

14" XGA COLOR MONITOR

Supposed to be for Bridge CA235 but is closer to CA0356

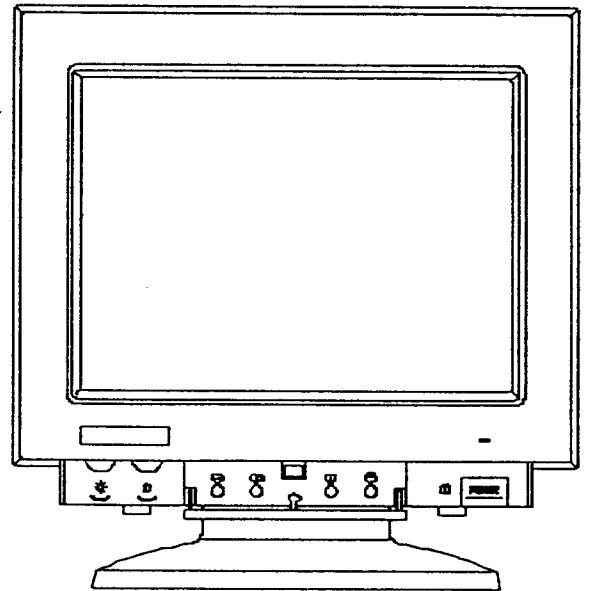
SERVICE MANUAL

CAUTION:

Before servicing this chassis, it is important that the service technician should read the Safety Precautions and Product Safety Notice in this Service Manual.

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*BRIDGE
PLANO*

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT.

HIGH RESOLUTION XGA COLOR MONITOR

V2-33

*CA0235
CA0356*

Theory of Operation

CAD-256 is a multisync color monitor. Its operation frequency horizontal is from 30KHz to 64KHz and vertical is from 50Hz to 100Hz. The circuitry are composited of 3 boards which are main board, switching mode power supply board and CRT board. Now detail the theory of operation in following paragraph.

1. The Main Board : The board contains horizontal deflection circuit vertical deflection circuit and signal processing circuit.

A. Horizontal Deflection :

The H. sync from pc or signal generator is input via R300 to IC U301 pin 16. IC U301 normalization the polarity of the sync. The output of the sync is negative polarity which is sent out from U301 pin 11. 0300 is protecting diode for the IC U301. R329 and C317 is a high pass filter for the H. sync. The sync is fed through R329 and C317 to IC U301 pin 1. R330, R329 are bias resistors for the signal. IC U301 internally has two monostable multivibrator, their function is for H. phase control and AFC.

The external RC of U301 pin 2 is for phase control. SVR304 is for 48KHz and SVR305A is for 64KHz, they are internal phase adjustment V/R. The R311, C320 in IC U303 pin 3 decide the time constant of pseudo H. sync generator for AFC circuit. Pin 4 of U303 is the input pin of flyback pulse from FBT for **AFC** circuit. C322 in IC pin 5 is the sawtooth generation capacitor for flyback pulse. In IC pin 6 C323 is the filter capacitor for **AFC** detector. The AFC output current is output at IC pin 7, through R334 to correct the oscillation frequency. The H. oscillator is a RC oscillator, R335 SVR306 and C326 decide the free running frequency. With the F to V voltage from IC U301 and U302 it can run multifrequency. R336 is the discharge capacitor for the oscillator. The output driver duty cycle is decided by the DC bias of pin 11 or by R341, R340, R393, Q320.

The H. driver output is from pin 12 of IC U303. Q303 is the driver transistor which acts as a switch. During the time Q303 is driven on, energy is stored in the primary of T301. When Q303 off, energy is released through the secondary of T301 to drive the H. output transistor Q304. Q304 also acts as a switch. When Q304 is on, yoke current flows through L302, L303, C339 and yoke through Q304 to ground. During this period of time the scanning is from center of CRT to the right edge of CRT. Then Q304 is switched off, the scanning current reversed to charge the tuning capacitor C330, C337 which forms a tank circuit with the inductance of FBT and yoke. The time when the current of yoke from max. to zero the voltage on the capacitor is changed to max. This is called flyback. During this period of time the scanning is from the right edge back to the center of CRT. Then the tuning capacitor is discharged through yoke until the yoke current reaches its negative max. It contributes the scanning from the center of CRT to the left edge of CRT. By the time yoke current wants to charge the tuning capacitor, damping diode conducts, the scanning current reduces to zero. During this period of time the scanning is from left edge of CRT to center of CRT. By the time when yoke current nearly reaches zero the output transistor is driven on again, A scan cycle is finished. The cycle repeats.

L302 is the linearity coil, C339, C344, C342 is the "s" correction capacitor. The power MOSFET Q309 is switched on when H. frequency below 48KHz and Q310 is switched on when frequency below 35KHz, they are used to correct the linearity difference by the change of the frequency.

Pin 4 of FBT is B input for the H. deflection. C332, C331 are the by pass capacitors. Pin 5 supplies the AFC pulse. Pin 6 is for ABL control. Pin 8 is the negative supply for spot killer and brightness control. FBT pin 9 is for holddown, feedback for switching mode power control and supply voltage for blanking circuit.

This monitor uses diode modulation circuit for H. deflection. This circuit provides DC control of H. width and pincushion. The vertical parabola is taken through the IC U402 pin 5 and pin 9 by the subtraction of vertical waveform. The output is then amplified by the other half of U402, the output is at pin 1 of U402. The V. parabola and H. H. sawtooth then is compared by IC U403 to generate PWM pulse to drive the bridge coil L301 of diode modulator. It will generate a AM V. parabola on the H. scanning which will correct the pincushion. Q306 is the driver transistor, D319, C333, Q305, R349, D318, R345, R349 are clipper circuit which limits the pulse amplitude on the collector of Q306.

The DC bias on pin 3 of U403 can decide the H. width. The DC bias is setting by R379, VR302, SVR302, SVR303 and SVR300. SVR300 is for 31.5KHz, SVR302 is for 35K, 38KHz, SVR303 is for 56K, 64K, they are internal setting *VRS*. The V. parabola is output from pin 7 of U402. R447, R420, R417, R419, Q401, Q402 and U301 which control the amplitude of parabola for different operation mode and frequency. R440, ZD401, C421, C417 provide the + 15VDC supply for U402, U403. Q312 is an emitter follower.

B. Vertical Deflection :

Vertical sync via R400 C401 input to pin 27 of IC U301. IC U301 internally normalizes the polarity of the sync. The “negative” sync is output from pin 12 of U301. The sync is input to IC U303 pin 19 via C403, while the other path is fed via C402, R403, Q403, R424, D405 to vertical oscillator for force synchronization. R425, C404 connect on IC pin 18 and IC internal circuit form a RC oscillator. IC U303 pin 16 is the output pin for V. sync, this signal is used to trigger the vertical output IC U401, the input pin is pin 2. R429, R430 supplies the DC bias for the sync, U401 pin 1 is + 12V power supply. Pin 4 is vertical size control input. When we change Q404 base voltage, we can control the vertical size. R426, R411, D401, D402, R410, D403, R409, R408, R407, R402, R412 and external control *VR 401* are the parts for vertical size control. C411 in IC U401 pin 6 is the capacitor for ramp generator. Pin 7 of IC is AC and DC feedback control input. + 22V supply is at IC pin 8. The output of vertical can directly drive the yoke C419 is vertical S correction capacitor. R436 can decide the amplitude of yoke current. R435, SVR401, C418, R434 are V. linearity correction circuit. Q405, Q406, C420, R437, VR402 and R422 are vertical centering control circuit, which supply or sink current from yoke or adjust the centering. D406, C412 and IC 401 internal circuit form a pump circuit which supply double of the supply for vertical retrace in order to shorten the vertical retrace time.

C. Signal Processing Circuit:

H. and V. sync is fed to U301. IC U301 discriminates the operation mode and sync pulse polarity detection and horizontal F to V converter and clamping pulse generation.

H. *F/V IC* internally converts the frequency to voltage. The output is at pin 17 of U301. The output voltage of F/V can be set by SVR301. U302 pin 5.6.7. acts as a voltage limiter and pin 1.2.3. is a source follower. When no H. SYNC input or too low frequency H. sync, the F/V voltage is output at the lowest setting voltage 3.15V to avoid malfunction due to too low of the operation frequency. This F/V voltage is used to control the H. oscillator to meet multifrequency operation demand. Pin 24, 26 and crystal X301 with the internal IC circuit is a oscillator which supply the clock for IC internally usage. IC mode detector outputs are pin 28, 29, 30, 31, 32 and pin 1 which are separately for 31.5K, 35K, 37K, 48K, 56K, 64K. IC pin 4.5.6.7.8.9. are outputs for 1024x768, 1024x768(1), 800x600, 640x480, 640x400, 640x350 which are used for vertical size control. IC pin 2,3 are detector output of vertical frequencies, pin 2 is low when V. frequency 65Hz and pin 3 is low when V. frequency 78Hz. These outputs are to control the H. width, H. phase, V. size and pincushion.

2. S.M.P.S. Board :

AC input voltage passes the EMI filter LF102, C102, C101, C103 is added to the bridge rectifier D101 D104; C100, C105 are filter capacitors. IC U101 is control IC for SMPS. The free running frequency is decided by C113 and R109 in IC pin 4 and 8. The monitor is a synchronized type its operation frequency is the same as the H. operation frequency. IC pin 1 is the frequency compensation input pin for error amplifier. R112, C115 are compensation RC. Pin 2 is the invert input pin of error amplifier which controls the output voltage. The error amplifier non-inverter input pin is internally connected to a 2.5V bias. IC pin 3 is the input of current sense, during the time the current exceeds the setting point, the IC output will be disable. This is to protect the power supply from overload or shorted circuit. The current detecting circuit are R108, R116, C116. Pin 5 is grounding pin. IC pin 6 is the output of driver which can directly drive power MOSFET. Pin 7 is the voltage supply pin for the IC. IC pin 8 is the reference voltage output pin.

While AC is added to SMPS, DC is output at C100, R102 supplies the current for starting up of the IC. After started the power transformer supplies through R106, D106 for the normal operation. D107, R107, C107 D105, R105, C106 are snubber circuit which used to protect the power MOSFET during turning on and off.

B output: FBT pin 9 output a voltage after divided is feedback to SMPS. This voltage is to control the SMPS during frequency or load change. TL431 (IC U121), Q121 and T121 are magnetic amplifier circuit which is used to control the voltage need for different operation frequencies.

The other voltage outputs circuit are feedback control through + 92V and + 22V by R137 and R144. The feedback is input to U123 which controls the photo coupler (U102) or to control the primary control IC U101 to get a stable voltage output. + 12V is got from + 22V through U122 the 7812.

3. Video :

R.G.B. video signal fed from pc or signal generator is add to video preamplifier IC U201. The video after amplification is output to final output stage for power amplification. All the three video circuit are identical, we just describe the R channel only.

R signal is input through C201, C202 to IC U201 pin 4. R202 supplies the DC bias. R201 is the impedance matching resistor. IC pin 11 is the reference voltage output. IC pin 12 is the contrast control DC input pin, the DC level will change the P-P voltage. Pin 2, and 3 connection capacitor C208, C209 are high frequency by pass capacitors. The amplifier got two stages. At 2nd stage the clamping function is added. The clamping pulse is taken from IC U301 pin 10. After inverting by Q293 is added to IC pin 14. With the pulse and C207 in pin 5, it generates a DC voltage on C207. This is to sustain the black level of the video to a fix DC level. The pre-amplifier is output at IC pin 25. The pin 27 of IC is the emitter connection pin of the output amp- amplifier, or when we changes the impedance we can control the output video amplitude. IC pin 26 is the noninverter input of the comparator. clamp comparator. IC pin 24 is the inverter input of the clamp comparator. When we change the DC bias of pin 24 (by SVR 202), we can change the DC bias of the video output driver, that to say the DC-BUS of the output amplifier.

Output stage Q202, Q201 which connected as a cascade power amplifier configuration. The gain of the amplifier is decided by R211 and R207. R208, C205 is the emitter peaking RC. L202, L201 also used as a frequency compensation. R209 is connected to + 12V which provides a DC bias for Q206. C206 is a filter capacitor. Q201 is connected as CE and Q202 is as a CB amplifier. Q203, Q204 forms a buffer to match the impedance between the power amplifier and CRT cathode. D200, R214, GAP201 are arcing protection parts.

ABL: When CRT beam current exceeds the setting 450gA, ABL output of FBT sinks the current so the voltage is pulled low, which makes Q291 conducts. It also makes Q292 driven on. This will low down the IC pin 12 voltage. It will make the video peak to peak voltage drop that to say CRT beam current is limited.

CAD-256 ALIGNMENT PROCEDURE

1. SET UP

A. EQUIPMENTS

- a.SIGNAL GENERATOR VG815 OR VG819 OR EQUIVALENT.
- b. COUNTER.....HIGH RESOLUTION COUNTER OR EQUIVALENT.
- c.MULTIMETERHP3466 OR EQUIVALENT.
- d.COLOR ANALYZERMINOLTA TV-2130 OR EQUIVALENT.
- e.DEGAUSSING COIL.....HOZAN HC-21 OR EQUIVALENT.
- f.CONVERGENCE METERKLEIN CM7AG OR EQUIVALENT

2. ALIGNMENT PROCEDURE

SET ALL THE VR'S IN THE MIDDLE POSITION, INCLUDING EXTERNAL ADJUSTMENT VR'S. EXTERNAL AC IS 115 OR 220V.

A. HORIZONTAL FREE RUN FREQUENCY (HF1)

- a.DISCONNECTED THE SIGNAL CABLE.
- b.USE COUNTER THE "+ " INPUT TERMINAL IS CONNECTED TO THE OUTSIDE SLEEVE OF CRT YOKE RED COLOR WIRE, AND NEGATIVE OF COUNTER TO GND.
- c. ADJUST SVR306 ON THE MAIN BOARD TO GET $28\text{KHz} \pm 0.1\text{KHz}$ READING.

B. VOLTAGE ADJUSTMENT

- a.INPUT 31.5KHz VGA TIMING (08 OF VG815).
- b.CONNECT VOLTAGE METER TO CRT SOCKET HEATER INPUT AND GND.
- c.ADJUST SVR121 ON POWER BOARD TO GET $6.0 \pm 0.05\text{VDC}$.

C. B + VOLTAGE

- a.INPUT 31.5KHz VGA TIMING (08 OF VG815).
- b.CONNECT VOLTAGE METER TO FBT PIN 7 AND GND.
- c.ADJUST SVR310 ON MAIN BOARD TO GET $62.0 \pm 0.5\text{VDC}$.

D. HORIZONTAL F/V (HF2)

- a.INPUT 31.5KHz VGA TIMING (08 OF VG815).
- b.CONNECT VOLTAGE METER TO F/V OUTPUT VOLTAGE R390 AND GND.
- c.ADJUST SVR301 TO GET 3.7VDC.
- d.DISCONNECT THE VOLTAGE METER, CHECK WHETHER 35.5KHz, 37.8KHz, 48KHz, 56KHz, 64KHz ARE ALL CAN BE HOLD.

E. H. CENTER

- a.INPUT 31.5KHz VGA TIMING (08 OF VG815).

b.ADJUST G2 SLIGHTLY TURN ON THE RASTER.

c.ADJUST SVR311 TO CENTER THE RASTER IN THE BEZEL.

F. H. PHASE

a.INPUT 31.5KHz VGA TIMING (08 OF VG815).

b.PUT THE EXTERNAL ADJUSTMENT VR TO THE CENTER POSITION.

c.ADAPT 48KHz/60Hz TIMING (22 OF VG815), ADJUST SVR304 ON THE MAIN BOARD TO CENTER THE VIDEO.

d.ADAPT 56KHz/70Hz TIMING (26 OF VG815), ADJUST SVR305 ON THE MAIN BOARD TO CENTER THE VIDEO.

e.ADAPT 64KHz/60Hz TIMING (29 OF VG815), ADJUST SVR305A ON THE MAIN BOARD TO CENTER THE VIDEO.

f.CHECK THE OTHER TIMINGS 35.2K, 35.5K, 37.8KHz H. PHASE.

G. H. WIDTH

a.INPUT 31.5KHz VGA TIMING (08 OF VG815).

b.SET THE EXTERNAL H. WIDTH VR TO THE CENTER POSITION.

c.ADJUST SVR300 ON THE MAIN BOARD TO GET 244mm WIDTH.

d.ADAPT 35.52KHz INTERLACE SVGA TIMING (13 OF VG815), ADJUST SVR302 ON THE MAIN BOARD TO GET 244mm H. WIDTH.

e.ADAPT 56KHz/70Hz (26 OF VG815), ADJUST SVR303 ON THE MAIN BOARD TO GET 244mm H. WIDTH.

f.CHECK THE OTHER TIMINGS 35.2K, 37.8K, 48KHz H. WIDTH.

H.V LINEARITY

a.INPUT 35.52Kz INTERLACE SVGA TIMING (13 OF VG815).

b.ADJUST SVR401 TO OPTIMIZE THE V. LINEARITY.

I. PINCUSHION

a.INPUT 35.5KHz INTERLACE SVGA TIMING (13 OF VG815), ADJUST SVR402 TO GET THE BEST PINCUSHION.

b.ADJUST SVR403 TO GET BEST TRAPEZOID.

J. WHITE BALANCE

a.CUT-OFF

a-1.INPUT 35.5KHz INTERLACE FULL WHITE SVGA TIMING (12 OF VG815), SET EXTERNAL CONTRAST VR TO MAX. EXTERNAL BRIGHTNESS VR TO MIN.

a-2.DEGAUSSING THE UNIT, PUT THE COLOR SENSOR TO THE CENTER OF CRT.

a-3.ADJUST SVR102, SVR232, SVR262 TO COUNTERCLOCKWISE MAX., SVR201, SVR261 SET IN THE MIDDLE.

a-4.ADJUST THE EXTERNAL CONTRAST VR TO GET 2.5FL LIGHT OUTPUT.

a-5.ADJUST SVR102, 232, 262 TO GET $x = 281$ $y = 311$.

b. WHITE BALANCE

b-1. USE TV-2130 AND ADJUST EXTERNAL CONTRAST VR TO GET 20FL LIGHT OUTPUT.

b-2. ADJUST SVR201, SVR261 TO GET $x = 281$ $y = 311$.

K. G2

a. ADAPT 35.5KHz INTERLACE SVGA TIMING (13 OF VG815).

b. ADJUST G2 TO CUT-OFF THE LAST SHADE OF THE COLOR GRAY SCALE.

L. FOCUS

a. INPUT 35.5KHz INTERLACE SVGA (19 OF VG815).

b. ADJUST FOCUS VR ON THE FBT TO OPTIMIZE THE FOCUS OF THE QUARTER PORTION OF THE DISPLAY.

