 95A    | 90- | 23   |   | TIN COATED    |
| J030     | 95A    | 90- | 23   |   | TIN COATED    |
| J031     | 95A    | 90- | 23   |   | TIN COATED    |
| J032     | 95A    | 90- | 23   |   | TIN COATED    |
| J033     | 95A    | 90- | 23   |   | TIN COATED    |
| J034     | 95A    | 90- | 23   |   | TIN COATED    |
| J035     | 95A    | 90- | 23   |   | TIN COATED    |
| J036     | 95A    | 90- | 23   |   | TIN COATED    |
| J037     | 95A    | 90- | 23   |   | TIN COATED    |
| J038     | 95A    | 90- | 23   |   | TIN COATED    |
| J040     | 95A    | 90- | 23   |   | TIN COATED    |
| J041     | 95A    | 90- | 23   |   | TIN COATED    |
| J042     | 95A    | 90- | 23   |   | TIN COATED    |
| J043     | 95A    | 90- | 23   |   | TIN COATED    |
| J044     | 95A    | 90- | 23   |   | TIN COATED    |
| J045     | 95A    | 90- | 23   |   | TIN COATED    |
| J046     | 95A    | 90- | 23   |   | TIN COATED    |

|      |     |     |    |            |
|------|-----|-----|----|------------|
| J047 | 95A | 90- | 23 | TIN COATED |
| J048 | 95A | 90- | 23 | TIN COATED |
| J049 | 95A | 90- | 23 | TIN COATED |
| J051 | 95A | 90- | 23 | TIN COATED |
| J052 | 95A | 90- | 23 | TIN COATED |
| J053 | 95A | 90- | 23 | TIN COATED |
| J055 | 95A | 90- | 23 | TIN COATED |
| J056 | 95A | 90- | 23 | TIN COATED |
| J057 | 95A | 90- | 23 | TIN COATED |
| J058 | 95A | 90- | 23 | TIN COATED |
| J059 | 95A | 90- | 23 | TIN COATED |
| J060 | 95A | 90- | 23 | TIN COATED |
| J062 | 95A | 90- | 23 | TIN COATED |
| J063 | 95A | 90- | 23 | TIN COATED |

| LOCATION | D8905A |      |       | SPECIFICATION        |
|----------|--------|------|-------|----------------------|
| J064     | 95A    | 90-  | 23    | TIN COATED           |
| J065     | 95A    | 90-  | 23    | TIN COATED           |
| J068     | 95A    | 90-  | 23    | TIN COATED           |
| J069     | 95A    | 90-  | 23    | TIN COATED           |
| J070     | 95A    | 90-  | 23    | TIN COATED           |
| J071     | 95A    | 90-  | 23    | TIN COATED           |
| J072     | 95A    | 90-  | 23    | TIN COATED           |
| J073     | 95A    | 90-  | 23    | TIN COATED           |
| J074     | 95A    | 90-  | 23    | TIN COATED           |
| J076     | 95A    | 90-  | 23    | TIN COATED           |
| J077     | 95A    | 90-  | 23    | TIN COATED           |
| J078     | 95A    | 90-  | 23    | TIN COATED           |
| J079     | 95A    | 90-  | 23    | TIN COATED           |
| J080     | 95A    | 90-  | 23    | TIN COATED           |
| J081     | 95A    | 90-  | 23    | TIN COATED           |
| J082     | 95A    | 90-  | 23    | TIN COATED           |
| J083     | 95A    | 90-  | 23    | TIN COATED           |
| J084     | 95A    | 90-  | 23    | TIN COATED           |
| J085     | 95A    | 90-  | 23    | TIN COATED           |
| J086     | 95A    | 90-  | 23    | TIN COATED           |
| J087     | 95A    | 90-  | 23    | TIN COATED           |
| J088     | 61A    | 172- | 102 - | 52T 1K OHM +-5% 1/4W |
| J089     | 95A    | 90-  | 23    | TIN COATED           |
| J090     | 95A    | 90-  | 23    | TIN COATED           |
| J091     | 95A    | 90-  | 23    | TIN COATED           |
| J092     | 95A    | 90-  | 23    | TIN COATED           |
| J093     | 95A    | 90-  | 23    | TIN COATED           |
| J094     | 95A    | 90-  | 23    | TIN COATED           |
| J096     | 95A    | 90-  | 23    | TIN COATED           |
| J097     | 95A    | 90-  | 23    | TIN COATED           |
| J098     | 95A    | 90-  | 23    | TIN COATED           |
| J100     | 95A    | 90-  | 23    | TIN COATED           |
| J101     | 95A    | 90-  | 23    | TIN COATED           |
| J106     | 95A    | 90-  | 23    | TIN COATED           |
| J107     | 95A    | 90-  | 23    | TIN COATED           |
| J109     | 95A    | 90-  | 23    | TIN COATED           |
| J110     | 95A    | 90-  | 23    | TIN COATED           |
| J111     | 95A    | 90-  | 23    | TIN COATED           |
| J112     | 95A    | 90-  | 23    | TIN COATED           |
| J113     | 95A    | 90-  | 23    | TIN COATED           |
| J114     | 95A    | 90-  | 23    | TIN COATED           |
| J115     | 95A    | 90-  | 23    | TIN COATED           |
| J116     | 95A    | 90-  | 23    | TIN COATED           |
| J117     | 95A    | 90-  | 23    | TIN COATED           |
| J118     | 95A    | 90-  | 23    | TIN COATED           |
| J119     | 95A    | 90-  | 23    | TIN COATED           |
| J120     | 95A    | 90-  | 23    | TIN COATED           |
| J121     | 95A    | 90-  | 23    | TIN COATED           |
| J123     | 95A    | 90-  | 23    | TIN COATED           |

|      |     |     |    |            |
|------|-----|-----|----|------------|
| J125 | 95A | 90- | 23 | TIN COATED |
| J126 | 95A | 90- | 23 | TIN COATED |
| J127 | 95A | 90- | 23 | TIN COATED |
| J128 | 95A | 90- | 23 | TIN COATED |
| J129 | 95A | 90- | 23 | TIN COATED |
| J130 | 95A | 90- | 23 | TIN COATED |
| J131 | 95A | 90- | 23 | TIN COATED |
| J132 | 95A | 90- | 23 | TIN COATED |
| J133 | 95A | 90- | 23 | TIN COATED |
| J134 | 95A | 90- | 23 | TIN COATED |
| J135 | 95A | 90- | 23 | TIN COATED |
| J136 | 95A | 90- | 23 | TIN COATED |
| J137 | 95A | 90- | 23 | TIN COATED |
| J138 | 95A | 90- | 23 | TIN COATED |

| LOCATION | D8905A |      |       | SPECIFICATION |               |
|----------|--------|------|-------|---------------|---------------|
| J139     | 95A    | 90-  | 23    | TIN COATED    |               |
| J140     | 95A    | 90-  | 23    | TIN COATED    |               |
| J141     | 95A    | 90-  | 23    | TIN COATED    |               |
| J143     | 95A    | 90-  | 23    | TIN COATED    |               |
| J144     | 95A    | 90-  | 23    | TIN COATED    |               |
| J146     | 95A    | 90-  | 23    | TIN COATED    |               |
| J147     | 95A    | 90-  | 23    | TIN COATED    |               |
| J148     | 95A    | 90-  | 23    | TIN COATED    |               |
| J149     | 95A    | 90-  | 23    | TIN COATED    |               |
| J151     | 95A    | 90-  | 23    | TIN COATED    |               |
| J152     | 95A    | 90-  | 23    | TIN COATED    |               |
| J154     | 95A    | 90-  | 23    | TIN COATED    |               |
| J156     | 95A    | 90-  | 23    | TIN COATED    |               |
| J157     | 95A    | 90-  | 23    | TIN COATED    |               |
| J158     | 95A    | 90-  | 23    | TIN COATED    |               |
| J161     | 95A    | 90-  | 23    | TIN COATED    |               |
| J162     | 95A    | 90-  | 23    | TIN COATED    |               |
| J166     | 95A    | 90-  | 23    | TIN COATED    |               |
| JA       | 95A    | 90-  | 23    | TIN COATED    |               |
| JB       | 95A    | 90-  | 23    | TIN COATED    |               |
| JUM1     | 95A    | 90-  | 23    | TIN COATED    |               |
| JUM2     | 95A    | 90-  | 23    | TIN COATED    |               |
| JUM3     | 95A    | 90-  | 23    | TIN COATED    |               |
| JWT1     | 95A    | 90-  | 23    | TIN COATED    |               |
| JWT2     | 95A    | 90-  | 23    | TIN COATED    |               |
| JWT3     | 95A    | 90-  | 23    | TIN COATED    |               |
| L101     | 73A    | 54-  | 339 - | 10T           | 3.3UH +-10%   |
| L102     | 73A    | 54-  | 220 - | 5T            | 22UH          |
| L402     | 95A    | 90-  | 23    |               | TIN COATED    |
| L406     | 95A    | 90-  | 23    |               | TIN COATED    |
| L907     | 95A    | 90-  | 23    |               | TIN COATED    |
| Q101     | 57A    | 420- | SG -  | T             | TR. KSA733C-G |
| Q401     | 57A    | 420- | SG -  | T             | TR. KSA733C-G |
| Q402     | 57A    | 731- | 1A -  | T             | TR. 2SK2962   |
| Q404     | 57A    | 420- | SG -  | T             | TR. KSA733C-G |
| Q405     | 57A    | 420- | SG -  | T             | TR. KSA733C-G |
| Q407     | 57A    | 419- | SG -  | T             | KSC945C-G     |
| Q408     | 57A    | 419- | SG -  | T             | KSC945C-G     |
| Q410     | 57A    | 419- | SG -  | T             | KSC945C-G     |
| Q601     | 57A    | 419- | Y -   | T             | TR. 2SC1815Y  |
| Q703     | 57A    | 419- | SG -  | T             | KSC945C-G     |
| Q704     | 57A    | 420- | SG -  | T             | TR. KSA733C-G |
| Q705     | 57A    | 498- | 1 -   | T             | TR. BF423     |
| Q706     | 57A    | 420- | SG -  | T             | TR. KSA733C-G |
| Q708     | 57A    | 419- | SG -  | T             | KSC945C-G     |
| Q710     | 57A    | 419- | SG -  | T             | KSC945C-G     |
| Q730     | 57A    | 419- | SG -  | T             | KSC945C-G     |
| Q731     | 57A    | 420- | SG -  | T             | TR. KSA733C-G |
| Q732     | 57A    | 419- | SG -  | T             | KSC945C-G     |