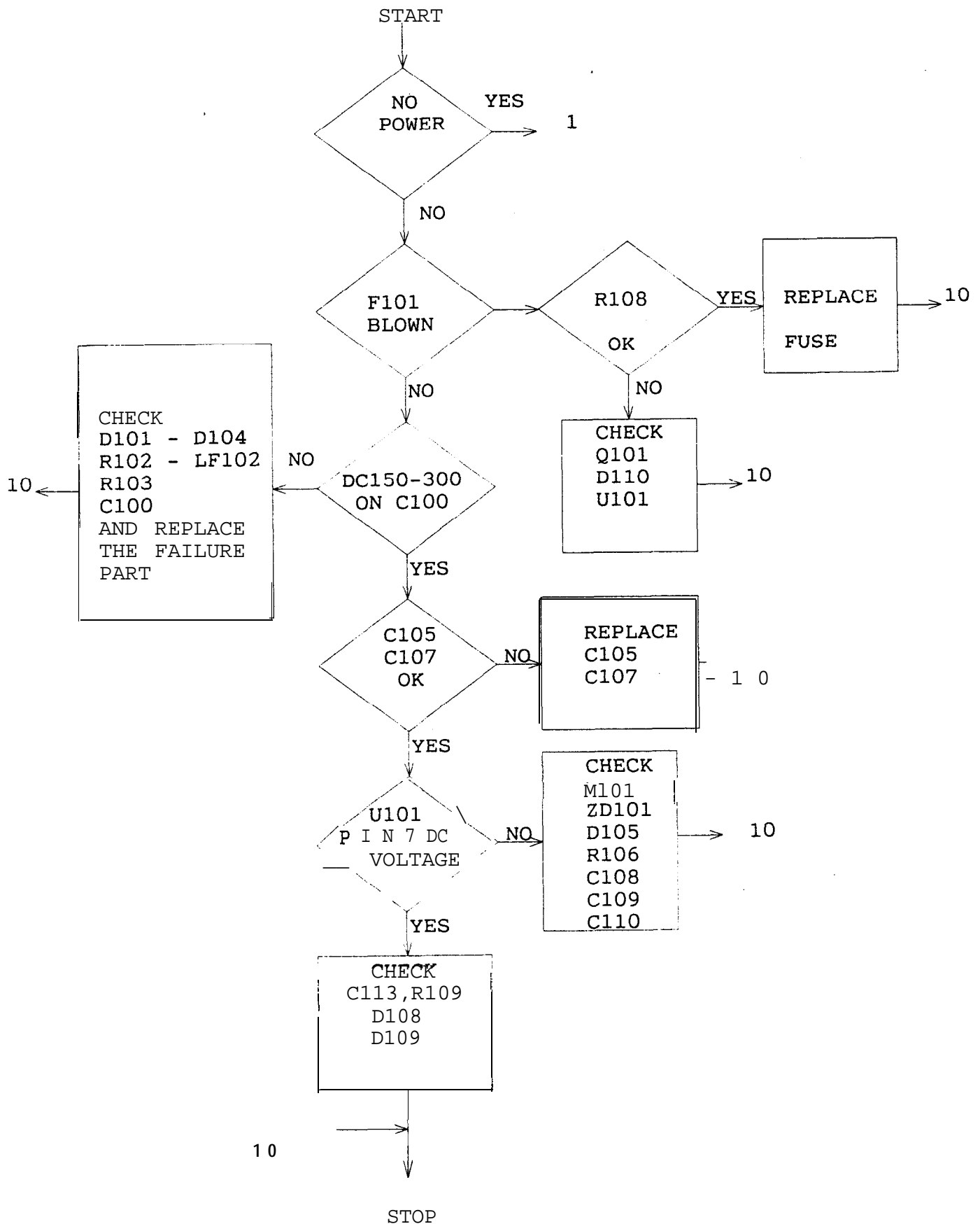
M. CG

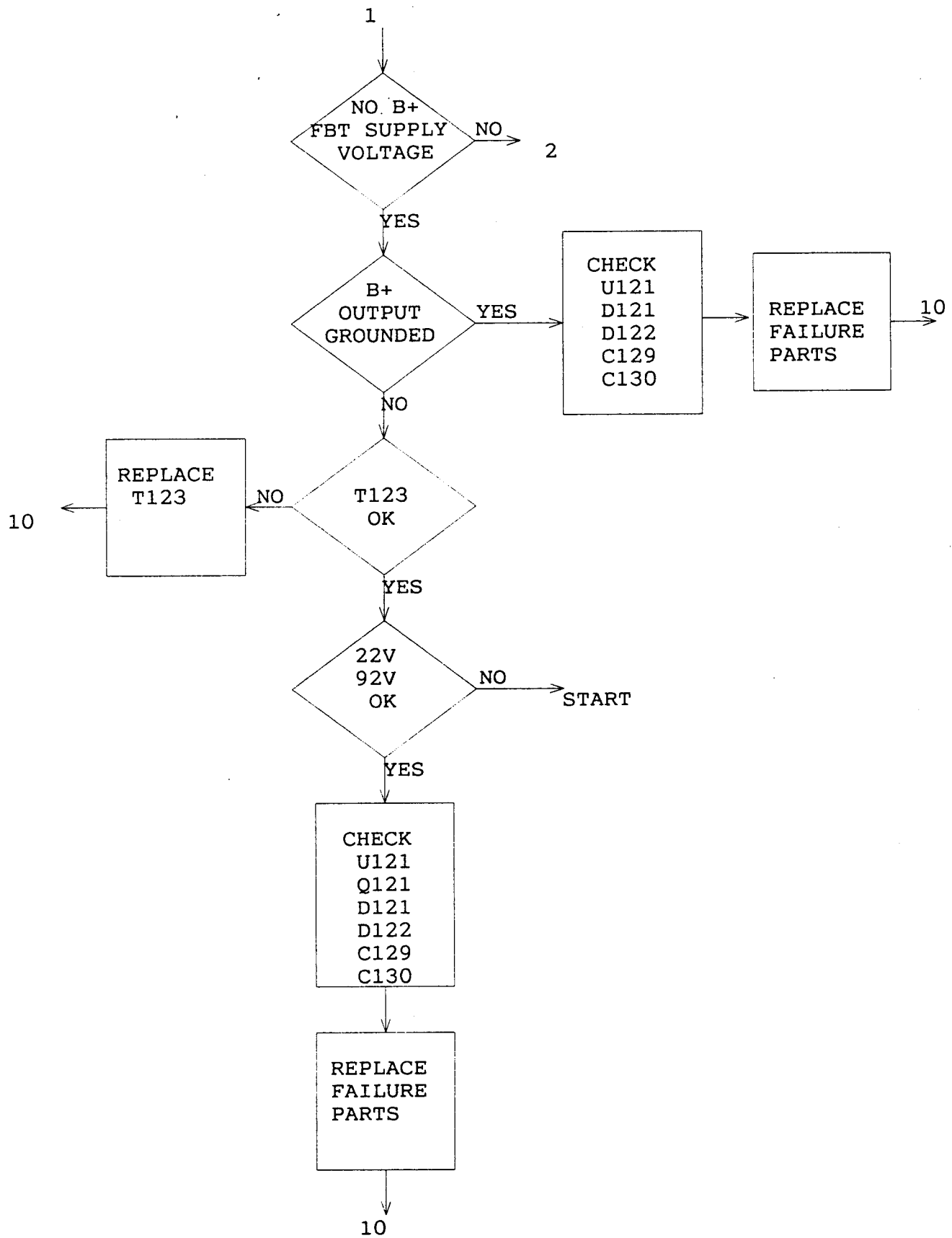
a. INPUT 35.5KHz INTERLACE SVGA (19 OF VG815).

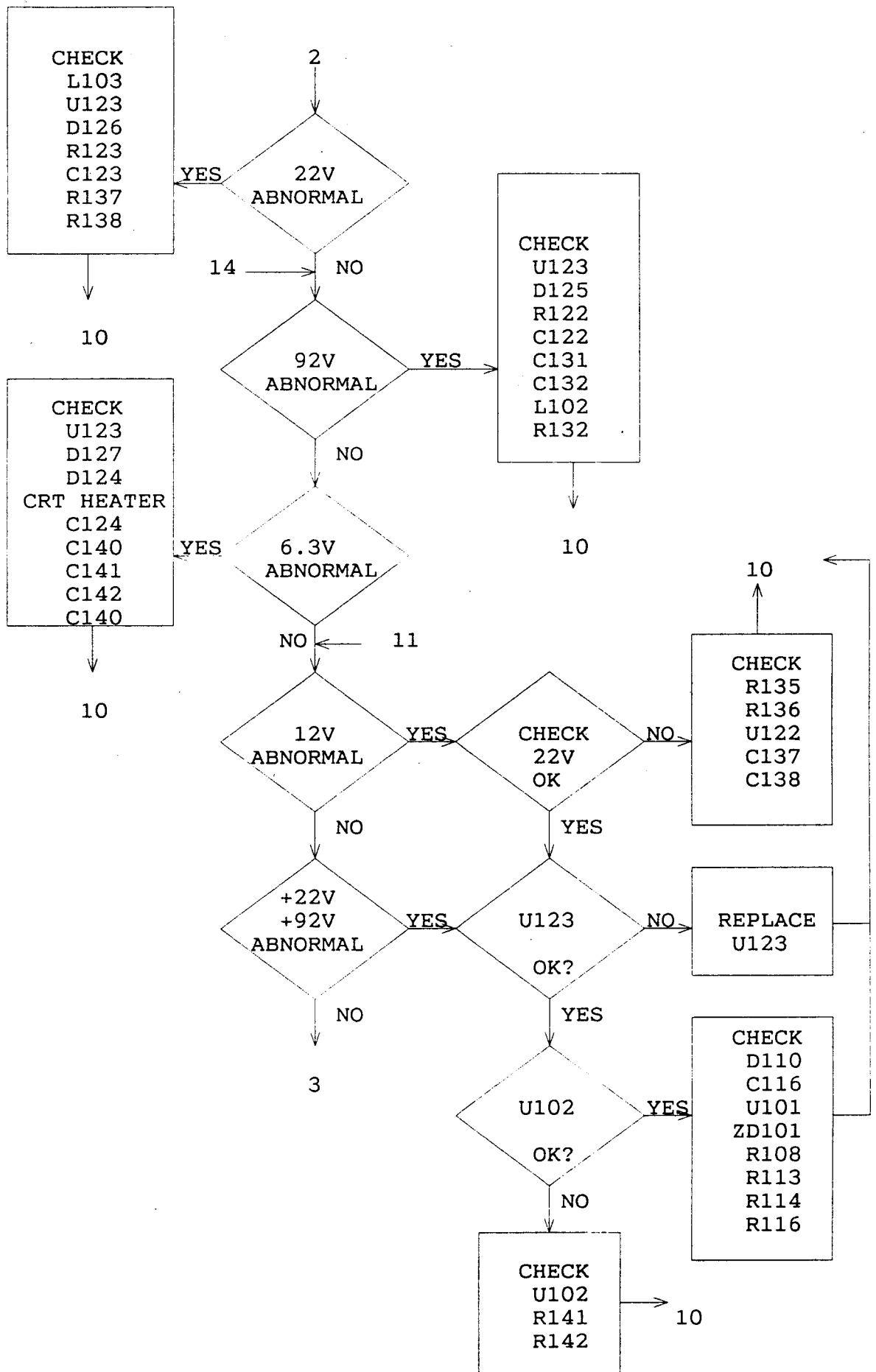
b. ADJUST THE CG RING TO GET BEST CG.

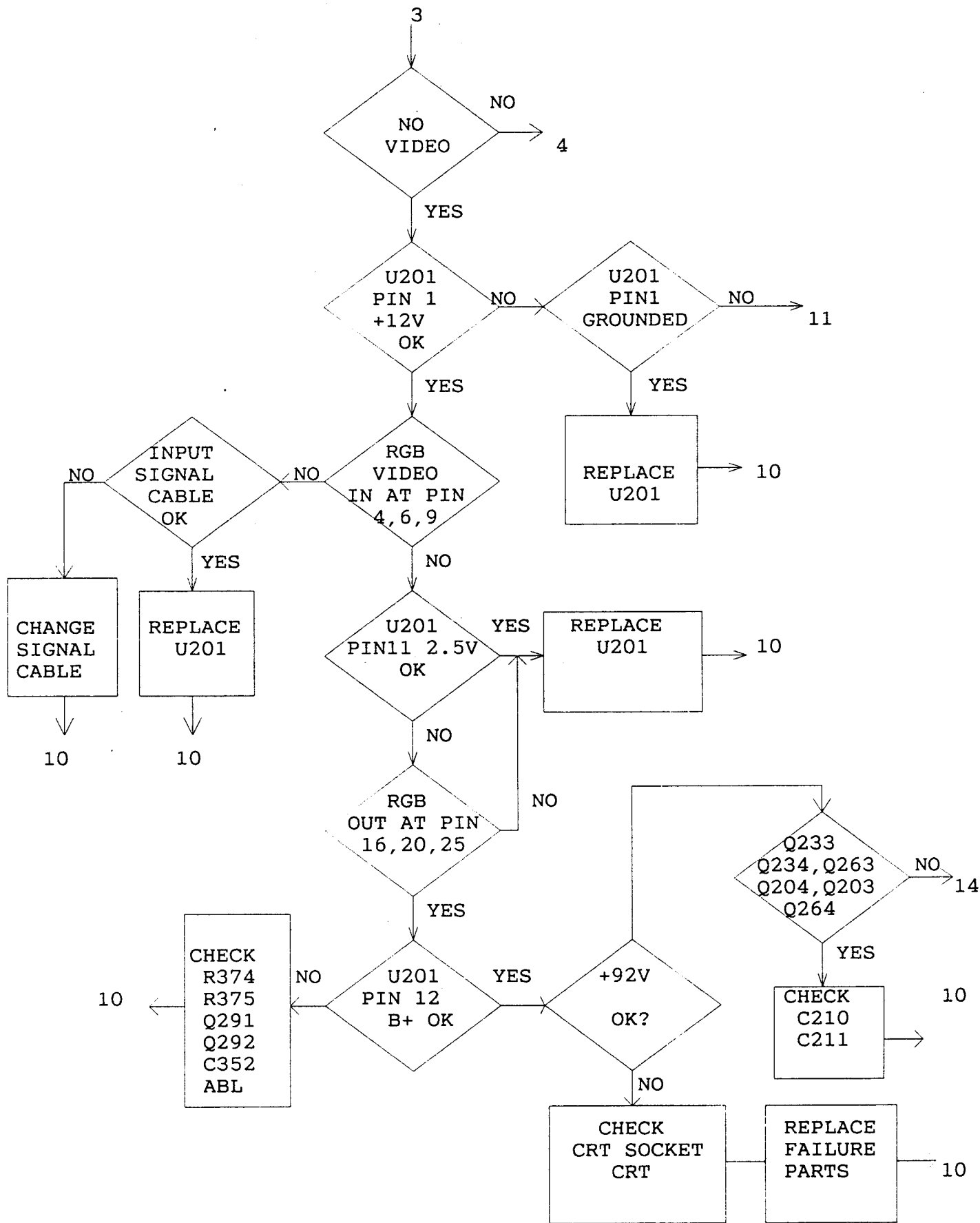
c. IF THE ADJUSTMENT OF ITEM b. CAN'T LET THE CG MEET SPECIFICATION, USE THE STICKS WITH FERRITE SHEET TO COMPENSATE THE CG TO MEET REQUIREMENT.