|      |     |      |      |   |               |
|------|-----|------|------|---|---------------|
| Q735 | 57A | 498- | 1 -  | T | TR. BF423     |
| Q740 | 57A | 493- | 10 - | T | TR. BF422     |
| Q741 | 57A | 419- | SG - | T | KSC945C-G     |
| Q742 | 57A | 419- | SG - | T | KSC945C-G     |
| Q902 | 57A | 446- | 1 -  | T | TR. 2SC1213AC |
| Q903 | 57A | 419- | SG - | T | KSC945C-G     |
| Q905 | 57A | 420- | SG - | T | TR. KSA733C-G |
| Q908 | 57A | 419- | SG - | T | KSC945C-G     |
| Q910 | 57A | 419- | SG - | T | KSC945C-G     |
| Q912 | 57A | 446- | 1 -  | T | TR. 2SC1213AC |
| Q913 | 57A | 419- | SG - | T | KSC945C-G     |
| Q918 | 57A | 446- | 1 -  | T | TR. 2SC1213AC |
| Q920 | 57A | 619- | 1 -  | T | TR. 2SA673AC  |
| Q921 | 57A | 446- | 1 -  | T | TR. 2SC1213AC |
| Q990 | 57A | 419- | SG - | T | KSC945C-G     |

| LOCATION | D8905A |      |       |     | SPECIFICATION      |
|----------|--------|------|-------|-----|--------------------|
| R100     | 61A    | 602- | 472 - | 52T | 4.7K OHM +-5% 1/6W |
| R106     | 61A    | 602- | 303 - | 52T | 30K OHM +-5% 1/6W  |
| R108     | 61A    | 602- | 512 - | 52T | 5.1K OHM +-5% 1/6W |
| R109     | 61A    | 602- | 512 - | 52T | 5.1K OHM +-5% 1/6W |
| R110     | 61A    | 172- | 221 - | 52T | 220 OHM +-5% 1/4W  |
| R111     | 61A    | 172- | 221 - | 52T | 220 OHM +-5% 1/4W  |
| R112     | 61A    | 602- | 622 - | 52T | 6.2K OHM +-5% 1/6W |
| R113     | 61A    | 602- | 203 - | 52T | 20K OHM +-5% 1/6W  |
| R114     | 61A    | 602- | 102 - | 52T | 1K OHM +-5% 1/6W   |
| R116     | 61A    | 602- | 472 - | 52T | 4.7K OHM +-5% 1/6W |
| R117     | 61A    | 602- | 101 - | 52T | 100 OHM +-5% 1/6W  |
| R118     | 61A    | 602- | 103 - | 52T | 10K OHM +-5% 1/6W  |
| R119     | 61A    | 602- | 103 - | 52T | 10K OHM +-5% 1/6W  |
| R120     | 61A    | 602- | 222 - | 52T | 2.2K OHM +-5% 1/6W |
| R122     | 61A    | 172- | 221 - | 52T | 220 OHM +-5% 1/4W  |
| R123     | 61A    | 602- | 222 - | 52T | 2.2K OHM +-5% 1/6W |
| R124     | 61A    | 602- | 152 - | 52T | 1.5K OHM +-5% 1/6W |
| R125     | 61A    | 602- | 222 - | 52T | 2.2K OHM +-5% 1/6W |
| R126     | 61A    | 172- | 202 - | 52T | 2K OHM +-5% 1/4W   |
| R127     | 61A    | 602- | 102 - | 52T | 1K OHM +-5% 1/6W   |
| R128     | 61A    | 602- | 102 - | 52T | 1K OHM +-5% 1/6W   |
| R130     | 61A    | 602- | 472 - | 52T | 4.7K OHM +-5% 1/6W |
| R131     | 61A    | 602- | 472 - | 52T | 4.7K OHM +-5% 1/6W |
| R132     | 61A    | 602- | 101 - | 52T | 100 OHM +-5% 1/6W  |
| R133     | 61A    | 602- | 472 - | 52T | 4.7K OHM +-5% 1/6W |
| R135     | 61A    | 602- | 152 - | 52T | 1.5K OHM +-5% 1/6W |
| R136     | 61A    | 602- | 222 - | 52T | 2.2K OHM +-5% 1/6W |
| R138     | 61A    | 602- | 103 - | 52T | 10K OHM +-5% 1/6W  |
| R139     | 61A    | 602- | 102 - | 52T | 1K OHM +-5% 1/6W   |
| R140     | 61A    | 602- | 331 - | 52T | 330 OHM +-5% 1/6W  |
| R141     | 61A    | 602- | 222 - | 52T | 2.2K OHM +-5% 1/6W |
| R143     | 61A    | 602- | 101 - | 52T | 100 OHM +-5% 1/6W  |
| R146     | 61A    | 602- | 103 - | 52T | 10K OHM +-5% 1/6W  |
| R147     | 61A    | 602- | 103 - | 52T | 10K OHM +-5% 1/6W  |
| R148     | 61A    | 602- | 103 - | 52T | 10K OHM +-5% 1/6W  |
| R149     | 61A    | 602- | 103 - | 52T | 10K OHM +-5% 1/6W  |
| R150     | 61A    | 602- | 103 - | 52T | 10K OHM +-5% 1/6W  |
| R151     | 61A    | 602- | 103 - | 52T | 10K OHM +-5% 1/6W  |
| R152     | 61A    | 602- | 302 - | 52T | 3K OHM +-5% 1/6W   |
| R153     | 61A    | 602- | 332 - | 52T | 3.3K OHM +-5% 1/6W |
| R154     | 61A    | 602- | 562 - | 52T | 5.6K OHM +-5% 1/6W |
| R155     | 61A    | 172- | 474 - | 52T | 470K OHM +-5% 1/4W |
| R156     | 61A    | 602- | 472 - | 52T | 4.7K OHM +-5% 1/6W |
| R157     | 61A    | 602- | 472 - | 52T | 4.7K OHM +-5% 1/6W |
| R158     | 61A    | 602- | 472 - | 52T | 4.7K OHM +-5% 1/6W |
| R159     | 61A    | 602- | 101 - | 52T | 100 OHM +-5% 1/6W  |
| R160     | 61A    | 602- | 101 - | 52T | 100 OHM +-5% 1/6W  |
| R161     | 61A    | 602- | 122 - | 52T | 1.2K OHM +-5% 1/6W |

|      |     |       |       |     |                    |
|------|-----|-------|-------|-----|--------------------|
| R163 | 61A | 172-  | 682 - | 52T | 6.8K OHM +-5% 1/4W |
| R165 | 61A | 602-  | 222 - | 52T | 2.2K OHM +-5% 1/6W |
| R167 | 61A | 175L- | 331 - | 52T | 330 OHM +-5% 1/2W  |
| R170 | 61A | 602-  | 101 - | 52T | 100 OHM +-5% 1/6W  |
| R171 | 61A | 602-  | 101 - | 52T | 100 OHM +-5% 1/6W  |
| R172 | 61A | 602-  | 101 - | 52T | 100 OHM +-5% 1/6W  |
| R173 | 61A | 172-  | 470 - | 52T | 47 OHM +-5% 1/4W   |
| R174 | 61A | 602-  | 102 - | 52T | 1K OHM +-5% 1/6W   |
| R175 | 61A | 602-  | 202 - | 52T | 2K OHM +5% 1/6W    |
| R180 | 61A | 602-  | 362 - | 52T | 3.6K OHM +-5% 1/6W |
| R181 | 61A | 602-  | 152 - | 52T | 1.5K OHM +-5% 1/6W |
| R182 | 61A | 602-  | 331 - | 52T | 330 OHM +-5% 1/6W  |
| R186 | 61A | 602-  | 202 - | 52T | 2K OHM +5% 1/6W    |
| R401 | 61A | 172-  | 205 - | 52T | 2M OHM +-5% 1/4W   |
| R402 | 61A | 172-  | 222 - | 52T | 2.2K OHM +-5% 1/4W |

| LOCATION | D8905A |       |       |     | SPECIFICATION      |
|----------|--------|-------|-------|-----|--------------------|
| R403     | 61A    | 602-  | 101 - | 52T | 100 OHM +-5% 1/6W  |
| R404     | 61A    | 602-  | 101 - | 52T | 100 OHM +-5% 1/6W  |
| R405     | 61A    | 602-  | 101 - | 52T | 100 OHM +-5% 1/6W  |
| R406     | 61A    | 602-  | 101 - | 52T | 100 OHM +-5% 1/6W  |
| R408     | 61A    | 172-  | 474 - | 52T | 470K OHM +-5% 1/4W |
| R409     | 61A    | 210-  | 133 - | 52T | 13K OHM +-1% 1/6W  |
| R410     | 61A    | 210-  | 472 - | 52T | 4.7K OHM +-1% 1/6W |
| R411     | 61A    | 602-  | 182 - | 52T | 1.8K OHM +-5% 1/6W |
| R414     | 61A    | 172-  | 472 - | 52T | 4.7K OHM +-5% 1/4W |
| R415     | 95A    | 90-   | 23    |     | TIN COATED         |
| R416     | 61A    | 172-  | 163 - | 52T | 16K OHM +-5% 1/4W  |
| R417     | 61A    | 210-  | 202 - | 52T | 2K OHM +-1% 1/6W   |
| R418     | 61A    | 210-  | 472 - | 52T | 4.7K OHM +-1% 1/6W |
| R420     | 61A    | 172-  | 472 - | 52T | 4.7K OHM +-5% 1/4W |
| R422     | 61A    | 602-  | 101 - | 52T | 100 OHM +-5% 1/6W  |
| R423     | 61A    | 602-  | 203 - | 52T | 20K OHM +-5% 1/6W  |
| R425     | 61A    | 172-  | 101 - | 52T | 100 OHM +-5% 1/4W  |
| R427     | 61A    | 175L- | 220 - | 52T | 22 OHM +-5% 1/2W   |
| R429     | 61A    | 175L- | 100 - | 52T | 10 OHM +-5% 1/2W   |
| R430     | 61A    | 172-  | 184 - | 52T | 180K OHM +-5% 1/4W |
| R431     | 61A    | 172-  | 622 - | 52T | 6.2K OHM +-5% 1/4W |
| R433     | 61A    | 602-  | 102 - | 52T | 1K OHM +-5% 1/6W   |
| R434     | 61A    | 602-  | 392 - | 52T | 3.9K OHM +-5% 1/6W |
| R436     | 61A    | 602-  | 681 - | 52T | 680 OHM +-5% 1/6W  |
| R438     | 95A    | 90-   | 23    |     | TIN COATED         |
| R440     | 61A    | 172-  | 512 - | 52T | 5.1K OHM +-5% 1/4W |
| R441     | 61A    | 175L- | 683 - | 52T | 68K OHM +-5% 1/2W  |
| R442     | 61A    | 175L- | 102 - | 52T | 1K OHM +-5% 1/2W   |
| R443     | 61A    | 172-  | 473 - | 52T | 47K OHM +-5% 1/4W  |
| R444     | 95A    | 90-   | 23    |     | TIN COATED         |
| R447     | 61A    | 172-  | 103 - | 52T | 10K OHM +-5% 1/4W  |
| R450     | 61A    | 602-  | 103 - | 52T | 10K OHM +-5% 1/6W  |
| R459     | 95A    | 90-   | 23    |     | TIN COATED         |
| R460     | 61A    | 172-  | 472 - | 52T | 4.7K OHM +-5% 1/4W |
| R462     | 61A    | 602-  | 473 - | 52T | 47K OHM +-5% 1/6W  |
| R471     | 61A    | 602-  | 563 - | 52T | 56K OHM +-5% 1/6W  |
| R472     | 61A    | 172-  | 224 - | 52T | 220K OHM +-5% 1/4W |
| R473     | 61A    | 172-  | 103 - | 52T | 10K OHM +-5% 1/4W  |
| R474     | 61A    | 172-  | 104 - | 52T | 100K OHM +-5% 1/4W |
| R475     | 61A    | 172-  | 103 - | 52T | 10K OHM +-5% 1/4W  |
| R476     | 61A    | 172-  | 224 - | 52T | 220K OHM +-5% 1/4W |
| R480     | 95A    | 90-   | 23    |     | TIN COATED         |
| R497     | 95A    | 90-   | 23    |     | TIN COATED         |
| R601     | 61A    | 172-  | 243 - | 52T | 24K OHM +-5% 1/4W  |
| R602     | 61A    | 172-  | 392 - | 52T | 3.9K OHM +-5% 1/4W |
| R603     | 61A    | 172-  | 123 - | 52T | 12K OHM +-5% 1/4W  |
| R604     | 61A    | 172-  | 562 - | 52T | 5.6K OHM +-5% 1/4W |
| R605     | 61A    | 175L- | 159 - | 52T | 1.5 OHM +-5% 1/2W  |

|      |     |       |       |     |                    |
|------|-----|-------|-------|-----|--------------------|
| R606 | 61A | 175L- | 181 - | 52T | 180 OHM +-5% 1/2W  |
| R609 | 61A | 602-  | 222 - | 52T | 2.2K OHM +-5% 1/6W |
| R610 | 61A | 172-  | 124 - | 52T | 120K OHM +-5% 1/4W |
| R611 | 61A | 602-  | 123 - | 52T | 12K OHM +-5% 1/6W  |
| R612 | 61A | 172-  | 222 - | 52T | 2.2K OHM +-5% 1/4W |
| R613 | 61A | 172-  | 102 - | 52T | 1K OHM +-5% 1/4W   |
| R616 | 61A | 602-  | 101 - | 52T | 100 OHM +-5% 1/6W  |
| R707 | 61A | 602-  | 472 - | 52T | 4.7K OHM +-5% 1/6W |
| R708 | 61A | 172-  | 103 - | 52T | 10K OHM +-5% 1/4W  |
| R709 | 61A | 602-  | 103 - | 52T | 10K OHM +-5% 1/6W  |
| R710 | 61A | 602-  | 103 - | 52T | 10K OHM +-5% 1/6W  |
| R711 | 61A | 602-  | 103 - | 52T | 10K OHM +-5% 1/6W  |
| R712 | 61A | 602-  | 273 - | 52T | 27K OHM +-5% 1/6W  |
| R713 | 61A | 602-  | 562 - | 52T | 5.6K OHM +-5% 1/6W |
| R714 | 61A | 172-  | 121 - | 52T | 120 OHM +-5% 1/4W  |

| LOCATION | D8905A |       |       |     | SPECIFICATION      |
|----------|--------|-------|-------|-----|--------------------|
| R715     | 61A    | 602-  | 103 - | 52T | 10K OHM +-5% 1/6W  |
| R720     | 61A    | 175L- | 104 - | 52T | 100K OHM +-5% 1/2W |
| R721     | 61A    | 175L- | 102 - | 52T | 1K OHM +-5% 1/2W   |
| R722     | 61A    | 602-  | 332 - | 52T | 3.3K OHM +-5% 1/6W |
| R724     | 61A    | 212Y- | 105 - | 52T | 1MEG OHM 1/4W +-5% |
| R725     | 61A    | 212Y- | 274 - | 52T | 270K OHM 1/4W +-5% |
| R726     | 61A    | 602-  | 102 - | 52T | 1K OHM +-5% 1/6W   |
| R727     | 61A    | 175L- | 682 - | 52T | 6.8K OHM +-5% 1/2W |
| R728     | 61A    | 172-  | 561 - | 52T | 560 OHM +-5% 1/4W  |
| R730     | 95A    | 90-   | 23    |     | TIN COATED         |
| R733     | 61A    | 172-  | 101 - | 52T | 100 OHM +-5% 1/4W  |
| R734     | 61A    | 172-  | 683 - | 52T | 68K OHM +-5% 1/4W  |
| R735     | 61A    | 172-  | 104 - | 52T | 100K OHM +-5% 1/4W |
| R737     | 61A    | 210-  | 103 - | 52T | 10K OHM +-1% 1/6W  |
| R738     | 61A    | 172-  | 102 - | 52T | 1K OHM +-5% 1/4W   |
| R739     | 61A    | 602-  | 331 - | 52T | 330 OHM +-5% 1/6W  |
| R740     | 61A    | 175L- | 563 - | 52T | 56K OHM +-5% 1/2W  |
| R741     | 61A    | 175L- | 563 - | 52T | 56K OHM +-5% 1/2W  |
| R744     | 61A    | 602-  | 563 - | 52T | 56K OHM +-5% 1/6W  |
| R745     | 61A    | 602-  | 681 - | 52T | 680 OHM +-5% 1/6W  |
| R747     | 61A    | 175L- | 563 - | 52T | 56K OHM +-5% 1/2W  |
| R748     | 61A    | 602-  | 223 - | 52T | 22K OHM +-5% 1/6W  |
| R749     | 61A    | 602-  | 104 - | 52T | 100K OHM +-5% 1/6W |
| R750     | 95A    | 90-   | 23    |     | TIN COATED         |
| R751     | 61A    | 602-  | 122 - | 52T | 1.2K OHM +-5% 1/6W |
| R770     | 61A    | 172-  | 333 - | 52T | 33K OHM +-5% 1/4W  |
| R771     | 61A    | 172-  | 102 - | 52T | 1K OHM +-5% 1/4W   |
| R772     | 61A    | 602-  | 102 - | 52T | 1K OHM +-5% 1/6W   |
| R780     | 61A    | 602-  | 105 - | 52T | 1M OHM +-5% 1/6W   |
| R781     | 61A    | 602-  | 823 - | 52T | 82K OHM +-5% 1/6W  |
| R782     | 61A    | 602-  | 563 - | 52T | 56K OHM +-5% 1/6W  |
| R783     | 61A    | 210-  | 822 - | 52T | 8.2K OHM +-1% 1/6W |
| R784     | 61A    | 602-  | 563 - | 52T | 56K OHM +-5% 1/6W  |
| R785     | 61A    | 602-  | 223 - | 52T | 22K OHM +-5% 1/6W  |
| R786     | 61A    | 602-  | 102 - | 52T | 1K OHM +-5% 1/6W   |
| R902     | 61A    | 602-  | 472 - | 52T | 4.7K OHM +-5% 1/6W |
| R905     | 61A    | 602-  | 622 - | 52T | 6.2K OHM +-5% 1/6W |
| R906     | 61A    | 172-  | 100 - | 52T | 10 OHM +-5% 1/4W   |
| R908     | 61A    | 175L- | 150 - | 52T | 15 OHM +-5% 1/2W   |
| R909     | 61A    | 172-  | 101 - | 52T | 100 OHM +-5% 1/4W  |
| R910     | 61A    | 602-  | 913 - | 52T | 91K OHM +-5% 1/6W  |
| R911     | 95A    | 90-   | 23    |     | TIN COATED         |
| R914     | 61A    | 172-  | 102 - | 52T | 1K OHM +-5% 1/4W   |
| R915     | 61A    | 172-  | 152 - | 52T | 1.5K OHM +-5% 1/4W |
| R917     | 61A    | 212Y- | 474 - | 52T | 470K OHM 1/2W +-5% |
| R918     | 61A    | 212Y- | 474 - | 52T | 470K OHM 1/2W +-5% |
| R921     | 95A    | 90-   | 23    |     | TIN COATED         |
| R923     | 61A    | 212Y- | 823 - | 52T | 82K OHM 1/2W +-5%  |
| R928     | 61A    | 212Y- | 823 - | 52T | 82K OHM 1/2W +-5%  |

|       |     |       |       |     |                    |
|-------|-----|-------|-------|-----|--------------------|
| R930  | 61A | 172-  | 102 - | 52T | 1K OHM +-5% 1/4W   |
| R931  | 61A | 200-  | 109 - | 52T | 1 OHM +-1% 1/4W    |
| R932  | 61A | 212Y- | 104 - | 52T | 100K OHM 1/2W +-5% |
| R935  | 61A | 172-  | 334 - | 52T | 330K OHM +-5% 1/4W |
| R937  | 61A | 172-  | 151 - | 52T | 150 OHM +-5% 1/4W  |
| R938  | 61A | 172-  | 220 - | 52T | 22 OHM +-5% 1/4W   |
| R939  | 61A | 172-  | 203 - | 52T | 20K OHM +-5% 1/4W  |
| R940  | 61A | 171-  | 393 - | 52T | 39K OHM +-2% 1/4W  |
| R941  | 61A | 172-  | 151 - | 52T | 150 OHM +-5% 1/4W  |
| R942  | 61A | 172-  | 680 - | 52T | 68 OHM +-5% 1/4W   |
| R944  | 61A | 172-  | 512 - | 52T | 5.1K OHM +-5% 1/4W |
| R951  | 61A | 172-  | 221 - | 52T | 220 OHM +-5% 1/4W  |
| R952  | 61A | 172-  | 473 - | 52T | 47K OHM +-5% 1/4W  |
| R953. | 61A | 172-  | 303 - | 52T | 30K OHM +-5% 1/4W  |