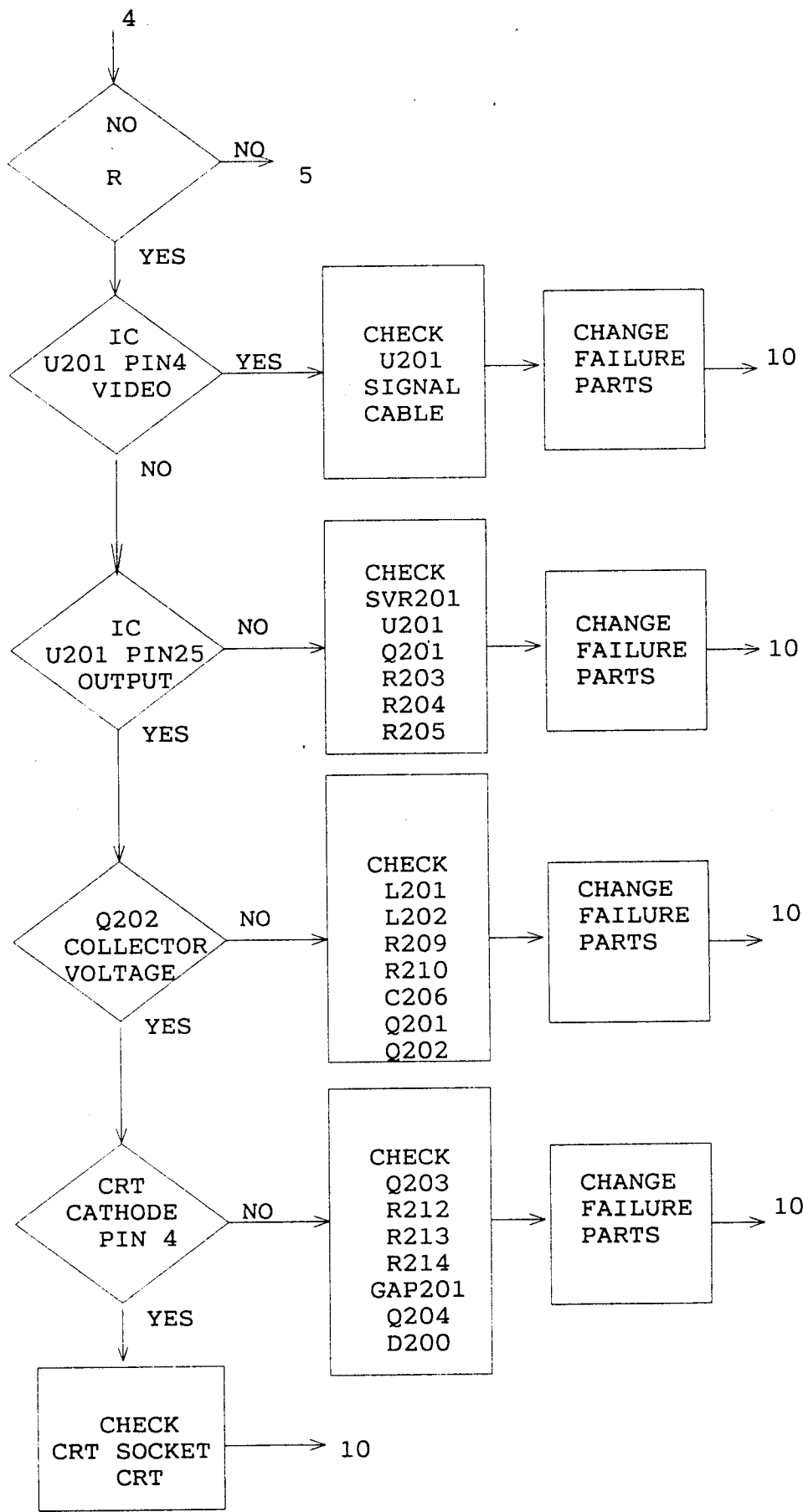
TROUBLE SHOOTING

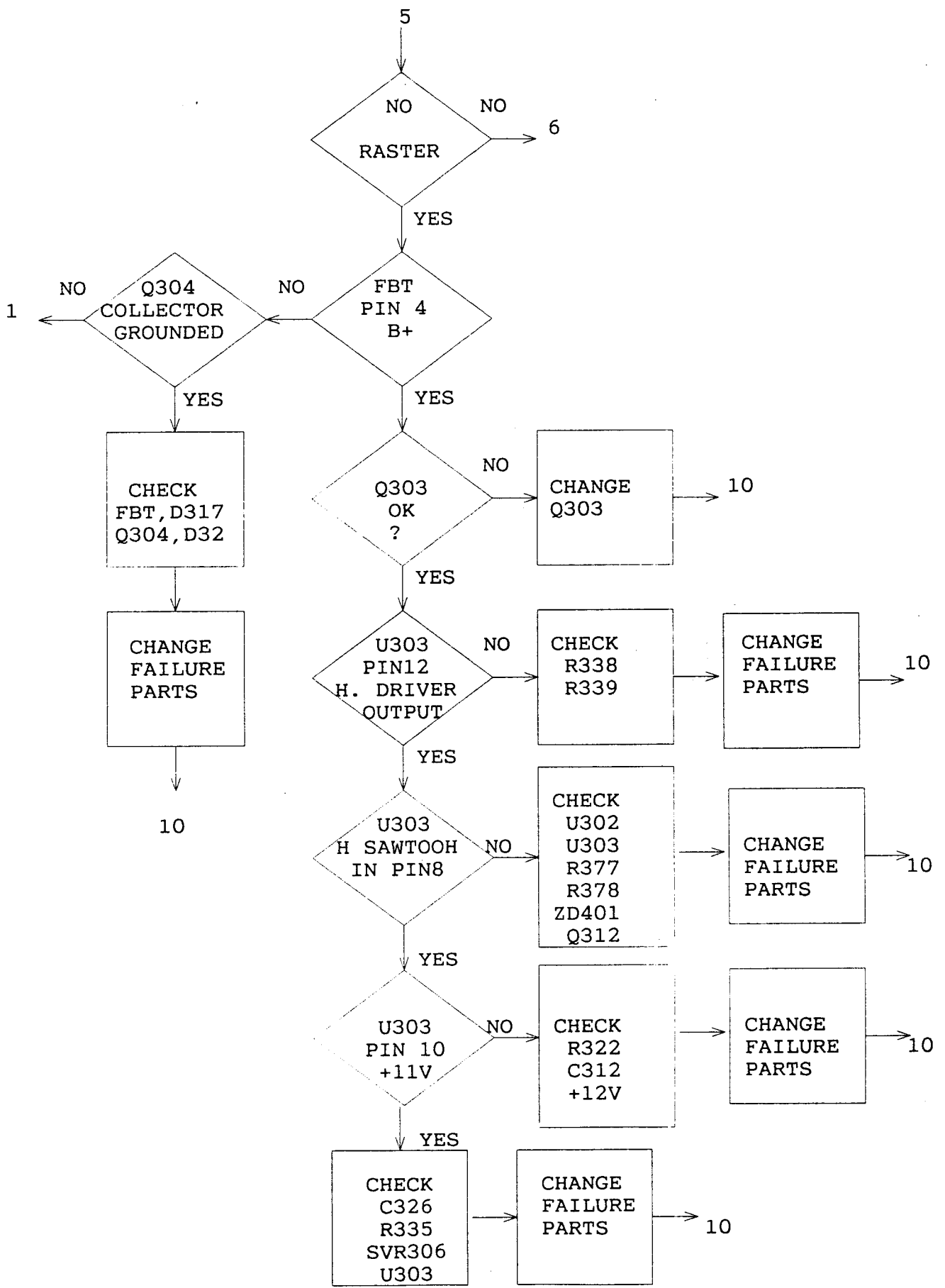


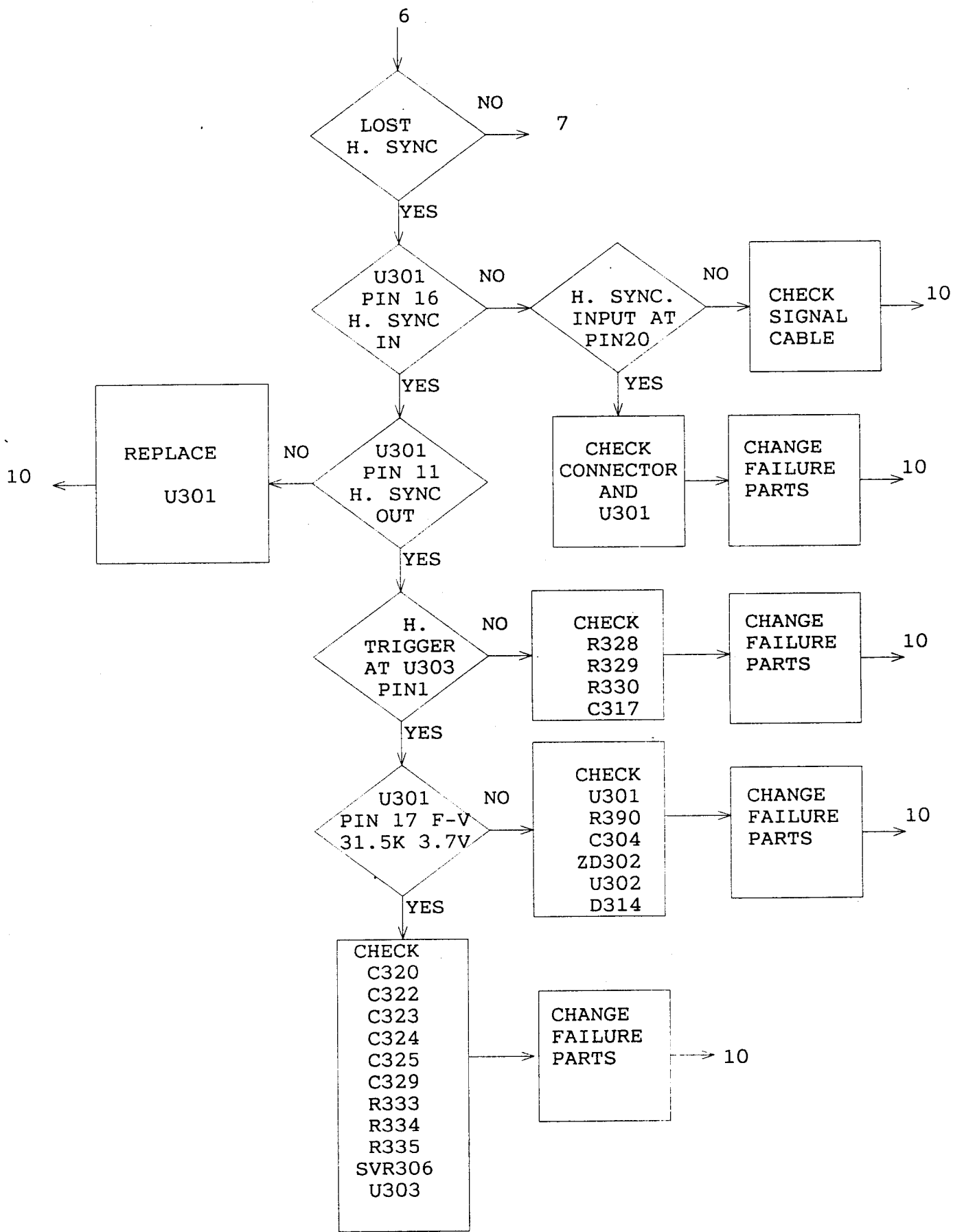


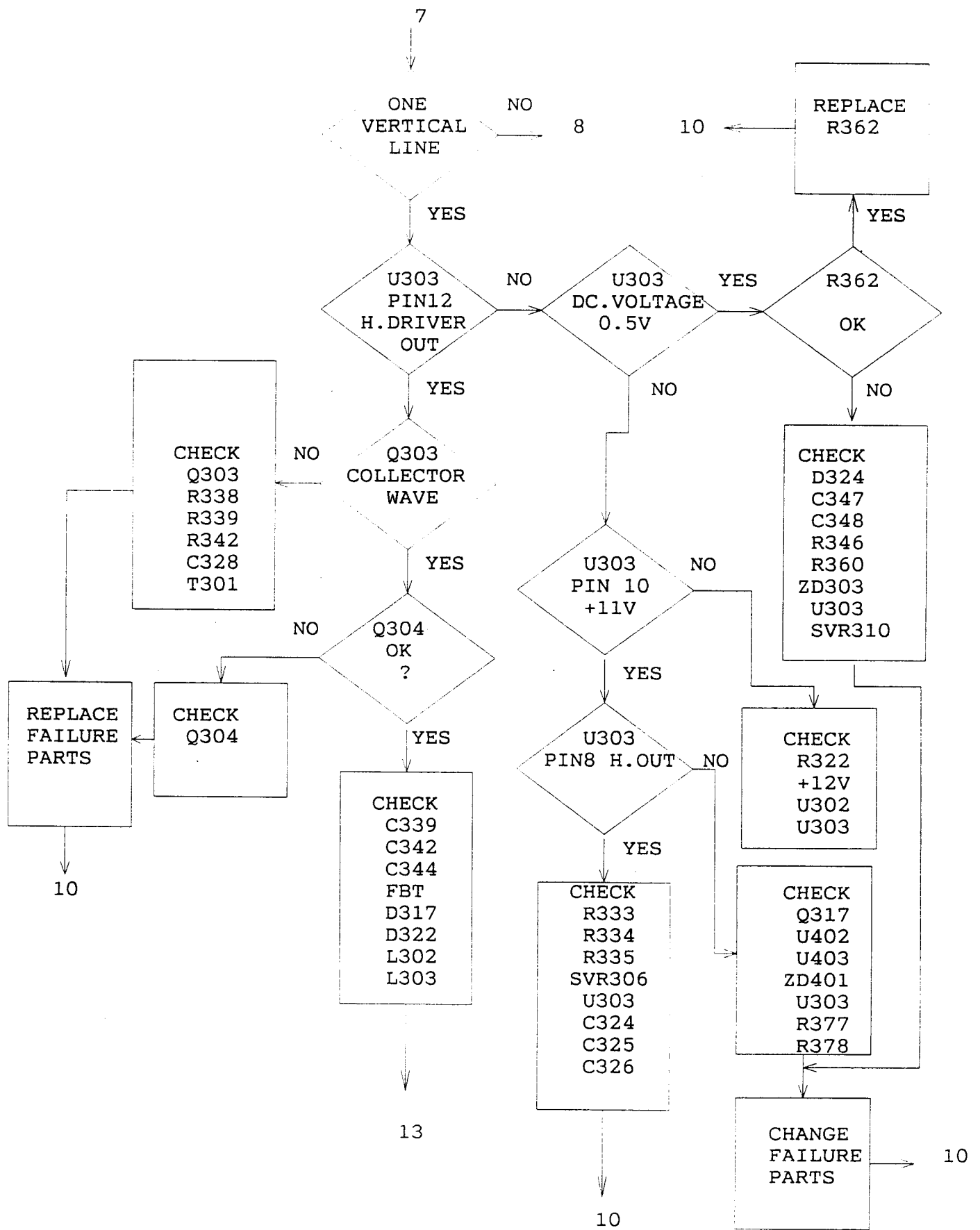


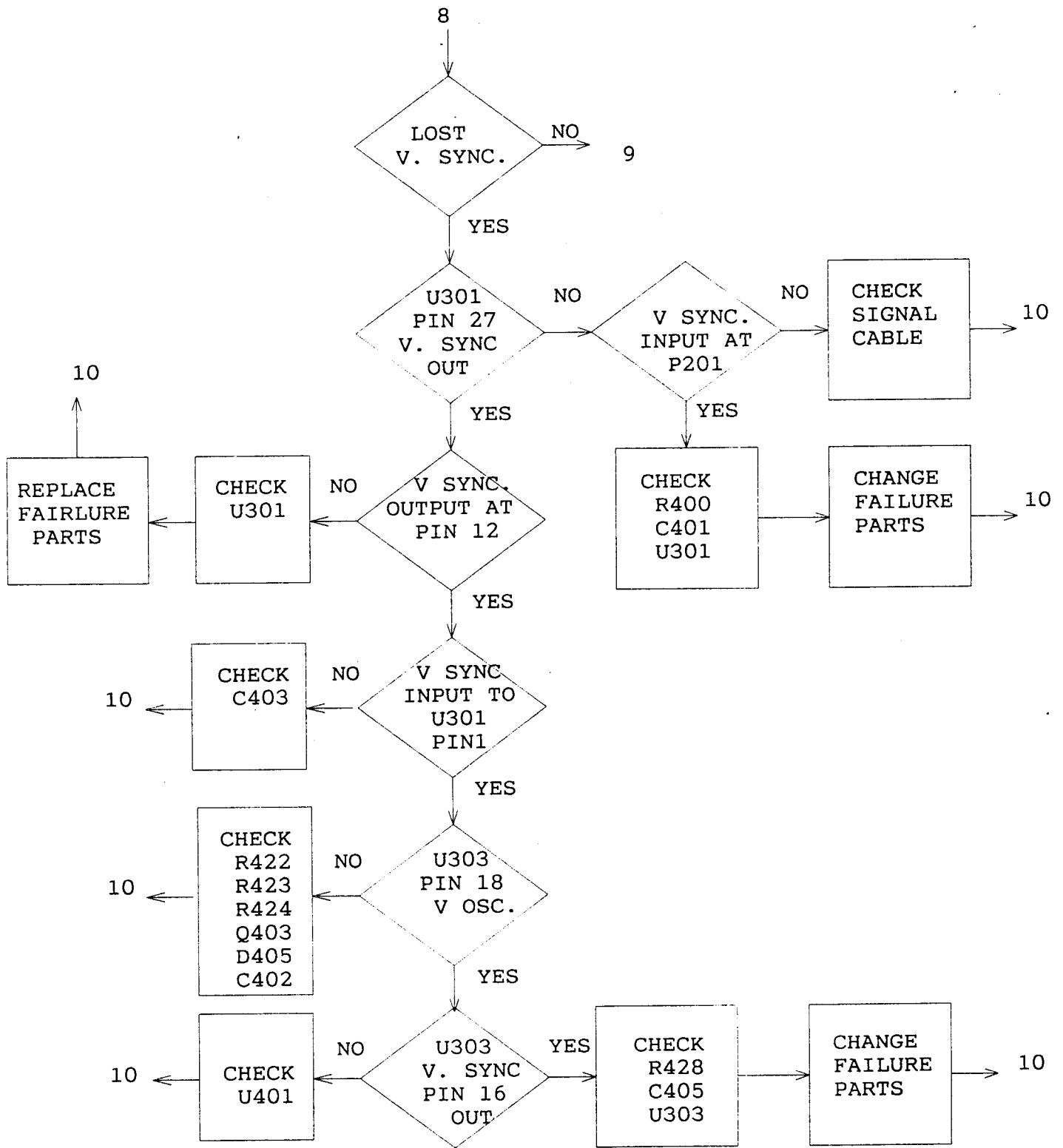


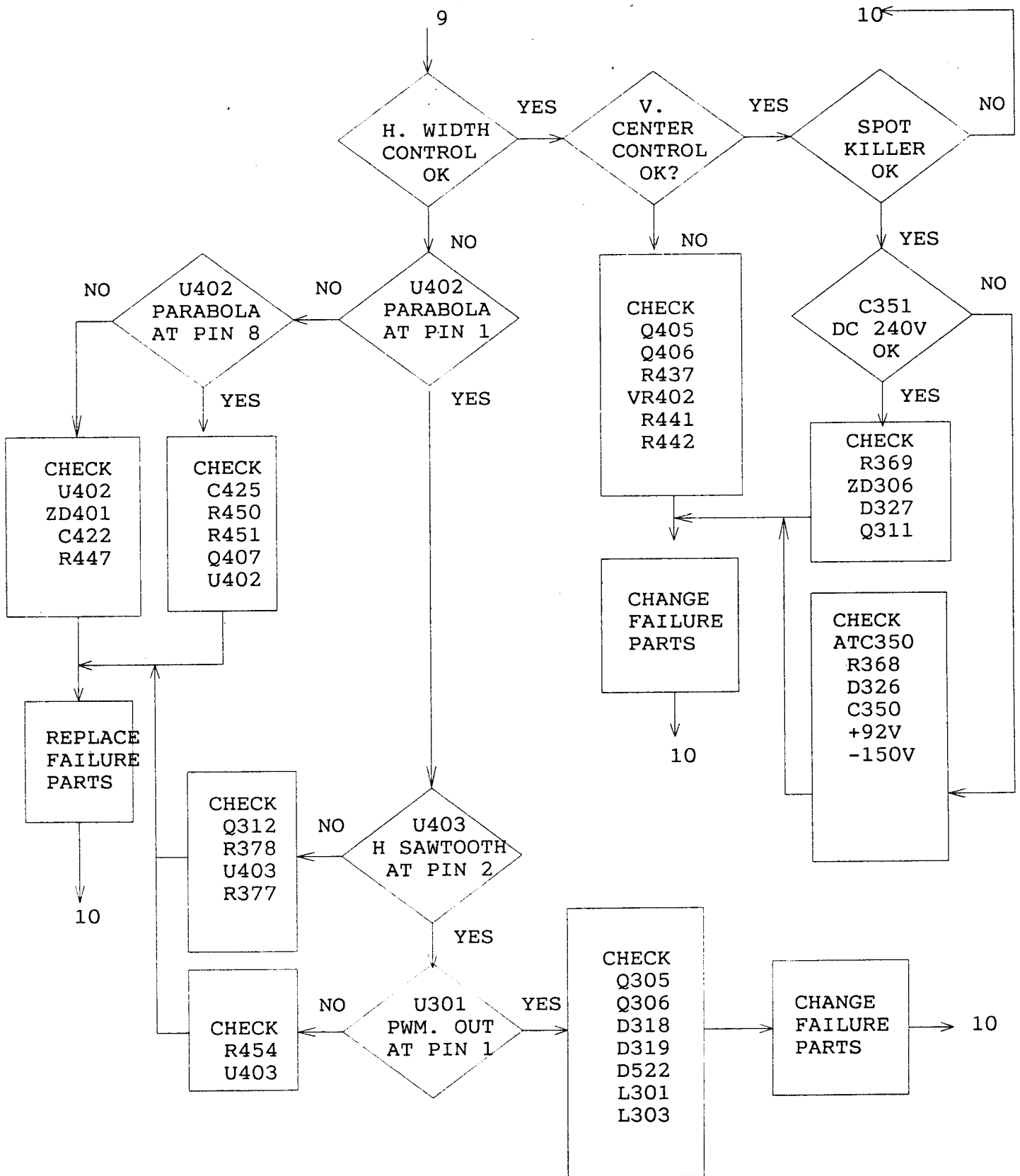


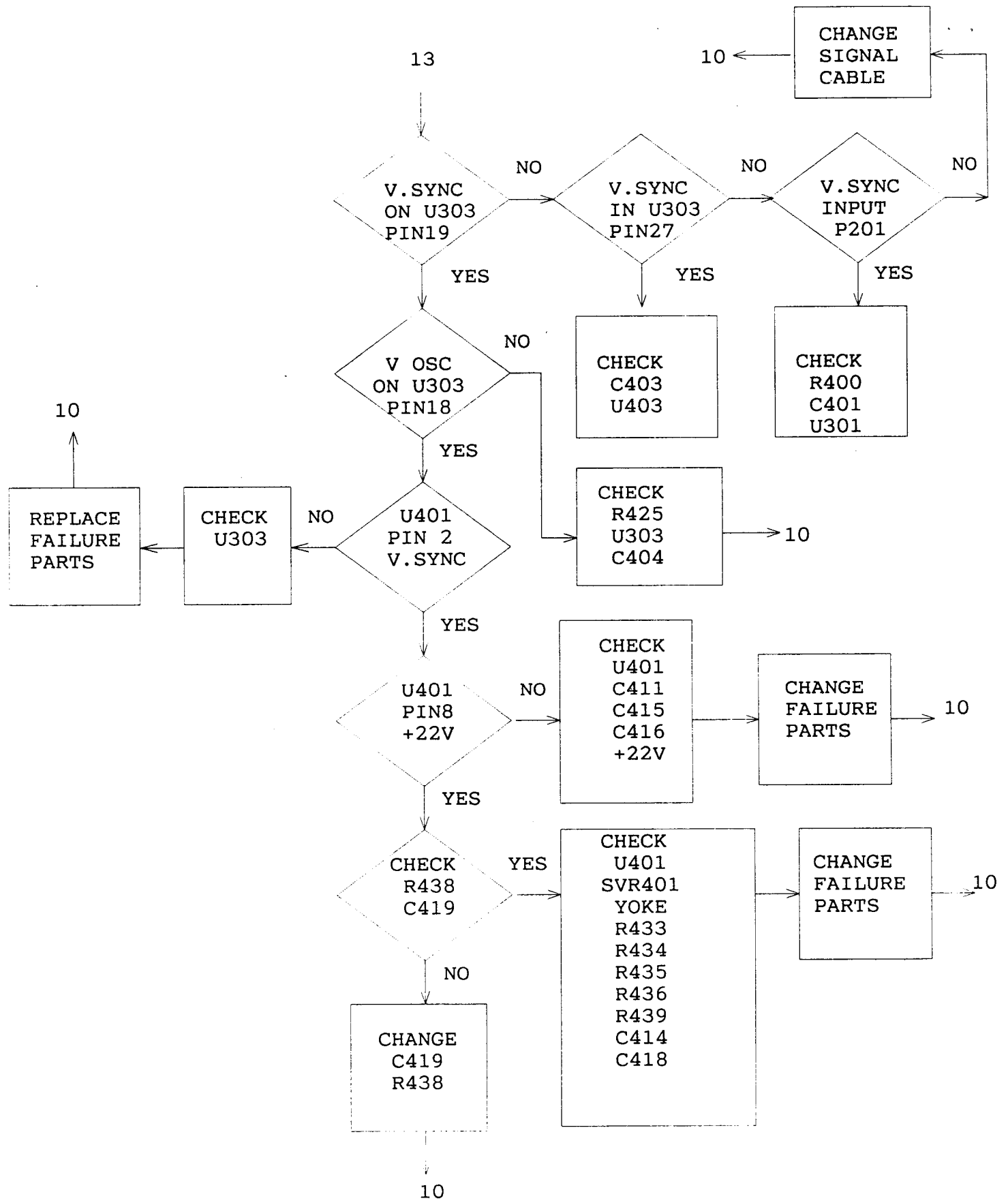




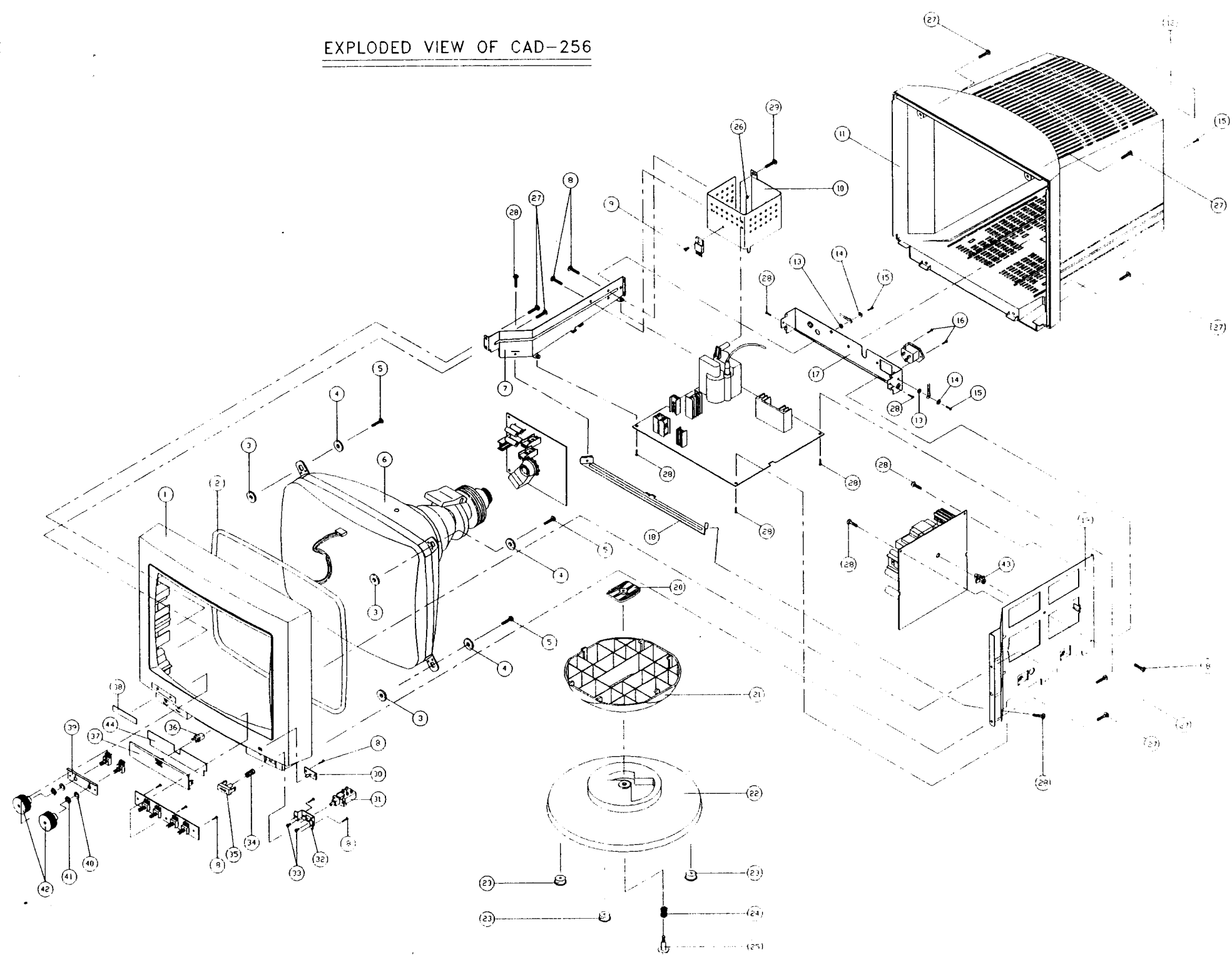








EXPLODED VIEW OF CAD-256



BILL OF MATERIAL LIST

XAD256C06

| PARTS NO | SPECIFICATION | LOCATION |
|-------------|--------------------------------------|---|
| 05110-0004 | POLYFOAM(L) | D-256 |
| 05110-0005 | POLYFOAM(R) | D-256 |
| 05420-0002 | PE BAG | D-256 |
| 05620-0001 | TAPE | CARTON |
| 06630-009s | .28 | D-256 INSPECTION CARD |
| 08031-0131 | BEZEL | D-256 (HIPS 94HB) |
| 08031-0141 | CAB | D-256 (HIPS 94HB) |
| 08031-0170 | VR DOOR | D-256 |
| 20S14-0460 | M34KQA22XX06(G3) TOSHIBA .28 57K | |
| 46G00-0003 | DEGAUSSING | D256 |
| 54WIO-0002 | CRT GND WIRE | D-256 |
| 56Q06- 1510 | POWER CABLE | D-256 (STD) |
| 65311-1501 | SG. CABLE | D-256 |
| 6720040100 | SCREW M 4x10 | CAB + BKT(B),SOCKET + BKT(B),SG + BKT(B) |
| 6720130083 | SCREW FLAT M 3x8 (BLACK) | SOCKET |
| 6720530061 | SCREW M 3x6 WITH WASHER | |
| 6721240140 | SCREW TAP 4x14 | BKT + BEZEL |
| 6721240200 | SCREW TAP 4x20 | CAB + BEZEL |
| 6721240250 | SCREWTAP4x5 | CRT |
| 6721530081 | SCREWTAP3x8WITH WASHER | LED + BEZEL |
| 6730032120 | FLAT WASHER 3.2x12x1 | FOR PWR PCB PWR PCB |
| 6730040080 | FLAT WASHER 4x8x0.8 | |
| 6730055150 | CRT WASHER 5.5x18x1.5 | |
| 6733043050 | TOOTH WASHER 4D | |
| 7113B-0030 | PUSH KNOB | |
| 7113B-0040 | VR KNOB | |
| 71405-0470 | VRFUNCTIONPLATE | D -256s |
| 73012-0002 | PUSH KNOB SPRING | |
| 74134-0010 | RUBBER CRT t = 2.5mm | |
| 742440030 | SPONGE (18x18x22) 94V-0 | |
| 74244-0040 | SPONGE20*24*29 94V-0 | FORPWRPCBPWRBD |
| 74244-0070 | SPONGE 24x24x37 94V-0 | |
| 74731-0050 | SPACER SUPPORTS TCB-10 | |
| 747440040 | DOOR FASTENER | |
| 76201-0120 | BKT (R) | D256 |
| 76201-0130 | BKT (L) | D256 |
| 76201-0140 | BKT (B) | D256 |
| 76201-0150 | BKT (F) | D256 |
| 76201-0200 | CRT METAL PAD | FRONTCOVER |
| 79220-0010 | WIRE TIE (85mm) | |
| 79220-0020 | WIRE TIE | |
| ACD2560001 | MAIN BOARD ASS'Y | D256 |
| 11S31-0300 | MAIN PC. BOARD | D-256 |
| 14A844C-00 | TR A844C | Q314,Q315 |
| 14A965Y-00 | TR 2SA965Y | Q406 |
| 14B649A-00 | TR B649AC | Q308 |
| 14BF422-00 | TR B F422 | Q311,Q408 |
| 14C2235Y-0 | TR C2235Y | Q303,Q405 |
| 14C3886A-0 | TR C3886A | Q304 |
| 14C945P-00 | TR C945P | Q301,Q302,Q312,Q401,Q402,Q403,Q404,Q407,Q320, Q410,Q411 |
| 14D669AC-0 | TR D669AC | Q313,Q409,Q306,Q307 |
| 14IRF630-0 | TR IRF630 | Q309,Q310 |
| 14TIP127-0 | TR TIP127 | Q305 |
| 15A00-0011 | DIODE IN4148 | D402,D403,D404,D405,D407,D390,D301,D302,D303, D304,D305,D306,D307,D308,D309,D310,D311,D312,D313 D314,D315,D401,D400,D300,D391,D393,D412,D413, D414,D415,D416 |
| 15A00-0011 | DIODE IN4148 | |
| 15S2A-8096 | DIODE BY329-1200V | D317 |
| 15352-1091 | DIODE HER103 | D318 |

| PARTS NO | SPECIFICATION | LOCATION |
|--------------|-------------------------|--|
| 15S55-2091 | DIODE HER205 | D322 |
| 15S57-1091 | DIODE HER107 | D316,D319,D320,D321,D323,D324,D325,D326, D327,D406 |
| 15Z33-1201 | DIODE ZENER HZ12A1 | ZD304,ZD305,ZD306,ZD307 |
| 15Z33-1501 | DIODE ZENER HZ15-3 | ZD401 |
| 15Z33-1801 | DIODE ZENER HZ18-2 | ZD303 |
| 15Z33-5091 | DIODE ZENER HZ5C2 | ZD301 |
| 17BRIDGE1- | IC BRIDGE1 | U301 |
| 17HA17393- | IC HA17393 | U403 |
| 17LA7837-0 | IC LA7837 | U401 |
| 17LA7850-0 | IC LA7850 | U303 |
| 17LM358N-0 | IC LM358N | U302,U402 |
| 22115-1061 | RES 1/8W 10M + -5% | R307 |
| 22225-1001 | RES 1/4W 10ohm + -5% | R314 |
| 22225-1011 | RES 1/4W 100ohm + -5% | R377,R427 |
| 22225- 1021 | RES 1/4W 1K + -5% | R301,R338,R348,R350,R413,R423,R390,R326,R300, R337,R466 |
| R467 22225- | 1031 RES 1/4W 10K + -5% | R418,R420,R426,R447,R451,R452,R453,R456,R444, R445,R315,R353,R356,R373,R414,R415,R416,R446, R464,R476, R477 |
| 22225-1041 | RES 1/4W 100K + -5% | R355,R358 |
| 22225-1051 | RES 1/4W 1M + -5% | R367 |
| 22225- 123 1 | RES 1/4W 12K + -5% | R329,R434 |
| 22225-1241 | RES 1/4W 120K + -5% | R372 |
| 22225-1511 | RES 1/4W 150ohm + -5% | R360 |
| 22225-1521 | RES 1/4W 1.5K + -5% | R327,R400 |
| 22225-1531 | RES 1/4W 15K + -5% | R422,R430 |
| 22225-1631 | RES 1/4W 16K + -5% | R419 |
| 22225-1831 | RES 1/4W 18K + -5% | R363,R435 |
| 22225-2021 | RES 1/4W 2K + -5% | R319,R321,R441,R442,R448,R454,R392,R463 |
| 22225-2211 | RES 1/4W 2200hm + -5% | R336 |
| 22225-2221 | RES 1/4W 2.2K + -5% | R30ti,R328,R366 |
| 22225-2231 | RES 1/4W 22K + -5% | R330,R379 |
| 222252241 | RES 1/4W 220K + -5% | R369 |
| 22225-243 1 | RES 1/4W 24K + -5% | R429,R417,R465 |
| 22225-3011 | RES 1/4W 3000hm + -5% | R359 |
| 22225-3021 | RES 1/4W 3K + -5% | R394,R395,R470 |
| 22225-3031 | RES 1/4W 30K + -5% | R432,R433 |
| 22225-3301 | RES 1/4W 330hm + -5% | R421 |
| 22225-3311 | RES 1/4W 3300hm + -5% | R343 |
| 22225-3321 | RES 1/4W 3.3K + -5% | R478,R479 |
| 22225-3331 | RES 1/4W 33K + -5% | R305,R332,R334 |
| 22225-3631 | RES 1/4W 36K + -5% | R304 |
| 22225-3921 | RES 1/4W 3.9K + -5% | R316,R317 |
| 22225-3931 | RES 1/4W 39K + -5% | R412 |
| 222254701 | RES 1/4W 47ohm + -5% | R322 |
| 22225-4711 | RES 1/4W 4700hm + -5% | R339,R368 |
| 222254721 | RES 1/4W 4.7K + -5% | R318,R320,R450,R365,R391,R308,R309,R310,R311, R312,R313 |
| 22225-4731 | RES 1/4W 47K + -5% | R331,R364,R378,R449,R455,R475 |
| 22225-4741 | RES 1/4W 470K + -5% | R370,R425 |
| 22225-5111 | RES 1/4W 510ohm + -5% | R462 |
| 22225-5131 | RES 1/4W 51K + -5% | R480 |
| 22225-5641 | RES 1/4W 560K + -5% | R371 |
| 22225-6831 | RES 1/4W 68K + -5% | R354,R357,R431 |
| 22225-7521 | RES 1/4W 7.5K + -5% | R396,R323 |
| 22225-753 1 | RES 1/4W 75K + -5% | R428,R#2 |
| 22225-8221 | RES 1/4W 8.2K + -5% | R333 |
| 22245-1091 | RES 0.5W 1ohm + -5% | R362 |
| 222451211 | | R436 |
| 22245-1811 | RES 0.5W 180ohm + -5% | R352 |
| 22245-2231 | RES 0.5W 22K + -5% | R347 |
| 22245-3311 | RES 0.5W 330ohm + -5% | R440 |

| PARTS NO | SPECIFICATION | LOCATION |
|-------------|------------------------------|------------------------------|
| 222454701 | RES 0.5W 470hm + -5% | R345,R380 |
| 22245-4711 | RES 0.5W 4700hm + -5% | R424 |