| <b>LOCATION</b> | <b>D8905A</b> |       |       |     | <b>SPECIFICATION</b> |
|-----------------|---------------|-------|-------|-----|----------------------|
| R955            | 71A           | 55-   | 19 -  | T   | BEAD                 |
| R957            | 61A           | 172-  | 473 - | 52T | 47K OHM +-5% 1/4W    |
| R958            | 61A           | 172-  | 102 - | 52T | 1K OHM +-5% 1/4W     |
| R959            | 61A           | 172-  | 333 - | 52T | 33K OHM +-5% 1/4W    |
| R960            | 61A           | 172-  | 473 - | 52T | 47K OHM +-5% 1/4W    |
| R962            | 61A           | 172-  | 220 - | 52T | 22 OHM +-5% 1/4W     |
| R963            | 61A           | 175L- | 681 - | 52T | 680 OHM +-5% 1/2W    |
| R965            | 61A           | 172-  | 100 - | 52T | 10 OHM +-5% 1/4W     |
| R966            | 61A           | 172-  | 302 - | 52T | 3K OHM +-5% 1/4W     |
| R967            | 61A           | 172-  | 752 - | 52T | 7.5K OHM +-5% 1/4W   |
| R968            | 61A           | 172-  | 204 - | 52T | 200K OHM +-5% 1/4W   |
| R969            | 61A           | 175L- | 753 - | 52T | 75K OHM +-5% 1/2W    |
| R972            | 61A           | 172-  | 163 - | 52T | 16K OHM +-5% 1/4W    |
| R973            | 61A           | 175L- | 753 - | 52T | 75K OHM +-5% 1/2W    |
| R977            | 61A           | 175L- | 753 - | 52T | 75K OHM +-5% 1/2W    |
| R979            | 61A           | 172-  | 151 - | 52T | 150 OHM +-5% 1/4W    |
| R980            | 61A           | 172-  | 221 - | 52T | 220 OHM +-5% 1/4W    |
| R981            | 61A           | 175L- | 101 - | 52T | 100 OHM +-5% 1/2W    |
| R982            | 61A           | 172-  | 103 - | 52T | 10K OHM +-5% 1/4W    |
| R983            | 61A           | 172-  | 103 - | 52T | 10K OHM +-5% 1/4W    |
| R985            | 61A           | 172-  | 331 - | 52T | 330 OHM +-5% 1/4W    |
| R986            | 61A           | 175L- | 106 - | 52T | 10M OHM +-5% 1/2W    |
| R988            | 61A           | 172-  | 223 - | 52T | 22K OHM +-5% 1/4W    |
| R992            | 61A           | 602-  | 222 - | 52T | 2.2K OHM +-5% 1/6W   |
| R993            | 61A           | 172-  | 103 - | 52T | 10K OHM +-5% 1/4W    |
| R994            | 61A           | 172-  | 103 - | 52T | 10K OHM +-5% 1/4W    |
| R995            | 61A           | 172-  | 393 - | 52T | 39K OHM +-5% 1/4W    |
| R996            | 61A           | 602-  | 103 - | 52T | 10K OHM +-5% 1/6W    |
| R999            | 61A           | 602-  | 103 - | 52T | 10K OHM +-5% 1/6W    |
| ZD101           | 93A           | 39-   | 79 -  | 52T | ZD HZ6C2             |
| ZD151           | 93A           | 39-   | 52 -  | 52T | ZD HZ5C2             |
| ZD420           | 93A           | 39-   | 522 - | 52T | ZD TZX20B            |
| ZD430           | 93A           | 39-   | 52 -  | 52T | ZD HZ5C2             |
| ZD701           | 93A           | 39-   | 126 - | 52T | RD3.6EB2             |
| ZD770           | 93A           | 39-   | 524 - | 52T | ZD MTZJ2.0B          |
| ZD905           | 93A           | 39-   | 79 -  | 52T | ZD HZ6C2             |
| ZD908           | 93A           | 39-   | 79 -  | 52T | ZD HZ6C2             |
| ZD983           | 95A           | 90-   | 23    |     | TIN COATED           |

### **PARTS LIST OF CRT PC BOARD**

| <b>LOCATION</b> | <b>CR761VSNHP</b> |       |      |     | <b>SPECIFICATION</b> |
|-----------------|-------------------|-------|------|-----|----------------------|
|                 | AIR761VSNHP       |       |      |     | CRT BOARD            |
|                 | 40A               | 581-  | 26 - | 605 | LABEL                |
|                 | 55A               | 1-    | 4    |     | SOLDER BAR           |
|                 | 87A               | 3504- | QJ   |     | CRT SOCKET           |

|      |      |       |       |    |                          |
|------|------|-------|-------|----|--------------------------|
|      | 705A | 761V- | R56 - | HP | IC802 ASS <sub>i</sub> Y |
| C835 | 65A  | 2M-   | 103 - | 3A | 10000PF 2KV              |
| C837 | 67A  | 305-  | 479 - | 10 | 4.7UF 160V +/-20%        |
| G2   | 9A   | 203-  | 8     |    | BRASS PIN                |



|       |     |       |       |           |               |
|-------|-----|-------|-------|-----------|---------------|
| GND   | 9A  | 203-  | 8     | BRASS PIN |               |
| IC801 | 56A | 539-  | 2     | LM1279N   |               |
| P801  | 33A | 3278- | 12A   | PLUG      |               |
| P802  | 33A | 3278- | 10    | 10P PLUG  |               |
| P803  | 33A | 3278- | 6     | 6P PLUG   |               |
| P804  | 33A | 3278- | 11    | 11P PLUG  |               |
| R807  | 61A | 208-  | 390 - | 64        | 39 OHM 1W 5%  |
| R859  | 61A | 152M- | 101 - | 64        | 100 OHM 2W 5% |

# PARTS LIST OF CRT AUTO INS. PC BOARD

| LOCATION | AIR761VSNHP |       |       | SPECIFICATION              |
|----------|-------------|-------|-------|----------------------------|
|          | 6A          | 31-   | 4     | BRASS                      |
|          | 715A        | 793-  | F     | CRPC BOARD                 |
| C801     | 67A         | 305-  | 100 - | 7T 10uF +-20% 50V          |
| C802     | 67A         | 305-  | 100 - | 7T 10uF +-20% 50V          |
| C803     | 67A         | 305-  | 100 - | 7T 10uF +-20% 50V          |
| C804     | 64A         | 176J- | 104 - | 0T 0.1uF +-5% 63V          |
| C805     | 64A         | 176J- | 104 - | 0T 0.1uF +-5% 63V          |
| C806     | 64A         | 176J- | 104 - | 0T 0.1uF +-5% 63V          |
| C807     | 67A         | 305-  | 100 - | 7T 10uF +-20% 50V          |
| C808     | 67A         | 309-  | 470 - | 3T 47uF +-20% 16V          |
| C809     | 65A         | 450-  | 104 - | 7T 0.1uF +80% -20% Y5V 50V |
| C812     | 67A         | 305-  | 101 - | 3T 100uF +-20% 16V         |
| C813     | 65A         | 450-  | 104 - | 7T 0.1uF +80% -20% Y5V 50V |
| C814     | 65A         | 450-  | 104 - | 7T 0.1uF +80% -20% Y5V 50V |
| C815     | 65A         | 450-  | 104 - | 7T 0.1uF +80% -20% Y5V 50V |
| C816     | 65A         | 450-  | 104 - | 7T 0.1uF +80% -20% Y5V 50V |
| C819     | 65A         | 450-  | 104 - | 7T 0.1uF +80% -20% Y5V 50V |
| C820     | 64A         | 176J- | 104 - | 1T 0.1uF +-5% 100V         |
| C828     | 67A         | 70-   | 478 - | 9T 0.47uF 100V NP          |
| C829     | 67A         | 70-   | 478 - | 9T 0.47uF 100V NP          |
| C830     | 67A         | 70-   | 478 - | 9T 0.47uF 100V NP          |
| C831     | 67A         | 309-  | 109 - | 9T 1UF +-20% 100V          |
| C832     | 67A         | 309-  | 109 - | 9T 1UF +-20% 100V          |
| C833     | 67A         | 309-  | 109 - | 9T 1UF +-20% 100V          |
| C834     | 65A         | 450-  | 103 - | 3T 0.01UF +80-20% 50V      |
| C836     | 65A         | 1K-   | 222 - | 2T 0.0022UF +-10% 1KV      |
| C841     | 65A         | 450-  | 104 - | 7T 0.1UF 50V +80-20%       |
| C842     | 65A         | 450-  | 104 - | 7T 0.1UF 50V +80-20%       |
| C843     | 65A         | 450-  | 104 - | 7T 0.1UF 50V +80-20%       |
| C860     | 65A         | 450-  | 103 - | 7T 10000PF 50V +80-20%     |
| C861     | 65A         | 517K- | 102 - | 2T 1000PF +-10% 500V       |
| C862     | 65A         | 517K- | 221 - | 2T 220PF +-10% 500V        |
| C863     | 65A         | 444-  | 102 - | 13T 1000PF 50V +-10%       |
| C870     | 65A         | 517K- | 102 - | 1T 1NF +-10% 500V          |
| C872     | 65A         | 517K- | 102 - | 1T 1NF +-10% 500V          |
| C873     | 65A         | 517K- | 102 - | 1T 1NF +-10% 500V          |
| C887     | 65A         | 442-  | 101 - | 13T 100PF 50V +-5% NPO     |
| D801     | 93A         | 64-   | 11 -  | 26T DIODE IN4148           |
| D802     | 93A         | 64-   | 11 -  | 26T DIODE IN4148           |
| D803     | 93A         | 64-   | 11 -  | 26T DIODE IN4148           |
| D804     | 93A         | 64-   | 11 -  | 26T DIODE IN4148           |
| D805     | 93A         | 64-   | 11 -  | 26T DIODE IN4148           |
| D806     | 93A         | 64-   | 11 -  | 26T DIODE IN4148           |
| D807     | 93A         | 64-   | 11 -  | 26T DIODE IN4148           |
| D808     | 93A         | 64-   | 31T - | 26T SWITCH DIODE           |
| D809     | 93A         | 64-   | 31T - | 26T SWITCH DIODE           |
| D810     | 93A         | 64-   | 31T - | 26T SWITCH DIODE           |
| D811     | 93A         | 64-   | 31T - | 26T SWITCH DIODE           |

|       |     |     |       |     |              |
|-------|-----|-----|-------|-----|--------------|
| D812  | 93A | 64- | 31T - | 26T | SWITCH DIODE |
| D813  | 93A | 64- | 31T - | 26T | SWITCH DIODE |
| D814  | 93A | 64- | 31T - | 26T | SWITCH DIODE |
| D815  | 93A | 64- | 31T - | 26T | SWITCH DIODE |
| D816  | 93A | 64- | 31T - | 26T | SWITCH DIODE |
| D817  | 93A | 52- | 9T -  | 52T | 2A 600V      |
| D840  | 93A | 64- | 11 -  | 52T | DIODE IN4148 |
| D841  | 93A | 64- | 11 -  | 52T | DIODE IN4148 |
| D842  | 93A | 64- | 11 -  | 52T | DIODE IN4148 |
| FB804 | 71A | 55- | 19 -  | T   | BEAD         |
| FB815 | 71A | 55- | 19 -  | T   | BEAD         |
| J801  | 95A | 90- | 23    |     | TIN COATED   |
| J802  | 95A | 90- | 23    |     | TIN COATED   |
| J803  | 95A | 90- | 23    |     | TIN COATED   |

| LOCATION | AIR761VSNHP |      |       | SPECIFICATION |                    |
|----------|-------------|------|-------|---------------|--------------------|
| J804     | 95A         | 90-  | 23    | TIN COATED    |                    |
| J805     | 95A         | 90-  | 23    | TIN COATED    |                    |
| J806     | 95A         | 90-  | 23    | TIN COATED    |                    |
| J807     | 95A         | 90-  | 23    | TIN COATED    |                    |
| J808     | 95A         | 90-  | 23    | TIN COATED    |                    |
| J809     | 95A         | 90-  | 23    | TIN COATED    |                    |
| J810     | 95A         | 90-  | 23    | TIN COATED    |                    |
| J811     | 95A         | 90-  | 23    | TIN COATED    |                    |
| J812     | 95A         | 90-  | 23    | TIN COATED    |                    |
| J814     | 95A         | 90-  | 23    | TIN COATED    |                    |
| J815     | 95A         | 90-  | 23    | TIN COATED    |                    |
| J817     | 95A         | 90-  | 23    | TIN COATED    |                    |
| J818     | 95A         | 90-  | 23    | TIN COATED    |                    |
| L801     | 71A         | 55-  | 19 -  | T             | BEAD               |
| L805     | 73A         | 54-  | 478 - | 10T           | 0.47UH +-10%       |
| L806     | 73A         | 54-  | 478 - | 10T           | 0.47UH +-10%       |
| L807     | 73A         | 54-  | 478 - | 10T           | 0.47UH +-10%       |
| L808     | 71A         | 55-  | 19 -  | T             | BEAD               |
| L809     | 73A         | 54-  | 478 - | 10T           | 0.47UH +-10%       |
| L810     | 73A         | 54-  | 478 - | 10T           | 0.47UH +-10%       |
| L811     | 73A         | 54-  | 478 - | 10T           | 0.47UH +-10%       |
| Q821     | 57A         | 493- | 10 -  | T             | TR. BF422          |
| Q822     | 57A         | 493- | 10 -  | T             | TR. BF422          |
| Q823     | 57A         | 493- | 10 -  | T             | TR. BF422          |
| Q830     | 57A         | 498- | 1 -   | T             | TR. BF423          |
| Q831     | 57A         | 498- | 1 -   | T             | TR. BF423          |
| Q832     | 57A         | 498- | 1 -   | T             | TR. BF423          |
| R801     | 61A         | 602- | 750 - | 26T           | 75 OHM +-5% 1/6W   |
| R802     | 61A         | 602- | 750 - | 26T           | 75 OHM +-5% 1/6W   |
| R803     | 61A         | 602- | 750 - | 26T           | 75 OHM +-5% 1/6W   |
| R804     | 61A         | 602- | 300 - | 26T           | 30 OHM +-5% 1/6W   |
| R805     | 61A         | 602- | 300 - | 26T           | 30 OHM +-5% 1/6W   |
| R806     | 61A         | 602- | 300 - | 26T           | 30 OHM +-5% 1/6W   |
| R808     | 61A         | 602- | 102 - | 52T           | 1K OHM +-5% 1/6W   |
| R809     | 61A         | 172- | 225 - | 26T           | 2.2M OHM +-5% 1/4W |
| R810     | 61A         | 602- | 101 - | 26T           | 100 OHM +-5% 1/6W  |
| R815     | 61A         | 602- | 391 - | 26T           | 390 OHM +-5% 1/6W  |
| R816     | 61A         | 602- | 391 - | 26T           | 390 OHM +-5% 1/6W  |
| R817     | 61A         | 602- | 391 - | 26T           | 390 OHM +-5% 1/6W  |
| R818     | 61A         | 602- | 100 - | 26T           | 10 OHM +-5% 1/6W   |
| R819     | 61A         | 602- | 100 - | 26T           | 10 OHM +-5% 1/6W   |
| R820     | 61A         | 602- | 100 - | 26T           | 10 OHM +-5% 1/6W   |
| R823     | 61A         | 172- | 111 - | 26T           | 110 OHM +-5% 1/4W  |
| R824     | 61A         | 172- | 111 - | 26T           | 110 OHM +-5% 1/4W  |
| R825     | 61A         | 172- | 111 - | 26T           | 110 OHM +-5% 1/4W  |
| R826     | 61A         | 172- | 751 - | 26T           | 750 OHM +-5% 1/4W  |
| R831     | 61A         | 602- | 102 - | 52T           | 1K OHM +-5% 1/6W   |
| R832     | 61A         | 602- | 102 - | 52T           | 1K OHM +-5% 1/6W   |
| R833     | 61A         | 602- | 102 - | 52T           | 1K OHM +-5% 1/6W   |

|      |     |       |       |     |                    |
|------|-----|-------|-------|-----|--------------------|
| R840 | 61A | 172-  | 222 - | 26T | 2.2K OHM +-5% 1/4W |
| R841 | 61A | 172-  | 223 - | 26T | 22K OHM +-5% 1/4W  |
| R842 | 61A | 172-  | 223 - | 26T | 22K OHM +-5% 1/4W  |
| R843 | 61A | 172-  | 222 - | 26T | 2.2K OHM +-5% 1/4W |
| R844 | 61A | 172-  | 223 - | 26T | 22K OHM +-5% 1/4W  |
| R845 | 61A | 172-  | 222 - | 26T | 2.2K OHM +-5% 1/4W |
| R846 | 61A | 172-  | 224 - | 26T | 220K OHM +-5% 1/4W |
| R847 | 61A | 172-  | 224 - | 26T | 220K OHM +-5% 1/4W |
| R848 | 61A | 172-  | 224 - | 26T | 220K OHM +-5% 1/4W |
| R849 | 61A | 172-  | 224 - | 26T | 220K OHM +-5% 1/4W |
| R850 | 61A | 172-  | 224 - | 26T | 220K OHM +-5% 1/4W |
| R851 | 61A | 172-  | 224 - | 26T | 220K OHM +-5% 1/4W |
| R855 | 61A | 175L- | 101 - | 52T | 100 OHM +-5% 1/2W  |
| R856 | 61A | 175L- | 101 - | 52T | 100 OHM +-5% 1/2W  |

| LOCATION | AIR761VSNHP |       |       |     | SPECIFICATION      |
|----------|-------------|-------|-------|-----|--------------------|
| R857     | 61A         | 175L- | 101 - | 52T | 100 OHM +-5% 1/2W  |
| R858     | 95A         | 90-   | 23    |     | TIN COATED         |
| R860     | 61A         | 175L- | 104 - | 52T | 100K OHM +-5% 1/2W |
| R866     | 61A         | 602-  | 101 - | 26T | 100 OHM +-5% 1/6W  |
| R867     | 61A         | 602-  | 101 - | 26T | 100 OHM +-5% 1/6W  |
| R868     | 61A         | 602-  | 101 - | 26T | 100 OHM +-5% 1/6W  |
| R870     | 61A         | 172-  | 102 - | 26T | 1K OHM +-5% 1/4W   |
| R872     | 61A         | 172-  | 102 - | 26T | 1K OHM +-5% 1/4W   |
| R873     | 61A         | 172-  | 102 - | 26T | 1K OHM +-5% 1/4W   |
| R886     | 61A         | 602-  | 222 - | 52T | 2.2K OHM +-5% 1/6W |
| R887     | 61A         | 602-  | 222 - | 52T | 2.2K OHM +-5% 1/6W |
| R888     | 61A         | 602-  | 222 - | 52T | 2.2K OHM +-5% 1/6W |
| R891     | 61A         | 602-  | 102 - | 52T | 1K OHM +-5% 1/6W   |
| R892     | 61A         | 602-  | 102 - | 52T | 1K OHM +-5% 1/6W   |
| R893     | 61A         | 602-  | 102 - | 52T | 1K OHM +-5% 1/6W   |
| R894     | 61A         | 602-  | 561 - | 52T | 560 OHM +-5% 1/6W  |
| R895     | 61A         | 602-  | 561 - | 52T | 560 OHM +-5% 1/6W  |
| R896     | 61A         | 602-  | 561 - | 52T | 560 OHM +-5% 1/6W  |
| ZD801    | 93A         | 39-   | 514 - | 52T | HZ9A3              |

### PARTS LIST OF IC802 ASS'Y

| LOCATION | PARTS No. |       |     |     | SPECIFICATION |
|----------|-----------|-------|-----|-----|---------------|
|          | 90A       | 315-  | 500 |     | HEAT SINK     |
| IC802    | M1A       | 1730- | 8 - | 128 | SCREW         |
|          | 56A       | 551-  | 2   |     | LM2439        |

### PARTS LIST OF IC601 ASS'Y

| LOCATION | PARTS No. |       |      |     | SPECIFICATION   |
|----------|-----------|-------|------|-----|-----------------|
|          | 5A        | 42-   | 501  |     | NYLON WASHER    |
|          | 12A       | 372-  | 1    |     | SILICONE RUBBER |
|          | 90A       | 348-  | 501  |     | HEAT SINK       |
| IC601    | M1A       | 1730- | 10 - | 128 | SCREW           |
|          | 56A       | 574-  | 1    |     | TDA9302H        |

### PARTS LIST OF Q403/Q406/D408 ASS'Y

| LOCATION | PARTS No. |       |     |  | SPECIFICATION   |
|----------|-----------|-------|-----|--|-----------------|
|          | 5A        | 42-   | 501 |  | NYLON WASHER    |
|          | 12A       | 372-  | 1   |  | SILICONE RUBBER |
|          | 32A       | 3028- | 8   |  | MICA            |
|          | 90A       | 363-  | 518 |  | HEAT SINK       |

|      |     |       |      |     |                    |
|------|-----|-------|------|-----|--------------------|
|      | M1A | 1130- | 8 -  | 128 | SCREW              |
|      | M1A | 1730- | 8 -  | 128 | SCREW              |
|      | M1A | 1730- | 10 - | 128 | SCREW              |
| D408 | 93A | 220-  | 12   |     | FMP-2FUR 1500/600V |



|      |     |       |      |     |            |
|------|-----|-------|------|-----|------------|
| HS1  | 95A | 205B- | 30 - | 04A | WIRE       |
| Q403 | 57A | 706-  | 7    |     | 2SC5521Z   |
| Q406 | 57A | 415-  | 500  |     | TR. TIP122 |

### PARTS LIST OF Q901 ASS'Y

| LOCATION | PARTS No. |       |      | SPECIFICATION   |             |
|----------|-----------|-------|------|-----------------|-------------|
|          | 5A        | 42-   | 501  | NYLON WASHER    |             |
|          | 12A       | 372-  | 1    | SILICONE RUBBER |             |
|          | 90A       | 348-  | 3    | HEAT SINK       |             |
|          |           |       |      |                 |             |
| Q901     | M1A       | 1730- | 10 - | 128             | SCREW       |
|          | 57A       | 724-  | 2    |                 | TR. 2SK3115 |