| 22245-4731 | RES 0.5W 47K + -5% | R346,R376 |
| 222454791 | RES 0.5W 4.7ohm + -5% | R439 |
| 22245-5111 | RES 0.5W 510ohm + -5% | R374,R375 |
| 2312110011 | RES 1/4W 1K + -1% | R469 |
| 2312112421 | RES 1/4W 12.4K + -1% | R340 |
| 2312115021 | RES 1/4W 15K + -1% | R341 |
| 2312120521 | RES 1/4W 20.5K + -1% | R411 |
| 2312121021 | RES 1/4W 21K + -1% | R472 |
| 2312124921 | RES 1/4W 24.9K + -1% | R406 |
| 2312128021 | RES 1/4W 28K + -1% | R410 |
| 2312130121 | RES 1/4W 30.1K + -1% | R405 |
| 2312133221 | RES 1/4W 33.2K + -1% | R471 |
| 2312141221 | RES 1/4W 41.2K + -1% | R404 |
| 2312154921 | RES 1/4W 54.9K + -1% | R403 |
| 2312156031 | RES 1/4W 560K + -1% | R409 |
| 2312156211 | RES 1/4W 5.62K + -1% | R468 |
| 2312157621 | RES 1/4W 57.6K + -1% | R474 |
| 2312159021 | RES 1/4W 59K + -1% | R407 |
| 2312171521 | RES 1/4W 71.5K + -1% | R408 |
| 2312193121 | RES 1/4W93.1K + -1% | R473 |
| 23235-6809 | | R381 |
| 23245-1014 | RES MOF 1W 100ohm + -5% | R437 |
| 23245- 1094 | RES MOF 1W 1ohm + -5% | R438 |
| 23245-2214 | RES MOF 1W 2200hm + -5% | R303 |
| 23245-5084 | RES MOF 1W0.5ohm + -5% | R344 |
| 23255-8205 | RES MOF2W 820hm + -5% | R342 |
| 23765-1815 | RES MOF3W 1800hm + -5% | R349 |
| 23785-1099 | RES MOF 5W 1ohm + -5% | R351,R397 |
| 25A0I-103B | VR 10KB SI (VZO67THI) | SVR300 |
| 25A0I-503B | VR 50KB S1(VZO67TH1) | SVR303,SVR304,SVR305,SVR305A |
| 25A0I-504B | VR 500KB SI (VZO67THI) | SVI2302 |
| 25B0I- 102B | VR 1KB S2 (VZO67TLL) | SVR310 |
| 25B0I-103B | VR 10KB S2(VZO67TLL) | SVR311,SVR402 |
| 25B0I-203B | VR 20KB S2 (VZO67TLL) | sVR301 |
| 25B0I-502B | VR 5KB S2(VZO67TLL) | SVR40I,SVR404,SVR306 |
| 28107-1001 | ELEC 160V 10U + -20% | c333 |
| 28107-4701 | ELEC 160V 47U + -20% | C332 |
| 28137-1011 | ELEC 16V 100U + -20% | C304,C408 |
| 28137-1021 | ELEC 16V 1000U + -20% | C311,c407 |
| 28137-2201 | ELEC 16V 22U + -20% | C425 |
| 28137-2211 | ELEC 16V 220U + -20% | C302,C315,C318 |
| 28137-2221 | ELEC 16V 2200U + -20% | c419 |
| 28137-4701 | ELEC 16V 47U + -20% | C433,C434 |
| 28147-1011 | ELEC 25V 100U + -20% | c417 |
| 28147-2211 | ELEC 25V 220U + -20% | C421 |
| 28157-1021 | ELEC 35V 1000U + -20% | C415 |
| 28157-4701 | ELEC 35V 47U + -20% | c431 |
| 28167-1001 | ELEC 50V 10U + -20% | C312.C328.C403.C423 |
| 28167-1011 | ELEC 50V 100U + -20% | C335;C412;C420' |
| 28167-1091 | ELEC 50V 1U + -20% | C305,C306,C402,C424 |
| 28167-2291 | ELEC 50V 2.2U + -20% | C418 |
| 28167-3391 | ELEC 50V 3.3U + -20% | C348,c409 |
| 28167-4711 | ELEC 50V 470U + -20% | C347 |
| 28167-4791 | ELEC 50V 4.7U + -20% | C327 |
| 281B7-1001 | ELEC 250V 10U + -20% | c350 |
| 281B7-1091 | ELEC 250V 1U + -20% | C349 |
| 281B7-4791 | ELEC 250V 4.7U M | c353 |
| 281C7-4791 | ELEC 350V4.7U + -20% | C351 |
| 288B7-1001 | ELEC 250V 10U + -20% (105C') | c394 |
| 29146-1093 | TAN 16V 1U + -10% | C323,C325,C411 |
| 32115-122B | PEN 50V 0.0012U + -5% | C396(Ik) |
| 32115-332B | PEN 50V 0.0033U + -5% | C326,C410 |

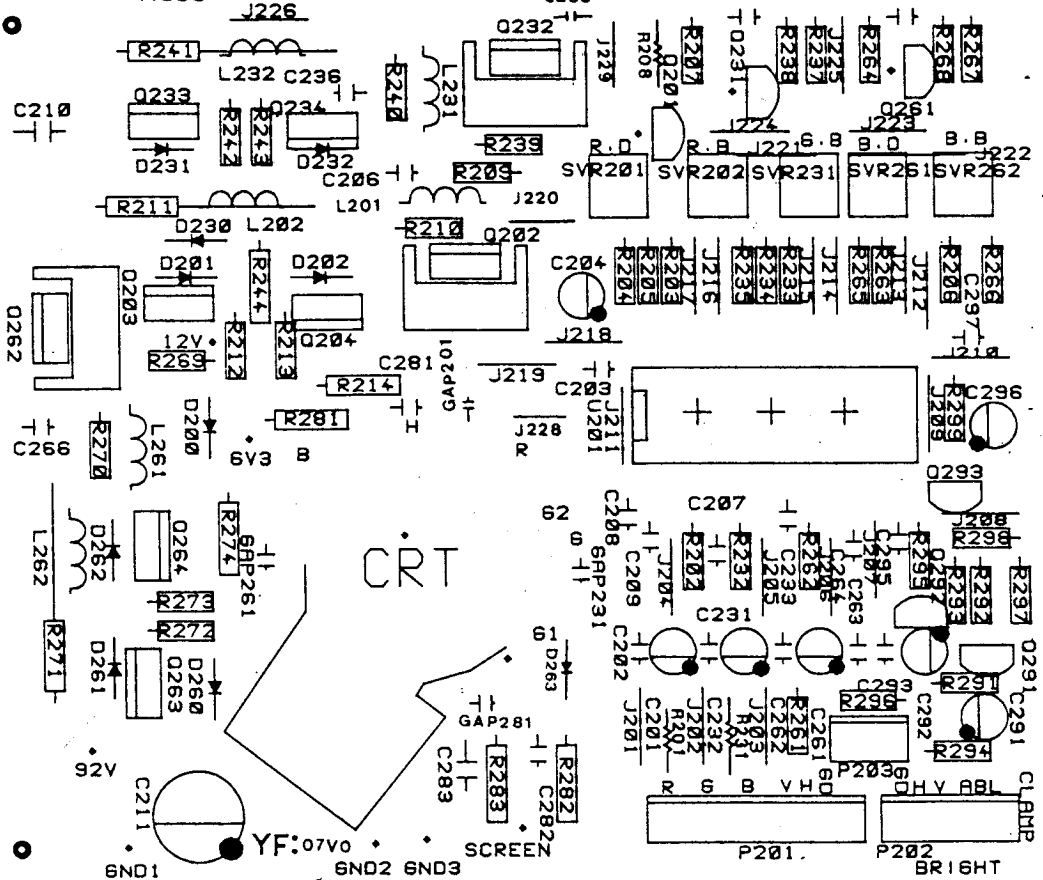
| PARTS NO | SPECIFICATION | LOCATION |
|-------------|---|---|
| 32115-562B | PEN 50V 0.0056U + -5% | C405,C322 |
| 32125-102B | PEN 100V 0.00IU + -5% | C401 |
| 32125-103B | PEN 100VO.OIU + -5% | C324,C334,C341,C343 |
| 32125-1044 | PEN 100VO.IU + -5% | c414,c404 |
| 33175-5624 | PP63OVO.OO56U + -5% | C337 |
| 33IA5-562A | PP 1.6KV 0.0056U + -5% | c330 |
| 35145-1057 | MPP 250V 1U + -5% | C342 |
| 35145-225A | MPP 250V 2.2U + -5% | C338 |
| 35145-395A | MPP 250V 3.9U + -5% | C344 |
| 35 155-684A | MPP 400V 0.68U + -5% | C339 |
| 38195-1007 | CER 50V 10P SL + -5% | C300 |
| 38195-1017 | CER 50V 10IP SL + -5% | C314,C317,C393 |
| 38195-5007 | CER 50V 50P SL +-5% | C307,C308 |
| 381A5-1017 | C319 | |
| 381A5-2717 | CER 50V 271P NPO + -5% | C320 |
| 39146-1037 | CER 50V 103P Y5P + -10% | C422,C346 |
| 39146-2228 | CER 50V 2200P Y5P + -5% | C395 |
| 391464717 | CER 50V 471P Y5P + -10% | C321 |
| 39146-8217 | CER 50V 821P Y5P + -10% | c426 |
| 394461038 | CER 500V 103P Y5P + - 10% | C331,C352 |
| 39546- 1027 | CER 1KV 102P Y5P + -10% | C329,C340 |
| 39999-1047 | CER 50V 104P Y5V + 80% -20% | C303,C309,C310,C316,C416,C390,C391\$392,C432 |
| 45MIK-1027 | CHOKE 1mH | L304 |
| 45MIK-6027 | CHOKE 6mH | L301 |
| 46LOO-0040 | LINEARITY COIL | D -256 L302 |
| 46200-0001 | INDUCTOR 0.22mH | L303 |
| 47BIO-0010 | H.BIAS COIL. D-256 | T302 |
| 47DIO-0030 | DRIVETRANS. D-256 | T301 |
| 47FI3-0020 | FBT D -256 | T303 |
| 54JB5-0003 | JUMPER 10mm | J301,5302,5303,5304,5305,5306,5307,5308,J3~,J310,J311 5312,5313,5314,5315,5316,5317,5318,5319,5320,5335 |
| 54JB5-0003 | JUMPER 10mm | J350,J351,J353,R361,J358,J359,J356,J360,5361,5362,J3222 J323,J324,J325,J326,J327,5328,5329,J331,,J333 |
| 54JB5-0003 | JUMPER 10mm | J334,J336,J337,J338,J339,5340,5341,5342,J343,J344,J363 J345,J346,J347,J348,J349,J364,J365,5366,8 5352 |
| 54JB5-0005 | JUMPER 15mm | |
| 54L15E073L | LEAD WIRE 1007 #22 75mm (ORG) B TO 'HTOH' | |
| 54L15E143L | LEAD WIRE 14CM (ORANGE) | |
| 60COO-3579 | XTAL 3.58M | x301 |
| 62R35-4501 | FERRITE BEAD RH035045S-B 3.5*4.5 | J321 |
| 64B1140001 | BASE (2.36D-4P) | P403TO CRT |
| 64B3320001 | BASE (XH-2P) | P402 LED BORD |
| 64B3330001 | BASE (XH-3P) | P302 TO VR BRIGHT |
| 64B3350001 | BASE (XH-5P) | P301 H-SIZE,P-PHASE P401 V-SIZE,V-CENTER |
| 65W2262501 | CONN (1.5D-6P) 250mm | FOR-92V,-22V,-92V,-GND,-FB,-B + TO P122 |
| 65W3362101 | CONN (XH-6P) 210mm | FOR-BRIGHT,-ABL,-CLAMP,-HI,-VI,-GND TO P202 |
| 6720030101 | SCREW M 3x10 | U40I,Q304 |
| 6720230060 | SCREW M 3x6 | Q305,D317,Q309,Q310 |
| 6721240140 | SCREW TAP 4x14 | FBT |
| 6721530061 | SCREW TAP 3x6 WITH WASHER | D322 + FBT HEATSINK |
| 674003025 1 | NUTM3 | FOR FBT |
| 75 120-0040 | HEAT SINK (FBT) | FBT |
| 75123-0050 | HEAT SINK (65~18.8~40) | u401 |
| 75123-0060 | HEAT SINK (15~10.6~30) | Q305,Q309,Q310 |
| 75123-0100 | HEATSINK(15*10.6*40) | D322 |
| 75123-0110 | HEAT SINK (23x16~40) | D317 |
| BCD2560001 | CRT BOARD ASS'Y | D256 1.0000 |
| 1 IS33-0300 | CRT P.C. BOARD | |
| 14A1538E-0 | TR A1538E | Q204,Q234,Q264 |
| 14A673C-00 | TR A673C | Q291 |
| 14C3953E-0 | TR C3953E | Q202,Q203,Q232,Q233,Q262,Q263 |
| 14C4308-00 | TR C4308 | Q201,Q231,Q261 |
| 14C945P-00 | TR C945P | Q292,Q293 |
| 15A00-0011 | DIODE IN4148 | D201,D202,D231,D232,D261,D262 |