### PARTS LIST OF Q911 ASS'Y

| LOCATION | PARTS No. |       |     | SPECIFICATION   |         |
|----------|-----------|-------|-----|-----------------|---------|
|          | 5A        | 42-   | 501 | NYLON WASHER    |         |
|          | 12A       | 372-  | 1   | SILICONE RUBBER |         |
|          | 90A       | 231-  | 2   | HEAT SINK       |         |
|          |           |       |     |                 |         |
| Q911     | M1A       | 1730- | 8 - | 128             | SCREW   |
|          | 57A       | 600-  | 504 |                 | IRF634A |

### PARTS LIST OF Q426 ASS'Y

| LOCATION | PARTS No. |       |     | SPECIFICATION   |         |
|----------|-----------|-------|-----|-----------------|---------|
|          | 5A        | 42-   | 501 | NYLON WASHER    |         |
|          | 12A       | 372-  | 1   | SILICONE RUBBER |         |
|          | 90A       | 360-  | 1   | HEAT SINK       |         |
|          |           |       |     |                 |         |
| Q426     | M1A       | 1730- | 8 - | 128             | SCREW   |
|          | 57A       | 600-  | 503 |                 | IRF630A |

## PARTS LIST OF NR901 ASS'Y

| LOCATION | PARTS No. |      |      | SPECIFICATION     |
|----------|-----------|------|------|-------------------|
| NR901    | 9A        | 203- | 9    | PIN               |
|          | 61A       | 58-  | 8T - | L<br>NTC.SCK-152X |

## PARTS LIST OF AC SOCKET ASS'Y

| LOCATION | PARTS No. |       |       | SPECIFICATION          |
|----------|-----------|-------|-------|------------------------|
| △!       | 95A       | 205S- | 354 - | 043<br>WIRE&CORE ASS'Y |
| CN901    | 96A       | 29-   | 6 -   | 190<br>H.S. TUBING     |
|          | 87A       | 501-  | 5     | RECEPTACLES 0714       |

## PARTS LIST OF D919 ASS'Y

| LOCATION | PARTS No. |      |     | SPECIFICATION |
|----------|-----------|------|-----|---------------|
| D919     | 71A       | 55-  | 2   | FERRITE BEAD  |
|          | 90A       | 360- | 501 | HEAT SINK     |
|          | 93A       | 60-  | 73A | 3A/400V 31DF4 |

## PARTS LIST OF IC101 ASS'Y

| <b>LOCATION</b> | <b>PARTS No.</b> |       |      | <b>SPECIFICATION</b> |
|-----------------|------------------|-------|------|----------------------|
| IC101           | 56A              | 1125- | 10 - | I NT68P61A           |
| IC102           | 56A              | 1133- | 11   | 24LC04B/P            |
| IC105           | 56A              | 1131- | 7    | NT6828-00013 16 PIN  |
| X101            | 93A              | 22-   | 22   | 8.0000 MHZ           |

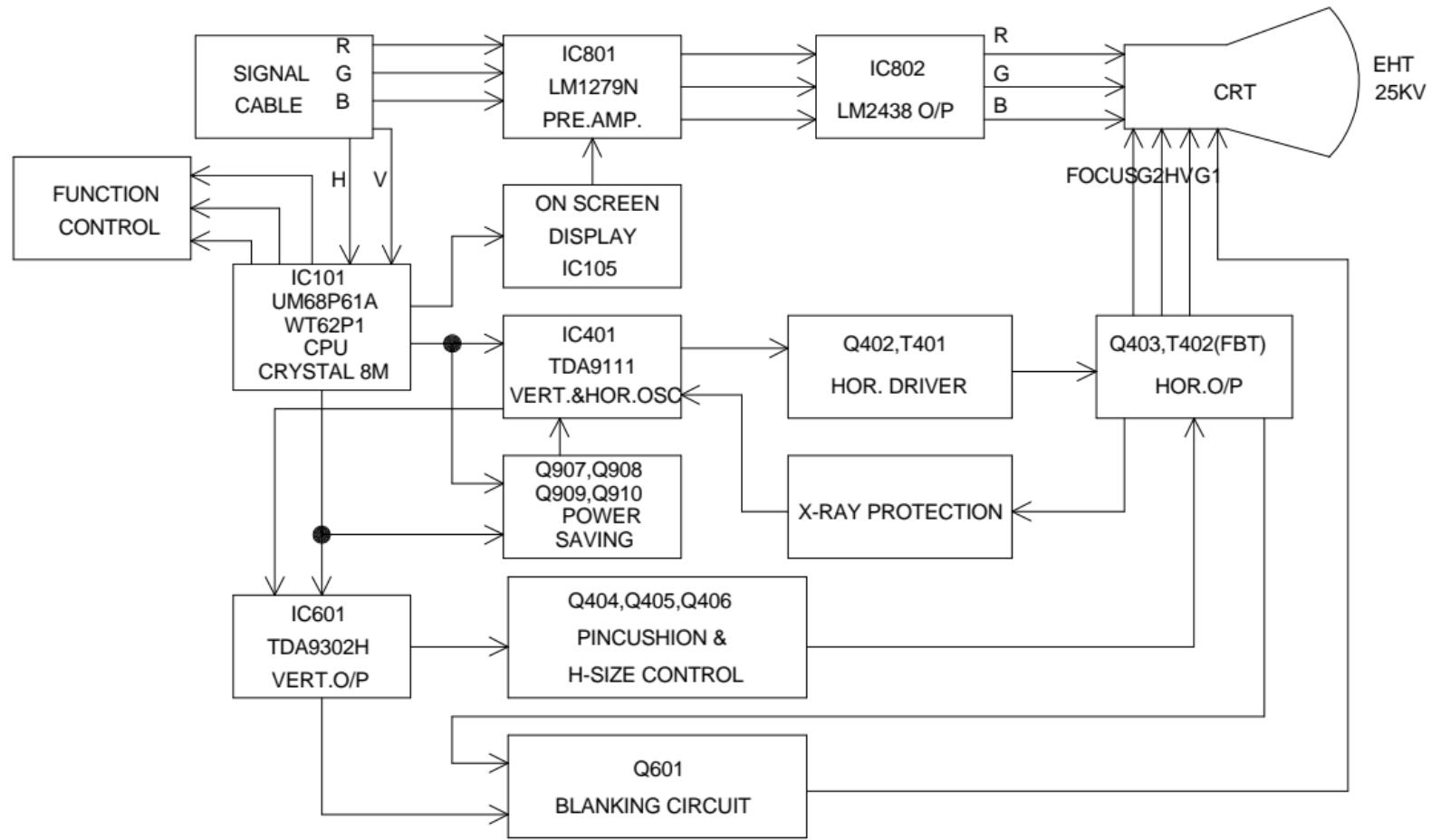
## PARTS LIST OF IC101 ASS'Y

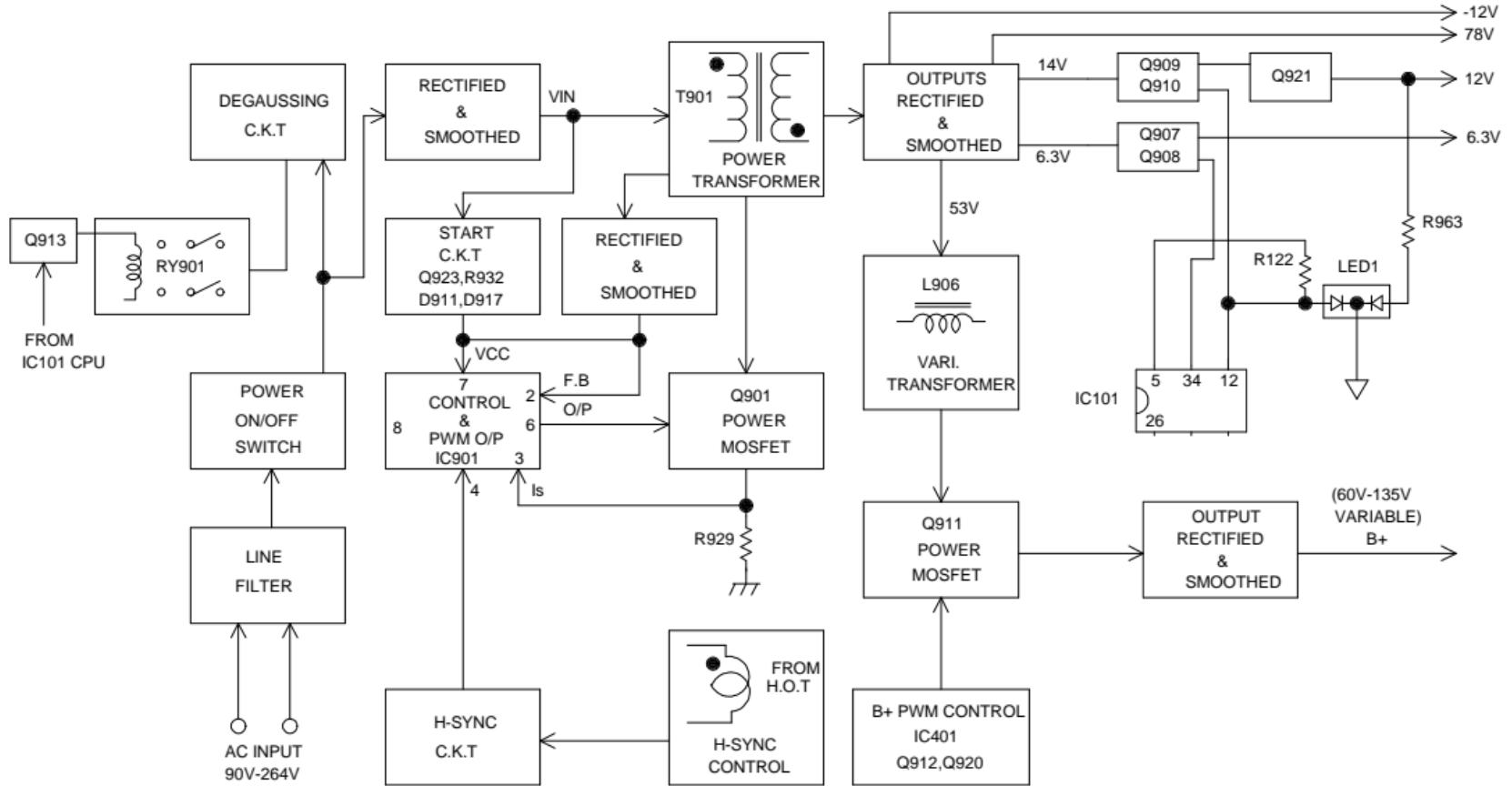
| <b>LOCATION</b> | <b>PARTS No.</b> |       |       | <b>SPECIFICATION</b>  |
|-----------------|------------------|-------|-------|-----------------------|
| C108            | 65A              | 442-  | 220 - | 13T 22PF +-5% NPO 50V |
| IC101           | 56A              | 1125- | 510   | WT62P1                |
| IC102           | 56A              | 1133- | 11    | 24LC04B/P             |
| IC105           | 56A              | 1131- | 503   | MTV018N04             |
| X101            | 93A              | 22-   | 43    | 12.0 MHZ              |