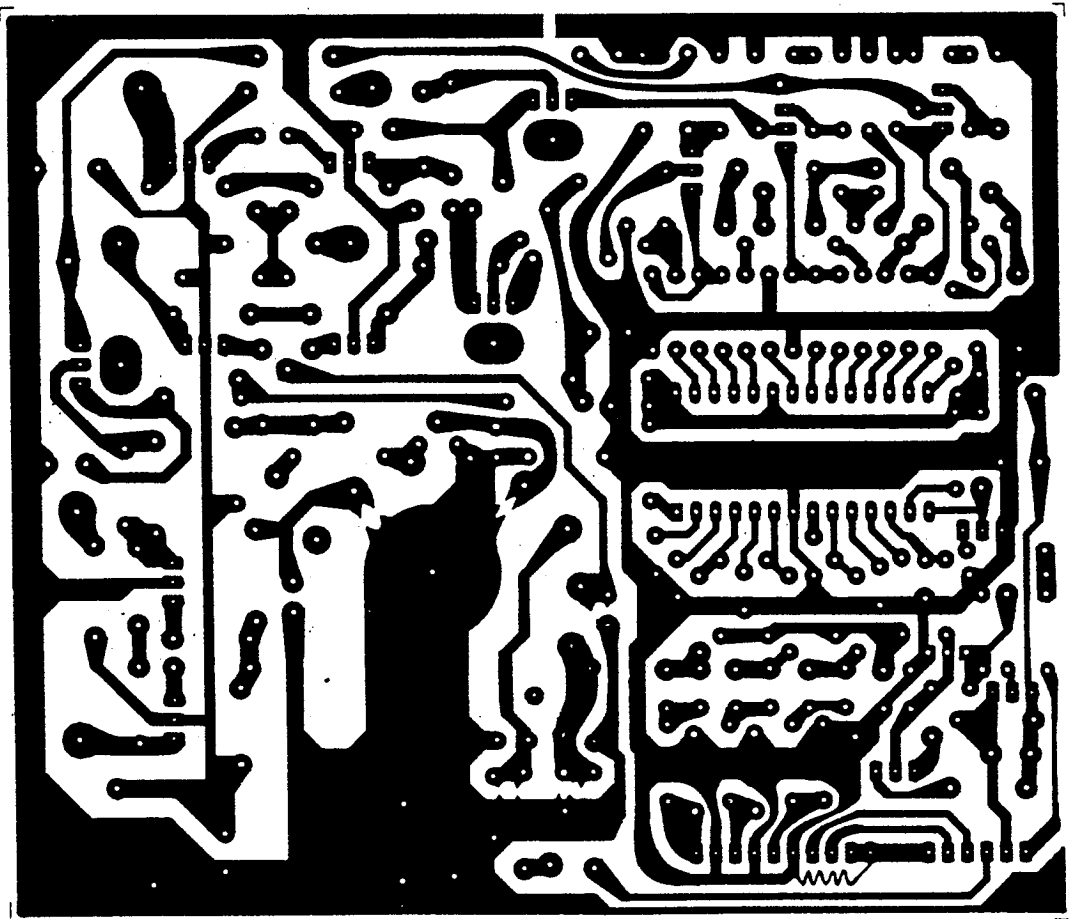
| PARTS NO | SPECIFICATION | LOCATION |
|-------------|------------------------------|--|
| 15357-1091 | DIODE HER107 | D200,D230,D260 |
| 17LM1203N- | IC LM1203N | u201 |
| 22225-1011 | RES 1/4W 100ohm + -5% | R235,R295 |
| 22225-1021 | RES 1/4W 1K + -5% | R298,R299 |
| 22225-1031 | RES 1/4W 10K + -5% | R202,R232,R262,R293 |
| 22225-1111 | RES 1/4W 110ohm + -5% | R207,R237,R267 |
| 22225-1521 | RES 1/4W 1.5K + -5% | R294 |
| 22225-2201 | RES 1/4W 220hm + -5% | R212,R213,R242,R243,R272,R273 |
| 22225-2211 | RES 1/4W 2200hm + -5% | R203,R233,R263 |
| 22225-2221 | RES 1/4W 2.2K + -5% | R210,R240,R270,R291,R297 |
| 22225-3321 | RES 1/4W 3.3K + -5% | R2% |
| 22225-3911 | RES 1/4W 3900hm + -5% | R204,R234,R264 |
| 22225-3921 | RES 1/4W 3.9K + -5% | R206 |
| 222254701 | RES 1/4W 470hm + -5% | R208,R209,R238,R239,R268,R269 |
| 22225-4731 | RES 1/4W 47K + -5% | R292 |
| 22225-5101 | RES 1/4W 51ohm + -5% | R205,R265 |
| 22225-5611 | RES 1/4W 560ohm + -5% | R266 |
| 22225-7501 | RES 1/4W 750hm + -5% | R201,R231,R261 |
| 22245-1011 | RES 0.5W 100ohm + -5% | R214,R244,R274 |
| 22245-1031 | RES 0.5W 10K + -5% | R282 |
| 22245- 1041 | RES 0.5W 100K + -5% | R283 |
| 23785-2029 | RES MOF5W2K + -5% | R211,R241,R271 |
| 25AOI-101B | VR 100B SI(VZ067THI) | SVR20I,SVR261 |
| 25AOI-302B | VR 3KB SI(VZ067THI) | SVR202,SVR232,SVR262 (TOSHIBA CRT) |
| 28107-1001 | ELEC 160V 10U + -20% | C211 |
| 28137-1011 | ELEC 16V 100U + -20% | C204,C296 |
| 2x37-4701 | ELEC 16V 47U + -20% | C201,C231,C261 |
| 28167-4791 | ELEC 50V 4.7U + -20% | C291,C292 |
| 38195-3307 | CER 50V 33P SL + -5% | C205,C235,C265 |
| 39446-1038 | CER 500V 103P Y5P + - 10% | C210 |
| 39646-1027 | CER 2KV 102P Y 5P + - 10% | C282 |
| 39687C1038 | CER 2KV 103P Z5U + -20% | C283 |
| 39999- 1047 | CER 50V 104P Y5V + 80% -20% | C202,C203,C206,C207,C208,C209,C232,C233,C236, C262,C263&264,C266\$281,C293,C295,C297 |
| 42S00-0200 | SPARKGAP20OV | GAP20I,GAP231,GAP261 |
| 42S00-1000 | SPARK GAP 1KV | GAP281 |
| 45AOK-229C | PEAKING 2.2uH | L202,L232,L262 |
| 45AOK-689C | PEAKING 6.8uH | L201,L231,L261 |
| 54JB5-0003 | JUMPER 10mm | J201,J202,J203,J204,J205,J206,J207,J208,J209,J210,J211 J212,J213,J214,J215,J216,J217,J218,J219,J220,J221 J223,J224,J225,J226,J228,J229 |
| 54JB5-0003 | JUMPER 10mm | R281 |
| 54JB5-0004 | JUMPER 12.5mm | 5222 |
| 54JB5-0005 | JUMPER 15mm | VIDEO BOARD GND2. |
| 54L23B150A | 18AWG 150mm au 1015 #22 | P204 |
| 64B1510001 | BASE (2.36D-1P) | P201SG CABLE |
| 64B3300001 | BASE (XH-10P) | P203 TO VR BOARD CONTRAST P203 |
| 64B3330001 | BASE (XH-3P) | P202TO MAINGND,H,V,ABL |
| 64B3360001 | BASE (XHdP) | |
| 64C30-0010 | CRT SOCKET | |
| 65W2242501 | CONN (1.5D-4P) 250mm | FOR -GND,-92,-6.3V,-12VT0 P121 |
| 6720230060 | SCREW M 3x6 | Q202,Q232,Q262 |
| 68DOO-0001 | ROUND PIN | TO R211,R241,R271 |
| 75123-0060 | HEAT SINK (15~10.6~30) | Q202,Q232,Q262 |
| DCD2560001 | POWER BOARD ASSY | D256 |
| 11332-0200 | POWER FIC. BOARD D-256 | |
| 14BD139-00 | TR BD139 | Q121 |
| 14K955-000 | TR K955 | Q101 |
| 15AOO-0011 | DIODE IN4148 | D108,D109,D124 |
| 15326-3091 | DIODE Vrrm = 600V, 3A IN5406 | D101,D102,D103,D104 |
| 15S2A-8096 | DIODE BY329-1200V | D122 |
| 15351-2091 | DIODE HER202 | D127 |
| 15S52-1091 | DIODE HER103 | D106,D121 |
| 15353-2091 | DIODE HER204 | D126 |
| 15355-2091 | DIODE HER205 | D125 |

| PARTS NO | SPECIFICATION | LOCATION |
|-------------|------------------------------------|--------------------------|
| 15357-1091 | DIODE HER107 | D105,D107 |
| 15TOO-0010 | DIODE 2N5062 | Q122 |
| 15233-1201 | DIODE ZENER HZ12A1 | ZD121 |
| 15233-1801 | DIODE ZENER HZ18-2 | ZD101,D110 |
| 15233-5091 | DIODE ZENER HZ5C2 | ZD102 |
| 15253-1011 | DIODE ZENER IN4764A 1W | D123 |
| 15253-4701 | DIODE ZENER IN4756A 1W | ZD122 |
| 174N35-000 | IC 4N35 | u102 |
| 177812CT0 | IC LM7812CT/MC 7812CT | u122 |
| 17SG3842M- | IC SG3842M | UI01 |
| 17TL431-00 | IC TL431 | U121,U123 |
| 22225 1021 | RES 1/4W 1K + -5% | R116,R133 |
| 222251031 | RES 1/4W 10K + -5% | R111,R114,R118,R130,R143 |
| 22225-1041 | RES 1/4W 100K + -5% | R112,R113,R115,R137,R144 |
| 22225-2021 | RES 1/4W 2K + -5% | R127,R139 |
| 222252201 | RES 1/4W 220hm + -5% | R117 |
| 22225-2211 | RES 1/4W 220ohm + -5% | R129 |
| 22225-2711 | RES 1/4W 2700hm + -5% | R141 |
| 22225-3021 | RES 1/4W 3K + -5% | R125 |
| 22225-3931 | RES 1/4W 39K + -5% | R109 |
| 22225-4701 | RES 1/4W 470hm + -5% | R110 |
| 22225-5621 | RES 1/4W 5.6K + -5% | R128 |
| 22225-7501 | RES 1/4W 750hm + -5% | R142 |
| 22245-1001 | RES 0.5W 10ohm + -5% | R124 |
| 22245-2221 | RES 0.5W 2.2K + -5% | R138 |
| 22245-2291 | RES 0.5W 2.2ohm + -5% | R136 |
| 22245-2701 | RES 0.5W 270hm + -5% | R123 |
| 222454741 | RES 0.5W 470K + -5% | R101,R103 |
| 22245-6801 | RES 0.5W 680hm + -5% | R126 |
| 23245- 1004 | RES MOF 1W 10ohm + -5% | R106 |
| 23245-1014 | RES MOF 1W 100ohm + -5% | R122,R140 |
| 3245-3384 | RES MOF 1W 0.33ohm + -5% | R108 |
| 23255- 1835 | RES MOF2W 18K + -5% | R131 |
| 23255-2735 | RES MOF 2W 27K + -5% | R132 |
| 23765-1045 | RES MOF3W 100K + -5% | R102 |
| 23785-1019 | RES MOF 5W 100ohm + -5% | R121 |
| 23785-1509 | RES MOF5W 15ohm + -5% | R135 |
| 24665- 1029 | RES S 5W 1K + -5% | R107 |
| 24665-1539 | RES S 5W 15K + -5% | R105 |
| 25B02-501B | VR 500B S2 (VZO68TLI) | SVR121 |
| 26B3L-0011 | NTCR (OSSPOOSL) | RT102 |
| 26FOO-0001 | PTCR 27 OHM (270N) | RT101 |
| 28167-1001 | ELEC 50V 10U + -20% | c110,c114,c137 |
| 28167-1011 | ELEC 50V 100U + -20% | C109 |
| 28167-4701 | ELEC 50V 47U + -20% | C133 |
| 283D7-221M | ELEC 400V 220U SNAP IN + -20% 25*4 | C100,C105 |
| 28807-2211 | ELEC 160V 220U + -20% (105C) | C129,C130 |
| 28807-4701 | ELEC 160V 47U + -20% (105C) | C131,C132 |
| 28837-4711 | ELEC 16V 470U + -20% (105C) | C141,C142 |
| 28857-1021 | ELEC 35V 1000U + -20% (105C) | C135,C136 |
| 32115-6834 | PEN 50V 0.068U + -5% | C126 |
| 32125-102B | PEN 100V 0.001U + -5% | C117,C127,C140 |
| 32125-103B | PEN 100V 0.01U + -5% | C112 |
| 32125- 1044 | PEN 100V 0.1U + -5% | c111,c128,c139 |
| 32125-222B | PEN 100V 0.0022U + -5% | C113,C116 |
| 32125-472B | PEN 100V 0.0047u + -5% | C124 |
| 35145-4747 | MPP 250V 0.47U + -5% | C125 |
| 391463317 | CER 50V 331P Y5P + -10% | C115 |
| 39446-6817 | CER 500V 681P Y5P + -10% | C123 |
| 39546-1017 | CER 1KV 101P Y5P + -10% | C122 |
| 39546-3328 | CER 1KV 332P Y5P + -20% | C106 |
| 39546-4717 | CER 1KV 471P Y5P + -10% | C107 |
| 39646-3317 | CER 2KV 331P Y5P + -10% | C121 (C120) |
| 39999-1047 | CER 50V 104P Y5V + 80% -20% | C108,C138 |

| PARTS NO | SPECIFICATION | LOCATION |
|-------------|-----------------------------|--|
| 39c46-3317 | CER 2KV 331P Y5V + -10% | C120 |
| 42A27-103C | X-CAP 250VO.0IU + -20% | C118 |
| 42A27-224B | X-CAP250V0.22U + -20% | C101 |
| 42D57-4725 | Y-CAP 400V 4700P + -20% | C102,C103 |
| 45MIK1005 | CHOKE 10uH | L101,L102,L103,L104 |
| 47EIO-0020 | LINE FILTER 20mH | LF101 |
| 47PIO-0020 | SIDE PIN D-256 | T121 |
| 47SIO-0040 | POWERTRANS. D-256 | T101 |
| 49F52-252B | FUSE 250V 2.5A 5ST | F101 |
| 54JB5-0003 | JUMPER 10mm | J102,J103,J104,J105,J107,J109,J110,J111 |
| 54JB5-0004 | JUMPER 12.5mm | 5106 |
| 54JB5-0005 | JUMPER 15mm | J101,J108 |
| 64B1120001 | BASE (2.36D-2P) 10mm | P104TO DEGAUSSING. |
| 64B2240001 | BASE(1.5D-4P) | P121 TO CRT 92V,6.3V,12V,GND |
| 64B2260001 | BASE (1.5D -6P) | P122TO MAIN B + ,92v,FB,24v,12V ,GND |
| 64B4420001 | BASE (VH-2P) | P105 TO FBT |
| 64B4430002 | BASE (VH3P) 2P | P101,P102,P103TO SW. POWER,AC SOCKET |
| 6720030101 | SCREW M3x10 | Q101 |
| 6720230060 | SCREWM3x6 | Q121,D122,U122 |
| 68A00-0010 | FUSE CLIP (5x20) | FOR F101 |
| 68DOO-0001 | ROUND PIN | FOR R135 |
| 75 123-0060 | HEAT SINK (15~10.6~30) | Q121 |
| 75123-0070 | HEAT SINK (23x16~30) SK043 | D122,U122 |
| 75123-0081 | HEAT SINK (50~18.5~45) 26mm | Q101 |
| 80100-2802 | SILICON RUBBER (TO-3P3.7D) | Q101 |
| SSD2560001 | VR ASS'Y | D256 |
| 11S31-0310 | PCB VR BOARD. | D -256 |
| 25C02- 103B | VR 10KB (VE12CH2 10K) | VR301(H-PHASE),VR402(V_CENTER) |
| 25C02- 104B | VR 100KB (VE12CH2 100K) | VR401(V-SIZE) |
| 25C02-502B | VR 5KB (VE12CH2 5K) | VR302(HSIZE) |
| 65F3352001 | FLAT CABLE (XH-5P) 200mm | P301,P401 |
| SSD2560002 | VR ASS'Y | D256 |
| 25E03-103B | VR 10KB (VB12L(7*5)N15KC) | VR291 (CONTRAST) |
| 25E03-104B | VR 100KB (VB12L(7*5)N15KC) | VR303(BRIGHT) |
| 65F6A42001 | | P302,P203 |
| 76201-0181 | VRBKT. | D256 |
| SSD2560003 | LED ASS'Y | D256 |
| 11331-0330 | PCB LED BOARD. | D-256 |
| 19A02-0003 | LED (CAD-256 PRIVATE) | (R2112N) |
| 65F3322001 | FLAT CABLE (XH-2P) 200mm | LED1 |
| SSD2560004 | SW. POWER ASS'Y | D256 |
| 52S21-0001 | PUSH SW. | |
| 65W4432902 | CONN (VH3P) 290mm (TUV) | |
| 6720230060 | SCREW M 3x6 | |
| 76201-0160 | SW. BKT. | D256 |
| SSD2560005 | AC SOCKET ASS'Y | D256 |
| 54C23B1051 | GND WIRE (100mm 4.3~) | |
| 64P20-0010 | ACSOCKET | FROM AC SOCKET TO BKT(B) |
| 65W4431001 | CONN (VH3P) #18 1617 100mm | |
| SSD2560006 | SWIVEL BASE ASS'Y | D256 |
| 08031-0150 | SWIVELBOWL. | D-256 |
| 08031-0160 | SWIVEL BASE. | D-256 |
| 67207-0001 | SWIVELSCREW | |
| 73012-0001 | SPRING SWIVEL | |
| 74130-0010 | RUBBER FOOT | |
| 79130-0010 | SWIVEL FIXER | |