## PARTS LIST OF CRT ALTERNATION

| <b>LOCATION</b> | <b>PARTS No.</b> |              |            | <b>SPECIFICATION</b>  |
|-----------------|------------------|--------------|------------|-----------------------|
|                 | <b>750A</b>      | <b>5866-</b> | <b>3AV</b> | LG .27 17" CRT MPRII  |
| C450            | 95A              | 90-          | 23         | TIN COATED            |
| C480            | 95A              | 90-          | 23         | TIN COATED            |
| R490            | 61A              | 210-         | 273 -      | 52T 27K OHM +-1% 1/6W |
| R607            | 61A              | 208-         | 828 -      | 64 0.82 OHM 1W        |
| TP403           | 95A              | 201F-        | 50 -       | 162 PULSE             |

| <b>LOCATION</b> | <b>PARTS No.</b> |              |            | <b>SPECIFICATION</b>  |
|-----------------|------------------|--------------|------------|-----------------------|
|                 | <b>750A</b>      | <b>5868-</b> | <b>3AV</b> | LG .27 17" S-ART TCO  |
| C450            | 65A              | 1K-          | 101 -      | 5T 100PF 1KV +-10%    |
| C480            | 65A              | 517M-        | 103 -      | 3A 0.01UF +-20% 500V  |
| CL1             | 95A              | 201F-        | 50 -       | 052 PULSE WIRE        |
| R490            | 61A              | 210-         | 273 -      | 52T 27K OHM +-1% 1/6W |
| R607            | 61A              | 208-         | 828 -      | 64 0.82 OHM 1W        |
| TP403           | 95A              | 201M-        | 50 -       | 142 PULSE             |

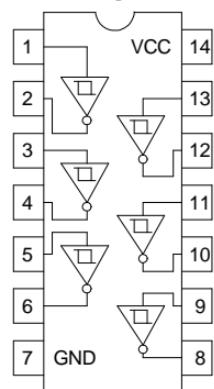




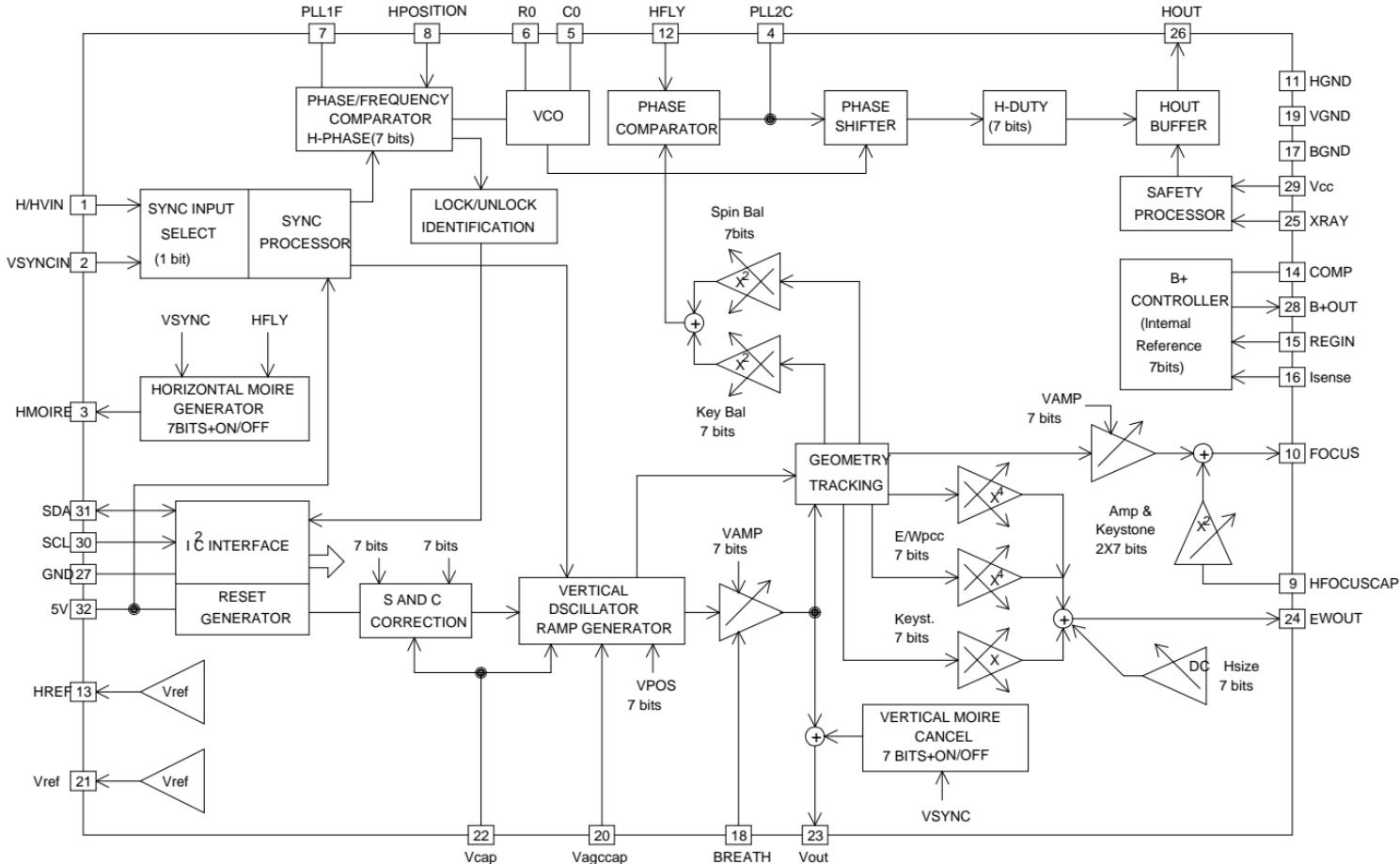
**IC101**  
**UM6861/WT62P1**

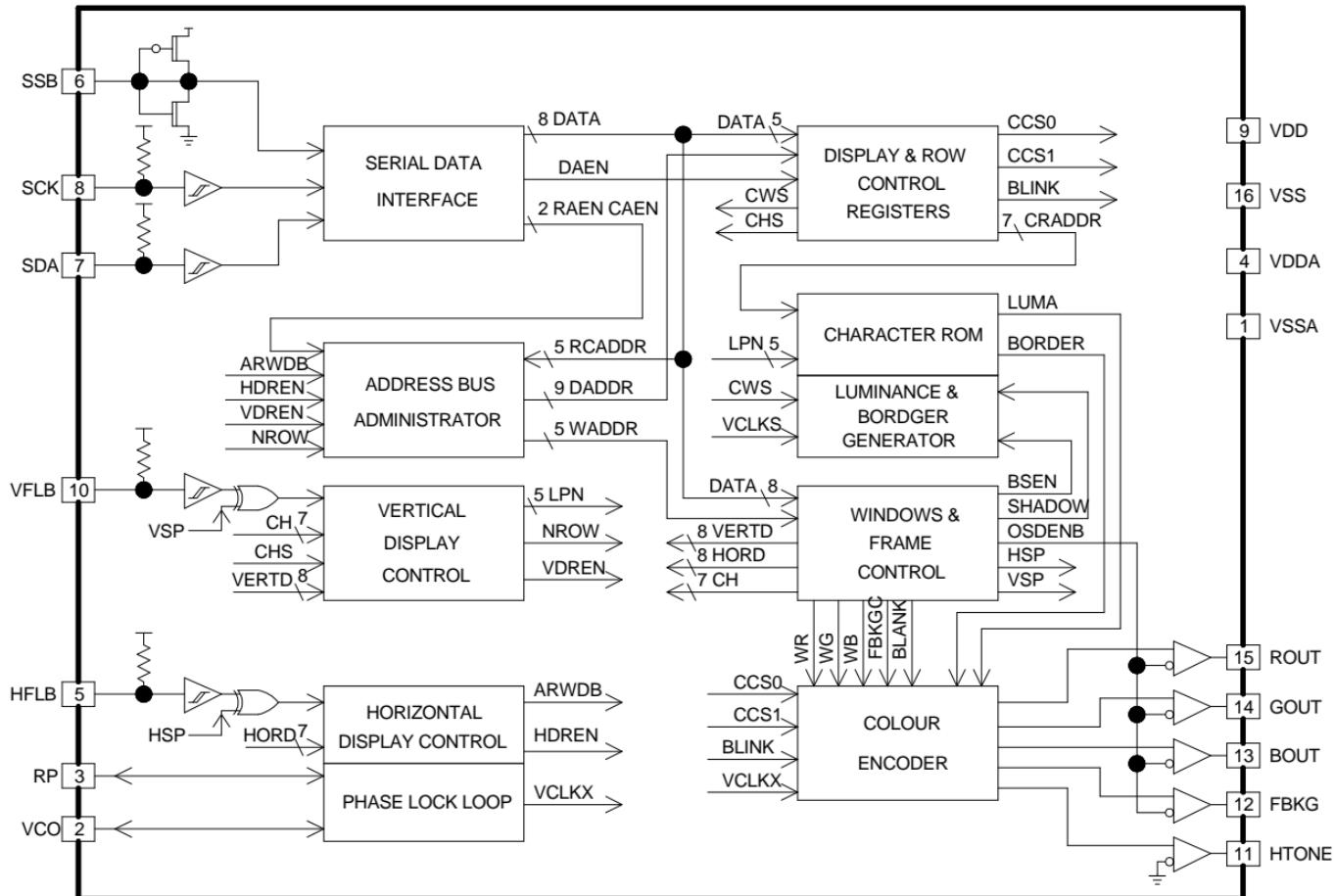
|            |    |    |             |
|------------|----|----|-------------|
| DAC2       | 1  | 40 | VSYNC1/INTV |
| DAC1       | 2  | 39 | H SYNC1     |
| DAC0       | 3  | 38 | DAC3        |
| RESET_     | 4  | 37 | DAC4        |
| VDD        | 5  | 36 | DAC5        |
| GND        | 6  | 35 | DAC6        |
| OSC0       | 7  | 34 | DAC7        |
| OSC1       | 8  | 33 | P07/HSYNC0  |
| P15        | 9  | 32 | P06/VSYNC0  |
| [CE]P14    | 10 | 31 | P05/DAC13   |
| P13/HALFH1 | 11 | 30 | P04/DAC12   |
| P12/HALFH0 | 12 | 29 | P03/DAC11   |
| P11/AD1    | 13 | 28 | P02/DAC10   |
| P10/AD0    | 14 | 27 | P01/DAC9    |
| P16/INTE   | 15 | 26 | P00/DAC8    |
| P27        | 16 | 25 | P31/SCL     |
| P26        | 17 | 24 | P30/SDA     |
| P25        | 18 | 23 | P20         |
| P24        | 19 | 22 | P21         |
| P23        | 20 | 21 | P22         |