BRIDGE 11S33-0300 REV C

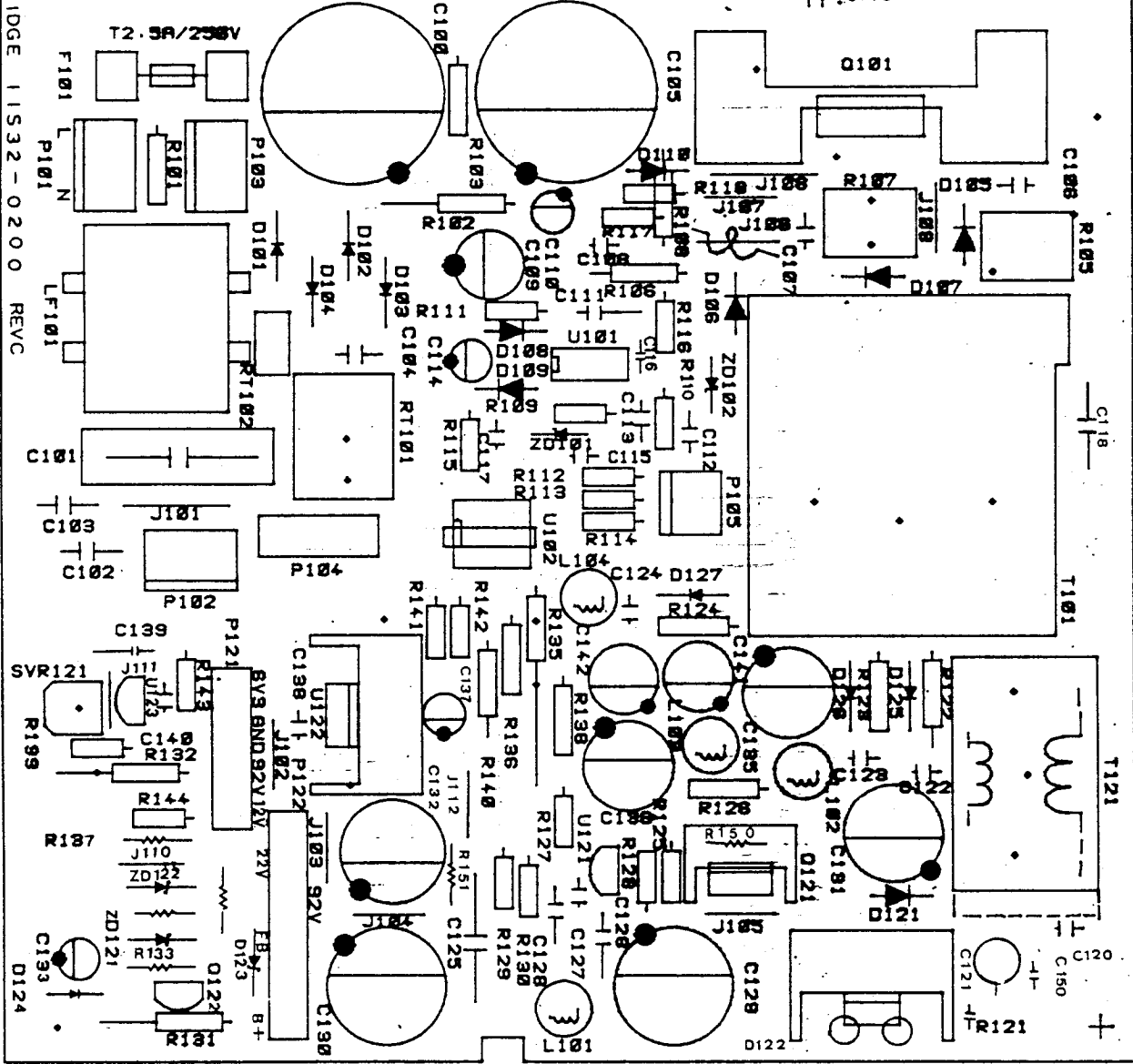


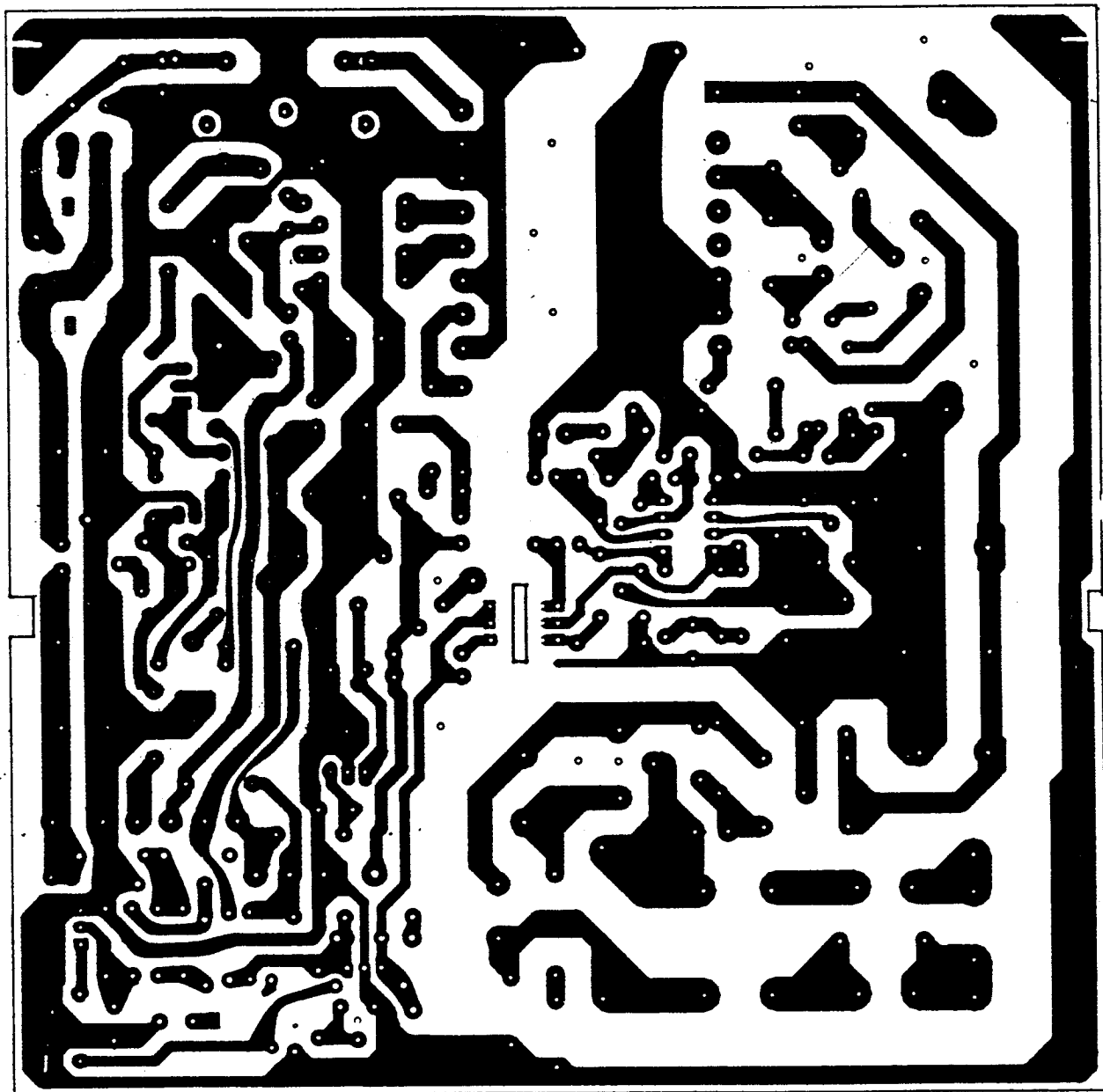


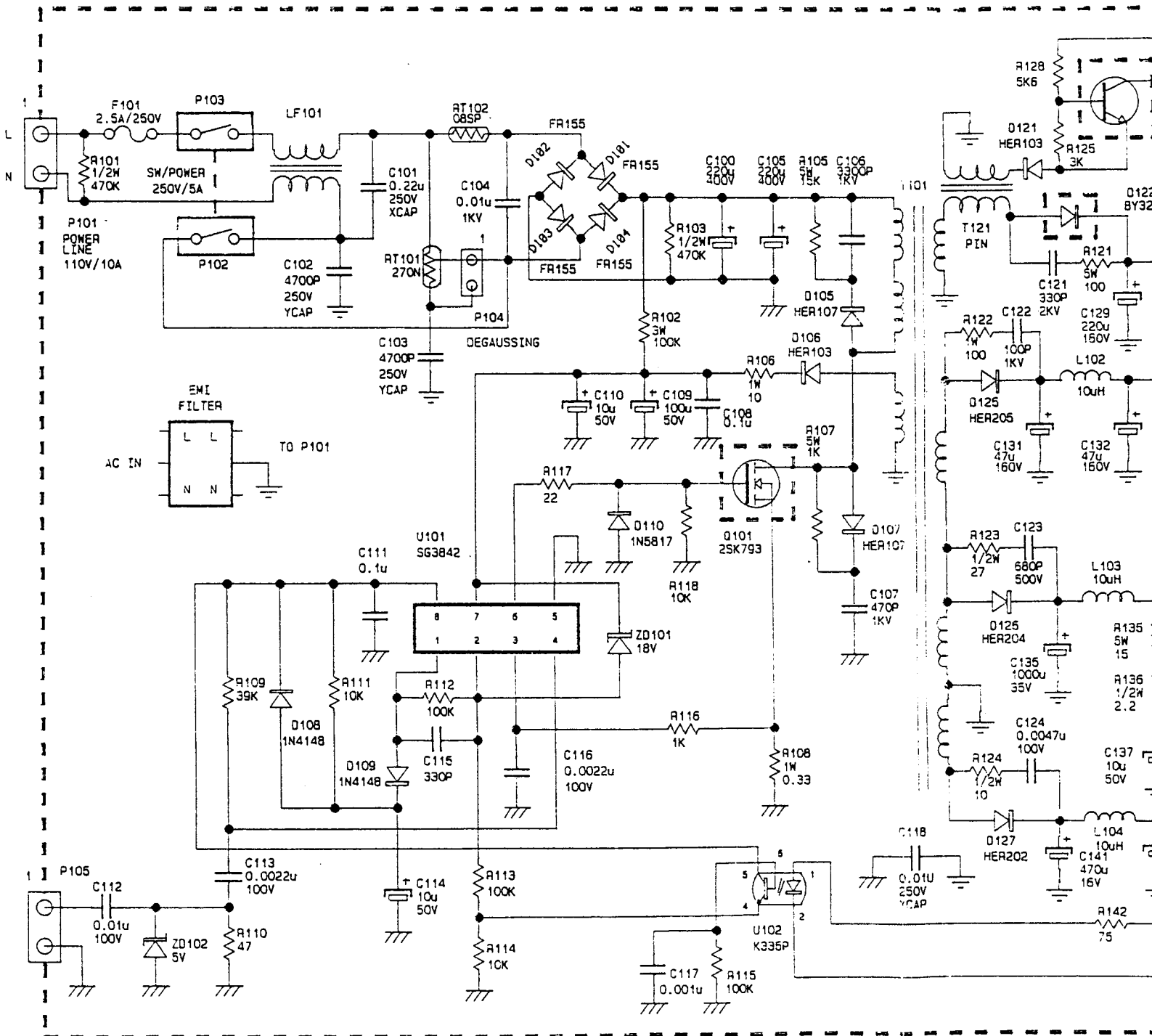
BRIDGE 11532-0200 REV.C

WARNING: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH TYPE AND RATING OF FUSE

YF:07V0







EMI FILTER

DEGAUSSING

AC IN

TO P101

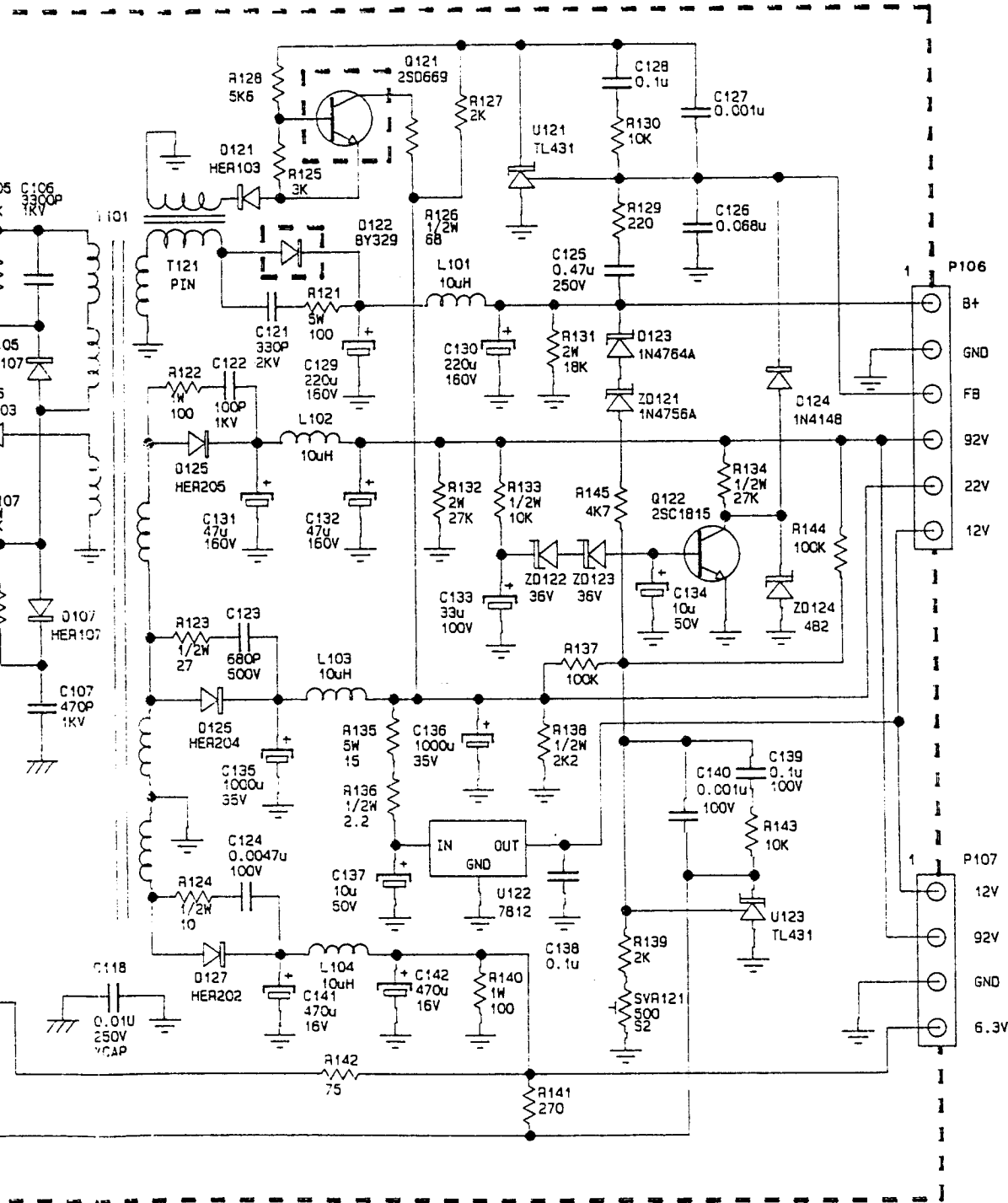
1101

1101

1101

REVISIONS

| PCO/ECN NO. | REV. | DESCRIPTION | DATE | DRAWN |
|--------------|------|-------------|-----------|------------|
| 0302562003-9 | 2 | | 05-06-'92 | JUDY HSIEH |



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| APPROVAL | DATE |
| DRAWN JUDY HSIEH | 05-06-'92 |
| CHECKED J. H. Lin | 05-08-'92 |
| ISSUED | 05-08-'92 |
| DIRECTOR | |

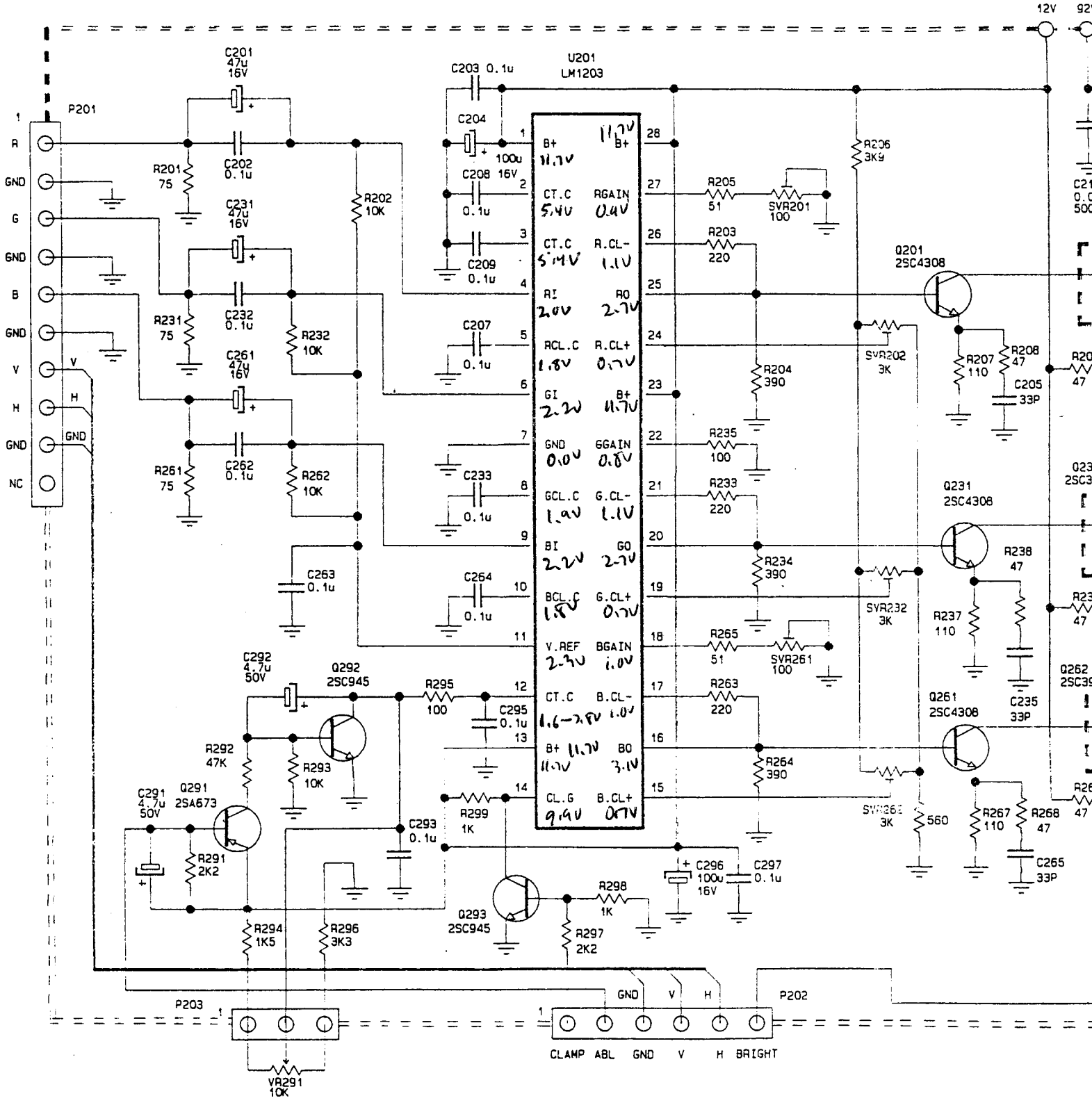
INFORMATION CORPORATION, LTD

BRIDGE

256 P/S BD. SCHEMATIC

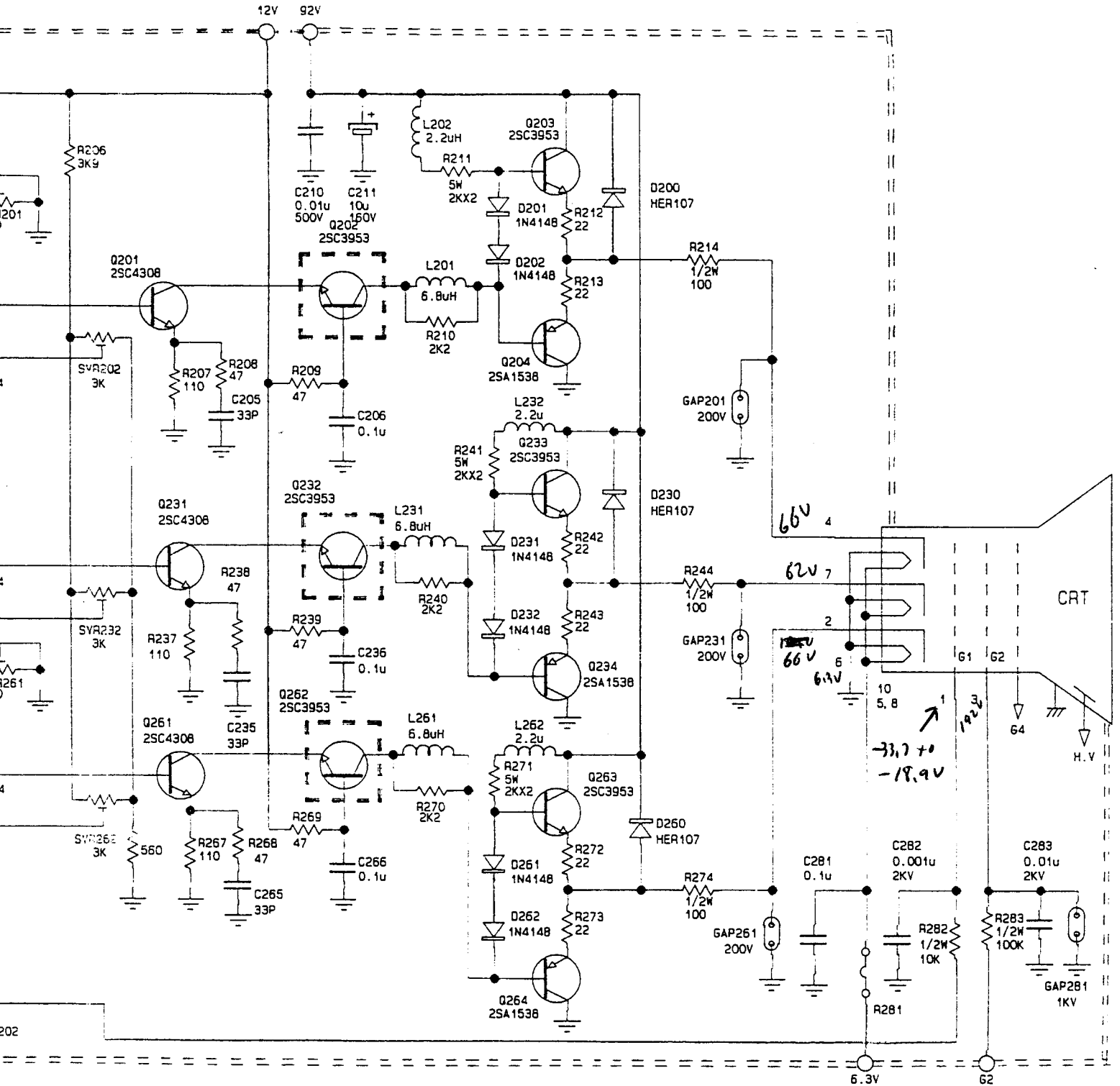
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|-----------|-----------|----------|--------|
| SIZE A3 | FSCM NO. | DWG. NO. | REV. 2 |
| PCAD FILE | 256PS.SCH | SHEET | 1 OF 3 |