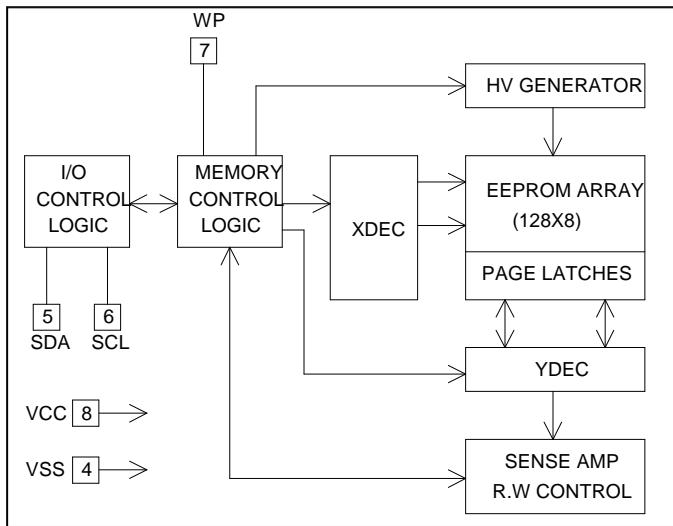
**IC104**  
**74LS14**



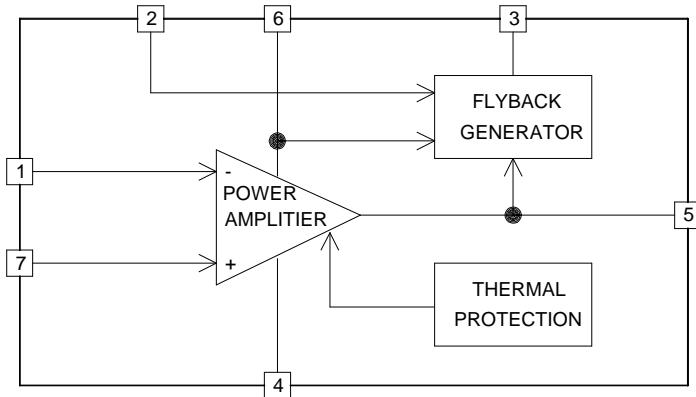
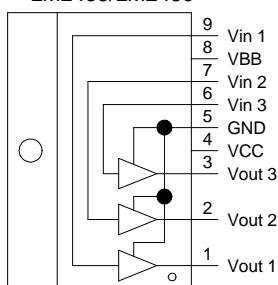
IC401  
TDA9111

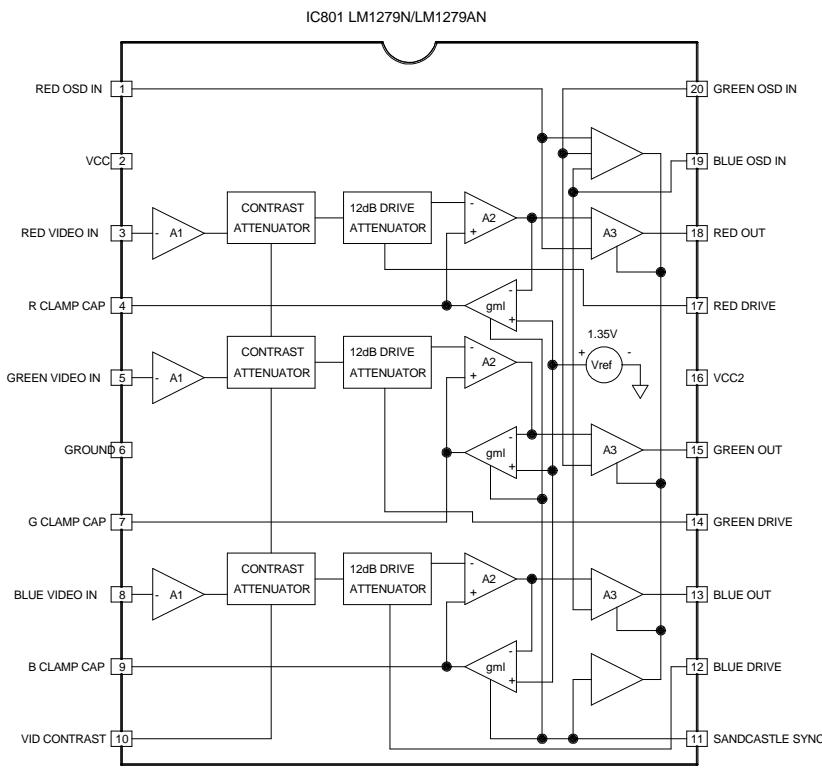
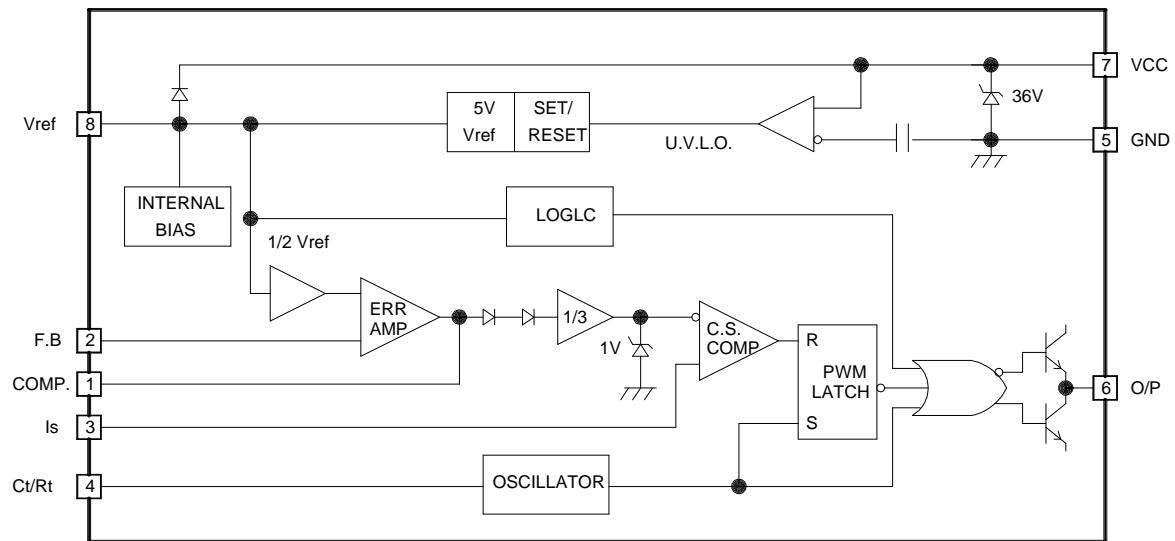




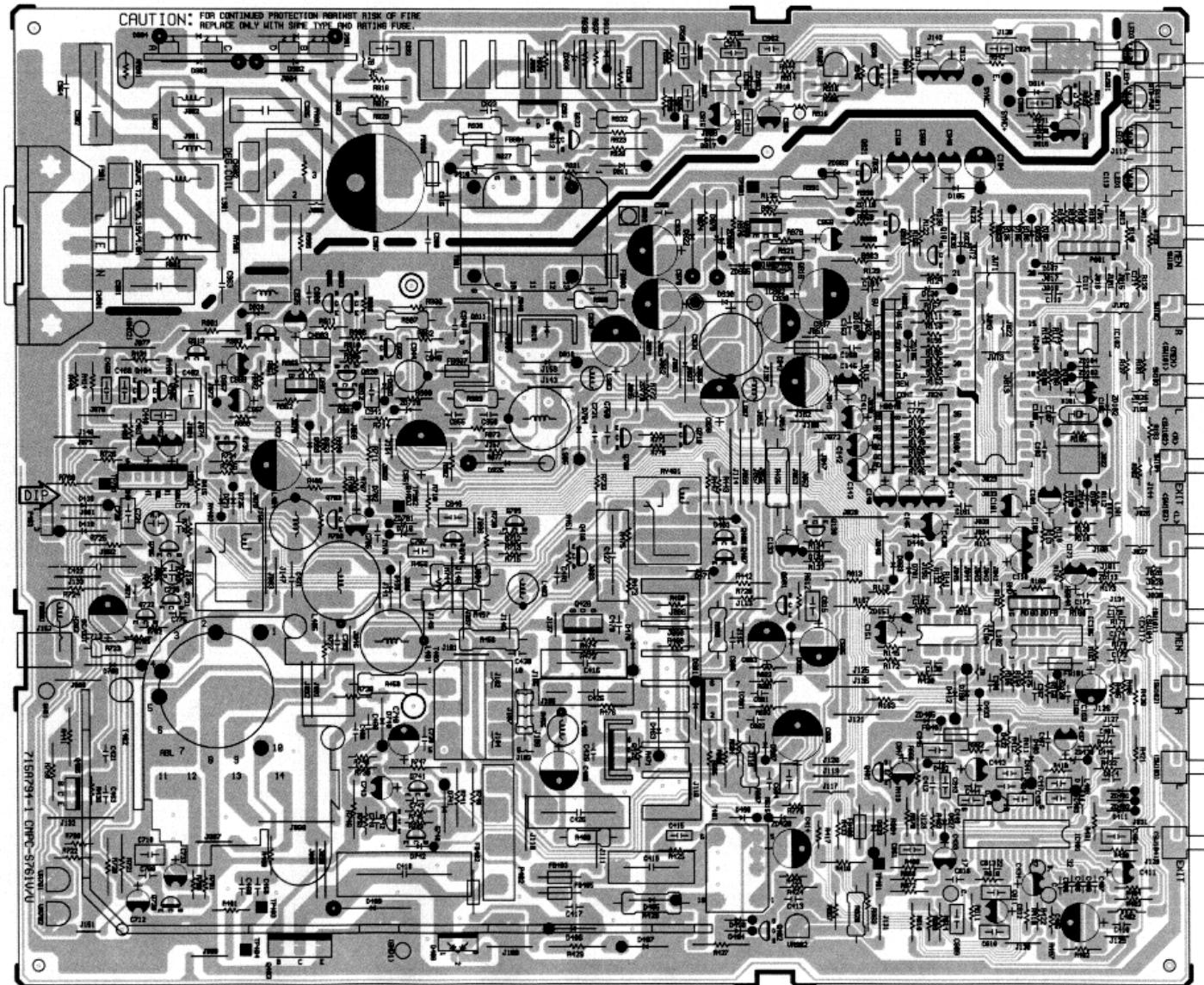


IC601 TDA9302H

IC802  
LM2438/LM2439



CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE  
REPLACE ONLY WITH SAME TYPE AND RATING FUSE.



## 11-2 CRT BOARD LAYOUT