Voltages on U201, etc
 - with Color Bars
 - Brightness/ Contrast @ MAT



REVISIONS

| PCO/ECN NO. | REV | DESCRIPTION | DATE | DRAWN |
|--------------|-----|-------------|-----------|------------|
| 0302562003-9 | 2 | | 05-06-'92 | JUDY HSIEH |



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| DIRECTOR H.J. Chy | 5-8-92 |

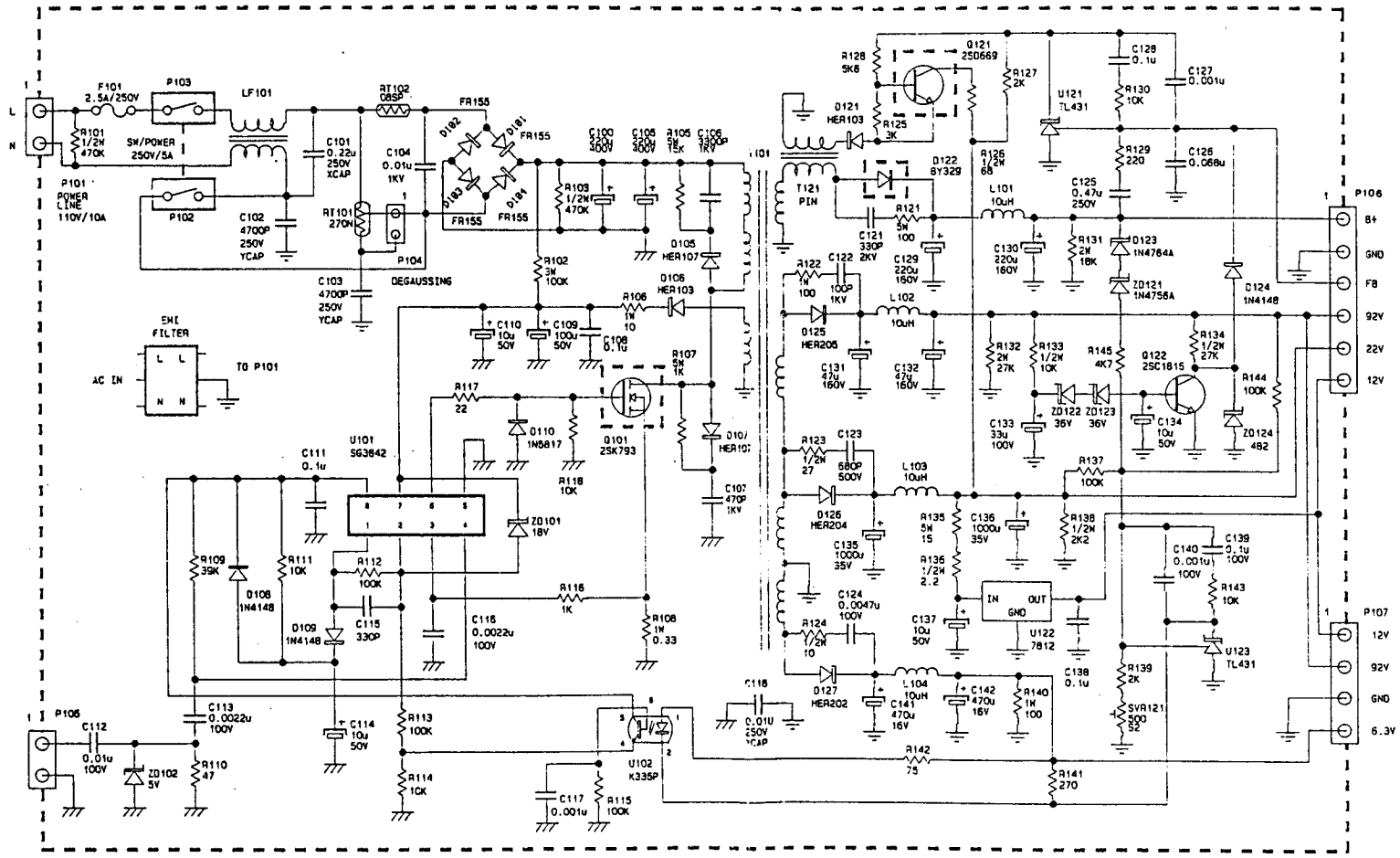
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256 CRT BD SCHEMATIC

SIZE: FSCM NO. DWG. NO. REV. 2

DIRECTOR H.J. Chy 5-8-92 PCAD FILE 256CR*.SCH SHEET 2 OF 3

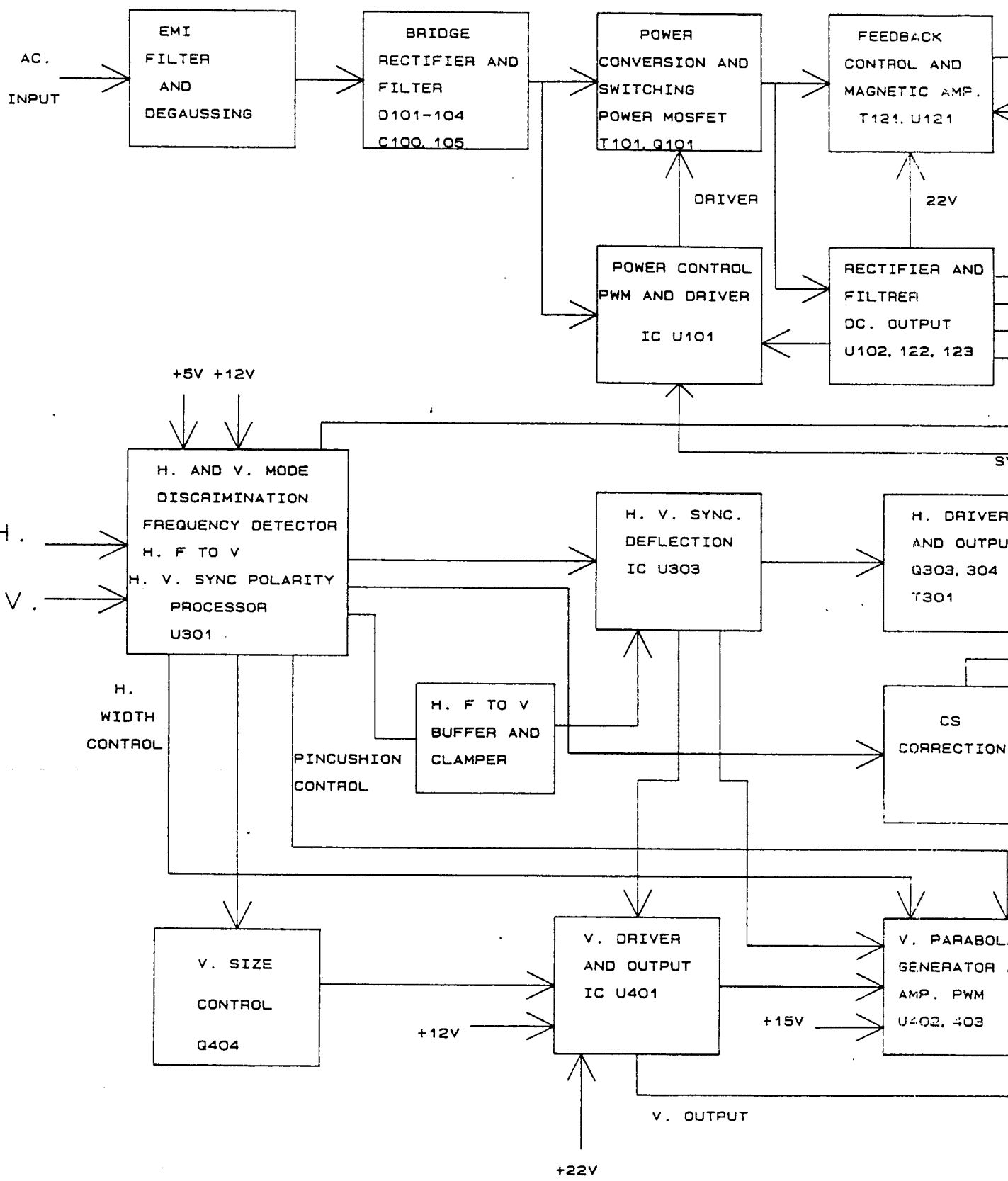
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| 0302562003-9 | 2 | | 05-06-'92 | JUDY HSIEH |

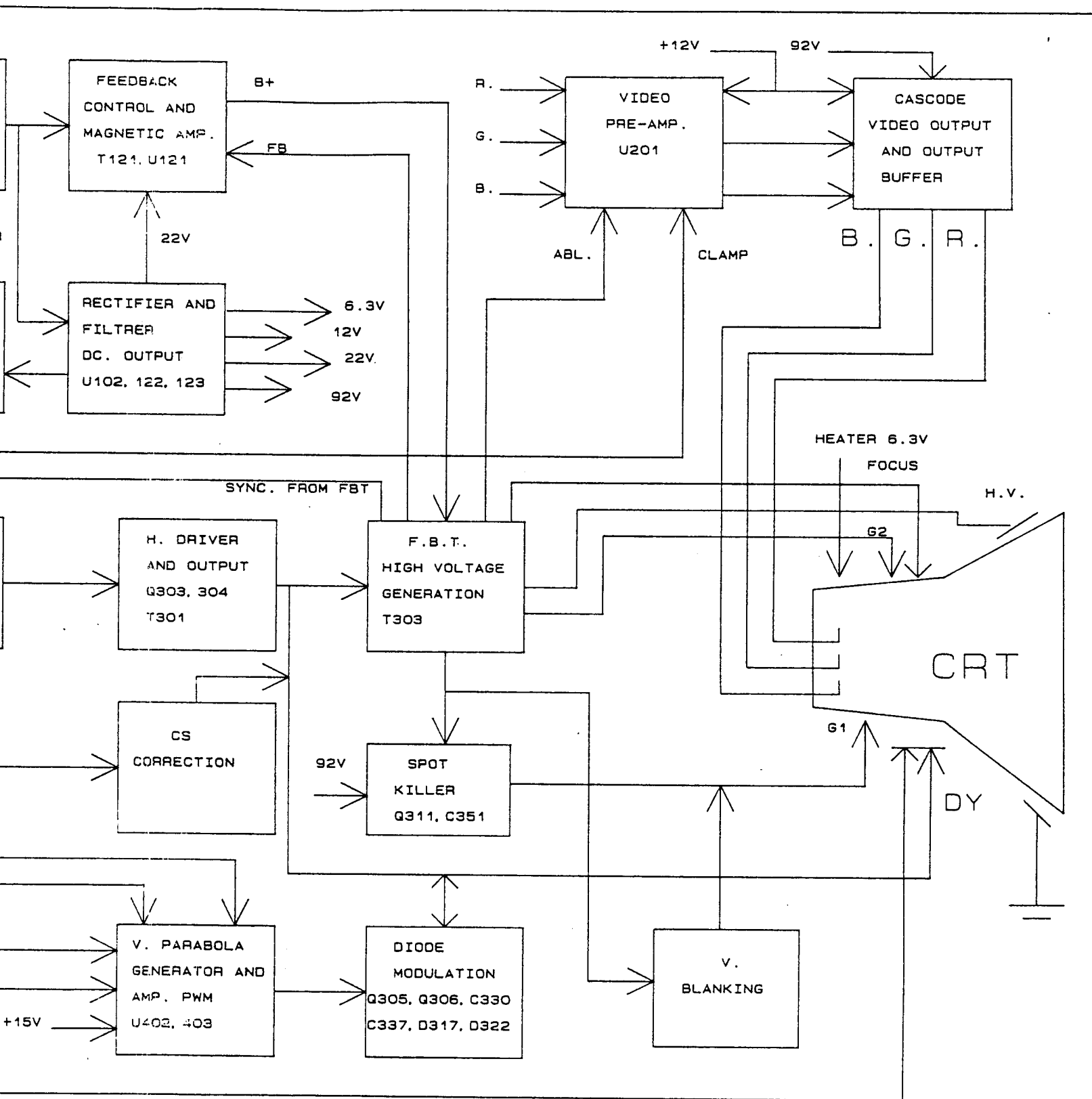


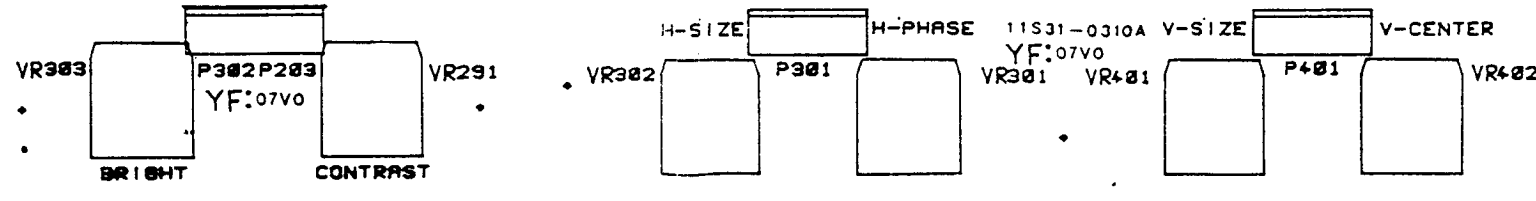
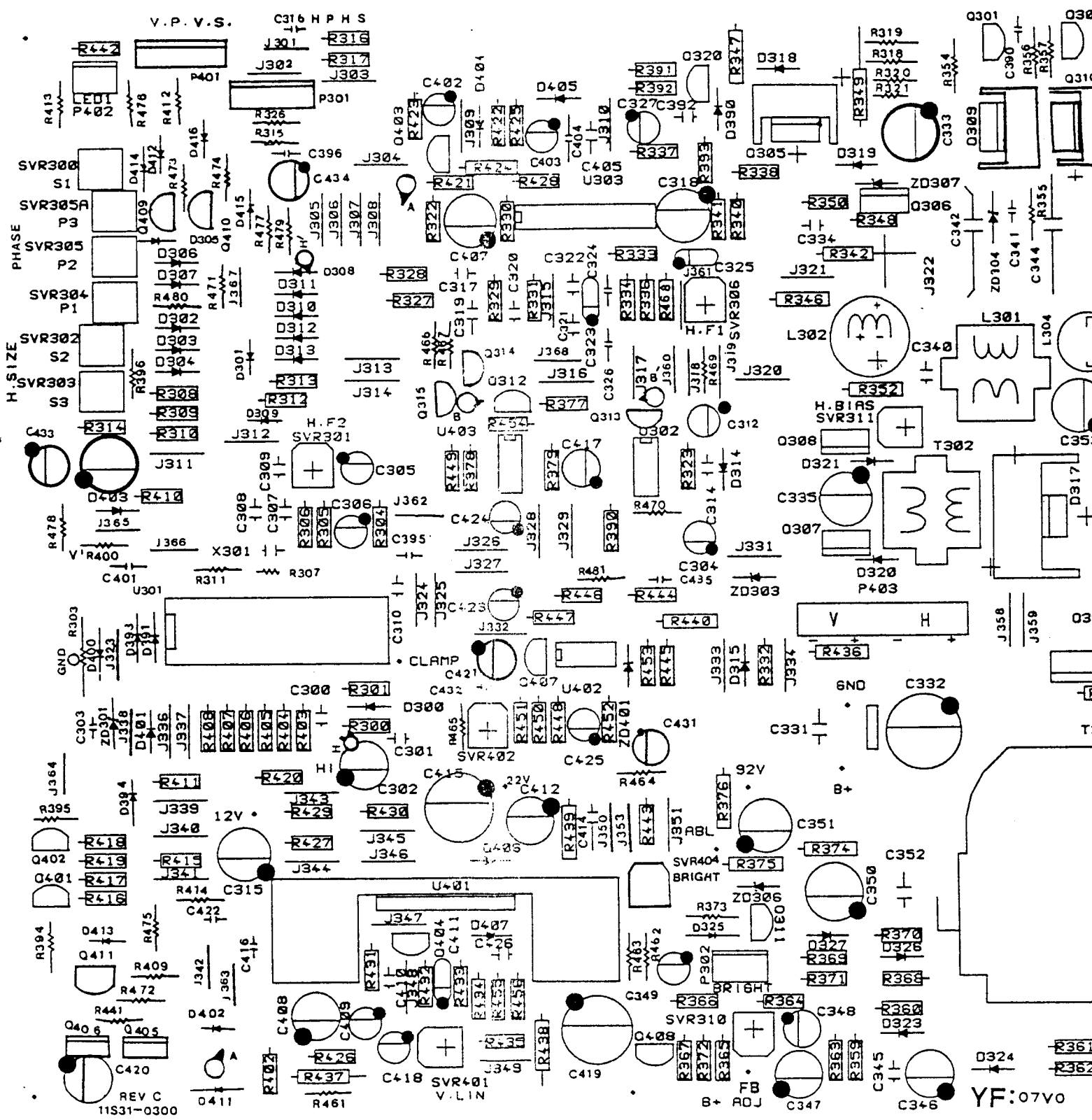
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| ISSUED | |
| DIRECTOR | |

| | | |
|---------------|------------------------------|--------------|
| BRIDGE | INFORMATION CORPORATION, LTD | |
| | 256 P/S BD. SCHEMATIC | |
| SIZE FSCM NO. | DWG. NO. | REV |
| A3 | | 2 |
| PCAD FILE | 256PS SCH | SHEET 1 OF 3 |

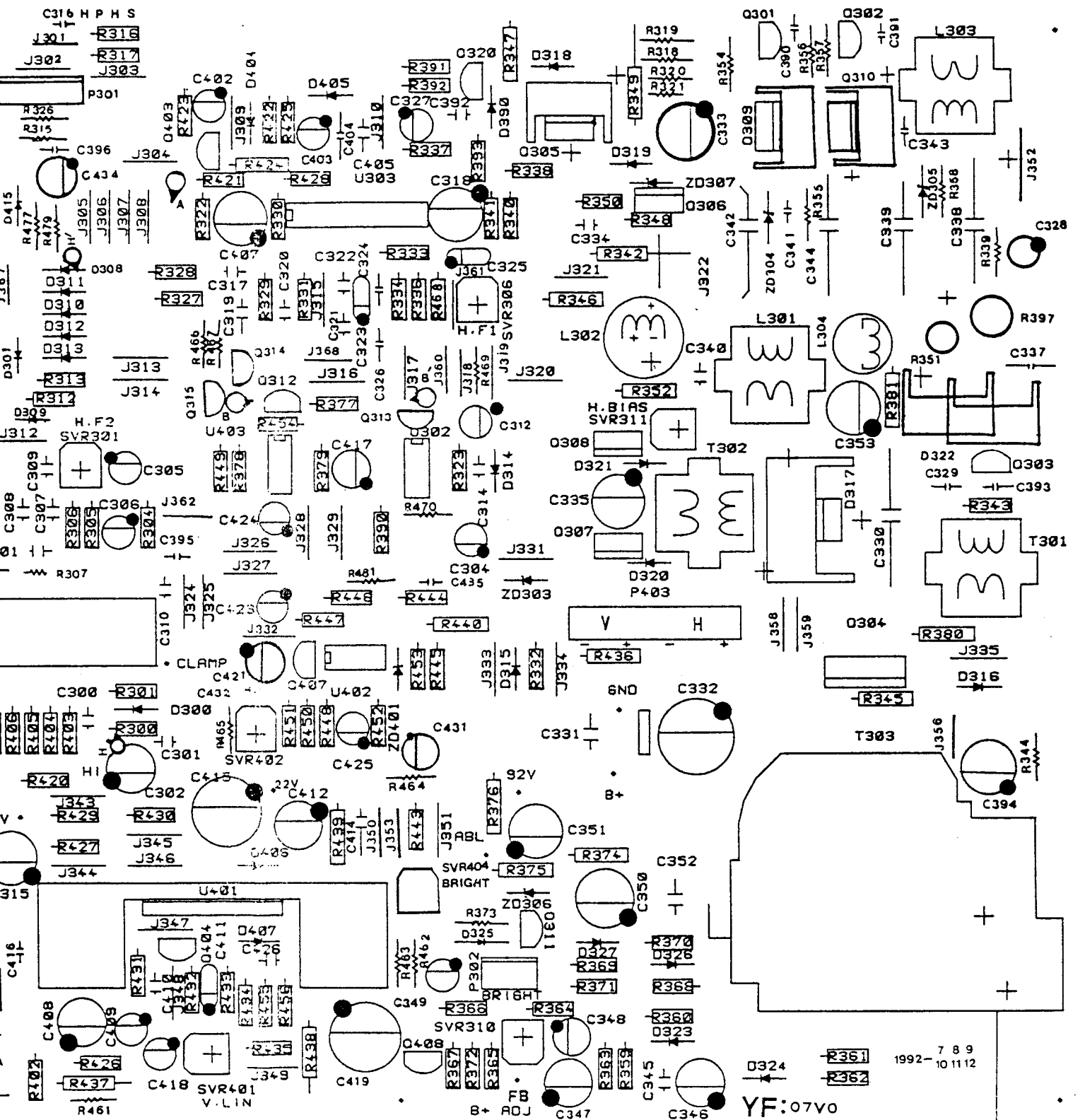






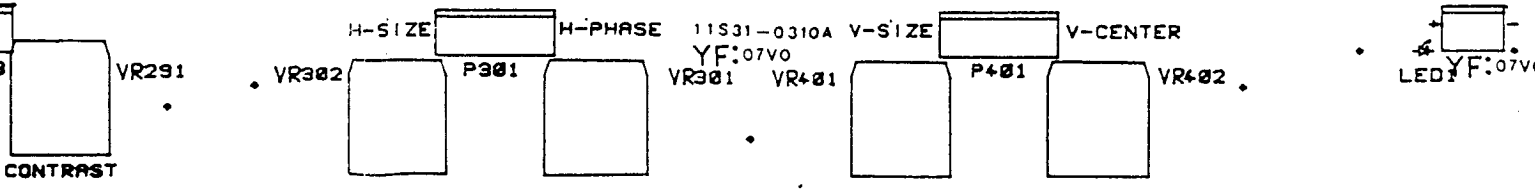
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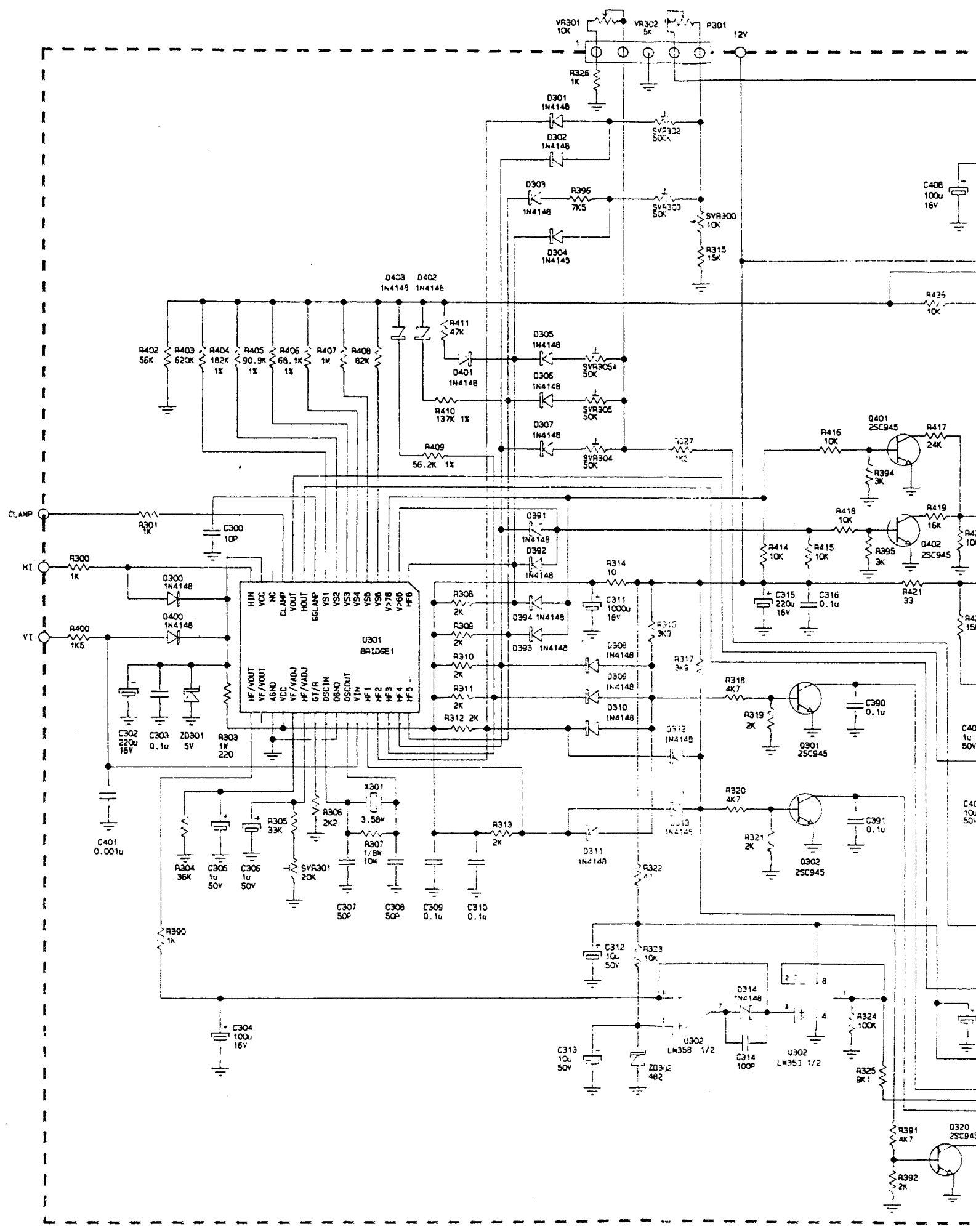
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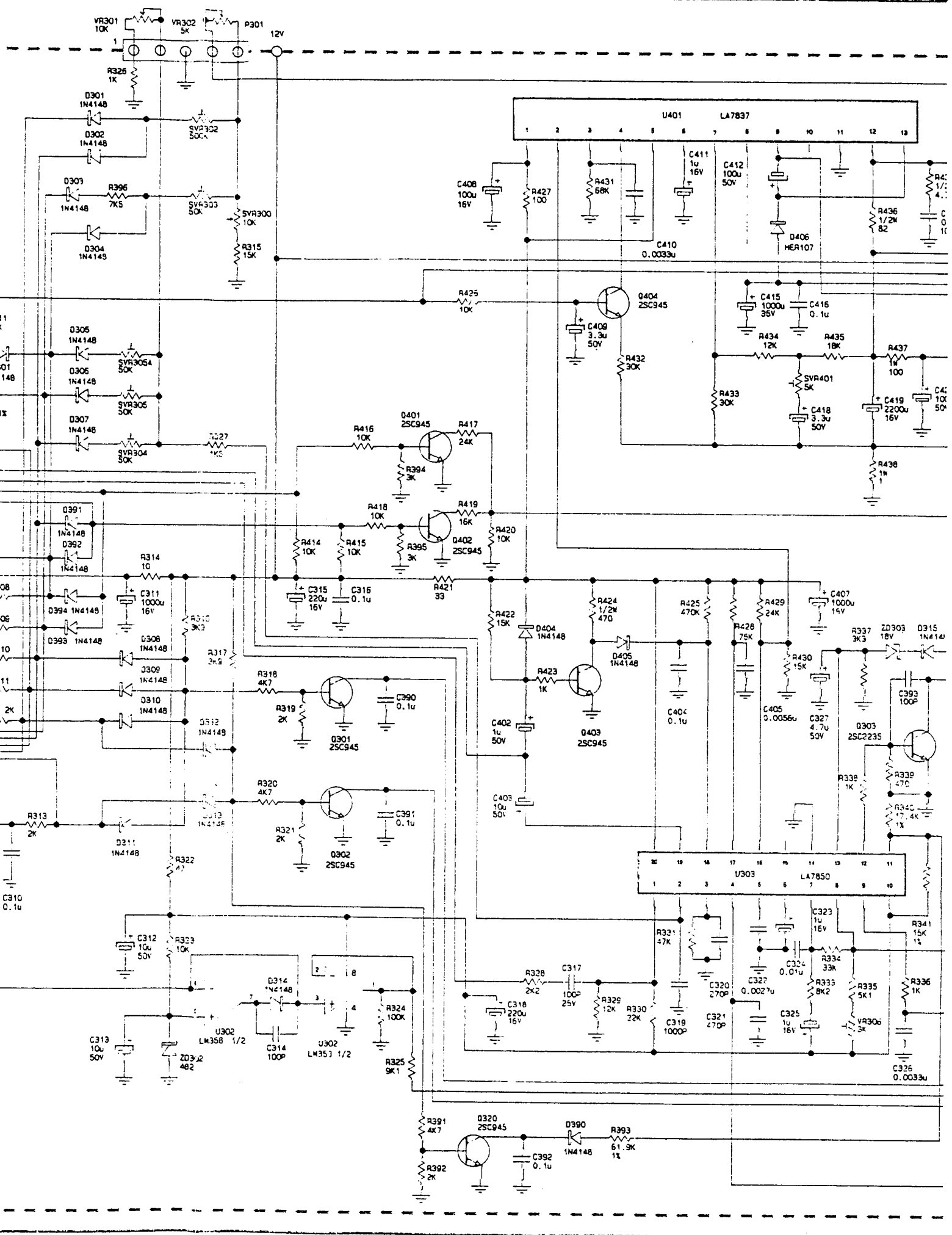


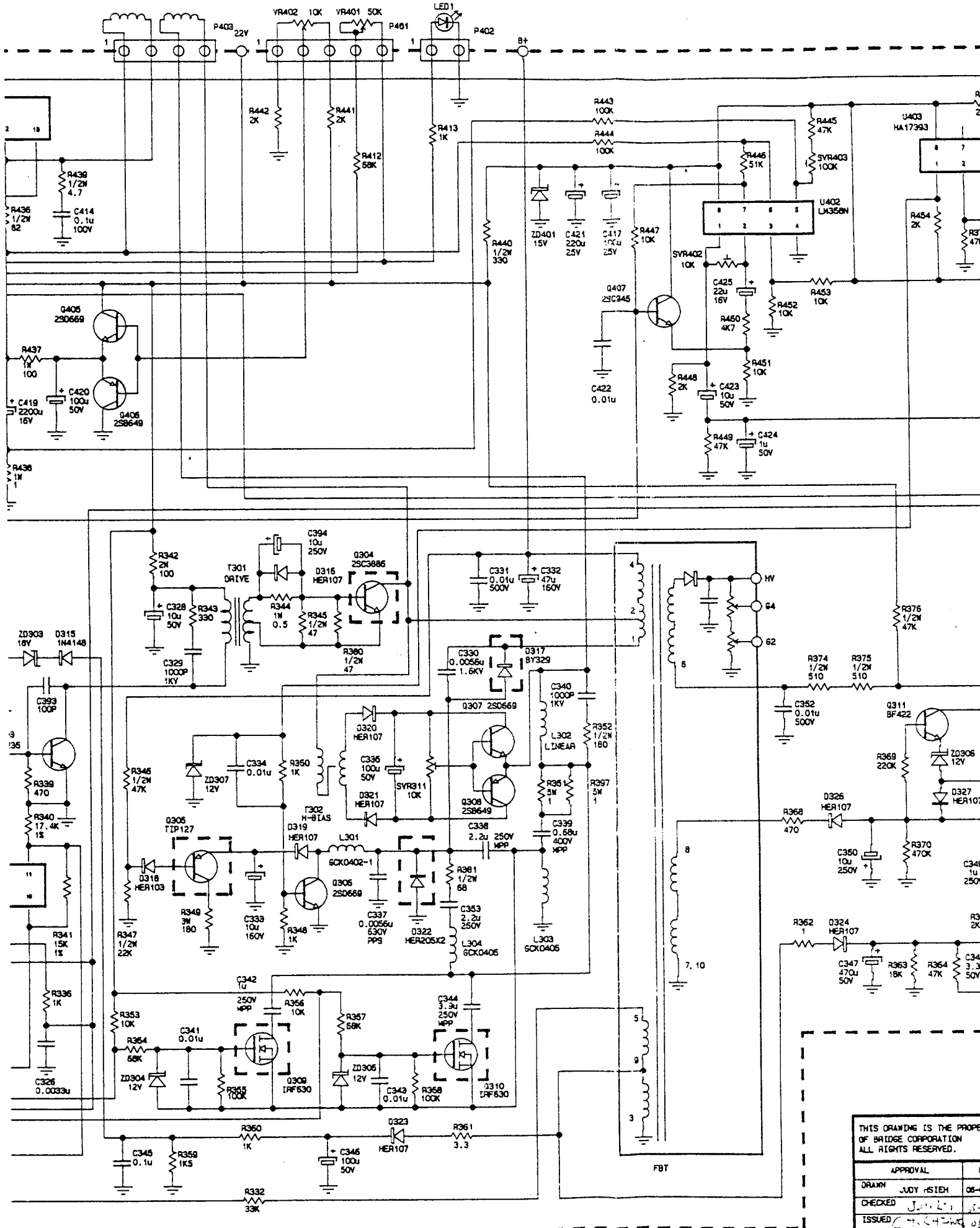
1992-7 8 9
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YF:07V0



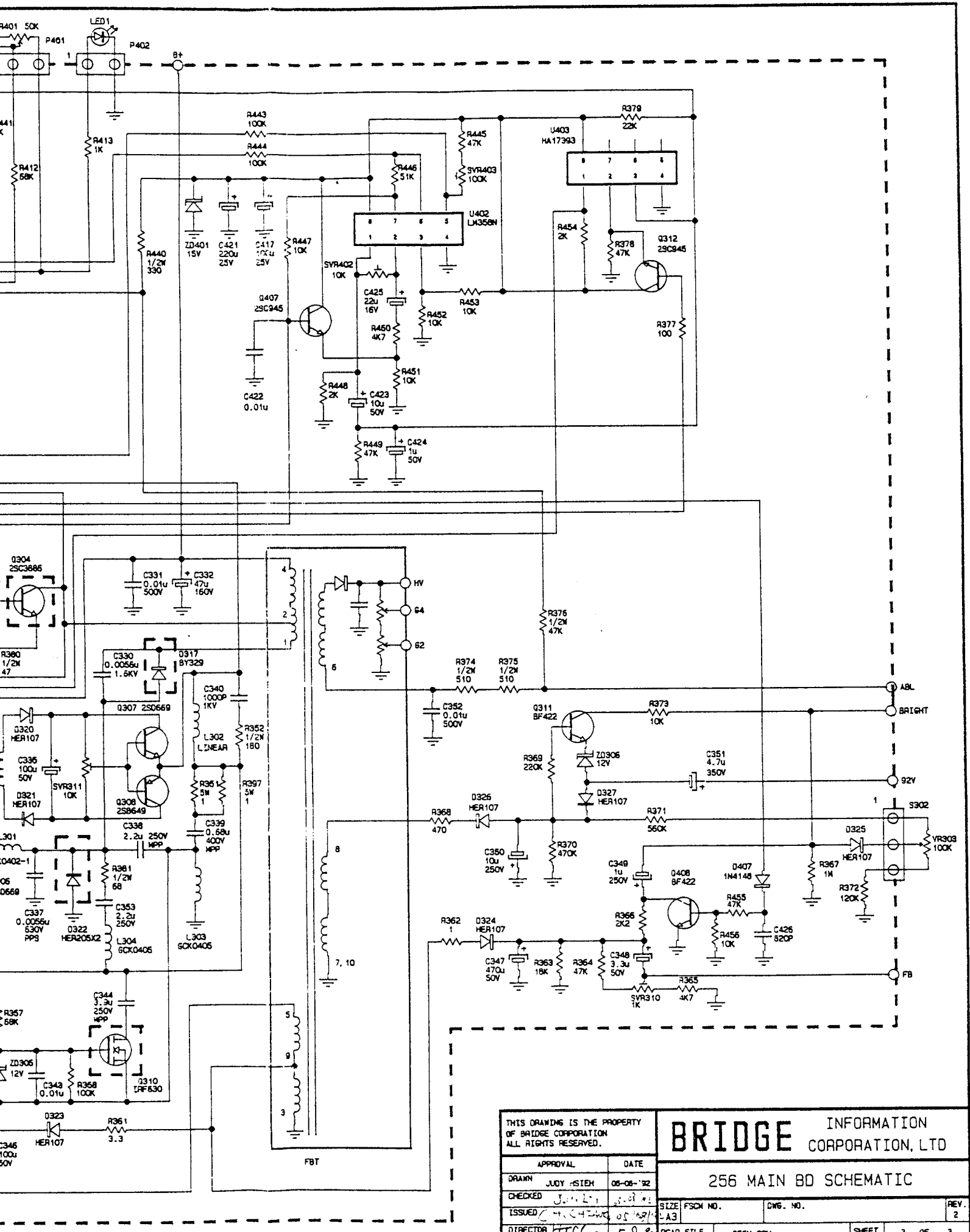






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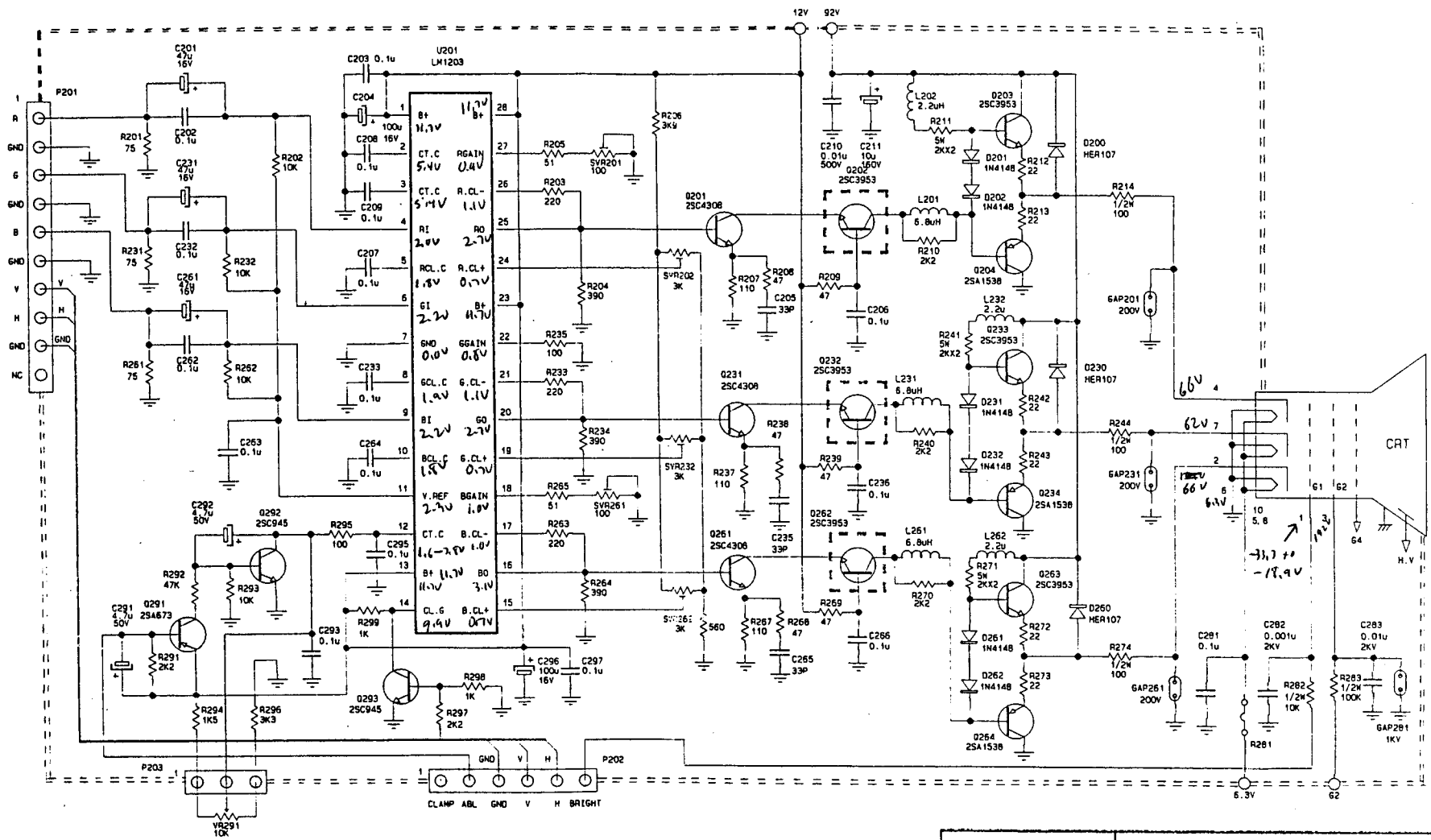
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| APPROVAL | |
| DRAWN | JUDY ASIEH 08-0 |
| CHECKED | [Signature] |
| ISSUED | [Signature] |
| DIRECTOR | [Signature] |



| | | | |
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| APPROVAL | DATE | | |
| DRAWN | JUDY HSIEH | 256 MAIN BD SCHEMATIC | |
| CHECKED | JUDY HSIEH | SIZE | FSCM NO. |
| ISSUED | JUDY HSIEH | LA3 | DWG. NO. |
| DIRECTOR | JUDY HSIEH | PCAD FILE | 256M.SCH |
| | | SHEET | 3 OF 3 |
| | | REV. | 2 |

Voltages on U201, etc
 with Color Bus
 - Brightness/Contrast @ MAT

| REVISONS | | | | |
|--------------|------|-------------|-----------|------------|
| PCO/EDN NO. | REV. | DESCRIPTION | DATE | DRAWN |
| 0302562003-9 | 2 | | 05-06-'92 | JUDY HSIEN |



Actually closer to Nikann or Bridge
 CAE 356 SE XGA monitor

Heinrich Rand monitor is closer than this one to the CA235
 Goes green - Resolex Diode connected to R530

| | | | |
|---|-----------|-------------------------|-----------|
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| APPROVAL | DATE | 256 CRT BD SCHEMATIC | |
| DRAWN JUDY HSIEN | 05-06-'92 | SIZE FSCW | LONG NO. |
| CHECKED J. H. Lin | 05-07-92 | A3 | |
| ISSUED C. H. CHIANG | 05/07/92 | | |
| DIRECTOR H. H. CHYNG | 5-8-92 | PCAD FILE | 256CST.SC |